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South Asia Regional Energy Partnership (SAREP) Presentation

on

Terms of Reference of the TF-2 study on to “Assess technical and economic aspects, in the form of prefeasibility analysis of cross border electricity transmission for a few priority interconnections, so as to prioritize investments”

Session 5: Presentation and Deliberations on the draft Terms of Reference of the study on to “Assess technical and economic aspects, in the form of prefeasibility analysis of cross border transmission for a few priority interconnections, so as to prioritize investments”

**11th Meeting of SAREP Task Force-2 on “Advancement of Transmission System Interconnections for Cross Border Electricity Trade”
15.45-16.15 Hrs. 16th February 2023, Trisuli Hall Conference Hall, Kathmandu Marriott Hotel, Kathmandu, Nepal**

**Presented by
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03 Tentative Time Line and deliverable





Background and Context

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- ❑ Number of cross border transmission interconnection has been planned and proposed with various time frame among Bhutan, India, Nepal, Sri Lanka and Bangladesh.
- ❑ For example , as per the transmission system development plan of Nepal, six 400 KV cross border interconnected has been proposed by Nepal.
- ❑ Similarly Bhutan Transmission master plan, highlights various interconnection with India.
- ❑ India's Draft National Electricity Plan (Transmission), 2022/23 will also highlight the various cross border interconnection with Neighbouring countries.
- ❑ Bangladesh power system master plan (revisiting 2016) also aims to import around 12,000 MW of power by 2041.
- ❑ Renewed interest in India-Sri Lanka interconnection.
- ❑ Transmission system development are time consuming and capital expensive and in cross border context takes time among countries for building consensus and finalising the details

NEPAL 's PROPOSED CROSS BORDER LINE WITH INDIA AS PER THE TRANSMISSION SYSTEM DEVELOPMENT PLAN OF NEPAL			
Name	From BUS	To BUS	MW Flow
Attariya-Bareily Cross Border Transmission Line			
Attariya-Bareily	Attariya 400	Bareily	700
Dododhara-Bareily Cross Border Transmission Line			
Bareily-Dododhara	Dododhara 400	Bareily	3000
Phulbari-Lucknow Cross Border Transmission Line			
Lukhnow-Phulbari	Phulbari 400	Lukhnow	2600
New Butwal-Gorakhpur Cross Border Transmission Line			
Butwal-Gorakhpur	Butwal 400	Gorakhpur	2500
Dhalkebar – Muzaffarpur Cross Border Transmission Line			
Muzaffarpur-Dhalkebar	Dhalkebar 400	Muzaffarpur	3100
Inaurwa – Purnea - Cross Border Transmission Line			
Purnea-Inaurwa	Inaurwa 400	Purnea	1800

Source: transmission system development plan of Nepal

Assessing technical and economic aspects, in the form of prefeasibility analysis of cross border electricity transmission for a few priority interconnections, so as to prioritize investments could accelerate transmission system development



02

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Terms of Reference of the TF-2 study on to “Assess technical and economic aspects, in the form of prefeasibility analysis of cross border electricity transmission for a few priority interconnections, so as to prioritize investments”

Objective :

To identify the priority cross border transmission interconnections and conduct prefeasibility studies on identified priority cross border transmission interconnections and inform investor community for mobilising the finance.

Terms of Reference:

1. Collect, compile and conduct a through review already planed and proposed cross border transmission interconnections vis-à-vis actual progress, implementation schedule and prepare as is status report.
2. In consultation with TF-2 members, country governments, planning authorities and other stakeholders, identify one to two priority cross border transmission interconnections along with specific technical and financial details between India-Nepal , India-Bangladesh, India-Bhutan, India-Sri Lanka and India-Maldives.
3. Based priority cross border transmission interconnections, conduct an assessment of technical and economic aspects, in the form of prefeasibility analysis. This includes:-

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Terms of Reference:

This shall include

3.1 Technical Feasibility- Power Flow Studies, Short Circuit Studies, Stability Studies , contingencies studies as per required reliability criteria etc. as per the applicable rules/grid codes of participating countries.

3.2 Economic aspects-Taking in to account the technical feasibility, estimate capital and operating costs of the cross border transmission line and related infrastructure.

3.3 Conduct interconnection risks assessment including commercial, environmental and social consideration.

3.4 Based on 3.1 to 3.3, conduct financial modelling of the transmission to asses its financial feasibility and bankability.

4. Based on the Analysis of 1. to 3. , prepare consolidated prefeasibility analysis report of cross border electricity transmission along with the recommendations and suggestions if any.

5. Prepare a summary document “ Investors Guide “ for investor on the transmission project.

Tentative Timeline



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Tentative Time Line : 12-16 Month

SL NO	Deliverable	TIME LINE
1	Consultant On board	May, 2023
2	Inception Report	May, 2023
3	Consultation with TF-2 members, country governments, planning authorities and other stakeholders	June, 2023
4	Identify one to two priority cross border transmission interconnections	July, 2023
5	Initiation of prefeasibility analysis	July, 2023
6	Draft prefeasibility analysis report	October, 2023
7	Consultation with TF-2 members on Draft prefeasibility analysis report, 12 th Meeting of TF-2	October, 2023
8	Consultation with Country governments and planning authorities on Draft prefeasibility analysis report	November-December 2023
9	Draft Final prefeasibility analysis report	January-February 2024
10	Consultation with TF-2 members on Draft prefeasibility analysis report, 13 th Meeting of TF-2	March,/April 2024
11	Consultation with Country governments and planning authorities on Draft Final prefeasibility analysis report	May, 2024
12	Final prefeasibility analysis report and summary document “ Investors Guide “ for investor on the transmission project	July, 2024
13	Submission of report and presentation of the report to governments, committees etc.	July, August, 2024.

Thank You



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