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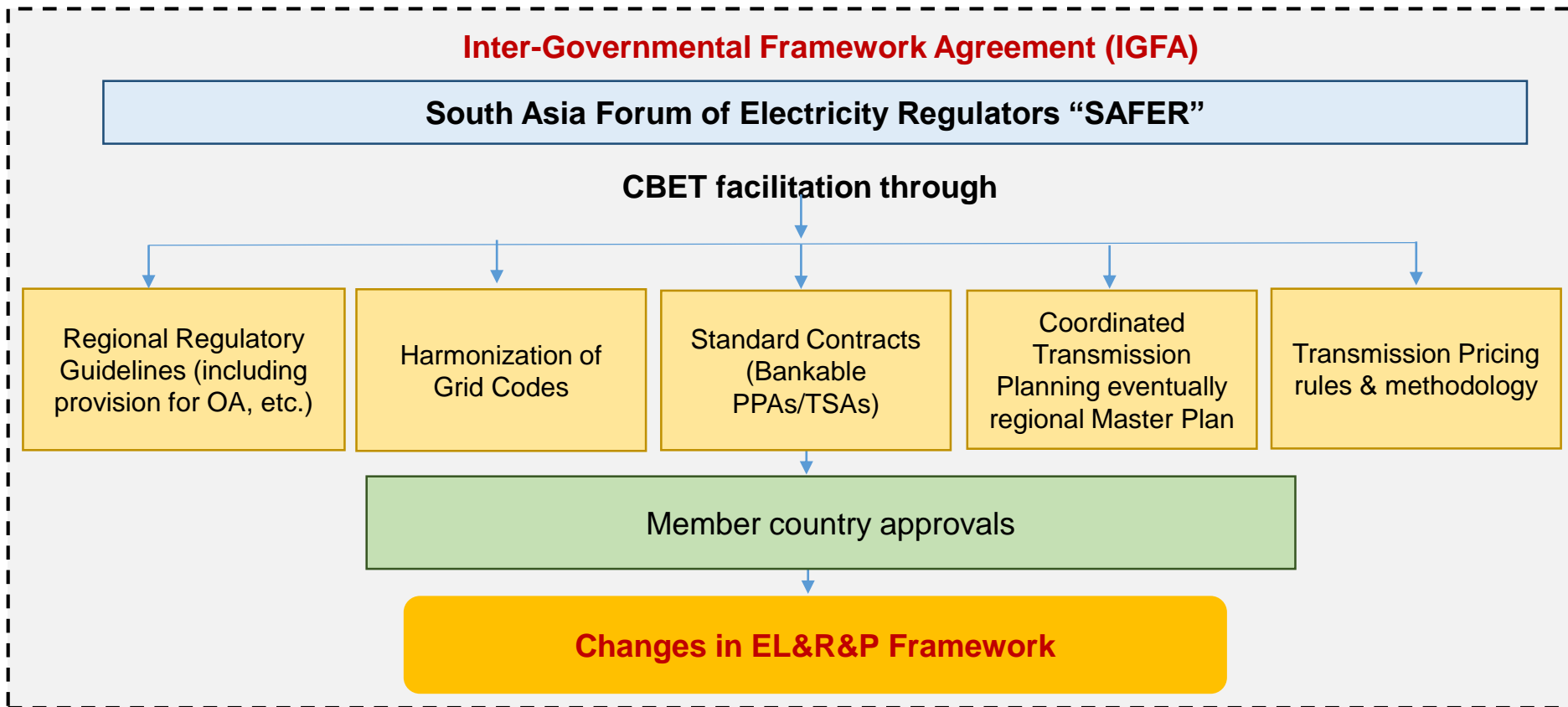


Study on Review of Electricity Laws, Regulations, Policies (EL&R&P) & Legal Structure of South Asian Countries (SAC) to Identify Areas that can Hinder Cross Border Electricity Trade (CBET) and to recommend changes/amendments therein for consideration of the SAC

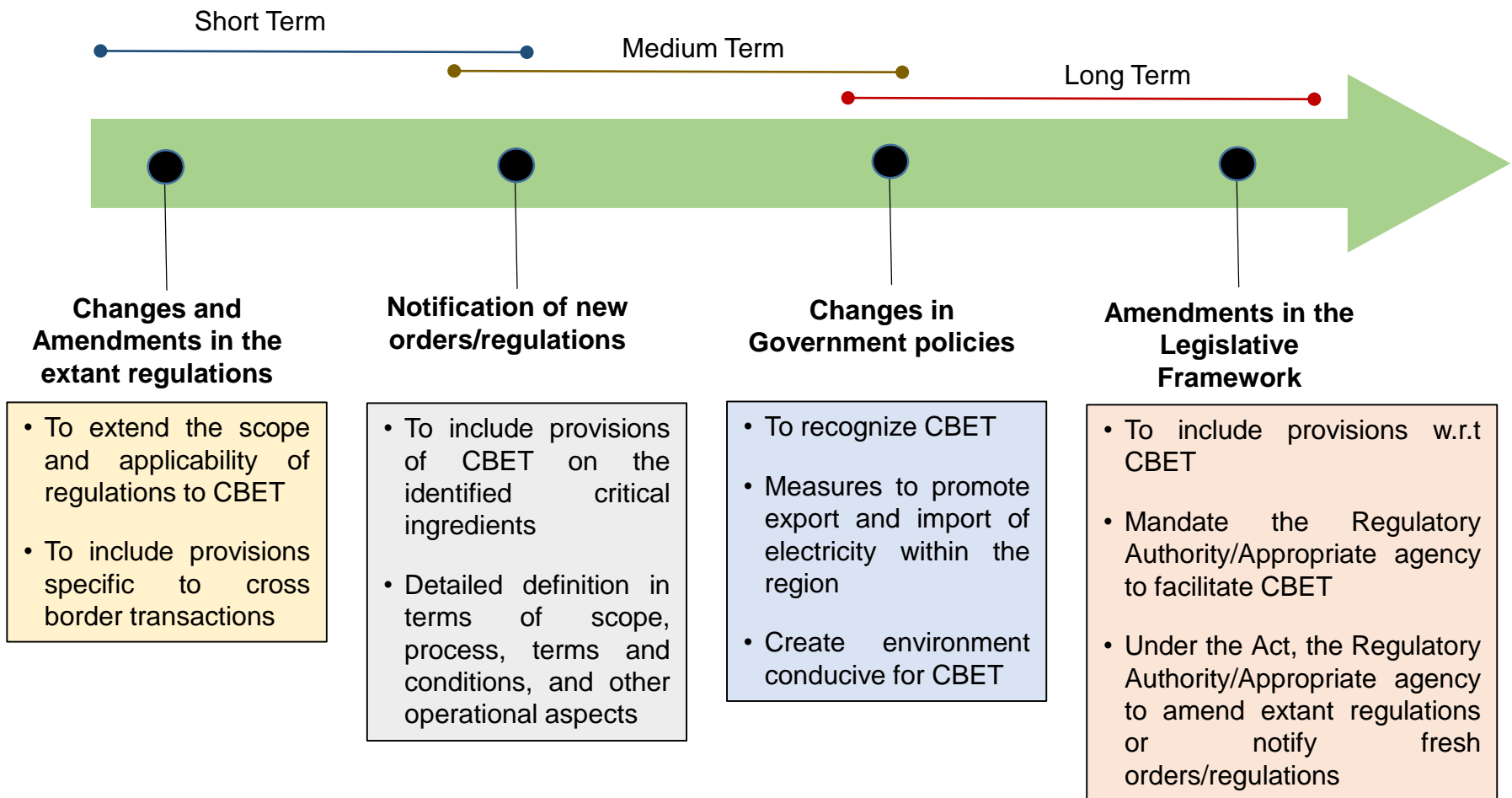
Changes, Amendments and Country-wise Roadmap

5 August 2015

Overall framework for the development of CBET in South Asia



Areas for Changes and Amendments in the EL&R&P Framework



Summary of Country wise Changes and Amendments in the EL&P&R framework

① *Summary of Changes in EL&P&R
framework- **Afghanistan***

The Electricity Law of Afghanistan is in draft stage and it covers certain aspects of cross border trade. Modifications/additions needs to be done by elaborating more on the critical aspects of CBET, which in the current form have been broadly covered. The Law needs to be finalized soon and notified.

Provisions in the draft law	Provisions that needs to be introduced
Requires the proposed Afghanistan Electricity Regulatory Authority (AERA) to regulate cross-border exchanges of electricity , subject to provisions of the Law and to conditions of international agreements	Though the provisions of the Law supports CBET, AERA needs to provide detailed definition to the critical aspects of CBET through regulations that elaborate these aspects in the form of rules, processes, mechanism etc.
Recognizes international power trade and provides MEW the role of coordinating the same. MEW is required to engage in the negotiation of electricity sector treaties, develop policies governing international power trade, and facilitate talks regarding international trade agreements	While MEW continues to coordinate international trade, execution and operational management of PPAs could be transferred to DABS in future.
Provides for licensing the electricity trade. The (AERA) is required to issue license for both domestic and cross border trade	Once established, AERA through separate notifications needs to define clear and transparent rules for licensing cross border trading activities
AERA is required to determine tariff methodologies. The Law also provides general principles and procedures for tariff setting	From CBET's perspective AERA needs to define clear and transparent mechanism for determining transmission/transit charges

Provisions in the draft law	Provisions that needs to be introduced
The licensee operating the transmission system must make available to any person who seeks use of such system on equal terms to any other person, at fair tariffs and terms of access.	Such provisions of non-discriminatory open access needs to be clearly defined and elaborated by AERA, especially for access to exporting and importing entities to the National Grid
Provides for the development of a Grid code, Distribution code and Metering code by AERA	From CBET's perspective it is important that technical standards, codes w.r.t external interconnections are explicitly defined in the Grid code

In addition to the above, other critical aspects like imbalance settlement which have not been dealt with in the draft Act needs to be introduced. **Under all circumstances, setting up of AERA is absolutely essential in order to provide actionability to the provisions of the draft Act. .**

However, since trade with neighboring countries is being undertaken through bilateral trade agreements. It is highly likely that CBET in Afghanistan will continue in the same manner without any immediate need of common/standard provisions on the key ingredients.

① *Summary of Changes in EL&P&R
framework- **Bangladesh***

Bangladesh

S. N	Act/ Policy & Regulation	Nature of Change Proposed
Electricity Act		
1	Electricity Act 1910 and subsequent amendment 2012	<p>a) Open Access (OA): The Act (Part 2, Clause 7, 2(d)) directs the Transmission utility to provide non-discriminatory open access to any license/generator. Further, Commission to issue necessary regulations on open access</p> <p><i>The applicability of above needs to be extended to CBET. Further, the OA regulations proposed to be developed by the Commission to include adequate provisions for cross border transactions, facilitating transparent access to the National Grid for exporting/importing entities</i></p> <p>b) Transmission Pricing: The Act (Part 2, Clause 7, 2(d)) directs the Commission to determine charges for use of transmission system. Further, (Clause part III, 28) the Government is also required to formulate the tariff policy in consultation with the Commission to provide guidance on tariff determination</p> <p><i>The transmission charges determined in above, shall be based on such mechanisms/principles which on one hand reflect the actual system usage and on the other compensate the owner in a transparent manner. The Commission shall notify appropriate orders/ regulations enabling the same*.</i></p>

Bangladesh

S. N	Act/ Policy & Regulation	Nature of Change Proposed
Electricity Act		
1	Electricity Act 1910 and subsequent amendment 2012	<p>c)Development of Power Markets: The Act (Part 2, Clause 6) directs the Commission take to assess the feasibility of introduction of an open market in Bangladesh. Commission is also required to frame regulations in consultation with the Government to facilitate transparency in the power market.</p> <p><i>Above shall be extended to include CBET transactions</i></p> <p>d) Functions of the ISO (proposed): In Clause 8, the proposed ISO shall monitor grid operations, undertake energy accounting, carry out real time operations for grid control and dispatch of electricity in accordance with the Grid Code.</p> <p><i>Above role of the ISO shall be extended to cross border flow as well to enable coordinated development of CBET, including scheduling and dispatch operations.</i></p>
2	BERC Act, 2003 and subsequent amendment in 2005	<p>a) Licensing: Clauses 27-33 provides for various business activities applicable for license (generation, transmission, distribution & marketing, supply and storage), issuance of the license by the Commission, application, exemption, removal, duties of the licensee etc.</p> <p><i>Above shall also be applicable to Trading of electricity. Further, its shall also include provisions for CBET</i></p> <p>b) Dispute Resolution: (Clause 40, 52), the Act provides for settlement of disputes by the Commission. Also, the Arbitration Act'2001 governs the arbitration proceedings. The contract is open to International Arbitration as well as enforcement of foreign arbitral award through local courts</p> <p><i>Gradually, matters w.r.t to contracts for CBET may be referred to the SAARC Arbitration Council</i></p>

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Policies & Regulations		
2	Electricity Grid Code 2012	<p>a) User in Grid code is a person or establishment, including the Licensee, Buyer, Generator, Supplier who use the Transmission System and who must comply with the provisions of the Grid Code.</p> <p><i>Above shall also extend to an entity engaged in export & import of electricity</i></p> <p>b) Transmission Planning: Clause 4, Includes reinforcement or extension of the existing Transmission System on account of development in a User's system already connected to the Transmission System, introduction of new connection points, increase in system capacity, stability considerations etc.</p> <p><i>Above shall also include planning and extension activities on for cross border power flow. The existing Power System Master Plan already mentions about the quantum of electricity envisaged to be imported by Bangladesh from India, Nepal and Bhutan</i></p> <p>c) Imbalance Settlement: The Grid Code 2012 does not mention about any kind of imbalance settlement mechanism/ deviation settlement mechanism.</p> <p><i>Suitable amendments to be made to the Grid Code to include provisions related to imbalance settlement for CBET.</i></p> <p>The Grid code to define technical specifications for external interconnectors and other standards/codes essential for cross border flows, hence facilitate interconnection with power systems of neighboring countries.</p>

Bangladesh

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
<i>Policies & Regulations</i>		
3	National Electricity Policy 2004	Transmission Planning: Clause 7.5, Database on the power sector is to be developed which shall be continuously updated. <i>The above shall additionally include creation of a database containing information on transmission and generation infrastructure for CBET in consideration of the Power System Master Plan that discusses cross border interconnection options for Bangladesh.</i>

② *Summary of Changes in EL&R&P
framework- **Bhutan***

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1	Electricity Act 2001	<p>a) Licensing: Part 3, Clause 18 requires all entities engaged in construction, generation, transmission, system operation, distribution, sale, export or import of electricity to be issued a license under the Act.</p> <p><i>The Act recognizes trade of electricity as a licensed activity and licenses granted to generators cover license for import & export of electricity, hence no change is proposed</i></p> <p>b) Open Access: In Clause 11, the BEA is required to develop regulations, principles and procedures to enable access to the transmission grid and distribution networks. Clause 38 requires the transmission licensee to provide access to all existing and potential users of the transmission grid on the payment of fees and other charges for grid services</p> <p><i>While framing regulations on non-discriminatory open access, the BEA to extend the coverage to include access to National grid for entities involved in cross border transactions.</i></p> <p>c) Transmission Pricing: Clause 11.1 and 14.1 requires the BEA to determine, approve and regulate charges for connection to, and the use of any transmission system</p> <p><i>The above needs to be extended to include determination of charges for the use of transmission system by exporting and importing entities. The transmission charges determined in above, shall be based on such mechanisms/principles which on one hand reflect the actual system usage and on the other compensate the owner in a transparent manner. BEA should notify appropriate orders/ regulations enabling the same*</i></p>

*A mechanism similar to POC charges in India could be adopted particularly for external interconnection points

Bhutan

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1	Electricity Act 2001	<p>d) Functions of BEA: Clause 11.2 (v) requires the Authority to facilitate the development of generation, transmission, distribution of electricity throughout the country; and <i>Above needs to be extended to include facilitating import & export activities</i></p>
Policies & Regulations		
1	Grid Code Regulations 2008	<p>a) Transmission Planning: Clause 4 specifies the following: Planning Code, Grid Planning Studies, Planning Data and Implementation of Transmission Plan# <i>The above coverage needs to be extended to include adequate provisions for various external interconnections and cross border trade with other member countries</i></p> <p>b) Imbalance Settlement: As per Clause 7 the scheduling and dispatch procedure for scheduling of drawal by the Indian purchasers from Bhutan shall be as per the bilateral agreements between the contracting parties. It also mention that the scheduling and dispatch code for Bhutan has to be technically compatible with the scheduling and dispatch Code of the Indian Electricity Grid Code Regulation <i>A common imbalance settlement mechanism needs to be explicitly defined through enactment of separate regulations/orders to be applicable on all cross border transactions</i></p>

The National Transmission Grid Master Plan (NTGMP) recognizes power trade (both export & import) with India. The Plan mentions about planned projects likely for export, corresponding transmission links, etc. Additionally, it also mentions about grid reinforcements in India would be undertaken in a phased manner, corresponding to the commissioning schedule of various hydropower projects in Bhutan

Bhutan

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
<i>Policies & Regulations</i>		
2	Bhutan Sustainable Hydropower Development Policy 2008	<i>Dispute Resolution:</i> As per Clause 7, any difference and/or disputes arising at any time between the parties shall be resolved through mutual negotiations, failing which the matter may be resolved through dispute resolution mechanism as specified in the Project Development Agreement (PDA) and concession agreement (CA). <i>If unresolved, the exporting/importing country may choose to refer the dispute to the SAARC Arbitration Council or other internationally recognized Arbitration agencies.</i> <i>The same needs to be included in the Bhutan 'Dispute Resolution Procedure 2009'</i>

③ *Summary of Changes in EL&R&P
framework- **India***

India

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
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Electricity Act

1.	Electricity Act 2003	<p>a) Licensing: The Act defines an ‘Electricity Trader’ as a person who has been granted a license to undertake trading in electricity. Further, the Act (section 14) requires appropriate Commission to grant a license to ay person engaged in electricity trading.</p> <p><i>Trading in above should also include cross border trading and accordingly various provisions (on eligibility, procedure, grant of license, power & duties, exemptions, revocation of license, modification and enforcement of license etc.) shall also be applicable in a desired form on cross border trading</i></p> <p>b) Open Access: The Act (section 38) requires the CTU to provide non-discriminatory open access to its transmission system for use by any licensee or generating company on payment of the transmission charges</p> <p><i>Above needs to be amended to include non-discriminatory access to exporting and importing entities</i></p> <p>c) Dispute Resolution: Under section 158, the arbitration to be subject to the provisions of the Arbitration and Conciliation Act, 1996</p> <p><i>In case of CBET, if disputes remain unresolved, the exporting/importing country may choose to refer the dispute to the SAARC Arbitration Council or other internationally recognized Arbitration agencies</i></p>
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Policies & Regulations

1	National Electricity Policy 2005	<p>a) Licensing (Function of CERC): Clause 5.7,1 (a, f) requires the CERC to issue license for inter-state trading and notify enabling regulations for inter/ intra state trading and regulations on power exchange</p> <p><i>Trading in above should also include cross border trading</i></p>
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India

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
<i>Policies & Regulations</i>		
2	Procedure, Terms & Conditions for grant of trading license & other related matters) Regulations, 2009 & subsequent Amendment 2012	<p>License- Definition: “inter-State trading” means transfer of electricity from the territory of one State for re-sale to the territory of another State and includes electricity imported from any other country for re-sale within India or exported to any other country subject to compliance with applicable laws and clearance by appropriate authorities</p> <p><i>The regulations needs to extend its existing coverage to include various provisions (on Qualification, Capital adequacy and liquidity requirement, Disqualification, Procedure for Grant of license, Submission of information, Standards of Performance, Revocation of license, etc.) and shall be applicable in a suitable form on CBET</i></p>
3	Open Access in Inter-state Transmission Regulations, 2004	<p>Open Access- ‘Extent of application’: the regulations shall apply for access to inter-state transmission system</p> <p><i>Above to be extended to include both domestic players as well as external exporting/importing entities. Accordingly, the provisions in the extant regulations on Nodal agency, Eligibility criteria, Application process, Priority order of Open Access consumers, Allotment of Transmission capacity, Applicable charges etc. to be extended to CBET</i></p>
4	The Tariff Policy, 2006	<p>Transmission Pricing- Clause 7.1- Implementation of suitable transmission tariff framework for all inter-State transmission to be done</p> <p><i>Above needs to cover transmission of electricity as consequence of CBET. The Commission through notification of appropriate orders to enable POSOCO to determine charges for use of National transmission system for the purpose of CBET</i></p> <p><i>Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 to be amended accordingly</i></p>

India

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
<i>Policies & Regulations</i>		
5	(Deviation Settlement Mechanism & related matters) Regulations, 2014	<p>Imbalance Settlement- Scope (Clause 4) - Applicable to sellers and buyers involved in the transactions facilitated through short-term open access or medium-term open access or long-term access in inter-State transmission</p> <p><i>Above to be suitably amended to include provisions on CBET</i></p>
6	Indian Electricity Grid Code 2010 with subsequent amendments in 2012 and 2014)	<p>IEGC also lays down the rules, guidelines and standards to be followed by various persons and participants in the system. As per Clause 1.3- Any neighboring country inter-connected with Indian (National) Grid shall be treated as a separate control area</p> <p><i>The Grid Code to be suitably amended to define technical specifications for external interconnectors and other standards/codes essential for CBET. Suitable basis of operation of external control areas to be defined in the Grid Code through amendments and to include adequate provisions on planning, connection, operation , scheduling & dispatch of cross border flows.</i></p>
7	Power Market Regulations, 2010	<p>Part 2 (Clause 5): Scope of Regulation and Extent of Application to be extended to transacting parties involved in import and export of power</p> <p><i>The Commission to facilitate cross border participants to transact on the Power Exchange through amendments in extant regulations/notification of separate orders</i></p>

④ *Summary of Changes in EL&R&P
framework- **Nepal***

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1.	Electricity Act 2049 (1992)	<p>a) Licensing: Clause 3: No person shall be entitled to conduct survey, generation, transmission or distribution of electricity without obtaining license under this Act. Further, Import and Export of Electricity (Clause 22), If the licensee, who has obtained license for production, transmission or distribution in accordance with these Rules, is interested to import the electricity into Nepal, he/she shall have to submit an application together with the agreement made thereto to the Electricity Development Department to get the prior permission of Government of Nepal.</p> <p><i>Licensing requirement to be extended to an entity engaged in the business of trading. The above condition to be applicable to import and export of power. Further, various provisions on licensing requirement (for instance Qualification, Capital adequacy and liquidity requirement, Disqualification, Procedure for Grant of license, Submission of information, Standards of Performance, Revocation of license, etc.) shall be applicable in a desired form on CBET.</i></p> <p>c) Transmission Pricing: Clause 17: Assessment of Electricity Tariff and Other Charges:(1) Government of Nepal shall constitute a Tariff Fixation Commission for the purpose of fixing electricity tariff and other charges.</p> <p><i>Currently, the Electricity Tariff Fixation Commission (ETFC) does not specify separate charges for transmission usage including use of National Grid for cross border trading activities. In the interim period, till the regulator is not established, functioning of the ETFC needs to be strengthened to enable it to determine transmission charges^{\$}</i></p>

Nepal

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Policies & Regulations		
1	Hydropower Development Policy 2001	<p>a) Licensing: Under Clause 12.3 (a) The provision of license shall be as follows:</p> <ol style="list-style-type: none"> 1. <i>Study/ survey License</i> 2. <i>Generation License</i> 3. <i>Transmission License</i> 4. <i>Distribution License</i> <p><i>Above to also include Export & Import License. Other conditions of the License viz, term of the license, etc. to be stipulated in the Policy by the Ministry.</i></p> <p>b) Transmission Pricing: Clause 5.17- The existing institutions in the public sector shall be re-structured to create competitive environment by encouraging the involvement of community/cooperative institutions, local bodies and private sector in generation, transmission and distribution of hydropower in order to extend reliable and qualitative electricity service throughout the Kingdom at a reasonable price</p> <p><i>Above to also include electricity imported and exported under cross border transactions with neighboring countries</i></p>
2	Dispute Resolution	<p>Currently, part of the bilateral agreements.</p> <p><i>In case of CBET, if disputes remain unresolved, the exporting/importing country may choose to refer the dispute to the SAARC Arbitration Council or other internationally recognized Arbitration agencies</i></p>

In Nepal the Act needs to be amended to include provisions on Open Access, imbalance Settlement, Transmission Pricing etc. However, since changes and amendments in the Acts is a long drawn process, enablement of essential factors/ingredients for CBET can be undertaken through drafting of separate regulations/notifications/orders on critical aspects

⑤ *Summary of Changes in EL&R&P
framework- **Pakistan***

Pakistan

S. No	Acts/ Policies & Regulations	Nature of Change Proposed
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Electricity Act

1.	<p>Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 subsequently amended in 2011.</p>	<p>a) Licensing: Definitions (Clause 2)- “license” means a license issued for generation, transmission, distribution of electricity under this Act. Further, Clause 7 requires the Authority to grant licenses for generation, transmission, distribution of electricity of electric power.</p> <p><i>Above to be amended to include trading (including export and import) of electricity as a licensed activity. Accordingly various provisions (on eligibility, procedure, grant of license, power & duties, exemptions, revocation of license, modification and enforcement of license etc.) shall be applicable in a desired form on trading. This shall also include specific provisions on CBET.</i></p> <p>b) Open Access: Responsibilities of National Grid Company (Clause 18)- The national grid company is responsible to operate and provide safe, reliable transmission and inter-connection services on a non-discriminatory basis, including to a bulk-power consumer who proposes to become directly connected to its facilities.</p> <p><i>Above to be amended to include non – discriminatory access to national grid for the purpose of CBET. NEPRA to notify regulation/order to promote competition and enable non-discriminatory access to the transmission system</i></p> <p>c) Transmission Pricing: <i>With suitable amendment in clause 31, NEPRA to determine charges for transmission usage by exporting and importing entities</i></p> <p>c) Dispute Resolution: Tribunals (Clause 11)— <i>The Authority may, from amongst its professional staff, establish special tribunals for resolving contractual disputes between licensees or such other matters as the Authority may assign.</i></p> <p><i>In case of CBET, if disputes remain unresolved, the exporting/importing country may choose to refer the dispute to the SAARC Arbitration Council or other internationally recognized Arbitration agencies</i></p>
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Pakistan

S. No	Acts/ Policies & Regulations	Nature of Change Proposed
Policies & Regulations		
1.	NEPRA Licensing (Application & Modification Procedure) Regulations, 1999	<p>a) Licensing: Application for License (Part II, Clause 3) provides the requisites of license application for generation, transmission and distribution</p> <p><i>Above to also include trading as a licensed activity, through amendments in the extant regulations or through notification of separate orders on the subject</i></p>
2.	Grid Code 2005	<p>a) Open Access: As per the grid code, NTDC shall operate the Transmission System in the spirit of “Open Access”. By “Open Access” is meant that all Code Participants (extant and potential) shall be treated fairly and equitably without any discrimination or prejudice.</p> <p>Further, CASA 1000 project provides for open access to energy corridor for all the member countries</p> <p><i>Entities engaged in import and export of electricity to be granted Open Access to the transmission system in accordance with the provisions applicable to such cross border transactions. NEPRA to notify regulation/order to enable non-discriminatory access for CBET.</i></p> <p>a) Transmission Planning: Planning code 4.2- Procedures for Transmission System Expansion: NTDC to establish a planning process that leads to the recommendation of specific transmission system reinforcements, upgrading, and expansion projects.</p> <p><i>Planning Process to additionally include specific transmission system reinforcements, upgrading, and expansion projects for cross border electricity trade.</i></p>

S. No	Acts/ Policies & Regulations	Nature of Change Proposed
<i>Policies & Regulations</i>		
1.	NEPRA,(Tariff Standards and Procedure) Rules, 1998	<p>a) Transmission Pricing: Part III: Standard and Guidelines- (i)tariffs should allow licensees the recovery of any and all costs prudently.....(ii) tariffs should allow licensees a rate of return which promotes continued reasonable investment.....(iii) tariffs should reflect marginal cost principles.....(iv) the Authority shall have a preference for competition rather than regulation.....</p> <p><i>The principles & standards for tariff determination provided in the rules to be applicable to tariff for cross border transactions. NEPRA to notify appropriate orders/ regulations enabling the same*</i></p>
1.	National Power System Expansion Plan 2011 – 2030	<p>The National Power system Expansion Plan 2011-2030 comprises of electricity import from Iran and CASA project.</p> <p><i>It should also include cross border trade opportunities within the South Asian region.</i></p>

⑥ *Summary of Changes in EL&R&P
framework- Sri Lanka*

S. No	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1.	<p>The Sri Lanka Electricity Act, No. 20 OF 2009 (& subsequent amendment in 2013)</p>	<p>a) Licensing: Chapter III, Part 1: Licensing- A person shall not generate electricity; transmit electricity; distribute and supply or distribute electricity unless he is authorized to do so by a license granted under this Act</p> <p><i>Above to also include trading as a licensed activity. Accordingly various provisions (on eligibility, procedure, grant of license, power & duties, exemptions, revocation of license, modification and enforcement of license etc.) shall be applicable in a desired form on trading. This shall also include specific provisions on CBET</i></p> <p>b) Open Access (Functions of the Commission): Clause 4(1) The Commission shall discharge the functions assigned to it by or under this Act in a manner which it considers is best calculated (f) to promote competition, where appropriate</p> <p><i>Above to also include notification of enabling regulations/orders necessary to introduce such competition and to enable non-discriminatory access to the transmission system (including for cross border power flows)</i></p> <p>c) Transmission Pricing (Powers and duties of the licensees): Chapter II Clause 3 (d)- Functions of the Commission- To regulate tariffs and other charges levied by licensees and other electricity undertakings, in order to ensure that the most economical and efficient service possible is provided to consumers.</p> <p><i>The transmission charges determined in above, shall be based on such mechanisms/principles which on one hand reflect the actual system usage and on the other compensate the owner in a transparent manner. The Commission shall notify appropriate orders/ regulations enabling the same*</i></p>

S. No	Acts/ Policies & Regulations	Nature of Change Proposed
<i>Policies & Regulations</i>		
1	The Electricity (Applications for Licenses and Exemptions) Regulation, 2009	<i>Necessary changes to be introduced to apply provisions on details of the application form, documents accompanying the application and other requisite information pertaining to grant of license on trading activity. Trading activity shall also include import and export of electricity.</i>
2	National Energy Policy and Strategies of Sri Lanka, 2008	<p>a) Promotion of regional energy security: <i>The Government shall promote cross border trade and guide the Commission on various aspects of CBET for its smooth implementation.</i></p> <p>b) Transmission Planning: <i>National Energy Database to include projects of regional importance and the Transmission Development Plan to take into account external interconnections for cross border electricity trade.</i></p>
3	Regulatory Manual, PUCSL, 2014	Promotion of Competitive markets (Open Access): <i>Basis the rules specified in the manual, the Commission (PUCSL) shall use its powers and notify regulation/order to promote competition and enable non-discriminatory access to the transmission system</i>

S. No	Acts/ Policies & Regulations	Nature of Change Proposed
<i>Policies & Regulations</i>		
4	General Policy Guidelines on the electricity industry for PUCSL	Transmission Pricing: <i>The Commission shall notify appropriate orders/regulations that will enable determination of transmission charges for cross border transactions to be based on such principles that compensate users for actual usage of system. Prices to be sensitive to distance, direction and quantum of power flow</i>
6	Grid Code 2014	Transmission system: <i>The Transmission system shall also include external interconnectors and lines from the Grid to external interconnections</i> Transmission development plan: <i>The Transmission Development Plan shall also take into account external interconnections for cross border electricity trade. The Grid code shall define technical specifications for external interconnectors and other standards/codes essential for cross border flows</i>

Country wise road map for implementation of recommendations

Afghanistan

Medium term	Long term
<p>1) Empowered ministry (<i>Ministry of Commerce</i>) to establish provisions facilitating zero tax regime (<i>through modification of relevant trade policy or commerce law</i>)</p> <p>1) Till the time a Regulator is not established, Ministry of Energy and Water/DABS may adopt regional regulatory guidelines on following</p> <ul style="list-style-type: none">• Non-discriminatory open access• Imbalance Settlement mechanism• Transmission Pricing <p><i>Above shall be undertaken in accordance with the Regional Regulatory Guidelines on CBET</i></p>	<p>1) Enactment of Electricity Law and setting up of the Independent Regulator in accordance with the Law</p> <p>2) The Regulator apart from its other duties notify regulations on following</p> <ul style="list-style-type: none">• Determination of transmission/transit charges• Third party access to the National Grid• Imbalance Settlement mechanism <p>1) Setting up an independent system operator</p> <p>2) Functional unbundling of DABS through separation of transmission business from generation business</p>

However, since trade with neighboring countries is being undertaken through bilateral trade agreements. It is highly likely that CBET in Afghanistan will continue in the same manner without any immediate need of common/standard provisions on the key ingredients.

Country wise Road map

Bangladesh

Short Term (upto 1 yr)

- 1) Adopt/adapt the **regulatory guidelines on following**:
 - Non-discriminatory open access to the Tx system
 - Imbalance Settlement mechanism
 - Determination of transmission/transit charges for cross border transactions
- 2) Empowered ministry (*Ministry of Commerce*) to establish provisions facilitating zero tax regime (*through modification of relevant trade policy or commerce law*)
- 3) PGCB to be part of the **proposed regional coordination forum** of national transmission utilities under SAFER

Medium term (1-3 yr)

- 1) **Frame OA regulations** with coverage defined in Regulatory Guidelines (BERC)
- 2) Frame regulations on determination of transmission charges, **including charges for cross border transactions** (BERC)
- 3) **Independent System Operator** to be set up. Till that time **PGCB to undertake scheduling and dispatching activities** for cross border flows
- 4) Electricity Grid Code 2012 to **be amended to**
 - **Define technical specifications for external interconnectors**, other standards/codes essential for cross border flows and
 - Include **provisions related to imbalance settlement** for CBET. This may be bilaterally agreed initially, however, eventually needs to be regionally coherent
 - Mention **scheduling & dispatch related coordination with counterparts in member countries**
 - Provide for **rules to develop coordinated Transmission Plans** in cases of cross border interconnections
- 5) Modification of the national transmission plan to **include Tx system/external interconnections for possible trade scenarios** with member countries

Long term (>3 yr)

- 1) Suitable amendment in the Electricity Act 1910 to include:
 - **Trading as a distinct licensed activity**
 - **Include CBET in the assessment of power market design** (as and when this is evolved)
 - **Dispute resolution** in case of cross border trade
- 2) Suitable amendment in the BERC Act 2003, to enable BERC to:
 - **Issue of trading license**
 - **Frame OA regulations**
 - **Develop mechanism to deal with system imbalances**

Country wise Road map

Bhutan

Short Term (upto 1 yr)

- 1) Adopt/adapt the **regulatory guidelines on following**:
 - Non-discriminatory open access to the Tx system
 - Imbalance Settlement mechanism
 - Determination of transmission/transit charges for cross border transactions
- 2) Empowered ministry (*Ministry of Commerce*) to establish provisions facilitating zero tax regime (*through modification of relevant trade policy or commerce law*)
- 3) The transmission department of BPC to be part of the **proposed regional coordination forum** of national transmission utilities under SAFER

Medium term (1-3 yr)

- 1) **Frame OA regulations** with adequate provisions for CBET (BEA)
- 2) **Frame regulations (BEA) on following**:
 - Imbalance Settlement mechanism
 - Determination of transmission/transit charges for cross border transactions
- 3) Grid code Regulations 2008 to be amended to include following
 - **Define technical specifications for external interconnectors**, other standards/codes essential for cross border flows and
 - Include **provisions related to imbalance settlement** for CBET. This may be bilaterally agreed initially, however, eventually needs to be regionally coherent
 - Mention **scheduling & dispatch related coordination with counterparts in member countries**
 - Provide for **rules to develop coordinated Transmission Plans** in cases of cross border interconnections
- 4) Modification of the national transmission plan to **include Tx system/external interconnections for possible trade scenarios** with member countries

Long term (>3 yr)

- 1) Suitable amendment in the Electricity Act 2001 to include:
 - BEA to facilitate import and export of electricity by **introducing necessary provisions on CBET** in following areas
 - Non-discriminatory open access. BPC to provide open access to all entities including those involved in CBET
 - Introduce **competition in the trading license** business
 - Principles for **determination of transmission/transit charges** for cross border transactions
 - **Imbalance settlement** mechanism to be applicable to CBET
 - **Dispute resolution** in case of cross border trade
- 2) Setting up an **Independent System Operator** to undertake system operation and control activities currently undertaken by BPC

Country wise Road map

India

Short Term (upto 1 yr)

- 1) Empowered ministry (*Ministry of Commerce*) to establish provisions facilitating zero tax regime (*through modification of relevant trade policy or commerce law*)
- 2) Adopt/adapt the **regulatory guidelines on following**
 - Non-discriminatory third party access for cross border trade
 - Imbalance Settlement mechanism for cross border trade
- 3) Power Grid to be part of the **proposed regional coordination forum** of national transmission utilities under SAFER.

Medium term (1-3 yr)

- 1) **Open Access in interstate transmission regulation 2004 to be amended to include provisions on cross border transactions**
- 2) **Deviation settlement mechanism & related matters regulations 2014 to be amended to include provisions on cross border flows**
- 3) **Power market regulation 2010 to be amended extending scope the scope to CBET and facilitate transaction on Exchange**

Hence power exchanges in India to be allowed to accept participation of entities involved in CBET
- 4) **Indian Electricity Grid code 2010 to be amended to include following**
 - Standards and codes for external interconnections
 - Basis of operation of external control to be defined
 - Provisions on planning, connection, scheduling & dispatch
- 5) **The National transmission plan developed by CEA to include Tx system/external interconnections for possible trade scenarios with member countries**

Long term (>3 yr)

- 1) Suitable amendment in the Electricity Act 2003 to include:
 - **CBET to be recognized as licensed business activity**
 - **CERC to facilitate CBET by introducing relevant provisions in extant regulations on OA, Power trading, Competitive markets etc.**
 - **CTU to provide non-discriminatory OA to the network for cross border transactions**

Country wise Road map

Nepal

Short Term (upto 1 yr)

- 1) Empowered ministry (*Ministry of Commerce*) to **establish provisions facilitating zero tax regime** (*through modification of relevant trade policy or commerce law*)
- 2) It is understood that **the new electricity law is under discussion**. Needs to **provide for setting up of an independent regulator**
- 3) In the interim period, till the regulator is not established, **functioning of the ETFC needs to be strengthened** to enable it to determine transmission charges
- 4) Further, in the interim period till the regulator is not established, NEA can facilitate to adopt/adopt the **regulatory guidelines on following:**
 - Non-discriminatory open access to the Tx system
 - Imbalance Settlement mechanism
 - Determination of transmission/transit charges for cross border transactions

Medium term (1-3 yr)

- 1) Hydro development policy 2001 to be amended with **adequate provisions on licensing CBET**
- 2) **Electricity Rules 2050 to include procedure** for obtaining license for import & export of electricity
- 3) Till the time a Regulator is not established, **NEA with expert consultation shall frame guidelines on following**
 - **Non-discriminatory third party access**
 - **Imbalance Settlement mechanism**
 - **Determination of transmission/transit charges**
- 4) Modification of the national transmission plan to **include Tx system/external interconnections for possible trade scenarios** with member countries

Long term (>3 yr)

- 1) Suitable amendment in the Electricity Act 2049 (1992) to include:
 - **Trading as a distinct licensed activity**
 - **Provisions on non-discriminatory OA**
 - **Imbalance settlement**
 - **Transmission/transit charges**

Possibly the new law already recognizes these aspects
- 2) Establish a fully functional **Electricity Regulator**
- 3) Setting up an **Independent System Operator** to undertake system operation and control activities currently undertaken by NEA

Country wise Road map

Pakistan

Short Term (upto 1 yr)

- 1) Empowered ministry (*Ministry of Commerce*) to **establish provisions facilitating zero tax regime** (*through modification of relevant trade policy or commerce law*)
- 2) Adopt/adapt the **regulatory guidelines on following**
 - Non-discriminatory third party access for cross border trade
 - Imbalance Settlement mechanism for cross border trade
 - Determination of transmission/transit charges for cross border transactions
- 3) NTDC to be part of the **proposed regional coordination forum** of national transmission utilities under SAFER

Medium term (1-3 yr)

- 1) NEPRA Licensing (Application & Modification Procedure) Regulations, 1999 to amended to recognize trading as a licensed activity and enable CBET
- 2) Grid code 2005 to be amended to include following
 - Standards and **codes for external interconnections**
 - NTDC to provide **non-discriminatory OA to cross border trade**
 - Provisions on planning, connection, **scheduling & dispatch of cross border transactions**
- 3) Frame OA regulations with adequate provisions for CBET (NEPRA)
- 4) Develop a regionally coherent **commercial mechanism to treat imbalances** (NEPRA)
- 4) National Power system expansion plan 2011-2030 to include CBET opportunities within SA region

Long term (>3 yr)

- 1) Suitable amendment in the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 to include:
 - **CBET to be recognized as licensed business activity**
 - The regulator (NEPRA) to promote competition and facilitate CBET by framing regulations on non-discriminatory OA and determine charges for the same.
 - The transmission system owner (NTDC) to provide non-discriminatory OA to the network including for cross border transactions

Country wise Road map

Sri Lanka

Short Term (upto 1 yr)

- 1) Empowered ministry (*Ministry of Commerce*) to **establish provisions facilitating zero tax regime** (*through modification of relevant trade policy or commerce law*)
- 2) Adopt/adapt the **regulatory guidelines on following**
 - Non-discriminatory third party access for cross border trade
 - Imbalance Settlement mechanism for cross border trade
 - Determination of transmission/transit charges for cross border transactions
- 3) The transmission department of CEB to be part of the **proposed regional coordination forum** of national transmission utilities under SAFER

Medium term (1-3 yr)

- 1) The Sri Lanka Electricity Act, No. 20 of 2009 (& subsequent amendment in 2013) to amended to recognize trading as a licensed activity and enable CBET
- 2) Grid code 2014 to be amended to include following
 - Standards and **codes for external interconnections**
 - CEB to provide **non-discriminatory OA to cross border trade**
 - Provisions on planning, connection, **scheduling & dispatch of cross border transactions**
- 3) Frame OA regulations with adequate provisions for CBET (PUCSL)
- 4) Develop a regionally coherent **commercial mechanism to treat imbalances** (PUCSL)
- 4) National Energy Database to include projects of regional importance and the Transmission Development Plan to take into account external interconnections for cross border electricity trade

Long term (>3 yr)

- 1) Suitable amendment in the Sri Lanka Electricity Act:
 - **CBET to be recognized as licensed business activity**
 - The regulator (PUCSL) to promote competition and facilitate CBET by framing regulations on non-discriminatory OA and determine charges for the same.
 - CEB to provide non-discriminatory OA to the network including for cross border transactions

Detailed clause wise changes

Bangladesh

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1	<i>Electricity Act 1910 and subsequent amendment 2012</i>	a) Open Access (OA): OA Regulations proposed to be developed by the Commission to include adequate provisions for cross border transactions, facilitating transparent access to the National Grid for exporting/importing entities
2	<i>Bangladesh Electricity Regulatory Commission Act, 2003 and subsequent amendment in 2005</i>	a) Licensing: Trading of electricity is proposed to be a licensed activity b) Open Access (OA): BERC to create enabling provisions (by notifying regulations/order) for the ISO to coordinate and confirm scheduling and dispatching of cross border flows in a transparent manner in accordance with the applicable network codes and standards for CBET as provided in the Grid Code. c) Dispute Resolution: Matters w.r.t to contracts for CBET that are beyond Commission's jurisdiction may be referred to the SAARC Arbitration Council
Policies & Regulations		
1	<i>BERC Licensing Regulations, 2006 with subsequent amendments in 2011</i>	*Document not available in English
2	<i>Electricity Grid Code 2012</i>	a) Open Access: The Grid code shall define technical specifications for external interconnectors and other standards/codes essential for cross border flows. b) Transmission Planning: reinforcement or extension of the existing Transmission System to be taken in consideration to the envisaged CBET c) Imbalance Settlement: Suitable amendments to the existing Grid Code to include provisions related to imbalance settlement for CBET.
3	<i>National Electricity Policy 2004</i>	a) Transmission Planning: Creation of a database containing information on transmission and generation infrastructure for CBET in consideration of the Power System Master Plan that discusses cross border interconnection options for Bangladesh.
<p>Since Changes in the Acts is a long drawn process, enablement of essential factors/ingredients for CBET can be undertaken through drafting of separate regulations/notifications/orders for the following aspects:</p> <ul style="list-style-type: none"> (i) Open Access (already proposed to be developed by the Commission) (ii) Tariff Policy (for Transmission Pricing) (iii) Imbalance Settlement (iv) Taxes & Duties (all countries to move to a zero tax regime) 		

Licensing

Bangladesh Electricity Regulatory Commission Act, 2003 & subsequent amendment in 2005

S. No.	Clause	Recommended Changes
1.	<p>Clause 27: License</p> <p>(1) No person shall engage himself in the following business unless he is empowered by a license or exempted from having it under this Act or any other Act, such as:-</p> <ol style="list-style-type: none"> power generation; energy transmission; energy distribution and marketing; energy supply; and Energy storage. <p>(2) All persons empowered under Electricity Act, Presidential Order, Rural Electrification Act, DESA Act, Bangladesh Petroleum Act, or rules made thereunder for the power generation, and transmission, storage, supply and distribution of energy shall be treated as licensees under this Act and provisions of this Act shall be applicable to them.</p>	<p>Clause 27: License</p> <p>(1) No person shall engage himself in the following business unless he is empowered by a license or exempted from having it under this Act or any other Act, such as:-</p> <ol style="list-style-type: none"> power generation; energy transmission; energy distribution and marketing; energy supply; energy storage and trading of electricity <p>(2) All persons empowered under Electricity Act, Presidential Order, Rural Electrification Act, DESA Act, Bangladesh Petroleum Act, or rules made thereunder for the power generation, and transmission, storage, supply and distribution of energy, electricity trading shall be treated as licensees under this Act and provisions of this Act shall be applicable to them.</p>
	<p>Clause 28: Issuance of license by the Commission— License may be issued to any person for the following purposes in a procedure prescribed by the Commission, such as:-</p> <ol style="list-style-type: none"> for power generation; for energy transmission; for distribution and marketing of energy; for supply of energy; and for storage of energy. 	<p>Clause 28: Issuance of license by the Commission— License may be issued to any person for the following purposes in a procedure prescribed by the Commission, such as:-</p> <ol style="list-style-type: none"> for power generation; for energy transmission; for distribution and marketing of energy; for supply of energy; and for storage of energy. for trading of electricity

BERC Licensing Regulations, 2006 with subsequent amendments in 2011; Appropriate changes to the existing licensing regulations will be required. However, we will need to have the English version of the same.

Electricity Act 1910' and subsequent amendment 2012

S. No.	Clause	Recommended Changes
1.	<p>Part 2, Clause 6: Power Market and Single Buyer-</p> <p><i>i. The Commission shall take necessary steps to undertake and complete a detailed study through competent experts to examine the feasibility of introduction of an open market for power business in Bangladesh.</i></p> <p><i>ii. It shall be the duty of the Commission, based on the outcome of the study, to decide on the introduction, operation and maintenance of an independent, fair and competitive market structure for bulk trading of electricity in the country.</i></p> <p><i>iii. The Commission shall frame regulations in consultation with the Government, respective utilities and concerned organizations to provide guidance to the power market for its smooth functioning well before the said market becomes operational.</i></p> <p><i>iv. The Commission shall facilitate transparency in the power market for the sale and transmission of electric energy, having due regard for the public interest, the integrity of the market, fair competition, and the protection of consumers</i></p> <p>Provided that the Commission shall take appropriate measures to facilitate smooth transition from the single buyer system to the open market system in consultation with the Government.</p>	<p>Part 2, Clause 6: Power Market and Single Buyer-</p> <p><i>i. The Commission shall take necessary steps to undertake and complete a detailed study through competent experts to examine the feasibility of introduction of an open market for power business in Bangladesh. This will also include assessment of existing and future cross border transactions.</i></p> <p><i>ii. It shall be the duty of the Commission, based on the outcome of the study, to decide on the introduction, operation and maintenance of an independent, fair and competitive market structure for bulk trading of electricity in the country and for import & export of electricity</i></p> <p><i>iii. The Commission shall frame regulations in consultation with the Government, respective utilities and concerned organizations to provide guidance to the power market for its smooth functioning well before the said market becomes operational. These regulations shall include adequate provisions for cross border transactions.</i></p> <p><i>iv. The Commission shall facilitate transparency in the power market for the sale and transmission of electric energy, having due regard for the public interest, the integrity of the market, fair competition, and the protection of consumers</i></p> <p>Provided that the Commission shall take appropriate measures to facilitate smooth transition from the single buyer system to the open market system in consultation with the Government. Appropriate measures shall also be taken to facilitate and promote cross border electricity trade.</p>

Electricity Act 1910' and subsequent amendment 2012

S. No.	Clause	Recommended Changes
1.	<p>Part 2, Clause 6A: Cross Border trade in Electricity-</p> <p><i>The Board and/or the Single Buyer may import electricity from and export to any foreign state using the transmission system of the country with previous sanction of the Government at such rate as may be determined by the Government.</i></p>	<p>Part 2, Clause 6A: Cross Border trade in Electricity-</p> <p><i>The Board and/or the Single Buyer/Multiple buyers (with transition from the single buyer system to the open market) may import electricity from and export to any foreign state using the transmission system of the country with previous sanction of the Government at such rate as may be determined by the Government. Such rates for transmission usage shall be determined using efficient and transparent methodologies. It shall inhibit monopoly and promote competition and transparency.</i></p>
2.	<p>Part 2, Clause 7, 2(d): Transmission utility and its functions</p> <p><i>To provide non-discriminatory open access to its transmission system for use by- (i) any licensee or generating company on payment of the transmission charges; or (ii) any person, as and when such open access is provided subject to the provisions of sub-section (3), on payment of the transmission charges and any surcharge thereon, as may be specified by the Commission;</i></p> <p><i>7 (3) The Commission shall, in consultation with the licensees, and with the approval of the Government, issue necessary regulations in order to ensure open non-discriminatory access by all the concerned parties to the grid system in Bangladesh.</i></p>	<p>Part 2, Clause 7, 2(d): Transmission utility and its functions</p> <p><i>To provide non-discriminatory open access to its transmission system for use by- (i) any licensee or generating company on payment of the transmission charges; or (ii) any person, as and when such open access is provided subject to the provisions of sub-section (3), on payment of the transmission charges and any surcharge thereon, as may be specified by the Commission;</i></p> <p><i>7 (3) The Commission shall, in consultation with the licensees, and with the approval of the Government, issue necessary regulations in order to ensure open non-discriminatory access by all the concerned parties to the grid system in Bangladesh. This shall include adequate provisions for cross border transactions, facilitating transparent access to the National Grid for exporting/importing entities.</i></p>

Electricity Act 1910' and subsequent amendment 2012

S. No.	Clause	Recommended Changes
1.	<p>Clause 8: Independent System Operator (ISO) and its functions/duties</p> <p><i>i. It shall also monitor grid operations, keep accounts of quantity of electricity transmitted through the national grid, and be responsible for carrying out real time operations for grid control and dispatch of electricity all over the country through secure and economic operation of the national grid in accordance with the Grid Code.</i></p> <p><i>ii. It may levy and collect such fee and charges from the generating utility or the transmission utility or the distribution utilities or other licensees as may be determined by the Commission.</i></p> <p><i>iii. A person who is not an electric utility and who enters into an access agreement with transmission utility must comply with the directions of the ISO</i></p> <p><i>iv. Until such time as the ISO is constituted and becomes operational, the existing system of discharging of load dispatch functions and single buyer operation may continue on the basis of written order of the Government issued in consultation with the Commission</i></p>	<p>Clause 8: Independent System Operator (ISO) and its functions/duties</p> <p>Note: The Commission shall create enabling provisions (by notifying regulations/order) for the ISO to coordinate and confirm scheduling and dispatching of cross border flows in a transparent manner in accordance with the applicable network codes and standards for CBET as provided in the Grid Code.</p>

Electricity Grid Code 2012

S. No.	Clause	Recommended Changes
1.	<p>Clause 1.2– “The Grid Code covers all material technical aspects relating to Connections to and operation and use of the Transmission System..... It seeks to avoid any undue discrimination between Users and categories of Users”</p>	<p>Clause 1.2– “The Grid Code covers all material technical aspects relating to Connections to and operation and use of the Transmission System including the operation of electric lines and electrical plant connected to the Transmission System in so far as is relevant to the operation and use of the Transmission System. It is designed to permit the planning, development, maintenance and operation of an efficient, coordinated and economical Transmission system, to facilitate competition in the generation and supply of electricity, to facilitate interconnection with power systems of neighbouring countries and hence coordinated development of a regional grid. It is conceived as a statement of what is optimal (particularly from a technical point of view) for all Users as well as the Buyer in relation to the planning, operation and use of the Transmission System. It seeks to avoid any undue discrimination between Users and categories of Users”</p> <p>Note: The Grid code shall define technical specifications for external interconnectors and other standards/codes essential for cross border flows.</p>

Electricity Grid Code 2012

S. No.	Clause	Recommended Changes
1.	<p>Clause 8: Independent System Operator (ISO) and its functions/duties</p> <p><i>i. It shall also monitor grid operations, keep accounts of quantity of electricity transmitted through the national grid, and be responsible for carrying out real time operations for grid control and dispatch of electricity all over the country through secure and economic operation of the national grid in accordance with the Grid Code.</i></p> <p><i>ii. It may levy and collect such fee and charges from the generating utility or the transmission utility or the distribution utilities or other licensees as may be determined by the Commission.</i></p> <p><i>iii. A person who is not an electric utility and who enters into an access agreement with transmission utility must comply with the directions of the ISO</i></p> <p><i>iv. Until such time as the ISO is constituted and becomes operational, the existing system of discharging of load dispatch functions and single buyer operation may continue on the basis of written order of the Government issued in consultation with the Commission</i></p>	<p>Clause 8: Independent System Operator (ISO) and its functions/duties</p> <p>Note: The Commission shall create enabling provisions (by notifying regulations/order) for the ISO to coordinate and confirm scheduling and dispatching of cross border flows in a transparent manner in accordance with the applicable network codes and standards for CBET as provided in the Grid Code.</p>

Transmission Pricing

'Electricity Act 1910' and subsequent amendment 2012

S. No.	Clause	Recommended Changes
1.	<p>Part III (28): "The Government shall, from time to time, at such intervals not more than five years, formulate, update and issue the National Electricity Policy including the tariff policy, in consultation with the Commission, with a view to providing basic guidance for development of the power system...."</p> <p>Current Method for Tariff Determination</p> <p>PGCB computes the net transmission charge based on cost plus methodology factoring the total investments incurred and the total energy wheeled. Charges are determined for 33 kV and 132 kV voltage levels. PGCB submits the proposed charges to BERC for approval.</p>	<p>Part III (28): "The Government shall, from time to time, at such intervals not more than five years, formulate, update and issue the National Electricity Policy including the tariff policy, in consultation with the Commission, with a view to providing basic guidance for development of the power system...." <i>The tariff policy shall provide appropriate mechanism for determination of charges for transmission usage based on following principles:</i></p> <ul style="list-style-type: none">- <i>Transparent allocation of costs</i>- <i>Compensate users for actual usage of system</i>- <i>Compensate owners of existing transmission assets</i> <p>The Commission shall notify appropriate orders/ regulations that will enable determination of single point charges for injection and withdrawal at external interconnections. Such location based charges shall be similar to the POC charges devised by POSOCO in India.</p>

National Electricity Policy 2004

S. No.	Clause	Recommended Changes
1.	<p>Clause 7.5 Power Policy</p> <p>7.5.1 Demand Forecast</p> <p>a.</p> <p>b. <i>An agreed overall projection on demand is to be developed and used for all planning purposes. The projection is to be updated and if needed readjusted periodically based on achievement of targets.</i></p> <p>c. <i>A database on the power sector is to be developed which shall be continuously updated</i></p> <p>7.5.2 Long Term Planning and Project Implementation</p> <p>a.</p> <p>b.</p> <p>c. <i>An overall master plan for electricity is to be developed incorporating the least cost generation expansion plan, transmission plan and distribution plan and phasing of projects. This master plan shall be the basis for all development programs and projects of the power sector.</i></p>	<p>Clause 7.5 Power Policy</p> <p>7.5.1 Demand Forecast</p> <p>a.</p> <p>b. <i>An agreed overall projection on demand is to be developed and used for all planning purposes. The projection is to be updated and if needed readjusted periodically based on achievement of targets.</i></p> <p>c. <i>A database on the power sector is to be developed which shall be continuously updated. The database shall contain information on transmission and generation infrastructure for cross border trade and shall take into consideration the Power System Master Plan that discusses cross border interconnection options for Bangladesh.</i></p> <p>7.5.2 Long Term Planning and Project Implementation</p> <p>a.</p> <p>b.</p> <p>c. <i>An overall master plan for electricity is to be developed incorporating the least cost generation expansion plan, transmission plan to support import and export of electricity and distribution plan and phasing of projects. This master plan shall be the basis for all development programs and projects of the power sector.</i></p>

Grid Code 2012

S. No.	Clause	Recommended Changes
1	<p>Clause 4. Transmission System Planning</p> <p>4.1 Introduction</p> <p><i>This Section identifies the method for data submissions by Users to the Licensee for the planning and development of the Transmission System. This Section also specifies the technical and design criteria and procedure to be applied by the Licensee in the planning and development of the Transmission System.</i></p> <p><i>A requirement for reinforcement or extension of the Transmission System may arise for a number of reasons, including but not limited to the following.</i></p> <ul style="list-style-type: none"> <i>i. Development in a User's system already connected to the Transmission System.</i> <i>ii. The introduction of a new Connection point between the User's system and the Transmission System.</i> <i>iii. An increase in system capacity to remove operating constraints and maintain standards of security.</i> <i>iv. Stability considerations.</i> <i>v. Cumulative effect of any of the above.</i> <p>.....</p>	<p>Clause 4. Transmission System Planning</p> <p>4.1 Introduction</p> <p><i>This Section identifies the method for data submissions by Users to the Licensee for the planning and development of the Transmission System. This Section also specifies the technical and design criteria and procedure to be applied by the Licensee in the planning and development of the Transmission System.</i></p> <p><i>A requirement for reinforcement or extension of the Transmission System may arise for a number of reasons, including but not limited to the following.</i></p> <ul style="list-style-type: none"> <i>i. Development in a User's system already connected to the Transmission System. This becomes critical in case of cross border transactions.</i> <i>ii. The introduction of a new Connection point between the User's system and the Transmission System;</i> <i>iii. An increase in system capacity to remove operating constraints and maintain standards of security.</i> <i>iv. Stability considerations.</i> <i>v. Cumulative effect of any of the above.</i> <p>XX New cross border links</p> <p>.....</p>

Grid Code 2012

S. No.	Clause	Recommended Changes
1	<p>Clause 4. Transmission System Planning</p> <p>4.1 Introduction</p> <p>.....</p> <p><i>Since development of all Users' systems must be planned well in advance to permit consents and way leaves to be obtained and detailed engineering design/construction work to be completed, the Licensee will require information from Users and vice versa. To this effect the Planning Code imposes a time scale, for exchange of necessary information between the Licensee and Users having regard, where appropriate, to the confidentiality of such information.</i></p> <p>Clause 4.2 Objective</p> <p>.....</p> <p>Clause 4.3 Perspective Plan</p> <p>.....</p>	<p>Clause 4. Transmission System Planning</p> <p>4.1 Introduction</p> <p>.....</p> <p><i>Since development of all Users' systems must be planned well in advance to permit consents and way leaves to be obtained and detailed engineering design/construction work to be completed, the Licensee will require information (including information on planned cross border transactions) from Users and vice versa. To this effect the Planning Code imposes a time scale, for exchange of necessary information between the Licensee and Users having regard, where appropriate, to the confidentiality of such information.</i></p> <p>Clause 4.2 Objective</p> <p>.....</p> <p>Clause 4.3 Perspective Plan</p> <p>.....</p> <p>Note: The existing Power System Master Plan mentions about the quantum of electricity envisaged to be imported from India, Nepal and Bhutan.</p>

'Electricity Act 1910' and subsequent amendment 2012

S. No.	Clause	Recommended Changes
1	<p>Clause 8: Independent System Operator (ISO)</p> <p>(1) <i>An Independent System Operator (hereinafter referred to as the ISO) shall be set up to ensure integrated operation of the power system throughout the country.</i></p> <p>(2) <i>The ISO shall be a company incorporated under the Companies Act, 1994 (Act No. XVIII of 1994) wholly owned by the Government.</i></p> <p>(3) <i>It shall be responsible for optimum scheduling and dispatch of electricity from the generating stations in the country.</i></p> <p>(4) <i>It shall comply with such principles, guidelines and methodologies in respect of transmitting and optimum scheduling and dispatch of electricity as provided for in the grid code to be specified by the Commission.</i></p> <p>(5) <i>It shall also monitor grid operations, keep accounts of quantity of electricity transmitted through the national grid, and be responsible for carrying out real time operations for grid control and dispatch of electricity all over the country through secure and economic operation of the national grid in accordance with the Grid Code.</i></p> <p>(6) <i>It may levy and collect such fee and charges from the generating utility or the transmission utility or the distribution utilities or other licensees as may be determined by the Commission.</i></p>	<p>Clause 8: Independent System Operator (ISO)</p> <p>(1) <i>An Independent System Operator (hereinafter referred to as the ISO) shall be set up to ensure integrated operation of the power system throughout the country.</i></p> <p>(2) <i>The ISO shall be a company incorporated under the Companies Act, 1994 (Act No. XVIII of 1994) wholly owned by the Government.</i></p> <p>(3) <i>It shall be responsible for optimum scheduling and dispatch of electricity from the generating stations in the country as well as confirm scheduling and dispatching of cross border flows in a transparent manner</i></p> <p>(4) <i>It shall comply with such principles, guidelines and methodologies in respect of transmitting and optimum scheduling and dispatch of electricity as provided for in the grid code to be specified by the Commission.</i></p> <p>(5) <i>It shall also monitor grid operations, keep accounts of quantity of electricity transmitted through the national grid, and be responsible for carrying out real time operations for grid control and dispatch of electricity all over the country through secure and economic operation of the national grid in accordance with the Grid Code.</i></p> <p>(6) <i>It may levy and collect such fee and charges from the generating utility or the transmission utility or the distribution utilities or other licensees as may be determined by the Commission.</i></p>

Electricity Grid Code 2012

S. No.	Clause	Recommended Changes
1		<p><i>Note: The Grid Code 2012 does not mention about any kind of imbalance settlement mechanism/ deviation settlement mechanism that provides for settlement of differences in the dispatch and withdrawal schedules.</i></p> <p><i>Suitable amendments should be made to the Grid Code to include provisions related to imbalance settlement for CBET.</i></p> <p><i>Further enablement of regulations related to imbalance settlement comprising charges of deviation, limits on deviation volume and consequences of violating limits; Accounting of Charges for Deviation; Schedule of Payment of Charges for Deviation, etc. can be introduced keeping in view the envisaged quantum of cross border electricity trade with India, Nepal, Bhutan and other neighbouring countries.</i></p>

Dispute Resolution

Electricity Act 1910' and subsequent amendment 2012

S. No.	Clause	Recommended Changes
1.	<p>Clause 52. Dispute Resolution, Arbitration and Compounding.– (1) <i>The procedures to be followed in the resolution of any dispute arising in connection with the supply or use of electricity under any provisions of this Act shall be such as the Commission shall set out by regulations.</i></p> <p>(2) <i>Notwithstanding any provisions to the contrary in this Act or any other law for the time being in force, any disputes arising in connection with the supply or use of electricity, which the parties have not been able to resolve through the dispute resolution procedures formulated by the Commission under sub-section (1) despite using their best efforts to do so, shall be referred to the Commission by any party to the dispute for arbitration.</i></p> <p>(3) <i>Where any matter is referred to the Commission under sub-section (2), or is, by or under this Act, directed to be determined by arbitration, the provisions of section 40 of the Bangladesh Energy Regulatory Commission Act, 2003 (Act No. XIII of 2003) shall apply.</i></p>	<p>Note: The changes have been accounted for in the Bangladesh Electricity Regulatory Commission Act 2003 subsequently amended in 2005</p>

Bangladesh Electricity Regulatory Commission Act 2003 and subsequent amendment in 2005

S. No.	Clause	Recommended Changes
1.	<p>Clause 40. Arbitration - Settlement by the Commission—</p> <p>(1) <i>Notwithstanding anything contained in the Arbitration Act, 2001 (Act No. 1 of 2001) or any other Act, any dispute arising between the licencees, or licencees and consumers, shall be referred to the Commission for its settlement:</i></p> <p><i>Provided that a contract, executed between the Government or any of its agency and a private company, in respect of energy, immediate before this Act comes into force, the conditions of the said contract shall be applicable for the settlement of the disputes</i></p>	<p>40. Arbitration - Settlement by the Commission—</p> <p>(1) <i>Notwithstanding anything contained in the Arbitration Act, 2001 (Act No. 1 of 2001) or any other Act, any dispute arising between the licencees, or licencees and consumers, shall be referred to the Commission for its settlement</i></p> <p><i>Provided that a contract, executed between the Government or any of its agency and a private company, in respect of energy, immediate before this Act comes into force, the conditions of the said contract shall be applicable for the settlement of the disputes.</i></p> <p>Provided that for any dispute arising on account of contract for import and/or export of electricity where the commission believes that dealing with such dispute is beyond the Commission's jurisdiction, the commission may refer such dispute to the SAARC Arbitration Council. The SAARC Arbitration rules shall govern such Arbitration procedure.</p>

Taxes & Duties

S. No.	Clause	Recommended Changes
1.		<p>Note: No form of tax, custom duty or transit tax shall be applicable on export and import of electricity. Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity. This has been mentioned in the proposed regulatory guidelines and can be adopted.</p>

Bhutan

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1	Electricity Act 2001	<p>a) Licensing: The Act recognizes trade of electricity as a licensed activity</p> <p>b) Open Access: Transmission Licensee to provide for open access</p> <p>c) Transmission Pricing: Bhutan Electricity Authority (BEA) to provide for appropriate mechanisms for determination of charges for transmission usage based on the principles of Transparent allocation of costs; Compensate users for actual usage of system and Compensate owners of existing transmission assets</p>
Policies & Regulations		
1	Grid Code Regulations 2008	<p>a) Open Access: To include provisions for non- discriminatory open access</p> <p>b) Transmission Planning: Planning Code, Grid Planning Studies, Planning Data and Implementation of Transmission Plan to extend its existing coverage to include provisions for CBET</p> <p>c) Imbalance Settlement: Imbalance Settlement Mechanism shall be explicitly defined through enactment of separate regulations/orders under the Act.</p>
2	Bhutan Sustainable Hydropower Development Policy 2008	<p>a) Open Access: Bhutan Power Corporation (BPC) to provide for non-discriminatory transmission access for export of surplus power to India</p> <p>b) Dispute Resolution: Last resort of dispute settlement to be the SAARC Arbitration Council</p>
3	Tariff Determination Regulation, 2007 (Updated as of August 2013)	a) Transmission Pricing: The current regulations provide for negotiations (on a case to case basis) based tariffs for electricity exported from Bhutan. Hence no change is being proposed.
4	Dispute Resolution Procedure 2009	a) Last resort of dispute settlement to be the SAARC Arbitration Council
<p>Since Changes in the Acts is a long drawn process, enablement of essential factors/ingredients for CBET can be undertaken through drafting of separate regulations/notifications/orders for the following aspects:</p> <p>(i) Open Access</p> <p>(ii) Imbalance Settlement</p> <p>(iii) Taxes & Duties</p>		

Licensing

Electricity Act 2001

S. No.	Clause	Recommended Changes
1.	<p>Part 3; Clause 18: 18.1: No person or entity shall engage in, construction, generation, transmission, system operation, distribution, sale, export or import of electricity without a license issued under this Act.</p> <p>Clause 22: Application for license</p> <p>22.1 A corporation may apply to the Authority for the issue of a license authorizing one or more of the following activities as are specified in the license:</p> <ul style="list-style-type: none"> i. to generate electricity; ii. to transmit electricity; iii. to bulk supply; iv. to distribute electricity; v. to supply electricity; vi. to trade in electricity; and vii. to acquire a license from another party. 	<p>No Change Required</p> <p><i>Licences granted to generators also specifically cover licence to DGPC to carry out Generation, Supply, Import & Export of electrical energy from the plant. In case of export oriented projects it covers license to export. E.g. Dagachhu. Hence, no change needed.</i></p>

Grid Code Regulation 2008

S. No.	Clause	Recommended Changes
1.	<p>Clause 3.3 Role of Bhutan Electricity Authority</p> <ul style="list-style-type: none"> i. ii. To process application and issue, modify and revoke licenses for generation, transmission, system operation, export, import, distribution and sale of electricity 	<p>Existing Regulation recognizes CBET</p>

Electricity Act 2001

S. No.	Clause	Recommended Changes
1.	<p>Clause 11: Functions of the Authority</p> <p>11.1 Functions of the Authority are:</p> <p>i) to develop regulations, standards, codes, principles and procedures, which include, but are not limited to the following;</p> <p>a. performance standards, including minimum technical and safety requirements for construction, operation and maintenance of generation, transmission and distribution facilities;</p> <p>b. tariff-setting, including tariffs for generation not regulated by power purchase agreement, transmission, distribution and retail sale. These regulations should also comprise terms and conditions for connection fees and investment contribution from customers, and for provision of access to the transmission grid and distribution networks;</p> <p>c.</p> <p>Clause 11.2: The Authority shall, in the performance of his functions:</p> <p>i)</p> <p>ii)</p> <p>iii) ensure non-discriminatory access to the transmission and distribution system;</p> <p>Clause 38: Transmission license</p> <p>38.1 A holder of a transmission license shall provide access to all existing and potential users of the transmission grid on the payment of fees and other charges for grid services as may be approved by the Authority.</p>	<p>Clause 11: Functions of the Authority</p> <p>11.1 Functions of the Authority are:</p> <p>i) to develop regulations, standards, codes, principles and procedures, which include, but are not limited to the following;</p> <p>a. performance standards, including minimum technical and safety requirements for construction, operation and maintenance of generation, transmission and distribution facilities;</p> <p>b. tariff-setting, including tariffs for generation not regulated by power purchase agreement, transmission, distribution and retail sale. These regulations should also comprise terms and conditions for connection fees and investment contribution from customers, and for provision of access to the transmission grid and distribution networks including for import and export of electricity;</p> <p>c.</p> <p>Clause 11.2:</p> <p>Clause 38: Transmission license</p> <p>38.1 A holder of a transmission license shall provide non-discriminatory open access to all existing and potential users of the transmission grid on the payment of fees and other charges for grid services as may be approved by the Authority.</p> <p>Note: Enablement of non-discriminatory open access can be explicitly defined through enactment of separate regulations/orders under the Act. Specific provisions on access to National transmission network for importing/exporting entities can be defined separately in such regulations/orders. This may be deemed necessary since changes in law may be long drawn.</p>

Grid Code Regulation 2008

S. No.	Clause	Recommended Changes
1.	<p>Clause 3.3.1 <i>As per the provisions of the Act, the functions assigned to the Authority relevant to the Grid Code Regulation, shall be:</i></p> <p><i>(i) To develop regulations, standards, codes, principles and procedures, which include, but not limited to the following:</i></p> <p>a.</p> <p>b. <i>Terms and conditions for provision of access to the Transmission System and distribution networks; and</i></p> <p>c.;</p>	<p>3.3.1 As per the provisions of the Act, the functions assigned to the Authority relevant to the Grid Code Regulation, shall be:</p> <p><i>(i) To develop regulations, standards, codes, principles and procedures, which include, but not limited to the following:</i></p> <p>a.</p> <p>b. <i>Terms and conditions for provision of access to the Transmission System and distribution networks including that for import and export of electricity; and</i></p> <p>c.;</p>
	<p>Clause 3.3.2: <i>The Authority shall, in the performance of his functions:</i></p> <p>i)</p> <p>ii)</p> <p>iii) <i>ensure non-discriminatory access to the transmission and distribution system;</i></p>	<p>Clause 3.3.2: The Authority shall, in the performance of his functions:</p> <p>i)</p> <p>ii)</p> <p>iii) <i>ensure non-discriminatory open access to the transmission and distribution system;</i></p>

Grid Code Regulation 2008

S. No.	Clause	Recommended Changes
	<p>Clause 3.4: Role of System Operator</p> <p>3.4.1 As per Section 39 of the Act, the Authority may designate a person to be a “System Operator”, who shall:</p> <ul style="list-style-type: none"> i. ii. iii. iv. monitor the import and export of electricity; v. vi. vii. <p>3.4.2 The System Operator shall not, in the performance of its functions, show undue preferences or discrimination against any person.</p> <p>3.5.3 The Transmission Licensee shall provide access to all existing and potential Users of the Transmission System on the payment of fees and other charges for the Transmission System services as may be approved by the Authority.</p>	<p>Clause 3.4: Role of System Operator</p> <p>3.4.1 As per Section 39 of the Act, the Authority may designate a person to be a “System Operator”, who shall:</p> <ul style="list-style-type: none"> i. ii. iii. iv. monitor the import and export of electricity; v. vi. vii. <p>3.4.2 The System Operator shall not, in the performance of its functions, show undue preferences or discrimination against any person.</p> <p>3.5.3 The Transmission Licensee shall provide non-discriminatory open access to all existing and potential Users of the Transmission System on the payment of fees and other charges for the Transmission System services as may be approved by the Authority</p> <p>Note: Enablement of non-discriminatory open access can be explicitly defined through enactment of separate regulations/orders under the Act. Specific provisions on access to National transmission network for importing/exporting entities can be defined separately. This may be deemed necessary since changes in law may be long drawn.</p>

Bhutan Sustainable Hydropower Development Policy 2008

S. No.	Clause	Recommended Changes
	<p>Clause 3: Institutional Arrangements of the Hydropower Sector</p> <p>Bhutan Power Corporation (BPC)</p> <p>Clause 3.5:.....The BPC provides transmission access for export of surplus power to India.....</p>	<p>Clause 3: Institutional Arrangements of the Hydropower Sector</p> <p>Bhutan Power Corporation (BPC)</p> <p>Clause 3.5:.....The BPC provides <i>non-discriminatory</i> transmission access for export of surplus power to India.....</p> <p>Note: Enablement of non-discriminatory open access should be explicitly defined through enactment of separate regulations/orders under the Act. Specific provisions on access to National transmission network for importing/exporting entities can be defined separately. This may be deemed necessary since changes in law may be long drawn.</p>

Transmission Pricing

The Electricity Act of Bhutan, 2001

S. No.	Clause	Recommended Changes
	<p>Clause 11.1: Functions of Bhutan Electricity Authority</p> <p><i>(iv) to determine, or approve tariffs proposed by the licensees, and review existing tariffs;</i></p> <p>Clause 14.1 Tariff Regulation</p> <p><i>The Authority may regulate</i></p> <p><i>(iii) charges for connection to, and the use of any transmission system</i></p> <p><i>(v) other such prices and charges in respect of goods and services provided by Licensees. in accordance with the following principles: a. fairness to both service customers and service providers; b. there shall be no unjust discrimination against service customers or those who wish to use the services; c. the tariffs should reflect the actual cost of efficient business operation; d. guidelines on the tariffs determination must be conducive to efficiency improvement in the business operation</i></p> <p>Clause 17.1 The powers and function of the Minister under this Act are</p> <p><i>iii) to set general policies on tariff determination and service provision of Licensee</i></p>	<p>.....</p> <p>Clause 14.1 Tariff Regulation</p> <p>The Authority may regulate</p> <p><i>(iii) charges for connection to, and the use of any transmission system, including both domestic and external users (in case of cross border trade)</i></p> <p>Note: With reference to the clauses mentioned, the Authority shall provide appropriate mechanism for determination of charges for transmission usage based on following principles:</p> <ul style="list-style-type: none"> - Transparent allocation of costs - Compensate users for actual usage of system - Compensate owners of existing transmission assets

Tariff Determination Regulation, 2007 (Updated as of August 2013)

S. No.	Clause	Recommended Changes
	<p>Clause 1.5:</p> <p><i>All electricity tariffs for sale of electricity shall comply with the terms of this regulation, except for:</i></p> <ul style="list-style-type: none"> <i>i) Import of electricity from other countries;</i> <i>ii) Export of electricity to other countries;</i> 	<p>Note: Tariff Regulations apply to generation, transmission and distribution of electricity in Bhutan. In case of generators exporting power to other countries the tariff may be negotiated and agreed on case to case basis. Hence no change required in the existing regulations</p>

Grid Code Regulation 2008

S. No.	Clause	Recommended Changes
	<p>Clause 4: Planning Code</p> <p>Clause 4.1: Introduction</p> <p>4.1.1</p> <p>4.1.2 This section specifies the policy and procedures which shall be applied in planning of the Transmission System</p>	<p>Clause 4: Planning Code</p> <p>Clause 4.1: Introduction</p> <p>4.1.1</p> <p>4.1.2 This section specifies the policy and procedures which shall be applied in planning of the Transmission System.</p>
	<p>Clause 4.2 Objective</p> <p>The objectives of the planning code are to:</p> <ul style="list-style-type: none"> i. Specify the principles, procedures and criteria which shall be used in the planning and development of the Transmission System; ii. Promote co-ordination amongst all the Licensees in any proposed development of the Transmission System; iii. Identify the planning studies to be performed; and iv. Provide methodology and information exchange amongst the Licensees in the planning and development of the Transmission System. 	<p>Clause 4.2 Objective</p> <p>The objectives of the planning code are to:</p> <ul style="list-style-type: none"> i. Specify the principles, procedures and criteria which shall be used in the planning and development of the Transmission System; ii. Promote co-ordination amongst all the Licensees in any proposed development of the Transmission System including cross border transmission links; iii. Identify the planning studies to be performed taking into consideration existing & planned cross border electricity trade; iv. Provide methodology and information exchange amongst the Licensees in the planning and development of the Transmission System.
	<p>Clause 4.3 Scope</p> <p>This section applies to the Transmission Licensee, Generation Licensees and the Distribution Licensees connected to and/or using and involved in developing the Transmission System.</p> <p>Clause 4.4</p>	<p>Clause 4.3 Scope</p> <p>This section applies to the Transmission Licensee, Generation Licensees and the Distribution Licensees connected to and/or using and involved in developing the Transmission System including cross border transmission links.</p> <p>Clause 4.4</p>

Grid Code Regulation 2008

S. No.	Clause	Recommended Changes
	<p>Clause 4.5: Grid Planning Studies</p> <p>4.5.1 The System Operator shall prepare aggregated medium term (5 years) and long-term (10 years) load forecasts for the overall system. These plans shall include the identification of likely power and energy balances and the possibilities of export as well as capacity and/or energy deficits during the planning period.</p> <p>4.5.2 The System Operator shall review and revise all plans for the expansion of the generation capacity. Based on these plans, the System Operator shall prepare a medium term expansion plan for the generation capacity comparing the different alternatives and identifying an estimated least cost expansion plan.</p> <p>4.5.3 The Transmission Licensee shall conduct Grid Planning Studies to ensure the safety, reliability, security, sufficiency and stability of the Transmission System. Grid Planning Studies shall:</p> <ul style="list-style-type: none"> i. Assess the impact on the Transmission System or to any User system of any demand forecast or any proposed addition or change of equipment facilities in the Transmission System and to identify the corrective measures to eliminate the deficiency in the Transmission System. All transmission connections with the Transmission System shall be taken into consideration while performing the Planning studies; ii. iii. 	<p>Clause 4.5: Grid Planning Studies</p> <p>4.5.1 The System Operator shall prepare aggregated medium term (5 years) and long-term (10 years) load forecasts for the overall system. These plans shall include the identification of likely power and energy balances and the possibilities of export as well as capacity and/or energy deficits during the planning period.</p> <p>4.5.2 The System Operator shall review and revise all plans for the expansion of the generation capacity. Based on these plans, the System Operator shall prepare a medium term expansion plan for the generation capacity comparing the different alternatives and identifying an estimated least cost expansion plan.</p> <p>4.5.3 The Transmission Licensee shall conduct Grid Planning Studies to ensure the safety, reliability, security, sufficiency and stability of the Transmission System. Grid Planning Studies shall:</p> <ul style="list-style-type: none"> i. Assess the impact on the Transmission System or to any User system of any demand forecast or any proposed addition or change of equipment facilities in the Transmission System and to identify the corrective measures to eliminate the deficiency in the Transmission System. All transmission connections (including existing and planned cross border interconnections) with the Transmission System shall be taken into consideration while performing the Planning studies; ii. iii.

Grid Code Regulation 2008

S. No.	Clause	Recommended Changes
	<p>Clause 4.7 Planning Data</p> <p>4.7.1 All Licensees and Users shall provide all data as required by the System Operator to execute the coordinated planning of the operation and expansion of the system. Such data should include, but not necessary be limited to:</p> <ul style="list-style-type: none"> i. Load forecasts; ii. Technical and economical characteristics of generation units, including capital and operational costs of the units; and iii. Technical and economical characteristics of the relevant transmission and distribution systems. <p>4.7.2</p> <p>4.7.3</p>	<p>Clause 4.7 Planning Data</p> <p>4.7.1 All Licensees and Users shall provide all data as required by the System Operator to execute the coordinated planning of the operation and expansion of the system. Such data should include, but not necessary be limited to:</p> <ul style="list-style-type: none"> i. Load forecasts; ii. Technical and economical characteristics of generation units, including capital and operational costs of the units; and iii. Technical and economical characteristics of the relevant transmission and distribution systems including that for import and export of electricity. <p>4.7.2</p> <p>4.7.3</p>
	<p>Clause 4.8 Implementation of Transmission Plan</p> <p>The investment programme to install new transmission lines, reactors and capacitors shall be prepared by the Transmission Licensee in consultation with the concerned agencies and submit the same to the Authority for approval. The completion of these works, in the required time frame, shall be ensured by the Transmission Licensee.</p>	<p>Clause 4.8 Implementation of Transmission Plan</p> <p>The investment programme to install new transmission lines (including that for import and export of electricity), reactors and capacitors shall be prepared by the Transmission Licensee in consultation with the concerned agencies and submit the same to the Authority for approval. The completion of these works, in the required time frame, shall be ensured by the Transmission Licensee.</p>

National Transmission Grid Master Plan (NTGMP) : National Transmission Grid Master Plan (NTGMP) recognizes power trade (both export & import) with India. The Plan mentions about planned projects likely for export, corresponding transmission links, etc. Additionally, it also mentions about grid reinforcements in India would be undertaken in a phased manner, corresponding to the commissioning schedule of various hydropower projects in Bhutan.

Imbalance Settlement

Grid Code Regulation 2008

S. No.	Clause	Recommended Changes
	<p>Clause 7: Scheduling and Dispatch Code</p> <p>7.1 Introduction</p> <p>7.1.1 <i>The entire Bhutan Grid operates in synchronism with the Indian Grid and the major generation in Bhutan is envisaged to be exported to the Indian Grid as per Memorandum of Understanding between the Royal Government of Bhutan and Government of India.</i></p> <p><i>The Scheduling and Dispatch Code for Bhutan has to be technically compatible with the Scheduling and Dispatch Code of the Indian Electricity Grid Code Regulation.</i></p> <p>Clause 7.2 Objective</p> <p>7.2.1 <i>This section deals with the procedures to be adopted for scheduling of the various generating stations in Bhutan, export to India and drawal by various Distribution Licensees within the country on a daily basis with the modality of flow of information between the agencies involved in the process.</i></p> <p>Clause : 7.3 Scope</p> <p>7.3.1 <i>This Section shall apply to the System Operator, Generation Licensees, Distribution Licensees and Large Consumers.</i></p> <p>7.3.2 <i>The scheduling and dispatch procedure for scheduling of drawal by the Indian purchasers from Bhutan shall be as per the bilateral agreements between the contracting parties.</i></p>	<p>Note: Imbalance Settlement Mechanism shall be explicitly defined through enactment of separate regulations/orders under the Act. The regulations shall include various provisions such as Methodology for determination of imbalance/ deviation charges, Limits on deviation volume and consequences of violating limits, Accounting of Charges for Deviation; Schedule of Payment of Charges for Deviation, etc. which accordingly will be applicable on CBET.</p>

Dispute Resolution

Bhutan Sustainable Hydropower Policy 2008

S. No.	Clause	Recommended Changes
	<p>Clause 7: Dispute Resolution</p> <p>7.1: Any difference and/or disputes arising at any time between the parties shall be resolved through mutual negotiations, failing which the matter may be resolved through dispute resolution mechanism as specified in the Project Development Agreement (PDA) and concession agreement (CA)</p>	<p>Clause 7: Dispute Resolution</p> <p>7.1: Any difference and/or disputes arising at any time between the parties shall be resolved through mutual negotiations, failing which the matter may be resolved through dispute resolution mechanism as specified in the Project Development Agreement (PDA) and concession agreement (CA). <i>If unresolved, the exporting/importing country may choose to refer the dispute to the SAARC Arbitration Council. The SAARC Arbitration Rules shall govern the arbitration procedure.</i></p>

Dispute Resolution Procedure 2009

S. No.	Clause	Recommended Changes
	<p>Clause 2: Scope and Coverage</p> <p>(i) This procedure shall apply to settle disputes between Licensees and between Licensees and Customers relating to the enforcement of the Electricity Act of Bhutan, 2001 and Regulations, Codes, Standards and Licenses thereof.</p> <p>(ii) Nothing in this procedure shall prejudice any right of the parties to have recourse to dispute settlement procedures available under any other Laws of the Kingdom of Bhutan.</p> <p>(iii) Once dispute settlement proceedings have been initiated under this procedure or under any other Laws concerning a particular right or obligation of such parties arising under the Electricity Act of Bhutan, 2001, the forum selected by the complaining party shall be used to the exclusion of any other forum for such disputes.</p>	<p>Clause 2: Scope and Coverage</p> <p>(i) This procedure shall apply to settle disputes between Licensees and between Licensees and Customers relating to the enforcement of the Electricity Act of Bhutan, 2001 and Regulations, Codes, Standards and Licenses thereof.</p> <p>(ii) Nothing in this procedure shall prejudice any right of the parties to have recourse to dispute settlement procedures available under any other Laws of the Kingdom of Bhutan.</p> <p>(iii) Once dispute settlement proceedings have been initiated under this procedure or under any other Laws concerning a particular right or obligation of such parties arising under the Electricity Act of Bhutan, 2001, the forum selected by the complaining party shall be used to the exclusion of any other forum for such disputes.</p> <p><i>(iv) In case of dispute between parties (where parties are engaged in importing and exporting of electricity shall be resolved through mutual negotiations, failing which the matter may be resolved through dispute resolution mechanism as specified in the Project Development Agreement (PDA) and concession agreement (CA).</i></p> <p><i>If unresolved, the exporting/importing country may choose to refer the dispute to the SAARC Arbitration Council. The SAARC Arbitration Rules shall govern the arbitration procedure.</i></p>

Taxes & Duties

S. No.	Clause	Recommended Changes
		<p data-bbox="852 211 1064 237">Additional Clause</p> <p data-bbox="852 282 1875 419">No form of tax, custom duty or transit tax shall be applicable on export and import of electricity. Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity.</p>

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1.	<i>Electricity Act 2003</i>	<p>a) Licensing: <i>Cross Border Electricity Trading to be a licensed activity</i></p> <p>b) Open Access: <i>The Central Electricity Regulatory Commission shall facilitate cross border trade through amendments in extant regulations on open access, power trading, competitive markets etc.</i></p>
Policies & Regulations		
1	<i>National Electricity Policy 2005</i>	<p>a) Licensing: <i>Function of CERC to include issuing of license for CBET</i></p> <p>b) Open Access: <i>Additional Clause to include specific provision on OA w.r.t CBET. CERC shall provide facilitative framework for non-discriminatory OA to exporting/importing countries.</i></p>
2	<i>Procedure, Terms & Conditions for grant of trading license & other related matters) Regulations, 2009 & subsequent Amendment 2012</i>	<i>The recent amendment in the regulations mentions about the import and export of electricity. The regulations shall extend its existing coverage to include various provisions (on Qualification, Capital adequacy and liquidity requirement, Disqualification, Procedure for Grant of license, Submission of information, Standards of Performance, Revocation of license, etc.) and shall be applicable in a suitable form for CBET</i>
3	<i>Open Access in Inter-state Transmission Regulations, 2004</i>	<i>The Regulations to be applicable to CBET</i>
4	<i>The Tariff Policy, 2006</i>	<i>The Commission shall through notification of appropriate orders enable POSOCO to determine charges for use of National transmission system for the purpose of CBET. POSOCO shall determine Point of Connection charges at various external interconnection points.</i>
5	<i>Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010</i>	<i>Changes/amendments to extend the regulations to include all cross border interconnections and determination of charges at various external nodes.</i>
6	<i>National Electricity Plan 2013</i>	<i>No changes required as the Plan takes into consideration CBET</i>
7	<i>(Deviation Settlement Mechanism & related matters) Regulations, 2014</i>	<i>To be applicable to CBET. The Regulation shall be suitably amended to incorporate necessary provisions related to CBET</i>
8	<i>Indian Electricity Grid Code 2010 with subsequent amendments in 2012 and 2014)</i>	<i>The IEGC shall include standards and codes for external interconnection with neighbouring countries to facilitate cross border trade. The Grid Code shall be suitably amended to define technical specifications for external interconnectors and other standards/codes essential for cross border flows.</i>

The Electricity Act 2003

S. No.	Clause	Recommended Changes
	<p>Definition</p> <p>(26): "electricity trader" means a person who has been granted a license to undertake trading in electricity.... "</p> <p>Section 14: Grant of License</p> <p><i>The Appropriate Commission may, on an application made to it under section 15, grant a license to any person -</i></p> <p><i>(a) to transmit electricity as a transmission licensee; or</i></p> <p><i>(b) to distribute electricity as a distribution licensee; or</i></p> <p><i>(c) to undertake trading in electricity as an electricity trader, in any area as may be specified in the license</i></p>	<p>(26): "electricity trader" means a person who has been granted a license to undertake trading in electricity....<i>This shall also include cross border trading</i> "</p> <p>Section 14: Grant of License</p> <p><i>The Appropriate Commission may, on an application made to it under section 15, grant a license to any person -</i></p> <p><i>(a) to transmit electricity as a transmission licensee; or</i></p> <p><i>(b) to distribute electricity as a distribution licensee; or</i></p> <p><i>(c) to undertake trading in electricity as an electricity trader, in any area as may be specified in the license,</i></p> <p>Note: Cross border trading shall be recognized and accordingly various provisions (on eligibility, procedure, grant of license, power & duties, exemptions, revocation of license, modification and enforcement of license etc.) shall also be applicable in a desired form on cross border trading.</p> <p>Further, the Commission shall facilitate cross border trade through amendments in extant regulations/notification of separate orders on cross border trading activities.</p>

The National Electricity Policy, 2005

S. No.	Clause	Recommended Changes
	<p>Clause 5.7.1 (a)-</p> <p><i>“It is the function of the Central Electricity Regulatory Commission to issue license for inter-state trading which would include authorization for trading throughout the country”.</i></p> <p>Clause 5.7.1 (f)-</p> <p><i>Enabling regulations for inter and intra State trading and also regulations on power exchange shall be notified by the appropriate Commissions</i>”</p>	<p>Clause 5.7.1 (a)-</p> <p><i>“It is the function of the Central Electricity Regulatory Commission to issue license for inter-state trading which would include authorization for trading throughout the country. It shall also include authorization of cross border trading activities.</i></p> <p>Clause 5.7.1 (f)-</p> <p><i>“Enabling regulations for interstate, intra State and cross border trading and also regulations on power exchange shall be notified by the appropriate Commissions</i>”</p> <p>Note: The Commission shall accordingly make necessary amendments in extant regulations on trading license or notify separate orders to include provisions of license on cross border trading activities</p>

Procedure, Terms and Conditions for grant of trading licence and other related matters) Regulations, 2009 and subsequent Amendment 2012

S. No.	Clause	Recommended Changes
	<p>Definition-</p> <p><i>(k) “inter-State trading” means transfer of electricity from the territory of one State for re-sale to the territory of another State and includes electricity imported from any other country for re-sale within India or exported to any other country subject to compliance with applicable Laws and clearance by appropriate authorities</i></p>	<p>With reference to the clause, the Commission shall facilitate cross border trade (import and export) through amendments in the extant regulations. Accordingly various provisions (on Qualification, Capital adequacy and liquidity requirement, Disqualification, Procedure for Grant of license, Submission of information, Standards of Performance, Revocation of license, etc.) shall be applicable in a desired form on cross border trading. Provisions specific to cross border trade shall also be included as required.</p>

The Electricity Act 2003

S. No.	Clause	Recommended Changes
	<p>Definition</p> <p><i>(47) “open access” means the non-discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system by any licensee or consumer or a person engaged in generation in accordance with the regulations specified by the Appropriate Commission</i></p> <p>Section 38: Central Transmission Utility and functions</p> <p><i>(2) The functions of the Central Transmission Utility shall be</i></p> <p>.....</p> <p><i>(d) to provide non-discriminatory open access to its transmission system for use by-</i></p> <p><i>(i) any licensee or generating company on payment of the transmission charges; or</i></p>	<p>.....</p> <p>Section 38: Central Transmission Utility and functions</p> <p><i>(2) The functions of the Central Transmission Utility shall be</i></p> <p>.....</p> <p><i>(d) to provide non-discriminatory open access to its transmission system for use by-</i></p> <p><i>(i) any licensee or generating company on payment of the transmission charges; or</i></p> <p><i>(ii) any licensee or generating company engaged in cross border trade on payment of the transmission charges</i></p> <p>The Central Commission shall facilitate cross border trade through amendments in extant regulations on open access, power trading, competitive markets etc.</p>

National Electricity Policy, 2005

S. No.	Clause	Recommended Changes
	<p>Clause 5.3.3- Ensuring Energy Security</p> <p><i>“.....The Act mandates non-discriminatory open access in transmission from the very beginning. When open access to distribution networks is introduced by the respective State Commissions for enabling bulk consumers to buy directly from competing generators, competition in the market would increase the availability of cheaper and reliable power supply. The Regulatory Commissions need to provide facilitative framework for non-discriminatory open access. This requires load dispatch facilities with state-of-the art communication and data acquisition capability on a real time basis....”</i></p> <p>Clause 5.3.4-</p> <p><i>“.....Non-discriminatory open access shall be provided to competing generators supplying power to licensees upon payment of transmission charge to be determined by the appropriate Commission. The appropriate Commissions shall establish such transmission charges.....”</i></p> <p>Clause 5.3.6-</p> <p><i>“....The necessary regulatory framework for providing non-discriminatory open access in transmission as mandated in the Electricity Act 2003 is essential for signalling efficient choice in locating generation capacity and for encouraging trading in electricity for optimum utilization of generation resources and consequently for reducing the cost of supply...”</i></p>	<p>(Additional clause): The clause shall include specific provision on OA w.r.t cross border electricity trade with neighbouring countries. The Central Regulatory Commission shall provide facilitative framework for non-discriminatory open access to exporting/importing countries. Further, the Commission shall ensure that users of the system are required to pay such tariff for usage of system which is based on efficient pricing mechanism</p>

Open Access in Inter-state Transmission Regulations, 2004 (Principal Regulations)

S. No.	Clause	Recommended Changes
	<p>Extent of Application</p> <p><i>“These regulations shall apply for access to inter-state transmission system”</i></p>	<p>Extent of Application</p> <p><i>“These regulations shall apply for access to inter-state transmission system to both domestic players as well as external exporting/importing entities undertaking cross border power transactions”</i></p> <p>With reference to above, the Commission shall use its powers to amend regulation for inclusion of such provisions that facilitates cross border trade and non-discriminatory access to the transmission system to any entity that intends to use the system for the purpose of wheeling power for cross border power transactions.</p> <p>The following provisions in the extant regulations on Nodal agency, Eligibility criteria, Application process, Priority order of Open Access consumers, Allotment of Transmission capacity, Applicable charges etc. shall be extended to cross border trading.</p>

The Tariff Policy, 2006

S. No.	Clause	Recommended Changes
	<p>Clause 7.1: Transmission Pricing</p> <p>1) A suitable transmission tariff framework for all inter-State transmission, including transmission of electricity across the territory of an intervening State as well as conveyance within the State which is incidental to such inter-state transmission, needs to be implemented with the objective of promoting effective utilization of all assets across the country and accelerated development of new transmission capacities that are required.</p> <p>(2) The National Electricity Policy mandates that the national tariff framework implemented should be sensitive to distance, direction and related to quantum of power flow. This would be developed by CERC taking into consideration the advice of the CEA. Such tariff mechanism should be implemented by 1st April 2006.</p> <p>(3)Transmission charges, under this framework, can be determined on MW per circuit kilometer basis, zonal postage stamp basis, or some other pragmatic variant, the ultimate objective being to get the transmission system users to share the total transmission cost in proportion to their respective utilization of the transmission system. The overall tariff framework should be such as not to inhibit planned development/augmentation of the transmission system, but should discourage non-optimal transmission investment.</p>	<p>Clause 7.1: Transmission Pricing</p> <p>1) A suitable transmission tariff framework for all inter-State transmission, including transmission of electricity across the territory of an intervening State as well as conveyance within the State which is incidental to such inter-state transmission, transmission of electricity as consequence of cross border trade with the neighbouring countries, needs to be implemented with the objective of promoting effective utilization of all assets across the country and accelerated development of new transmission capacities that are required.</p> <p>With reference the clauses mentioned, the Commission shall through notification of appropriate orders enable POSOCO to determine charges for use of National transmission system by exporters/importers for the purpose of cross border trade.</p> <p>POSOCO shall determine Point of Connection charges at various external interconnection points.</p>

Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010

S. No.	Clause	Recommended Changes
	<p>Definitions-</p> <p>Clause 1(i)- Basic Network shall mean the power system of the country at voltage levels 132 kV and above and 110 kV where generators are connected, HVDC transmission network and all Generator and loads connected to it</p> <p>Clause 1(k)- Deemed Inter State Transmission System (Deemed ISTS) means such transmission system which has regulatory approval of the Commission as being used for interstate transmission of power and qualified as ISTS for the purpose of these Regulations unless otherwise specified</p> <p>Clause 1(l)- Designated ISTS Customers ('DIC's) means the users of any segments/elements of the ISTS and shall include all generators, state transmission utilities, SEBs or load serving entities directly connected to the ISTS including Bulk Consumer and any other entity/person;</p>	<p>Definitions-</p> <p>Clause 1(i)- Basic Network shall mean the power system of the country at voltage levels 132 kV and above and 110 kV where generators are connected, HVDC transmission network and all Generator and loads connected to it, points of external interconnection with neighbouring countries.</p> <p>Clause 1(k)- Deemed Inter State Transmission System (Deemed ISTS) means such transmission system which has regulatory approval of the Commission as being used for interstate transmission of power, transmission system used for cross border power transmission and qualified as ISTS for the purpose of these Regulations unless otherwise specified.</p> <p>Clause 1(l)- Designated ISTS Customers ('DIC's) means the users of any segments/elements of the ISTS and shall include all generators, state transmission utilities, SEBs or load serving entities directly connected to the ISTS including Bulk Consumer, entities involved in cross border electricity trade and any other entity/person;</p> <p>Relevant provisions shall be amended and new provisions shall be included w.r.t cross border trade. Accordingly the regulations shall enable POSOCO to determine Point of Connection charges at various external interconnection points.</p>

Transmission Planning

National Electricity Plan 2013

S. No.	Clause	Recommended Changes
		<p>Note: The National Electricity Plan covers transmission scheme details for power projects in Bhutan, Nepal, Bangladesh and Myanmar, transmission lines that need to be augmented for Import of electricity from Bhutan. Further it comprises perspective transmission Plan for evacuation of Power from projects in Bhutan, Myanmar, Nepal transmission system under implementation stage and details of transmission system for import of surplus power from Bhutan, 2020.</p> <p>The Plan does not cover cross border trade with other neighboring countries such as Pakistan and Sri Lanka.</p> <p>Hence no changes required.</p>

Imbalance Settlement

(Deviation Settlement Mechanism and related matters) Regulations, 2014

S. No.	Clause	Recommended Changes
	<p>Clause 4: Scope</p> <p><i>These regulations shall be applicable to sellers and buyers involved in the transactions facilitated through short-term open access or medium-term open access or long-term access in inter-State transmission of electricity.</i></p>	<p>Clause 4: Scope</p> <p>These regulations shall be applicable to sellers and buyers involved in the transactions facilitated through short-term open access or medium-term open access or long-term access in inter-State transmission, including import and export with neighbouring countries.</p> <p>Note: The Regulation shall be suitably amended to incorporate necessary provisions related to CBET</p>

Indian Electricity Grid Code 2010 with subsequent amendments in 2012 and 2014)

S. No.	Clause	Recommended Changes
	<p>PREAMBLE</p> <p><i>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 subsection (2) of Section 178 of the Act. The IEGC also lays down the rules, guidelines and standards to be followed by various persons and participants in the system to plan, develop, maintain and operate the power system, in the most secure, reliable, economic and efficient manner, while facilitating healthy competition in the generation and supply of electricity.</i></p>	<p>PREAMBLE</p> <p><i>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. The IEGC also lays down the rules, guidelines and standards to be followed by various persons and participants in the system to plan, develop, maintain, operate the power system, in the most secure, reliable, economic and efficient manner, while facilitating healthy competition in the generation and supply of electricity.</i></p> <p><i>The IEGC shall also include standards and codes for external interconnection with neighbouring countries to facilitate cross border trade.</i></p> <p>Note: The Grid Code shall be suitably amended to define technical specifications for external interconnectors and other standards/codes essential for cross border flows through external interconnection.</p>

Dispute Resolution

Electricity Act 2003

S. No.	Clause	Recommended Changes
	<p>Clause 158:</p> <p><i>Where any matter is, by or under this Act, directed to be determined by arbitration, the matter shall, unless it is otherwise expressly provided in the license of a licensee, be determined by such person or persons as the Appropriate Commission may nominate in that behalf on the application of either party; but in all other respects the arbitration shall be subject to the provisions of the Arbitration and Conciliation Act, 1996.</i></p>	<p>Note: Disputes related to cross border transactions to be resolved in accordance with the procedures mentioned in existing agreements/ contracts. Over a period of time, such disputes shall be referred to and resolved by the SAARC Arbitration Council. The SAARC Arbitration Rules shall govern the arbitration procedure.</p>

Taxes & Duties

S. No.	Clause	Recommended Changes
		<p>No form of tax, custom duty or transit tax shall be applicable on export and import of electricity. Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity.</p>

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1.	<i>Electricity Act 2049 (1992)</i>	<p>a) Licensing: <i>CBET to be a licensed activity</i></p> <p>b) Taxes & Duties: <i>Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity.</i></p>
Policies & Regulations		
1	<i>Hydropower Development Policy 2001</i>	<p>a) Licensing: <i>CBET to be a licensed activity</i></p> <p>b) Transmission Pricing: <i>Currently, the Electricity Tariff Fixation Commission (ETFC) does not specify separate charges for transmission usage including use of National Grid for cross border trading activities. Hence the NEA in consultation with ETFC shall notify appropriate orders that will enable determination of single point charges for injection and withdrawal at external interconnections.</i></p>
2	<i>Electricity Rule 2050</i>	Licensing: <i>Procedure for obtaining a License</i>
3	<i>Dispute Resolution</i>	<i>Note: Disputes related to cross border transactions to be resolved in accordance with the procedures mentioned in existing agreements/ contracts. Over a period of time, such disputes shall be referred to and resolved by the SAARC Arbitration Council. The SAARC Arbitration Rules shall govern the arbitration procedure.</i>
<p>Since Changes in the Acts is a long drawn process, enablement of essential factors/ingredients for CBET can be undertaken through drafting of separate regulations/notifications/orders for the following aspects:</p> <p>(i) <i>Open Access (Specific provisions on access to National transmission network for importing/exporting entities shall be defined separately.)</i></p> <p>(ii) <i>Imbalance Settlement</i></p>		

Licensing

Hydropower Development Policy 2001

S. No.	Clause	Recommendations
	<p>6.12.3 (a) The provision of license shall be as follows:</p> <ol style="list-style-type: none">1. Study/ survey License2. Generation License3. Transmission License4. Distribution License <p>6.12.7 License may be granted to export electricity from projects with installed capacity of more than 100 MW and deemed appropriate by His Majesty's Government. The license for such a project shall be issued by His Majesty's Government through invitation of proposals or through negotiation with the applicant, who has submitted application for the license.</p> <p>6.12.8 The license shall be issued by the Ministry of Water Resources.</p> <p>6.12.9 The grounds for granting the license shall be made transparent.</p> <p>.....</p> <p>6.12.11 (2) (b) The export-oriented hydropower project: Thirty years from the date of issuance of the generation license</p> <p>6.12.11(3) The Electricity Transmission and Distribution License:.....</p>	<p>6.12.3 (a) The provision of license shall be as follows:</p> <ol style="list-style-type: none">1. Study/ survey License2. Generation License3. Transmission License4. Distribution License5. Export & Import of Electricity <p>6.12.7 License may be granted to export electricity from projects with installed capacity of more than 100 MW and deemed appropriate by His Majesty's Government. The license for such a project shall be issued by His Majesty's Government through invitation of proposals or through negotiation with the applicant, who has submitted application for the license.</p> <p>6.12.8 The license shall be issued by the Ministry of Water Resources.</p> <p>6.12.9 The grounds for granting the license shall be made transparent</p> <p>.....</p> <p>6.12.11 (2) (b) The export-oriented hydropower project: Thirty years from the date of issuance of the generation license</p> <p>6.12.11(3) The Electricity Transmission and Distribution License:.....</p> <p>6.12.11 (4)...</p> <p>6.12.11 (5)...</p> <p>(XX) The Export and Import License</p> <p>Note: Other conditions of the License viz, term of the license, etc shall be stipulated in the Policy by the Ministry.</p>

Licensing

Electricity Act 2049 (1992)

S. No.	Clause	Recommendations
	<p>Clause 3: No person shall be entitled to conduct survey, generation, transmission or distribution of electricity without obtaining license under this Act.</p> <p><i>Provided that no license shall be required to be obtained by a national or a corporate body for the generation, transmission or distribution of electricity up to 1000 kilowatt and for conducting necessary survey thereof. Before generating, transmitting or distributing hydroelectricity of the capacity ranging from 100 kilowatt to 1000 kilowatt, information to that effect shall be given to the prescribed officer in a manner as prescribed.</i></p>	<p>Clause 3: No person shall be entitled to conduct survey, generation, transmission, distribution, <i>import or export</i> of electricity without obtaining license under this Act.</p>

Licensing

Electricity Act 2049 (1992)

S. No.	Clause	Recommendations
	<p>Clause 4: Provisions of License: (1) A person or a corporate body, who desires to conduct survey, generation, transmission or distribution of electricity, shall be required to submit an application to the prescribed officer along with the economic, technical and environmental study report and with other prescribed particulars on the relevant subject.</p> <p><i>Provided that such study report shall not be required to be included while applying for the license to conduct the survey relating to electricity.</i></p> <p>(2) On receipt of an application pursuant to Sub-section (1) the prescribed officer shall have to examine or cause to examine necessary enquiries and shall have to issue license to the applicant according to the format as prescribed within 30 days of receipt of such application in case of license for conducting survey relating to electricity and within 120 days in as of license for generation, transmission or distribution of electricity.</p> <p>(3) A person or a corporate body, who is doing generation, transmission or distribution of electricity prior to the commencement of this Act, shall be required to submit an application along with prescribed particulars to the prescribed officer within one year from the date of the commencement of this Act except otherwise provided in the proviso clause of Section 3.</p> <p>(4) On receipt of an application pursuant to Sub-section (3) the prescribed officer after examining necessary enquiries, shall issue the license according to the format as prescribed within 60 days of receipt of such application.</p>	<p>Clause 4: Provisions of License: (1) A person or a corporate body, who desires to conduct survey, generation, transmission, distribution or import & export of electricity, shall be required to submit an application to the prescribed officer along with the economic, technical and environmental study report and with other prescribed particulars on the relevant subject.</p> <p><i>Provided that such study report shall not be required to be included while applying for the license to conduct the survey relating to electricity.</i></p> <p>(2) On receipt of an application pursuant to Sub-section (1) the prescribed officer shall have to examine or cause to examine necessary enquiries and shall have to issue license to the applicant according to the format as prescribed within 30 days of receipt of such application in case of license for conducting survey relating to electricity and within 120 days in as of license for generation, transmission, distribution or import & export of electricity.</p> <p>(3) A person or a corporate body, who is doing generation, transmission, distribution or import & export of electricity prior to the commencement of this Act, shall be required to submit an application along with prescribed particulars to the prescribed officer within one year from the date of the commencement of this Act except otherwise provided in the proviso clause of Section 3.</p> <p>(4) On receipt of an application pursuant to Sub-section (3) the prescribed officer after examining necessary enquiries, shall issue the license according to the format as prescribed within 60 days of receipt of such application.</p>

Licensing

Electricity Act 2049 (1992)

S. No.	Clause	Recommendations
	<p>Clause 5: Terms of License: (1) The term of license to be issued for the survey of electricity may be of 5 (Five) years in maximum.</p> <p>(2) The term of license to be issued for generations, transmission or distribution of electricity may be of 50 (Fifty) years in maximum.</p> <p>(3) In case a license is issued for a term less than prescribed term in Subsection (1) or (2), it shall be required to be renewed before one year of expiry of the term stipulated in the license.</p> <p>(4) If the license is not renewed pursuant to Sub-section (3) such license shall be void.</p>	<p>Clause 5: Terms of License: (1) The term of license to be issued for the survey of electricity may be of 5 (Five) years in maximum.</p> <p>(2) The term of license to be issued for generations, transmission, distribution <i>or import & export</i> of electricity may be of 50 (Fifty) years in maximum.</p> <p>(3) In case a license is issued for a term less than prescribed term in Subsection (1) or (2), it shall be required to be renewed before one year of expiry of the term stipulated in the license.</p> <p>(4) If the license is not renewed pursuant to Sub-section (3) such license shall be void.</p>
	<p>Clause 7: Matters to be observed by the Licensee: Matters to be observed by the licensee in relation to survey, generation, transmission or distribution of electricity shall be as prescribed.</p>	<p>Clause 7: Matters to be observed by the Licensee: Matters to be observed by the licensee in relation to survey, generation, transmission, distribution <i>or import & export</i> of electricity shall be as prescribed.</p>

Licensing

Electricity Rule 2050

S. No.	Clause	Recommendations
	<p>Clause 15: Examination of Application:- (1) The Secretary by him/herself or through the Electricity Development Department shall examine or' cause to examine the application seeking license for production, transmission or distribution of electricity received pursuant to Rules 12, 13 or 14 to see whether or not the applicant has submitted the necessary documents, particulars or report to be submitted under the Act and these Rules.</p> <p>(2) While</p> <p>(3) In case</p> <p>Clause 16: Public Notice to be Published:- (1) On receipt of application seeking to obtain license for production, transmission or distribution of electricity pursuant to Rules 12, 13 or 14, the Electricity Development Department shall, after making necessary examination of application under Rule 15, publish a notice stating the necessary particulars for the information of general public</p>	<p>To be Added: Application to be submitted to obtain a License for Import & Export of Electricity. Any person or corporate body, who is interested to import & export electricity, shall have to submit an application stating the following particulars relating to the proposed import & export electricity to the Secretary through, the Electricity Development Department in the format as prescribed in Schedule</p> <p>Clause 15: Examination of Application:- (1) The Secretary by him/herself or through the Electricity Development Department shall examine or' cause to examine the application seeking license for production, transmission, distribution, import & export of electricity received pursuant to Rules 12, 13, 14 & XX to see whether or not the applicant has submitted the necessary documents, particulars or report to be submitted under the Act and these Rules.</p> <p>(2) While</p> <p>(3) In case</p> <p>Clause 16: Public Notice to be Published:- (1) On receipt of application seeking to obtain license for production, transmission, distribution, import and export of electricity pursuant to Rules 12, 13, 14 or XXX, the Electricity Development Department shall, after making necessary examination of application under Rule 15, publish a notice stating the necessary particulars for the information of general public.</p>

Licensing

Electricity Rule 2050

S. No.	Clause	Recommendations
	<p>Clause 17: To Issue a License:- The Secretary, after completing or causing to complete the procedures pursuant to Rule 15 and 16, on the applications submitted for production, transmission or distribution of electricity pursuant to Rules 12, 13 and 14, shall issue the license to the applicant in accordance with the demand of applicant or making necessary amendment in the format as prescribed in Schedules 9 (A), 9 (B) or 9 (C) respectively for production, transmission or distribution of electricity.</p>	<p>Clause 17: To Issue a License:- The Secretary, after completing or causing to complete the procedures pursuant to Rule 15 and 16, on the applications submitted for production, transmission, distribution import and export of electricity pursuant to Rules 12, 13, 14 and XX shall issue the license to the applicant in accordance with the demand of applicant or making necessary amendment in the format as prescribed in Schedules 9 (A), 9 (B), 9 (C) or XX respectively for production, transmission, distribution, import & export of electricity.</p>

Licensing

Electricity Rule 2050

S. No.	Clause	Recommendations
		<p><i>To be Added: Application to be submitted to obtain a License for Import & Export of Electricity. Any person or corporate body, who is interested to import & export electricity, shall have to submit an application stating the following particulars relating to the proposed import & export electricity to the Secretary through, the Electricity Development Department in the format as prescribed in Schedule</i></p>
	<p>Clause 15: Examination of Application:- (1) The Secretary by him/herself or through the Electricity Development Department shall examine or' cause to examine the application seeking license for production, transmission or distribution of electricity received pursuant to Rules 12, 13 or 14 to see whether or not the applicant has submitted the necessary documents, particulars or report to be submitted under the Act and these Rules.</p> <p>(2) While</p> <p>(3) In case</p>	<p>Clause 15: Examination of Application:- (1) The Secretary by him/herself or through the Electricity Development Department shall examine or' cause to examine the application seeking license for production, transmission, distribution, <i>import & export</i> of electricity received pursuant to Rules 12, 13, 14 & XX to see whether or not the applicant has submitted the necessary documents, particulars or report to be submitted under the Act and these Rules.</p> <p>(2) While</p> <p>(3) In case</p>

Licensing

Electricity Rule 2050

S. No.	Clause	Recommendations
	<p>Clause 16: Public Notice to be Published:- (1) On receipt of application seeking to obtain license for production, transmission or distribution of electricity pursuant to Rules 12, 13 or 14, the Electricity Development Department shall, after making necessary examination of application under Rule 15, publish a notice stating the necessary particulars for the information of general public.</p> <p>(2)</p> <p>(3)</p>	<p>Clause 16: Public Notice to be Published:- (1) On receipt of application seeking to obtain license for production, transmission, distribution, import and export of electricity pursuant to Rules 12, 13, 14 or XXX, the Electricity Development Department shall, after making necessary examination of application under Rule 15, publish a notice stating the necessary particulars for the information of general public.</p> <p>(2)</p> <p>(3)</p>
	<p>Clause 17: To Issue a License:- The Secretary, after completing or causing to complete the procedures pursuant to Rule 15 and 16, on the applications submitted for production, transmission or distribution of electricity pursuant to Rules 12, 13 and 14, shall issue the license to the applicant in accordance with the demand of applicant or making necessary amendment in the format as prescribed in Schedules 9 (A), 9 (B) or 9 (C) respectively for production, transmission or distribution of electricity.</p>	<p>Clause 17: To Issue a License:- The Secretary, after completing or causing to complete the procedures pursuant to Rule 15 and 16, on the applications submitted for production, transmission, distribution import and export of electricity pursuant to Rules 12, 13, 14 and XX shall issue the license to the applicant in accordance with the demand of applicant or making necessary amendment in the format as prescribed in Schedules 9 (A), 9 (B), 9 (C) or XX respectively for production, transmission, distribution, import & export of electricity.</p>

Open Access

Agreement Between the Government of Nepal and the Government of the Republic Of India on Electric Power Trade, Cross-Border Transmission Interconnection and Grid Connectivity

S. No.	Clause	Recommendations
	Article II (b) The Parties shall allow non-discriminatory access to the cross-border interconnection(s) for all authorized/licensed participants in the common electricity market.	<p>The Electricity Rules 2050, hydropower development policy 2001 and the Electricity Act 2049 (1992) does not mention about Open Access.</p> <p>Note: Such enablement of non-discriminatory open access shall be explicitly defined through enactment of separate regulations/orders under the Act. Specific provisions on access to National transmission network for importing/exporting entities shall be defined separately.</p>

Transmission Pricing

Hydropower Development Policy 2001

S. No.	Clause	Recommendations
	<p>Clause 5.17 The existing institutions in the public sector shall be re-structured to create competitive environment by encouraging the involvement of community/cooperative institutions, local bodies and private sector in generation, transmission and distribution of hydropower in order to extend reliable and qualitative electricity service throughout the Kingdom at a reasonable price.</p>	<p>Clause 5.17 The existing institutions in the public sector shall be re-structured to create competitive environment by encouraging the involvement of community/cooperative institutions, local bodies and private sector in generation, transmission and distribution of hydropower in order to extend reliable and qualitative electricity service throughout the Kingdom and at a reasonable price. <i>This shall also include electricity imported and exported under cross border transactions with neighboring countries.</i></p>

Electricity Act 2049 (1992)

S. No.	Clause	Recommendations
	<p>Clause 16:</p> <p>Clause 17:</p> <p>Clause 18: Separate Tariff and Other Charge may be Assessed: (1) Notwithstanding anything written in Section 17, one who distributes electricity in isolation of the national grid, shall be entitled to fix the electricity tariff and other charges for the electricity so distributed.</p> <p>(2) While fixing electricity tariff and other charges pursuant to Sub-section (1), it may be so fixed that all investments made on electricity generation, transmission or distribution is paid back in average of 25 years by deducting the depreciation cost and a dividend of 25 percent on share capital is earned.</p>	<p>Clause 16:</p> <p>Clause 17:</p> <p>Clause 18: Separate Tariff and Other Charge may be Assessed: (1) Notwithstanding anything written in Section 17, one who distributes electricity in isolation of the national grid, shall be entitled to fix the electricity tariff and other charges for the electricity so distributed.</p> <p>(2) While fixing electricity tariff and other charges pursuant to Sub-section (1), it may be so fixed that all investments made on electricity generation, transmission or distribution is paid back in average of 25 years by deducting the depreciation cost and a dividend of 25 percent on share capital is earned.</p> <p><i>(3) In case of cross border trading activities</i></p> <p>Note: Currently, the Electricity Tariff Fixation Commission (ETFC) does not specify separate charges for transmission usage including use of National Grid for cross border trading activities. Hence the NEA in consultation with ETFC shall notify appropriate orders that will enable determination of single point charges for injection and withdrawal at external interconnections.</p>

Transmission Planning

S. No.		Recommendations
		<p>Transmission and System Operation Business Group is entrusted with the key responsibilities of generation and transmission system planning, system operation, operation and maintenance of national grid and cross border trading of power. The system planning department carries out load forecasting, generation expansion planning and transmission system planning and real time system operation. Similarly, grid operation department carries out all overall operation and maintenance of national grid and power trade department executes the trading of power with IPPs and also carries out the business activities of power exchange and trading of power with India.</p>

Grid Code (Internal Document of the government & not a law)

S. No.	Clause	Recommendations
	<ul style="list-style-type: none"> • <i>Grid Code Chapter 3 dedicated for System Planning</i> • <i>Transmission planning follows the operational limits provided in the Grid Code</i> • <i>Transmission planning is carried out by System Planning Department.</i> • <i>Government of Nepal approves investments in transmission.</i> 	<p>Note: Since this document is not available in the public domain, it is difficult to recommend changes here.</p>

Imbalance Settlement

Agreement Between the Government of Nepal and the Government of the Republic Of India on Electric Power Trade, Cross-Border Transmission Interconnection and Grid Connectivity

S. No.		Recommendations
	<p>Article II (a) <i>The Parties shall mutually work out a coordinated procedure for secure and reliable operation of the national grids interconnected through cross-border transmission interconnection(s) and prepare scheduling, dispatch, energy accounting, settlement and procedures for cross-border power trade and unscheduled interchange.</i></p>	<p>The Electricity Rules 2050, hydropower development policy 2001 and the Electricity Act 2049 (1992) does not mention about Imbalance Settlement.</p> <p>Imbalance Settlement Mechanism shall be explicitly defined through enactment of separate regulations/orders under the Act.</p>

Dispute Resolution

Foreign Investment and Technology Transfer Act, 1992

S. No.	Clause	Recommendations
	<p><i>Disputes to be resolved between the governments as per the conditions mentioned in the agreement.</i></p> <p><i>Section 7.3.3. "According to the section 7 of this Act, if any dispute could not be settled by mutual consultations, it shall be settled by arbitration in accordance with the prevailing arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL). The arbitration shall be held in Kathmandu. The laws of Nepal shall be applicable in the arbitration.</i></p> <p><i>As per 7.4 of this Act, notwithstanding anything contained above, disputes arising in regard to foreign investment made in the industries with investment as prescribed may be settled as mentioned in the foreign investment agreement'.</i></p>	<p>Note: Disputes related to cross border transactions to be resolved in accordance with the procedures mentioned in existing agreements/ contracts. Over a period of time, such disputes shall be referred to and resolved by the SAARC Arbitration Council. The SAARC Arbitration Rules shall govern the arbitration procedure.</p>

TAXES & DUTIES

Electricity Act 2049 (1992)

S. No.	Clause	Recommendations
	<p>Clause 22: Import and Export of Electricity: (1)....</p> <p>(2) <i>The licensee desiring to export electricity generated on its own to the foreign country may do so by entering into an agreement with Government of Nepal on such matter.</i></p> <p>(3) <i>The exporter of electricity pursuant to Sub-section (2) shall have to pay export duty as prescribed to Government of Nepal.</i></p>	<p>Clause 22: Import and Export of Electricity: (1)....</p> <p>(2) <i>The licensee desiring to export electricity generated on its own to the foreign country may do so by entering into an agreement with Government of Nepal on such matter.</i></p> <p>(3) <i>The exporter of electricity pursuant to Sub-section (2) shall not have to pay any export duty, custom duty or taxes as prescribed to Government of Nepal</i></p> <p><i>(4) Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity.</i></p>

Agreement Between the Government of Nepal and the Government of the Republic Of India on Electric Power Trade, Cross-Border Transmission Interconnection and Grid Connectivity

S. No.	Clause	Recommendations
	<p>ARTICLE-IV</p> <p>(a) <i>The Parties shall cooperate on the various aspects of policy harmonization for the realization of cross-border interconnections, grid connectivity and power trade. Both Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity.</i></p>	

Pakistan

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1.	<i>Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 subsequently amended in 2011.</i>	<p>a) Licensing: CBET to be a Licensed Activity</p> <p>b) Open Access & Transmission Pricing: NEPRA shall notify regulation/order to promote competition & enable non-discriminatory access to the transmission system including for CBET & determines transmission charges for the same</p> <p>c) Dispute Resolution: Any dispute w.r.t CBET, beyond the Authority's jurisdiction, the Authority may refer such dispute to the SAARC Arbitration Council.</p>
Policies & Regulations		
1.	<i>NEPRA Licensing (Application & Modification Procedure) Regulations, 1999</i>	Licensing: To include Application & Modification Procedure for CBET
1.	<i>Grid Code 2005</i>	<p>a) Open Access: Entities engaging in import & export of electricity shall be granted Open Access to the transmission system in accordance with the provisions applicable to such cross border transactions.</p> <p>b) Transmission Planning: Planning Process established by NTDC to include specific transmission system reinforcements, upgrading, and expansion projects (for purpose of domestic and cross border electricity trade).</p> <p>c) Imbalance Settlement: NEPRA shall notify detailed Balancing Mechanism. The mechanism shall also include commercial settlement procedure (including incentive, penalty)</p>
1.	<i>NEPRA, (Tariff Standards and Procedure) Rules, 1998</i>	Transmission Pricing: The principles & standards for tariff determination provided in the rules shall also be applicable to tariff for cross border transactions. Prices to be sensitive to distance, direction & quantum of power flow
1.	<i>Guidelines on determination of charges for wheeling of electricity from one point another</i>	<i>Similar charges shall also be required to be paid under cross border power trade arrangements utilizing the transmission system for wheeling of power.</i>
1.	<i>National Power Policy 2013</i>	Transmission Plan: Develop a transmission plan and an energy database. The transmission plan shall comprise a phased approach to plan for development of external interconnections for cross border transactions.
1.	<i>National Power System Expansion Plan 2011 – 2030</i>	Note: The National Power system Expansion Plan 2011-2030 comprises of electricity import from Iran and CASA project. It shall also include cross border trade opportunities within the South Asian region.

Since Changes in the Acts is a long drawn process, enablement of essential factors/ingredients for CBET can be undertaken through drafting of separate regulations/notifications/orders for the following aspects:

- (i) Taxes & Duties (all countries to gradually move to a zero tax regime)
- (ii) Non Discriminatory Open Access

Licensing

Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 subsequently amended in 2011.

S. No	Clause	Recommendations
	<p>Clause 2: Definitions: <i>(xvi) "licence" means a licence issued for generation, transmission or distribution under this Act</i></p> <p>Clause 7: Powers & Functions of the Authority (1).... (2)..... <i>(a) grant licences for generation, transmission and distribution of electric power;</i></p> <p>Chapter III: Licences <i>Clause 15: Generation licence.....</i> <i>Clause 16: Distribution licence</i></p>	<p>Clause 2: Definitions: <i>(xvi) "licence" means a licence issued for generation, transmission, distribution, trading (including export and import) of electricity under this Act</i></p> <p>Clause 7: Powers & Functions of the Authority (1).... (2)..... <i>(a) grant licences for generation, transmission, distribution, trading (including export and import) of electricity of electric power;</i></p> <p>Chapter III: Licences Clause 15: Generation licence Clause 16: Distribution licence Clause XX: Trading License <i>The shall also include licence for export and import of electricity</i></p> <p>(1) No person shall, except under the authority of a license issued by the authority under this Act and subject to the conditions specified in this Act and as may be imposed by the Authority, engage in import and export of electric power</p> <p>(2) An application for a license for import and export of electric power shall be in accordance with the NEPRA Licensing (Application & Modification Procedure) Regulations, 1999 and its subsequent amendments.</p> <p>Note: Trading as a distinct licensed activity shall be recognized and accordingly various provisions (on eligibility, procedure, grant of license, power & duties, exemptions, revocation of license, modification and enforcement of license etc.) shall be applicable in a desired form on trading. This shall also include specific provisions on cross border trade. The Commission shall facilitate cross border trade through amendments in existing regulations (NEPRA Licensing (Application & Modification Procedure) Regulations, 1999) on licensing or through notification of separate orders on the subject.</p>

Licensing

NEPRA Licensing (Application & Modification Procedure) Regulations, 1999

S. No	Clause	Recommendations
	<p>Part II: Clause 3: Application for License:</p> <p>(g) in case of:</p> <p>a) generation licence applications, the type, technology, model, technical details and design of the facilities proposed to be acquired, constructed, developed or installed;</p> <p>b) distribution and transmission licence applications,</p> <p>(i) the type, technology, model, technical details and design of the facilities proposed to be acquired, constructed, developed or installed;</p> <p>(ii) a territorial map of the service area proposed to be covered;</p> <p>(iii) particulars in respect of the availability, sources, rates and evidence of commitments from the sources of electric power.</p>	<p>Part II: Clause 3: Application for License:</p> <p>(g) in case of:</p> <p>a) generation licence applications, the type, technology, model, technical details and design of the facilities proposed to be acquired, constructed, developed or installed;</p> <p>b) distribution and transmission licence applications,</p> <p>(i) the type, technology, model, technical details and design of the facilities proposed to be acquired, constructed, developed or installed;</p> <p>(ii) a territorial map of the service area proposed to be covered;</p> <p>(iii) particulars in respect of the availability, sources, rates and evidence of commitments from the sources of electric power.</p> <p>c) <i>Trading license applications</i></p> <p>(i) <i>eligibility, procedure, grant of license,</i></p> <p>(ii) <i>power & duties,</i></p> <p>(iii) <i>Modification and enforcement of license etc.</i></p> <p>(iv) <i>exemptions, revocation of license,</i></p>

Open Access

Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 subsequently amended in 2011

S. No	Clause	Recommendations
	<p>Clause 18: Responsibilities of National Grid Company. — (1) The national grid company shall be responsible to operate and provide safe, reliable transmission and inter-connection services on a non-discriminatory basis, including to a bulk-power consumer who proposes to become directly connected to its facilities.</p>	<p>Clause 18: Responsibilities of National Grid Company. — (1) The national grid company shall be responsible to operate and provide safe, reliable transmission and inter-connection services on a non-discriminatory basis, including to a bulk-power consumer who proposes to become directly connected to its facilities. <i>This shall also include non – discriminatory access to national grid for the purpose of cross border trade.</i></p> <p>Note: NEPRA shall notify regulation/order to promote competition and enable non-discriminatory access to the transmission system to any entity that intends to use such system for the purpose of wheeling power (including cross border power flows)</p>

Grid Code 2005

S. No	Clause	Recommendations
	<p>Open Access</p> <p>NTDC shall operate the Transmission System in the spirit of “Open Access”. By “Open Access” is meant that all Code Participants (extant and potential) shall be treated fairly and equitably without any discrimination or prejudice.</p> <p>.....</p>	<p>Open Access</p> <p>NTDC shall operate the Transmission System in the spirit of “Open Access”. By “Open Access” is meant that all Code Participants (extant and potential) shall be treated fairly and equitably without any discrimination or prejudice. <i>Similarly entities engaging in import and export of electricity shall be granted Open Access to the transmission system in accordance with the provisions applicable to such cross border transactions.</i></p> <p>.....</p> <p>CASA 1000 project provides for open access to energy corridor for all the member countries</p>

Transmission Pricing

Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 subsequently amended in 2011

S. No	Clause	Recommendations
	<p>Clause 31: Tariff</p> <p><i>“..... the Authority (NEPRA) shall determine and prescribe procedures and standards for determination, modification or revision of rates, charges and terms and conditions for generation of electric power, transmission, inter-connection.....”</i></p> <p><i>The Authority while determining the standards shall</i></p> <p><i>(a) protect consumers against monopolistic and oligopolistic prices;</i></p> <p><i>(b) keep in view the research, development and capital investment programme costs of licensees;</i></p> <p><i>(c) encourage efficiency in licensees operations and quality of service;</i></p> <p><i>(d) encourage economic efficiency in the electric power industry;</i></p> <p><i>(e) keep in view the economic and social policy objectives of the Federal Government; and</i></p> <p><i>(f) determine tariffs so as to eliminate exploitation and minimize economic distortions</i></p>	<p>With reference to the clauses mentioned, the Act shall provide appropriate mechanism for determination of charges for transmission usage based on following principles:</p> <ul style="list-style-type: none"> - Transparent allocation of costs - Compensate users for actual usage of system - Compensate owners of existing transmission assets <p>NEPRA through notification of appropriate orders/amendment of guidelines, shall determine transmission charges applicable to cross border transactions for wheeling of power on the National Grid.</p>

Transmission Pricing

NEPRA,(Tariff Standards and Procedure) Rules, 1998

S. No	Clause	Recommendations
	<p>Part III: Standard and Guidelines</p> <p><i>(3) Tariffs shall be determined, modified or revised on the basis of and in accordance with the following standards, namely</i></p> <ul style="list-style-type: none"> - tariffs should allow licensees the recovery of any and all costs prudently incurred to meet the demonstrated needs of their customers.....; - tariffs should allow licensees a rate of return which promotes continued reasonable investment in equipment and facilities for improved and efficient service; - tariffs should reflect marginal cost principles to the extent feasible, keeping in view the financial stability of the sector; - the Authority shall have a preference for competition rather than regulation and shall adopt policies and establish tariffs towards that end; 	<p>With reference to the clause, the charges for wheeling shall be determined as per the principles defined in the rules.</p> <p>Currently, the power trade arrangement between Afghanistan and Pakistan includes transmission charges to be paid for wheeling power in the National transmission system (CASA Master agreement). The tariff framework shall be sensitive to distance, direction, and related to quantum of power flow. The Authority shall also determine such charges for cross border transactions with other countries based on such principles.</p>

Guidelines on determination of charges for wheeling of electricity from one point another

S. No	Clause	Recommendations
	<p>Point iii:</p> <p><i>For direct sales, the power producers shall be required to pay “Wheeling charges” or Use of System charges”, determined by the NEPRA, for the use of transmission.....</i></p>	<p>Point iii:</p> <p><i>For direct sales, the power producers shall be required to pay “Wheeling charges” or Use of System charges”, determined by the NEPRA, for the use of transmission.....</i> Similar charges shall also be required to be paid under cross border power trade arrangements utilizing the transmission system for wheeling of power.</p>

Transmission Planning

National Power Policy 2013

S. No	Clause	Recommendations
	<p>Clause 4. GOALS</p> <p><i>To achieve the long-term vision of the power sector and overcome its challenges, the Government of Pakistan has set the following nine goals:</i></p> <ul style="list-style-type: none"><i>i. Build a power generation capacity that can meet Pakistan's energy needs in a sustainable manner.</i><i>ii. Create a culture of energy conservation and responsibility</i><i>iii. Ensure the generation of inexpensive and affordable electricity for domestic, commercial, and industrial use by using indigenous resources such as coal (Thar coal) and hydel.</i><i>iv. Minimize pilferage and adulteration in fuel supply</i><i>v. Promote world class efficiency in power generation</i><i>vi. Create a cutting edge transmission network</i><i>vii. Minimize inefficiencies in the distribution system</i><i>viii. Minimize financial losses across the system</i><i>ix. Align the ministries involved in the energy sector and improve the governance of all related federal and provincial departments as well as regulators</i>	<p>Clause 4. GOALS</p> <p>To achieve the long-term vision of the power sector and overcome its challenges, the Government of Pakistan has set the following nine goals:</p> <ul style="list-style-type: none">i. Build a power generation capacity that can meet Pakistan's energy needs in a sustainable manner.ii. Create a culture of energy conservation and responsibilityiii. Ensure the generation of inexpensive and affordable electricity for domestic, commercial, and industrial use by using indigenous resources such as coal (Thar coal) and hydel.iv. Minimize pilferage and adulteration in fuel supplyv. Promote world class efficiency in power generationvi. Create a cutting edge transmission networkvii. Minimize inefficiencies in the distribution systemviii. Minimize financial losses across the systemix. Align the ministries involved in the energy sector and improve the governance of all related federal and provincial departments as well as regulatorsx. Develop a transmission plan and an energy database. The transmission plan shall comprise a phased approach to plan for development of external interconnections for cross border transactions.

Transmission Planning

National Power System Expansion Plan 2011 – 2030

S. No	Clause	Recommendations
		Note: The National Power system Expansion Plan 2011-2030 comprises of electricity import from Iran and CASA project. It shall also include cross border trade opportunities within the South Asian region.

Grid Code 2005

S. No	Clause	Recommendations
	<p>PC 4.2 Procedures for Transmission System Expansion</p> <p><i>NTDC shall establish a planning process that leads to the recommendation of specific transmission system reinforcements, upgrading, and expansion projects. Specific projects shall be defined according to established planning criteria contained in this Grid Code, and in response to load growth, and the NTDC Plan.</i></p> <p><i>The TSEP shall be presented to NEPRA each year as part of the “Annual System Reliability Assessment and Improvement Report”, and shall be in terms of specific projects. The projects shall be identified in terms of: new transmission lines, new transmission circuits, new grid stations, new transformer installations, sub-station bus expansions, voltage control projects, circuit breaker upgrading projects, elimination of congestion bottlenecks, and system stability improvement projects.....</i></p>	<p>PC 4.2 Procedures for Transmission System Expansion</p> <p><i>NTDC shall establish a planning process that leads to the recommendation of specific transmission system reinforcements, upgrading, and expansion projects (for purpose of domestic and cross border electricity trade). Specific projects shall be defined according to established planning criteria contained in this Grid Code, and in response to load growth, and the NTDC Plan.</i></p> <p><i>The TSEP shall be presented to NEPRA each year as part of the “Annual System Reliability Assessment and Improvement Report”, and shall be in terms of specific projects. This shall include projects for domestic and cross border electricity trade and shall be identified in terms of: new transmission lines, new transmission circuits, new grid stations, new transformer installations, sub-station bus expansions, voltage control projects, circuit breaker upgrading projects, elimination of congestion bottlenecks, and system stability improvement projects.</i></p>

Imbalance Settlement

Grid Code 2005

S. No	Clause	Recommendations
	<p>Clause OC 5.1: OPERATING MARGINS</p> <p>OC 5.1.1</p> <p>OC 5.1.2 This sub-code applies to NTDC and to Code Participants which in OC5 means:</p> <p>(a) Generators under Central Dispatch of NTDC.</p> <p>(b) Other Users/Code Participants bound by the Grid Code.</p> <p>OC 5.2.1 The Operating Margin consists of:</p> <p>OC 5.3 Operating Reserve In Real Time</p> <p>OC 5.3.1 The amount of Operating Reserve required in real time shall be pre-determined by the System Operator. Any shortfalls in power plant availability, demand level, and the loss of the largest Generator in a power plant and the effect of the loss of or the increase in load demand on an external interconnection are to be taken into account when determining the total amount of Operating Reserve</p> <p>OC 5.5.1</p> <p>OC 5.5.2</p> <p>5.5.1. The document shall also include details of Operational Reserve that may be provided by Externally-connected systems and also indicate the possible level of High Frequency Response to be utilized by the System Operator in connection with the operation of the Balancing Mechanism</p>	<p>Clause OC 5.1: OPERATING MARGINS</p> <p>OC 5.1.1</p> <p>OC 5.1.2 This sub-code applies to NTDC and to Code Participants which in OC5 means:</p> <p>(a) Generators under Central Dispatch of NTDC.</p> <p>(b) Other Users/Code Participants bound by the Grid Code, including participants involved in cross border trade</p> <p>OC 5.3 Operating Reserve In Real Time</p> <p>OC 5.3.1 The amount of Operating Reserve required in real time shall be pre-determined by the System Operator. Any shortfalls in power plant availability, demand level, and the loss of the largest Generator in a power plant and the effect of the loss of or the increase in load demand on an external interconnection (including cross border interconnections) are to be taken into account when determining the total amount of Operating Reserve</p> <p>OC 5.5.1</p> <p>OC 5.5.2</p> <p>5.5.1. The document shall also include details of Operational Reserve that may be provided by Externally-connected systems (including cross border interconnections) and also indicate the possible level of High Frequency Response to be utilized by the System Operator in connection with the operation of the Balancing Mechanism</p> <p>Note: NEPRA shall notify detailed Balancing Mechanism in accordance with the above provisions. The mechanism shall also include commercial settlement procedure (including incentive, penalty) and other such provisions deemed necessary by the Authority.</p>

Dispute Resolution

Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 subsequently amended in 2011

S. No	Clause	Recommendations
	Clause 11: Tribunals. — The Authority may, from amongst its professional staff, establish special tribunals for resolving contractual disputes between licensees or such other matters as the Authority may assign.	Clause 11: Tribunals. — The Authority may, from amongst its professional staff, establish special tribunals for resolving contractual disputes between licensees or such other matters as the Authority may assign. This shall also include disputes arising from cross border transactions. Provided that for any dispute arising on account of contract for import and/or export of electricity where the Authority believes that dealing with such dispute is beyond the Authority's jurisdiction, the Authority may refer such dispute to the SAARC Arbitration Council. The SAARC Arbitration rules shall govern such Arbitration procedure

Taxes & Duties

S. No	Clause	Recommendations
		<i>No form of tax, custom duty or transit tax shall be applicable on export and import of electricity. Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity.</i>

S. No.	Acts/ Policies & Regulations	Nature of Change Proposed
Electricity Act		
1.	<i>The Sri Lanka Electricity Act, No. 20 OF 2009 (& subsequent amendment in 2013)</i>	<p>a) Licensing: <i>CBET is proposed to be a licensed activity</i></p> <p>b) Open Access: <i>PUCSL to notify regulation/order to promote competition and enable non-discriminatory access to the transmission system (including for cross border power flows)</i></p> <p>c) Transmission Pricing: <i>Transmission prices for cross border transactions to be based on such principles that compensate users for actual usage of system. Prices to be sensitive to distance, direction and quantum of power flow</i></p> <p>d) Dispute Resolution: <i>Provided that for any dispute arising on account of contract for cross border trade of electricity where the commission believes that dealing with such dispute is beyond the commission's jurisdiction, the commission may refer such dispute to the SAARC Arbitration Council. The SAARC Arbitration rules shall govern such arbitration procedures.</i></p>
Policies & Regulations		
1	<i>The Electricity (Applications for Licenses and Exemptions) Regulation, 2009</i>	<i>Necessary changes to be introduced to apply provisions on details of the application form, documents accompanying the application and other requisite information pertaining to grant of license on trading activity. Trading activity shall also include import and export of electricity.</i>
2	<i>National Energy Policy and Strategies of Sri Lanka, 2008</i>	<p>a) Open Access: <i>The Government shall promote cross border trade and guide the Commission on various aspects of CBET for its smooth implementation.</i></p> <p>b) Transmission Planning: <i>National Energy Database to include projects of regional importance and the Transmission Development Plan to take into account external interconnections for cross border electricity trade.</i></p>
3	<i>Regulatory Manual, PUCSL, 2014</i>	Open Access: <i>Basis the rules specified in the manual, the Commission (PUCSL) shall use its powers and notify regulation/order to promote competition and enable non-discriminatory access to the transmission system</i>
4	<i>General Policy Guidelines on the electricity industry for PUCSL</i>	Transmission Pricing: <i>Transmission prices for cross border transactions to be based on such principles that compensate users for actual usage of system. Prices to be sensitive to distance, direction and quantum of power flow</i>
5	<i>Electricity (Dispute Resolution Procedure) Rules</i>	<i>Provided that for any dispute arising on account of contract for cross border trade of electricity where the commission believes that dealing with such dispute is beyond the commission's jurisdiction, the commission may refer such dispute to the SAARC Arbitration Council. The SAARC Arbitration rules shall govern such arbitration procedures.</i>

Licensing

The Sri Lanka Electricity Act, No. 20 OF 2009

S. No.	Clause	Recommended Changes
1.	<p>Chapter III, Part 1: Licensing</p> <p>7 (1) A person shall not -</p> <ul style="list-style-type: none">(a) generate electricity;(b) transmit electricity; or(c) distribute and supply or distribute or supply electricity for the purpose of giving a supply to any premises or enabling a supply to be given to any premises,(d) trade electricity <p>unless he is authorized to do so by a license granted under this Act.....</p>	<p>Chapter III, Part 1: Licensing</p> <p>7 (1) A person shall not -</p> <ul style="list-style-type: none">(a) generate electricity;(b) transmit electricity;(c) distribute and supply or distribute or supply electricity for the purpose of giving a supply to any premises or enabling a supply to be given to any premises; or(d) trade electricity (including cross border trade) <p>unless he is authorized to do so by a license granted under this Act.....</p> <p>Trading as a distinct licensed activity shall be recognized and accordingly various provisions (on eligibility, procedure, grant of license, power & duties, exemptions, revocation of license, modification and enforcement of license etc.) shall be applicable in a desired form on trading. This shall also include specific provisions on cross border trade.</p> <p>The Commission shall facilitate cross border trade through amendments in existing regulations on licensing or through notification of separate orders on the subject.</p>

The Electricity (Applications for Licenses and Exemptions) Regulation, 2009

S. No.	Clause	Recommended Changes
1.	<p>Clause 2- An Application for the issue of—</p> <p>(a) a generation license to generate Electricity over and above 25 MW, shall be in such form as specified in Part I of Schedule A to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule</p> <p>(b) a generation license to generate electricity up to 25MW, shall be in such form as specified in Part I of Schedule B to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule</p> <p>(c) a transmission license, shall be in such form as specified in Part I of Schedule C to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule ;</p> <p>(d) a distribution license, shall be in such form as specified in Part I of Schedule D to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule</p> <p>.....</p> <p>.....</p>	<p>Clause 2- An Application for the issue of—</p> <p>(a) a generation license to generate Electricity over and above 25 MW, shall be in such form as specified in Part I of Schedule A to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule</p> <p>(b) a generation license to generate electricity up to 25MW, shall be in such form as specified in Part I of Schedule B to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule</p> <p>(c) a transmission license, shall be in such form as specified in Part I of Schedule C to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule ;</p> <p>(d) a distribution license, shall be in such form as specified in Part I of Schedule D to these Regulations and be accompanied by the documents and information as specified in Part II of that Schedule</p> <p>(e) a trading license, shall be in such form as specified in Part I</p> <p>.....</p> <p>.....</p> <p>Necessary changes to be introduced to apply provisions on details of the application form, documents accompanying the application and other requisite information pertaining to grant of license on trading activity. Trading activity shall also include import and export of electricity.</p> <p>.</p>

The Sri Lanka Electricity Act, No. 20 OF 2009

S. No.	Clause	Recommended Changes
1.	<p>Clause 4(1): Objectives</p> <p><i>The Commission shall discharge the functions assigned to it by or under this Act in a manner which it considers is best calculated</i> </p> <p>(a) <i>to promote competition, where appropriate</i></p>	<p>Clause 4(1): Objectives</p> <p><i>The Commission shall discharge the functions assigned to it by or under this Act in a manner which it considers is best calculated</i> </p> <p>(f) <i>to promote competition, where appropriate by notifying enabling regulations/orders necessary to introduce such competition</i></p>
	<p>Clause 53 (1): Rules</p> <p><i>(1) The Commission, may make rules in respect of all matters for which rules are required or authorized to be made under this Act.</i></p> <p>Clause 54 (1),(2): Regulations</p> <p><i>(1) The Minister may on the recommendation of the Commission, make regulations under this Act in respect of all matters required by this Act to be prescribed or in respect of which regulations are required or authorized by this Act to be made.</i></p> <p><i>(2) Every regulation made under this section shall be published in the Gazette, and shall come into force on the date of such publication or on such later date as may be specified therein</i></p>	<p>With reference to clauses 53 (1) and 54 (1), (2) the Commission (PUCSL) shall notify regulation/order to promote competition and enable non-discriminatory access to the transmission system to any entity that intends to use such system for the purpose of wheeling power (including cross border power flows)</p>

National Energy Policy and Strategies of Sri Lanka

S. No.	Clause	Recommended Changes
1.	<p>Clause 3.2- Ensuring Energy Security</p> <p><i>Regional Cooperation will be promoted in different forms including viable cross- border energy transfer with neighboring countries</i></p>	<p>Clause 3.2- Ensuring Energy Security</p> <p><i>Regional Cooperation will be promoted in different forms including viable cross- border energy transfer with neighboring countries</i></p>

Regulatory Manual, PUCSL, 2014

S. No.	Clause	Recommended Changes
1.	<p>Working towards competitive markets</p> <p>Clause 4.4.1:</p> <p>“Anti-competitive practices can potentially cover a number of circumstances. Some of the activities which we will be particularly concerned about include price fixing, or activities which</p> <ul style="list-style-type: none"> • <i>remove or substantially damage a competitor in the market;</i> • <i>prevent a new competitor coming into the market;</i> • <i>stop a market player from taking part in competitive conduct;</i> 	<p>Working towards competitive markets</p> <p>Clause 4.4.1:</p> <p>“Anti-competitive practices can potentially cover a number of circumstances. Some of the activities which we will be particularly concerned about include price fixing, or activities which</p> <ul style="list-style-type: none"> • <i>remove or substantially damage a competitor in the market;</i> • <i>prevent a new competitor coming into the market;</i> • <i>stop a market player from taking part in competitive conduct;</i> • <i>discriminates between users on use of transmission system</i> <p>With reference to Clause 4.4.1, the Commission (PUCSL) shall use its powers and notify regulation/order to promote competition and enable non-discriminatory access to the transmission system to any entity that intends to use such system for the purpose of wheeling power (including cross border power flows)</p>

Transmission Pricing

General Policy Guidelines on the electricity industry for PUCSL

S. No.	Clause	Recommended Changes
1.	<p>Electricity Tariff (16, 17)</p> <p><i>“Electric generation prices at bulk purchase points will be as stated.....ensuring fairness to both consumers and licensees....”</i></p>	<p>The Commission shall notify appropriate orders/ regulations that will enable determination transmission charges shall be sensitive to distance, direction, and related to quantum of power flow.</p>

The Sri Lanka Electricity Act, No. 20 OF 2009

S. No.	Clause	Recommended Changes
1.	<p>Part II: Power and Duties of licensees</p> <p>Clause 30 (1) This section shall apply to-</p> <p>(a) tariffs or charges levied by the transmission licensee for the transmission and bulk sale of electricity (hereinafter referred to as “transmission and bulk sale tariffs”); and</p> <p>(b) tariffs or charges levied by the distribution licensee for the distribution and supply of electricity (herein after referred to as “distribution and supply tariffs”)</p> <p>Chapter II Clause 3 (d)- Functions of the Commission</p> <p>-to regulate tariffs and other charges levied by licensees and other electricity undertakings, in order to ensure that the most economical and efficient service possible is provided to consumers</p> <p>Chapter III, Part 2, Clause 30 (2)- Tariffs</p> <p>Transmission and bulk sale tariffs and distribution and supply tariffs, as the case may be, shall, in accordance with conditions specified in the relevant license.</p> <p>(a) be set by the relevant licensee in accordance with a cost reflective methodology approved by the Commission</p> <p>(b) permit the relevant licensee to recover all reasonable costs incurred in the carrying out of the activities authorized by its license on an efficient basis</p>	<p>Part II: Power and Duties of licensees</p> <p>Clause 30 (1) This section shall apply to-</p> <p>(a) tariffs or charges levied by the transmission licensee for the transmission and bulk sale of electricity (hereinafter referred to as “transmission and bulk sale tariffs”); <i>wheeling of electricity for the purpose of cross border sale and purchase; and</i></p> <p>(b) tariffs or charges levied by the distribution licensee for the distribution and supply of electricity (herein after referred to as “distribution and supply tariffs”)</p> <p>With reference to the clauses, the Commission shall provide appropriate mechanism for determination of charges for transmission usage based on following principles:</p> <ul style="list-style-type: none"> - Transparent allocation of costs - Compensate users for actual usage of system - Compensate owners of existing transmission assets <p>The Commission shall notify appropriate orders/ regulations that will enable determination transmission charges shall be sensitive to distance, direction, and related to quantum of power flow.</p>

Transmission Planning

National Energy Policies & Strategies of Sri Lanka, 2008

S. No.	Clause	Recommended Changes
1.	Clause 4.11: The National Energy Database and the analysis on Energy Sector performance shall be updated and published every year. Summary information of these shall be available on a website, and detailed information will be provided on request.	Clause 4.11: The National Energy Database (including projects of regional importance or cross border transactions) and the analysis on Energy Sector performance shall be updated and published every year. Summary information of these shall be available on a website, and detailed information will be provided on request.

Transmission Planning

Grid Code 2014

S. No.	Clause	Recommended Changes
1.	<p>SECTION 1 – TRANSMISSION PLANNING</p> <p>2.5 TRANSMISSION SYSTEM</p> <p><i>The transmission system is connected with the Generating stations wherever these are located. Lines at HV (i.e. above 33 kV) are drawn between the following network locations:</i></p> <p>(i) <i>From a Generating station to another Generating station</i></p> <p>(ii) <i>From a Generating station to a Grid substation</i></p> <p>(iii) <i>From a Grid substation to another Grid substation</i></p> <p>(iv) <i>From a Grid substation to customers supplied at HV</i></p> <p>(v) <i>From captive power plants to Grid substations.</i></p> <p>2.6 TRANSMISSION DEVELOPMENT PLAN</p> <p><i>Transmission Development Plan is a statement that will address the following, but not limited to</i></p> <p>.....</p> <p>2.15 TRANSMISSION DEVELOPMENT PLAN</p> <p>(1).....</p> <p>(2)</p> <p>.....</p> <p>(14).....</p> <p>Power System Planning</p> <p>Clause 2.24.1- Policy Analysis</p> <p>.....</p>	<p>SECTION 1 – TRANSMISSION PLANNING</p> <p>2.5 TRANSMISSION SYSTEM</p> <p><i>The transmission system is connected with the Generating stations wherever these are located. Lines at HV (i.e. above 33 kV) are drawn between the following network locations:</i></p> <p>(i) <i>From a Generating station to another Generating station</i></p> <p>(ii) <i>From a Generating station to a Grid substation</i></p> <p>(iii) <i>From a Grid substation to another Grid substation</i></p> <p>(iv) <i>From a Grid substation to customers supplied at HV</i></p> <p>(v) <i>From captive power plants to Grid substations</i></p> <p><i>(vi) From Grid to external interconnections</i></p> <p>2.6 TRANSMISSION DEVELOPMENT PLAN</p> <p><i>Transmission Development Plan is a statement that will address the following, but not limited to</i></p> <p>.....</p> <p><i>The Transmission Development Plan shall also take into account external interconnections for cross border electricity trade.</i></p> <p>2.15 TRANSMISSION DEVELOPMENT PLAN</p> <p>(1).....</p> <p>(2)</p> <p>.....</p> <p>(14).....</p> <p><i>(XX) Proposed external interconnections for cross border electricity trade</i></p> <p>With reference to Clause 2.24.1, regarding policies on interconnections with other countries, the Grid code shall define technical specifications for external interconnectors and other standards/codes essential for cross border flows</p>

Imbalance Settlement

Grid Code 2014

S. No.	Clause	Recommended Changes
1.	<p>Clause 5.5: DISPATCH PROCEDURES</p> <p><i>The dispatch procedures shall be based on the following principles:</i></p> <p><i>(a) Licensees to submit the information required for day ahead dispatch and real time dispatch, according to the System Operator requirements.</i></p> <p><i>(b) The System Operator to validate data, confirm or reject data, to communicate (notify) the Day Ahead Schedule, the Ancillary Services schedule and other results of the dispatch process, and</i></p> <p><i>(c) The System Operator to issue Dispatch Instructions, including request for load disconnection, during real time operation</i></p> <p>.....</p> <p>.....</p> <p>5.8.1 OBLIGATIONS OF GENERATION AND DISTRIBUTION LICENSEES</p> <p>.....</p>	<p>Clause 5.5: DISPATCH PROCEDURES</p> <p>The dispatch procedures shall be based on the following principles:</p> <p>(a) Licensees to submit the information required for day ahead dispatch and real time dispatch, according to the System Operator requirements.</p> <p>(b) The System Operator to validate data, confirm or reject data (for cross border trade as well), to communicate (notify) the Day Ahead Schedule, the Ancillary Services schedule and other results of the dispatch process, and</p> <p>(c) The System Operator to issue Dispatch Instructions, including request for load disconnection, during real time operation (for cross border trade as well)</p> <p>.....</p> <p>.....</p> <p>5.8.1 OBLIGATIONS OF GENERATION AND DISTRIBUTION LICENSEES</p> <p>.....</p> <p>Note: Imbalance Settlement Mechanism shall be explicitly defined through enactment of separate regulations/orders under the Act. The regulations shall include various provisions such as Methodology for determination of imbalance/ deviation charges, Limits on deviation volume and consequences of violating limits, Accounting of Charges for Deviation; Schedule of Payment of Charges for Deviation, etc. which accordingly will be applicable on CBET.</p>

Dispute Resolution

Sri Lanka Electricity Act, No. 20 of 2009 (& subsequent amendment in 2013)

S. No.	Clause	Recommended Changes
1.	<p>Clause 39. (1) The following disputes arising in connection with the supply or use of electricity shall be referred to the Commission by any party to the dispute:-</p> <p>(a)</p> <p>(b)</p> <p>(i) a tariff customer;</p> <p>(ii) another licensee, or</p> <p>(iii) any other affected party,</p> <p>(2).....</p> <p>“(2A)</p> <p>.....</p> <p>(6) In including a provision as to costs and expenses in a resolution under this section, the Commission shall have regard to the conduct and means of the parties and any other relevant circumstances.</p>	<p>Clause 39. (1) The following disputes arising in connection with the supply, or use of electricity shall be referred to the Commission by any party to the dispute:-</p> <p>(a)</p> <p>(b)</p> <p>(i) a tariff customer;</p> <p>(ii) another licensee, or</p> <p>(iii) any other affected party,</p> <p>(2)</p> <p>(2A)</p> <p>.....</p> <p>(6) In including a provision as to costs and expenses in a resolution under this section, the Commission shall have regard to the conduct and means of the parties and any other relevant circumstances.</p> <p>(7) Provided that for any dispute arising on account of contract for cross border trade of electricity where the commission believes that dealing with such dispute is beyond the commission’s jurisdiction, the commission may refer such dispute to the SAARC Arbitration Council. The SAARC Arbitration rules shall govern such arbitration procedures.</p>

Taxes & Duties

S. No.	Clause	Recommended Changes
1.		<i>No form of tax, custom duty or transit tax shall be applicable on export and import of electricity. Parties shall work towards removing, and mutually resolving issues relating to, barriers, including tariff, levies, fees, taxes, duties or charges of similar effects, if any, in the cross-border exchange and trading of electricity.</i>