



सत्यमेव जयते

भारत सरकार

Government Of India

विद्युत मंत्रालय

Ministry Of Power

पूर्वी क्षेत्रीय विद्युत समिति

Eastern Regional Power Committee

14 Golf Club Road, Tollygunje-70033 Website: [www.erpc.gov.in](http://www.erpc.gov.in)

सं./No. ERPC/COM-I/REA/2024-25/1889

दिनांक / Date: 06.02.2025

To: As per list enclosed / सेवा में: (संलग्न सूची के अनुसार)

Sub: Revised Energy Accounting (REA) for net drawl of Power by Bhutan for the month of November 2023.

विषय – नवंबर 2023 माह के लिए भूटान द्वारा विद्युत के शुद्ध आहरण हेतु संशोधित ऊर्जा लेखांकन (आरईए)।

Ref:

- 1) Minutes of meeting held between India and Bhutan on 10.01.2025.
- 2) ERPC letter सं./No. ERPC/COM-I/REA/2024-25/1123 dated 01.10.2024.

महोदय/Sir,

Please find enclosed the Revised Energy Accounting (REA) for net drawl of Power by Bhutan for the month of November 2023 for the necessary action at your end. The Revised Energy Accounting for the month of November 2023 has been done due to consideration of rate of drawl of power as Rs. 4.09/kWh which was initially considered as Rs. 4.11/kWh. The same has been done as per the directions of CEA and Minutes of meeting held between India and Bhutan on 10.01.2025.

कृपया नवंबर 2023 के महीने के लिए भूटान द्वारा बिजली के शुद्ध आहरण के लिए संशोधित ऊर्जा लेखांकन (आरईए) संलग्न करें, ताकि आप आवश्यक कार्रवाई कर सकें। नवंबर 2023 के महीने के लिए संशोधित ऊर्जा लेखांकन बिजली के आहरण की दर 4.09 रुपये/किलोवाट घंटा मानने के कारण किया गया है, जिसे शुरू में 4.11 रुपये/किलोवाट घंटा माना गया था। यह सीईए के निर्देशों और 10.01.2025 को भारत और भूटान के बीच हुई बैठक के कार्यवृत्त के अनुसार किया गया है।

This issues with the approval of Member Secretary/ इसे सदस्य सचिव के अनुमोदन से जारी किया जाता है

Encl.: As above/ अनुलग्न: उपरोक्त के अनुसार

Yours faithfully, / भवदीय

(P.K. De/ पी.के. दे)

SE, Commercial/ अधीक्षण अभियंता (वाणिज्यिक)

## **DISTRIBUTION LIST**

- 1) Chief Engineer (PSPS-II), CEA, 6<sup>th</sup>Floor, Sewa Bhawan, R. K.Puram, NewDelhi-110066 (FAX: 011 26109750)
- 2) General Manager, ERLDC, 14 Golf Club Road, Kolkata-700033 (FAX: 033 2423 3648)
- 3) Vice President (CS-CB), PTC India Limited, 2<sup>nd</sup> Floor, NBCC Tower, 15, Bikaji Cama Place, New Delhi -110065 (FAX: 011 41659142)

## **वितरण सूची**

- 1) मुख्य अभियंता (पीएसपीएस-II), सीईए, 6वीं मंजिल, सेवा भवन, आर.के.पुरम, नई दिल्ली-110066 (फैक्स: 011 26109750)
- 2) महाप्रबंधक, ईआरएलडीसी, 14 गोल्फ क्लब रोड, कोलकाता-700033 (फैक्स: 033 2423 3648)
- 3) उपाध्यक्ष (सीएस-सीबी), पीटीसी इंडिया लिमिटेड, दूसरी मंजिल, एनबीसीसी टॉवर, 15, बीकाजी कामा प्लेस, नई दिल्ली -110065 (फैक्स: 011 41659142)

**REVISED ENERGY ACCOUNTING FOR NET DRAWL OF POWER BY BHUTAN IN THE MONTH OF NOVEMBER 2023**

<b>Net Drawl after all Adjustments (MWH):</b>	<b>59752.473</b>
<b>Rate of Drawl (Rs./kwh):</b>	<b>4.090</b>
<b>Net Charges (INR.): Payable by Bhutan</b>	<b>244387615</b>

\* Above calculation has been done as per the direction of CEA and Minutes of meeting held between India and Bhutan on 10.01.2025. Details are provided in the attachment.

**SE (Comm)**

## **Minutes of meeting held between India and Bhutan on 10.01.2025**

In the 7<sup>th</sup> meeting of Joint Technical Team (JTT) between India and Bhutan held on 12.12.2024, it was agreed that technical teams from both sides may jointly finalise rate for settlement of energy drawn by Bhutan in November 2023 and MoU for preparation of transmission master plan. Accordingly, a meeting was held on 10.01.2025 at CEA, New Delhi. The list of participants is attached at Annexure-I.

The agenda wise discussions held in the meeting are summarized below:

### **1. Settlement of energy drawn by Bhutan in the month of November 2023**

- (i). In the month of November 2023, there was net drawl of 59.752 MU of energy by Bhutan from the Indian Grid, which was not scheduled.
- (ii). In the 4<sup>th</sup> meeting of JTT held on 25.04.2024, it was agreed that the energy drawn by Bhutan to be settled with Eastern Region (India) pool at average market clearing price (ACP) of Indian power exchanges during the month. Eastern Regional Power Committee (ERPC) had revised energy account for the month of November, 2023 considering ACP of INR 4.11 per kWh.
- (iii). In the 7<sup>th</sup> meeting of JTT held on 12.12.2024, Bhutan side mentioned that as per their calculations, the ACP works out to be INR 3.98 per kWh. Accordingly, it was agreed that concerned official from both sides may discuss the matter separately and arrive at consensus for final figure.
- (iv). Bhutan side stated that in the month of November, 2023, simple average price of DAM in IEX works out to be INR 3.986.
- (v). Indian side stated that there are three power exchanges operating in Indian electricity market (i.e. IEX, PXIL and HPX) and considering ACP from only one exchange would not be principally correct. They also mentioned that weighted average price of all the three power exchanges is used wherever required. Considering daily weighted average Area Clearing Price (ACP) of all the Power Exchanges of DAM/RTM rate was INR 4.11 per kWh.
- (vi). After deliberations, both sides agreed for considering daily weighted average Area Clearing Price (ACP) of Day Ahead Market (DAM) of all the three power exchanges that works out to be INR 4.09 per kWh for settlement of energy drawn by Bhutan in November 2023.

### **2. MoU on Assessment of Cross-Border Transmission Lines between India and Bhutan**

- (i). In the 7<sup>th</sup> meeting of the JTT held on 12.12.2024, it was agreed to finalise the scope in the MoU for preparation of Transmission Plan of Bhutan by the technical officials of both sides.
- (ii). Bhutan side stated that they are planning for their internal transmission system including east and west transmission corridor themselves. In view of that the scope of MoU need to be restricted to study the requirement of cross-border interconnections between India and Bhutan only.

- (iii). India side stated that the cross-border interconnections so identified in the report shall serve as a guide for planning of future interconnections which shall be planned in accordance with prevailing system conditions and requirements.
- (iv). Accordingly, in view of changed scope of work, the draft MoU would be modified.

### **3. Reconductoring of Chhukha Transmission System lines**

- (i). Bhutan side proposed that reconductoring of cross border lines implemented as associated system of Chhukha HEP i.e. Chhukha –Birpara 220 kV D/c line and Chhukha –Birpara 220 kV S/c line (later made LILO at Malbase S/s) may be discussed.
- (ii). India side stated that reconductoring work of transmission lines within Indian system associated with Chhukha has already been taken up with implementation timeframe of May 2026.
- (iii). It was agreed that Indian side will share the proposal with Bhutan for reconductoring of cross border lines implemented as associated system of Chhukha HEP.

### **4. Reactive Energy Accounting between Indian and Bhutan**

- (i). Bhutan side stated that Eastern Regional Power Committee (ERPC) accounting the reactive energy on the basis of meter readings from Indian side only, despite signing of DSM modalities. They requested that accounting of reactive energy may be done as per the agreed modalities of DSM.
- (ii). Indian side informed that the methodology for reactive energy accounting has been formulated and would be shared with Bhutan shortly.

### **5. Training program on DSM accounting for Bhutan**

- (i). Bhutan side requested to have a training program on accounting of DSM charges for Bhutan Personnel.
- (ii). Indian side agreed to organise a training program, and requested for a formal request indicating the areas to be covered in the program.

### **6. Disbursement of receivable amount through the pool account**

- (i). Bhutan side stated that there is a delay in disbursement of receivable amount from DSM Pool account. They mentioned that in case of payable amount there is provision of surcharge in case of delay in payment, however, no such provision exist for receivable amount through the pool.
- (ii). Indian side noted the concern of Bhutan.



**List of participants to the meeting held between India and Bhutan on 10.01.2025**

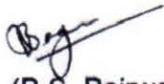
**Annexure-I**

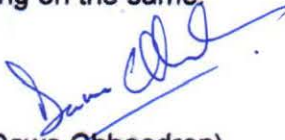
Indian Side			Bhutan Side		
Sl. No	Name & Designation	Organisation	Sl. No	Name & Designation	Organisation
1.	Mr. B.S. Bairwa, Chief Engineer (PSPA-II)	CEA	1.	Ms. Dawa Chhoedron, Chief Engineer	DoE, MoENR
2.	Mr. Rahul Raj, Director (PSPA-II)	CEA	2.	Mr. Ugyen Chopel, Executive Engineer	DoE, MoENR
3.	Mr. Farooque Iqbal, Director (PSPA-II)	CEA	3.	Mr. Ugyen Tshering, Chief Manager	BPSO, MoENR
4.	Mr. Narsi Meena, Director (RA)	CEA	4.	Mr. Sujan Rai, Associate Director	DGPC
5.	Mr. Sharad Chandra Bhupesh, Deputy Director (Grid Management)	CEA	5.	Mr. Bhasker Pradhan, Head DGET	DGPC
6.	Mr. Manish Maurya, Deputy Director (PSPA-II)	CEA	6.	Mr. Sangay Wangdi, Sr. Engineer	BPC
7.	Mr. Bhanwar Singh Choudhary, Assistant Director (PSPA-II)	CEA			
8.	Mr. K Satish Kumar, Deputy Director (Grid Management)	CEA			
9.	Mr. P P Jena, EE(Commercial)	ERPC			
10.	Mr. Rajesh Kumar, Sr. GM	CTUIL			
11.	Mr. Debajyoti Majumdar, Chief Manager	GRID-INDIA			
12.	Mr. Prabhankar Porwal, Manager	GRID-INDIA			
13.	Ms. Sonali Mangal, Deputy Manager	GRID-INDIA			

*B.S.*

**7. Scheduling of Power by Bhutan through SNA**

- (i). Bhutan side stated that presently scheduling is being done through SNA. For any updation in the schedule, request need to be made through email to SNA. In such scenario, there are chances that updated schedule may not be reflected on properly with system operators. Bhutan side requested for some facility for real time updation of schedule and the access to such a portal by the Bhutan Power System Operator.
- (ii). Indian side informed that SNA is already working on the same

  
(B.S. Bairwa)  
Chief Engineer  
Central Electricity Authority

  
(Dawa Chhoedron)  
Chief Engineer  
DoE, MoENR