#### MINUTES OF THE 87<sup>TH</sup> MEETING OF THE FORUM OF REGULATORS (FOR)

Venue: Agartala, Tripura

Date: 25th August, 2023 (Friday)

Time: 14:00 hrs

List of participants: Annexure-I

- 1. At the outset, the Chairperson, Tripura ERC (TERC), welcomed the Chairperson, FOR/CERC and the Chairpersons / Members of all the State and Joint Commissions for visiting Agartala to attend the 87<sup>th</sup> FOR meeting being hosted by TERC. Giving a brief overview of the power sector in Tripura, he informed the attendees that approximately 80% of the consumers in the State are domestic consumers, and the State has one of the highest power purchase costs in the country. Over the period, the State Commission has been taking several measures to reduce the power purchase cost in the State.
- 2. Thereafter, welcoming the members of FOR to the 87<sup>th</sup> FOR meeting, the Chairperson, FOR/CERC informed the Forum that he has a personal connection to the State, having lived in Agartala for several years in 1970s. He also welcomed Shri Arvind Kumar, Chairperson, UPERC, and Shri R.K. Joshi, Chairperson, Arunachal Pradesh SERC, who were attending the FOR meeting for the first time. He also lauded the crucial role the FOR Working Groups played in addressing the important issues in the power sector and in framing the Model Regulations. He applauded Tripura ERC's commendable efforts in harnessing the potential of renewable energy and contributing to India's NDC targets. He also thanked the Chairperson, TERC, for his exceptional enthusiasm, praiseworthy dedication, and meticulous arrangements made in hosting the FOR meeting in Agartala.
- 3. Thereafter, as proposed by the Chairperson, TERC, the CMD and Director (Finance), Tripura State Electricity Corporation Ltd (TESCL) made a presentation (Annexure-II) on the power sector in Tripura. Delivering the presentation, the Director (Finance) informed the audience that Tripura is a power surplus State and that after meeting the demand of 500 MW, Tripura is exporting 170 to 190 MW to Bangladesh. He added that the State has unbundled its generation, transmission and distribution segments while also striving to reduce its dependency on conventional sources of electricity. He

conveyed that the Secretary (Power), the Government of Tripura has expressed gratitude to FOR for convening the 87<sup>th</sup> FOR meeting in Tripura. He hoped that the meeting would be purposeful, with a particular focus on the North Eastern States.

#### **AGENDA ITEM. NO. 1:**

#### A) MINUTES OF THE 86TH FOR MEETING HELD ON 26th JUNE 2023

- 4. Dy Chief (RA), CERC apprised the Forum of the constitution of a Working Group to address matters concerning renewable energy (RE) policies and regulations in response to the request from the Ministry of New and Renewable Energy (MNRE).
- 5. Chief (RA), CERC informed that the existing FOR Standing Technical Committee (STC) focusing on RE integration remains relevant and that the STC's terms of reference include addressing technical aspects of RE integration, such as forecasting, scheduling, deviation settlement for wind and solar power stations at the State level, as well as developing frameworks for ancillary services, automatic generation control, primary control, and implementation of the Availability Based Tariff (ABT) framework at the State level. In view of the formation of the WG on RE policy, he informed the Forum that there is a need to revamp the existing composition of the STC and broaden it to have representation from all the regions. The STC may continue to be headed by Member (Technical), CERC with Technical Members from SERCs of each region. STC may co-opt any other Member as deemed fit. It was decided that the STC would be reconstituted with the approval of the Chairperson, FOR/CERC.
- 6. Thereafter, the Forum approved the minutes of the 86th FOR meeting.

### B) MODIFICATION IN THE MINUTES OF SPECIAL FOR MEETING HELD ON 14TH JUNE 2023 - REFERENCE FROM ISGF

7. Dy Chief (RA),CERC, apprised the Forum of the reference received from ISGF regarding a slight modification in the minutes of the special meeting of the FOR, which

were editorial in nature with reference to the replacement of the name of a distribution licensee.

8. Accordingly, the Forum approved the modifications and directed that the same be revised and updated.

#### **AGENDA ITEM NO. 2:**

- A) DIFFICULTIES IN IMPLEMENTATION OF ELECTRICITY (RIGHTS OF CONSUMERS) AMENDMENT RULES, 2023 ISSUED ON 14TH JUNE 2023 REFERENCE FROM MPERC
  - 9. The Forum was apprised about the reference received from MPERC regarding the Electricity (Rights of Consumers) Amendment Rules, 2023, issued by the Ministry of Power on June 14, 2023, wherein if there is an increase in recorded maximum demand, the revised sanctioned load would be automatically reset from the billing cycle in the next financial year. In this regard, Member MPERC highlighted several challenges posed by the automatic increase of the sanctioned load and other billing and technical feasibility issues.
  - 10. In the discussion that followed, the Chairperson, APERC added that it was necessary to follow a procedure that includes giving notice to consumers before automatically increasing the load. During the meeting, the procedure from the Andhra Pradesh ERC was circulated for the members to note. The Forum, after discussions, decided that all SERCs may frame similar procedures by adapting suitable provisions so that implementation and operational aspects could be addressed through procedures.

- B) REQUIREMENT OF MODIFICATIONS IN MODEL REGULATION ON METHODOLOGY ON CALCULATION OF OPEN ACCESS CHARGES AND BANKING CHARGES ON GREEN ENERGY OPEN ACCESS CONSUMERS-REFERENCE FROM KERC.
  - 11. The Forum was appraised about the reference received from KERC highlighting some of the issues raised by MoP in its letter dated 23th March, 2023, regarding Model Regulation on Methodology for calculation of Open Access charges and Banking charges for Green Energy Open Access Consumers vis-à-vis the decision taken by the Forum on these issues in its 85th meeting held on 18th April, 2023.
  - 12. Chairperson, KERC informed the Forum that KERC has addressed the issues raised by the MoP in the relevant Regulations and the Order in line with the methodology specified by FOR. He further mentioned that while the proposal for levying transmission and wheeling charges/ losses only once is acceptable, the transmission and wheeling charges/ losses should be levied on the quantum of energy injected and not on the quantum of energy banked.
  - 13. In this matter, Chief (RA), CERC also referred to a communication from the Energy and Petrochemicals department, Government of Gujarat seeking modifications to the Model Regulations on Green Open access as some of the provisions would lead to unavoidable financial implications of Discoms. They had also requested MOP to constitute a Committee to analyse such issues so that Discoms can present their views.
  - 14. After discussion, the Forum noted the suggestion. Further, it was observed that, in view of several issues cropping up in the context of difficulty in implementing various Rules being issued by the Ministry of Power from time to time, the Forum decided to constitute a Working Group on "Harmonisation of Rules and Regulations". The composition of the Working Group would be as follows:
    - a) Chairperson, GERC Chairperson of the Working Group
    - b) Chairperson, CSERC Member
    - c) Chairperson, HPERC Member
    - d) Chairperson, KERC Member
    - e) Chairperson, MPERC Member

- f) Chairperson, MERC Member
- g) Chairperson, OERC Member
- h) Chairperson, RERC Member
- i) Chairperson, TERC Member
- C) CLARIFICATION IN RESPECT OF AMENDMENT TO RULE 3 OF ELECTRICITY RULES 2005 VIDE ELECTRICITY (AMENDMENT) RULES 2023 AND MODIFICATION REQUIRED IN MODEL REGULATION ON VERIFICATION OF CAPTIVE GENERATING PLANTS AND CAPTIVE CONSUMERS REFERENCE FROM KERC AND MPERC RESPECTIVELY.
  - 15. The members of the Forum deliberated on changes brought in the Electricity Rules, 2005 by way of amendments in the Electricity Rules, 2023 with respect to the definition of captive user and user(s) as well as with respect to the definition of affiliate in captive generating plants. Member MPERC requested that the Model Regulations be amended suitably to reflect the provisions in the Electricity Rules.
  - 16. The Forum decided that the Electricity Rules need to be interpreted by the ERCs regarding the context in which an issue is raised for consideration.

### D) IMPOSITION OF GST ON LICENCE FEE COLLECTED BY SERCS - REFERENCE FROM CSERC

17. In response to the reference made by the Chairperson, CSERC the imposition of GST on license fees by the GST authorities, the Forum was apprised that further to the decision taken during the 85<sup>th</sup> meeting that the Chairperson, FOR / CERC would write to the GST Council, Ministry of Power and Secretary, Ministry of Finance informing them of the functions of the Regulatory Commission and the need for a clarification regarding the imposition of service tax on license fees etc, a letter has been sent to the Secretary, Ministry of Finance who, in turn, forwarded it to the Department of Revenue for further action .

- 18. In this regard, the Chairperson, APERC informed the Forum that in a similar reference from them to the GST Council, they had received a non-affirmative response from the GST Council. Chairpersons of AERC and UPERC informed that they had obtained a stay order on the decision of the GST council through writ petitions.
- 19. Following thorough discussions, the Forum agreed that the ERCs may take legal recourse on lines of some of the SERCs contesting in the court the demand notices sent by GST authorities.

## E) INCLUDING CERTAIN PROVISIONS REGARDING CRISIS MANAGEMENT PLANS IN THE LICENSING TERMS AND CONDITIONS OF PRIVATE POWER UTILITIES – REFERENCE FROM MPERC

- 20. The members were informed that the Central Electricity Authority (CEA) under the Disaster Management Act has recommended setting up a disaster management plan for the power utilities. As per the Plan, Private Power Utilities must establish a Crisis Management Fund equivalent to 1.5% of their annual revenue. In addition, the plan also recommends creating a core corpus that would be replenished annually and used for immediate relief and rehabilitation work during a crisis. The plan also allows the utilities and the State governments to seek funding from the specialised agencies during such emergency needs.
- 21. The members deliberated whether this fund can be part of the license condition or should be factored in the ARR. It was highlighted that factoring this 1.5% fund into the ARR of the utility will impact consumer tariffs.
- 22. After discussion, the Forum noted the observations and decided that SERCs may take suitable action as deemed fit.

#### AGENDA ITEM NO. 3: REFRENCES FROM MINISTRY OF POWER

### A) CHANGES SUGGESTED IN MODEL TARIFF REGULATION FOR MULTI YEAR DISTRIBUTION TARIFF

- 23. Chief (RA), CERC apprised the Forum about the Electricity (Second Amendment) Rules, 2023 notified by the Ministry of Power on 26th July, 2023 which referred to changes in essential provisions wrt ROE, AT&C losses etc and the request from MOP to FOR Secretariat to give a presentation on the Model MYT Regulation in its RPM Meeting held on 11th July'2023 and in a subsequent meeting with the Hon'ble Minister of Power on 25th July 2023. He further apprised the Forum about various issues that were highlighted during the meeting and the directions that were conveyed, specifically on the requirement of MYT tariff for every year to be fixed at the beginning of the control period with yearly true-up (a compilation of the same as reflected in the latest tariff orders of all ERCs was presented by the FOR Secretariat) and other parameters such as mandatory allowance of ROE, Interest on working capital, AT&C losses, and subsidy accounting to be in line with the Rules, etc.
- 24. After detailed discussion, the Forum decided that the provisions in the aforementioned Amended Rules and the concerns raised by the Hon'ble Minister of Power be referred to the Working Group on "Harmonisation of Rules and Regulations" for examination and further action.

### B) FORMATION OF ANNUAL CAPACITY BUILDING PLANS (ACBPS) FOR ALL SERCS AND JERCS.

25. The Forum was informed about a reference from the Ministry of Power (MOP) regarding the preparation of an annual capacity-building plan, to facilitate the training of personnel in State Electricity Regulatory Commissions (SERCs) and Joint Electricity Regulatory Commissions (JERCs), in alignment with the process manual provided by the Capacity Building Commission on its website. The process manual in its approach paper details how organizations, officers, and staff at different levels within ERCs can identify skill gaps and training needs. This approach involves creating an individualized programme with specified durations and a corresponding budget. It was also informed

that the Ministry had requested FOR for a budget to take up capacity-building programs for the SERCs.

26. After detailed deliberations, it was decided that each SERC shall prepare their individual annual capacity-building plan in line with the process as per the approach paper available on the website of the Capacity Building Commission and share the details with FOR secretariat for compilation and subsequent sharing with MoP.

### C)NOTIFICATION OF THRESHOLD LIMIT BY SERCS FOR AWARD OF TRANSMISSION PROJECTS THROUGH TBCB

- 27. The Forum was apprised about the reference from the Ministry of Power vide letter dated. 21.08.2023 regarding notification of the threshold limit by SERCs for the award of transmission projects through TBCB. Chief (RA), CERC briefed the Forum that each ERC has a provision in the Tariff Policy to define a threshold limit beyond which the transmission projects should be awarded through competitive bidding. The list of SERCs notified of the threshold limits is placed at **Annexure-III**.
- 28. The Forum agreed that all the SERCs/JERCs should define the threshold limit as the same is mandatory as per the Supreme Court judgement of 23.11.2022 and was also agreed to, by the FOR in its Special FOR meeting held on 5.12. 2022.

# ANEGDA ITEM NO. 4: REPORT OF FOR SECRETARIAT ON CERTAIN COMPLIANCES BASED ON DATA CAPTURED ON REGULATORY WEBTOOL MAINTAINED BY IITK - REFERENCE FROM FOR SECRETARIAT

29. The Forum was informed that the Regulatory web tool was designed under the PSR program – a program under the Ministry of Power, Government of India, and the Department for International Development of the Government of the UK. Post closure of the PSR program, as approved by the FOR, the regulatory web tool was handed over to IIT-Kanpur (IIT-K) to maintain the Web tool. The Forum was also apprised of various elements of the tool, which included aspects related to OP 1 compliance with APTEL.

- 30. In this respect, Dy Chief (RA), CERC informed that, as decided by the Forum, each ERC would assign a nodal officer to update the data for their respective ERC directly on this web tool instead of sending individual submissions to the FOR secretariat, and that the FOR secretariat had already communicated login credentials to such nodal offices. However, the data on the web tool remains to be updated.
- 31. Members of the Forum were informed that as the data is received from the multiple Discoms/ utilities in their jurisdiction, a nodal officer from each of the utilities may also be provided with a user id and password can upload the data on the regulatory web tool. After discussions, it was agreed that the responsibilities of data up-dation shall lie with the SERCs and they can choose to nominate an officer from a utility, if they deem fit. Decisions to this effect need to be communicated by the SERCs to the FOR Secretariat. The Forum also decided that in every alternate meeting of the Forum, the FOR secretariat shall provide a status report related to data availability on the web tool.

#### ANY OTHER AGENDA ITEM AND CONCLUSION

#### a) VENUE OF NEXT FOR MEETING

32. Chairperson, UERC, reiterated his proposal to host the next meeting of the Forum in Mussoorie, which was accepted by the Forum.

#### b) VOTE OF THANKS

- 33. Delivering the vote of thanks Secretary, FOR/CERC extended his heartfelt appreciation to all the members of the Forum for their interactive and energy-filled discussion during which significant decisions were made on diverse and challenging topics. He reiterated that the members' diverse knowledge and expertise are the Forum's major strengths.
- 34. Thanking the members of the Forum for their active participation, he extended his special thanks to the Chairperson, FOR / CERC for his positive attitude and desire to resolve the issues. He also took the opportunity to express special thanks for the

Chairperson, TERC and his team who made elaborate arrangement to ensure that the event was a success. He also extended his gratitude to the FOR secretariat for the efforts they have put into the compilation of comments/ suggestions and providing other knowledge support to the Forum.

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#### **Annexure-I**

# LIST OF PARTICIPANTS OF THE 87<sup>TH</sup> FORUM OF REGULATORS MEETING HELD ON FRIDAY, THE 25<sup>TH</sup> AUGUST, 2023. AT AGARTALA (TRIPURA)

S.	NAME	ERC
No.		
01.	Shri Jishnu Barua	CERC/FOR
	Chairperson	– in Chair.
02.	Justice (Shri) C.V. Nagarjuna Reddy	APERC
	Chairperson	
03.	Shri R.K. Joshi	APSERC
	Chairperson	
04.	Shri Kumar Sanjay Krishna	AERC
	Chairperson	
05.	Shri Hemant Verma	CSERC
	Chairperson	
06.	Shri Anil Mukim	GERC
	Chairperson	
07.	Shri D.K. Sharma	HPERC
	Chairperson	
08.	Justice (Shri) Amitav Kumar Gupta	JSERC
	Chairperson	
09.	Shri Alok Tandon	JERC for State of Goa &
	Chairperson	UTs
10.	Shri Lokesh Dutt Jha	JERC for UTs of J&K
	Chairperson	and Ladakh
11.	Shri P. Ravi Kumar	KERC
	Chairperson	
12.	Shri T.K. Jose	KSERC
	Chairperson	
13.	Shri Sanjay Kumar	MERC
	Chairperson	
14.	Shri P. W. Ingty	MSERC
	Chairperson	
15.	Shri Khose Sale	NERC
	Chairperson	
16.	Shri Suresh Chandra Mahapatra	OERC
	Chairperson	
17.	Shri Viswajeet Khanna	PSERC
	Chairperson	
18.	Dr. B.N. Sharma	RERC
10.	Chairperson	

19.	Shri K.B. Kunwar	SSERC
	Chairperson	
20.	Shri T. Sriranga Rao	TSERC
	Chairperson	
21.	Shri D. Radhakrishna	TERC
	Chairperson	
22.	Shri Arvind Kumar	UPERC
	Chairperson	
23.	Dr. M.V. Rao	WBERC
	Chairperson	
24.	Shri D.P. Gairola	UERC
	Chairperson Incharge	
25.	Shri Naresh Sardana	HERC
	Member	
26.	Shri Prashant Kumar Chaturvedi	MPERC
	Member	
27.	Shri K. Venkatesan	TNERC
	Member	
28.	Shri Harpreet Singh Pruthi	CERC/FOR
	Secretary	
29.	Dr. Sushanta Kumar Chatterjee	CERC
	Chief (Regulatory Affairs)	
	SPECIAL INVIT	FES
	ERC	
30.	Shri I.S. Jha	CERC
	Member	
31.	Shri Arun Goyal	CERC
	Member	
32.	Shri Pravas Kumar Singh	CERC
	Member	
33.	Shri Jiban Krishna Sen	TERC
2.4	Member	marior
34.	Shri D. Sarkar	TSECL
25	Managing Director	TCECI
35	Shri S.S. Dogra	TSECL
	Director (Fin.)	
	FOR SECRETAR	IAT
36.	Ms. Rashmi Somasekharan Nair	CERC
50.	Dy. Chief (RA)	CLIC
	J -	I

#### TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)

Annexure-II



# Presentation Before Forum of Regulator

### **Department of Power**

**Date : 25<sup>th</sup> August'2023** 

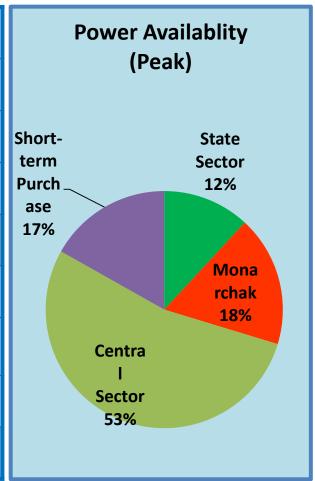
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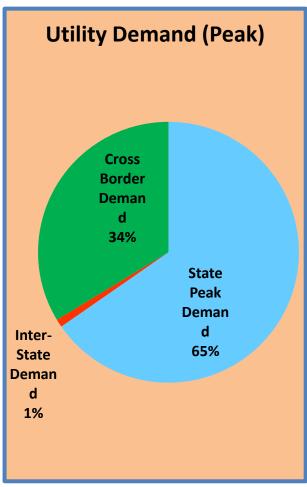
- Techno-Commercial Performance of TSECL
- Achievement in last 5 Years
  - Generation
  - Transmission
  - Distribution
- Action Plan in next 5 Years
  - Generation
  - Transmission
  - Distribution
- Issues & Challenges
- Way Forward
- ❖ TREDA



### **Overview of Present Power Scenario in Tripura**

>	State Sector	60 MW
abilit	Monarchak	90 MW
Total Availability	Central Sector	270 MW
otal /	Short-term Purchase	85 MW
ĭ	Total Availability	505 MW
р	State Peak Demand	330 MW
Total Demand	Inter-State Demand (Mizoram)	5 MW
tal D	Cross Border Demand	170 MW
7	Total Demand	505 MW

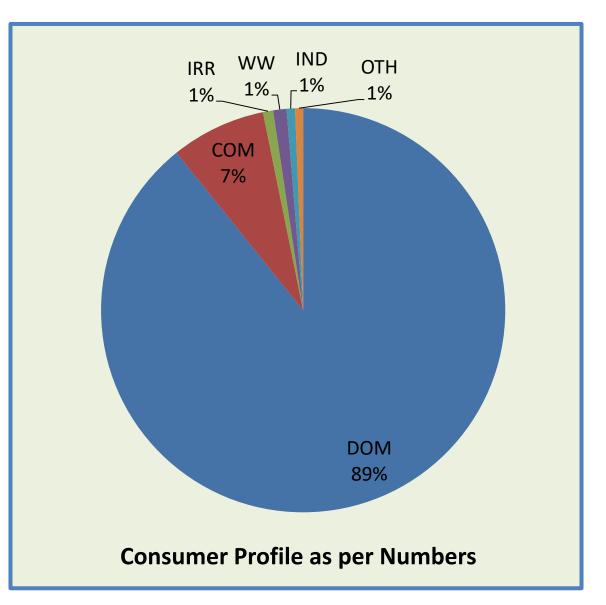




- ☐ Maximum State Demand Observed 362.20 MW on 07/06 /2023
- ☐ Maximum Bangladesh Demand observed 192.42 MW on 11/05/2023

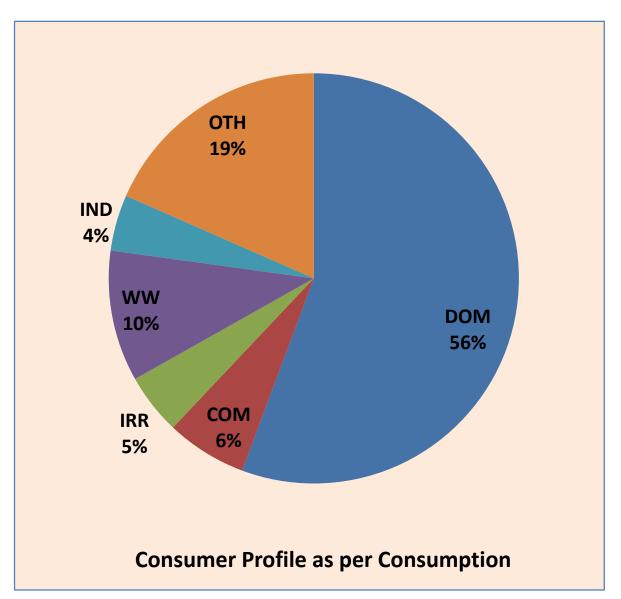
### **Consumer Profile**

FY 2022-23				
Category	Number of Consumers			
DOMESTIC	8,66,513			
COMMERCIAL	73,652			
IRRIGATION	7,924			
WATER WORKS	10,383			
INDUSTRIAL	6,527			
OTHERS	6,211			
TOTAL	9,71,210			



### **Consumer Energy Consumption Profile**

FY 2022-23				
Category	MU Consumption			
DOMESTIC	640.50			
COMMERCIAL	73.13			
IRRIGATION	55.21			
WATER WORKS	118.86			
INDUSTRIAL	50.75			
OTHERS	211.81			
TOTAL	1,150.27			



### **Tripura Power Generation (Conventional)**

Station	Installed Capacity	Present Generation
TSECL OWN GENERATION		
Rokhia Gas Thermal	3x21 = 63 MW	40 MW
Baramura Gas Thermal	2x21 = 42 MW	20 MW
Gumti Hydro Project	2x5 = 10 MW	2 MW
Roof Top Solar Project	4.29 MW	4.29 MW
Total Own Generation	119.29 MW	66.29 MW
CENTRAL SECTOR GENERATION		
Ramchandranagar Gas Thermal, NEEPCO	4x21+51 = 135 MW	110 MW
Palatana Gas Thermal, OTPC	2x363.30 = 726.60 MW	550 MW
Monarchak Gas Thermal, NEEPCO	101 MW	81 MW

### **Tripura Power Generation (Renewable)**

☐ Rooftop Solar Project already established in Tripura as on date under RTS Phase-I and other RESCO Model:

	Capacity (in KWp)
RTS Ph-I	321.00
RESCO Model	4,160.00
Off-grid Power Plant	2,009.00
Stand Alone System (421 Pumps + 19127 SLS)	2,007.00

- □ NEEPCO, Monarchak Solar PV of 5.00 MWp (100% used by TSECL).
- □ 5.00 MW capacity has been sanctioned under PM-KUSUM Component-A Phase-II for the state of Tripura. Out of 5 MWp, Agreement was done for 2 MWp and Agreement is under process for another 2 MWp Solar PV under PM-KUSUM Component-A
- □ 1.00 MW Capacity has been sanctioned under Rooftop Solar Program Phase-II for the state of Tripura. Till date 126 Nos. Application received out of which 72 Nos. Application Feasibility Approved, 7 Nos. already Grid connected and 7 Nos. installation completed and awaited for Net metering.
- ☐ TSECL already PPA with SECI for purchase of 100 MWp Solar power and expected commencement will June, 2024.

### **Operational Performance of TSECL**

SI. No.	Particulars	Unit	2018-19	2019-20	2020-21	2021-22	2022-23
(A)	Energy available at state DISCOM area	MU	1,207.15	1,305.63	1,373.07	1,460.58	1,527.48
(B)	Power Sold	MU	868.23	914.22	982.33	1,099.21	1,150.27
(C)	Efficiencies						
1.b	Billing (State Level) w.r.t. Net Input Energy	%	71.92%	70.02%	71.54%	75.26%	75.30%
2.b	Collection (State Level)	%	90.46%	91.93%	103.28%	93.90%	98.20%
3.b	AT&C Losses (State Level)	%	34.94%	35.63%	26.11%	29.34%	26.05%
(D)	ACS-ARR Gap	Rs./kWh	-0.13	0.19	-0.05	0.40	0.94
(E)	DT Failure	%	11.19	10.36	8.71	9.39	8.90

**AT&C Loss = Aggregate Technical & Commercial Loss** 

**ACS = Average Cost of Supply** 

**ARR** = Average Recoverable Rate

### **Action Plan for Next 5 YEAR: Generation**

SL. NO	PROJECT	Scheme	STATUS	TARGET DATE
1	120 MW ROKIA CC Power Project with ADB Loan	ADB	NIT published on 09.03.2023, BOD on 23.05.2023	Oct. 2026
2	<b>GUMTI HYDRO ELECTRIC PLANT (3 x 5 MW):</b> To complete Renovation & Modernization of the Plant.	ADB	Proposal for NEC Funds (Rs. 68 Lakh) to prepare DPR, RLA and Bid Documents submitted on 06.03.2023	Jan. 2026
3	MAHARANI MICRO HYDEL (2 X 500 KW): Revival under Rehabilitate, Operate and Maintain (ROM) Model by the Private Sector.	PPP Model	Tender Floated, yet to be finalized.	Dec. 2025
4	<b>84 MW Baramura CC Power Project:</b> Replace existing Open Cycle Units with a Combined Cycle Plant.	Not yet decided	Proposal for NEC Funds (Rs. 60 Lakh) submitted on 06.03.2023 to conduct a feasibility Study and prepare DPR thereafter.	March 2027
5	Floating Solar Power Plant at Dumbur Lake of 100 MWp capacity	Joint venture with NTPC		March 2028
6	Setting up of <b>Battery Storage</b> for using Solar Power at Peak Hours.	Not yet decided		March 2028

### **Achievements in 5 yrs: Transmission**

4 nos. of new 132 KV sub-station and 8 nos. of new 33 KV sub-stations have been commissioned under NERPSIP.
 Augmentation of 6 nos. of 132 KV sub-station and 7 nos. of 33 KV sub-stations under NERPSIP.
 Under NERPSIP 416CKm of 132 KV and 406CKm of 33KV transmission line have been constructed.
 For communication 532Km Optical Ground wire have been installed under NERPSIP.
 Augmentation by capacity addition of 132 KV sub-station, Garodtilla, Kamalpur under IPDS and completed on Oct-2020.
 Renovation and up-gradation of protection system in the sub-stations of Tripura under PSDF Fund and completed on April-2022.
 132 kV transmission line from Ambassa to Gandacherra under NEC Project and completed on Dec-2022.

**IPDS:** Integrated Power Development Scheme

**PSDF**: Power System Development Fund

### **Future Project: Transmission**

□ Augmentation of 132 KV Surjamaninagar sub-station into 400 kV sub-station.
 □ 5 Nos. 132 KV New sub-station in Tripura.
 □ 7 Nos. 132 KV sub-station (Augmentation by capacity addition)
 □ Commissioning of 13 Nos. 268Km, 132 KV New line.1

### **Achievements in Last 5 Years: DISTRIBUTION**

#### ☐ Completed Centrally aided schemes :-

- 1)DDUGJY
  - i) RE-DDUGJY (XII Plan)
  - ii)DDUGJY(ph-I/New)
  - iii)DDUGJY (Ph-II/Addl. Infra)
- 2) IPDS (Integrated Power Development Scheme)
- 3) Pradhan Mantri Sahaj Bijli Har Ghar Yojna (Saubhagya)

#### □Infrastructure added:-

- ■15 nos. of new 33/11 KV sub-station commissioned.
- Construction and extension of 3993CKm HT Line.
- 2806 Ckm over-head,6321Ckm AB cable, 218 Ckm UG Cable have been constructed/augmented.
- 4118 nos of Distribution Transformer added.
- Electrification of 912 nos. Habitat has been completed,214887 nos of on-grid household connections and 3601 nos of Solar connections were given184228 nos of pre-paid connections were given.

#### **TSECL's initiatives**

#### **State Transmission Unit:**

Formation of the State Transmission Unit named as Tripura Power Transmission Limited (TPTL) through unbundling of Transmission and Distribution wing of TSECL as per guideline of Ministry of Power, Govt. of India. TPTL is the first company in the country of its kind to incorporate Power Substations of 33kV level.

#### Distribution Franchisee :

Appointed 5 (Five) Input Based Distribution Franchisee in Public Private Partnership (PPP) model in 5 Nos Loss making Distribution Divisions.

- Name of Divisions: Mohanpur, Sabroom, Kailashahar, Ambassa and Manu.
- Improve in Billing Percentage: As billing is being done in 11kV level, thus Billing percentage is considered as 100% which results increase in billing percentage by 34%.
- Improve in Revenue Collection by 22%.

#### **Smart Centralised Customer Care Centre:**

Introduced Smart Centralised Customer Care Centre for registration of consumer complaints from all corner of the state through **24x7 toll free number "1912**" along with highly equipped "**Fault Rectification Team**" in Agartala City for early redressal of complaints.

#### **\*** Enterprise Resource Planning (ERP):

Implemented Enterprise Resource Planning (ERP) to bring transparency in functionalities of TSECL.

#### **Action Plan for Next 5 years : DISTRIBUTION**

#### a. REVAMPED DISTRIBUTION SECTOR SCHEME (RDSS)

- To reduce Aggregate Technical & Commercial (AT&C) Loss up to 19% by FY 2024-25.
- To reduce Avg. Cost of Supply Avg. Revenue Realization (ACS-ARR) Gap to Zero (0) by FY 2024-25.
- Following works will be done under RDSS:-
  - Replacement of 8400 CKM LT bare line by AB Cable,implementation of 925 CKM High Voltage Distribution System (HVDS), 32 nos. Feeder Bifurcation is planned under loss reduction component of RDSS.
  - Installation of 4.47 lakh Smart Prepaid Meters and 1 lakh Prepaid Meter, metering of 14908 nos of Distribution Transformer and metering of 473 nos. of feeders(11kV) is planned under Smart Metering component of RDSS.
  - Implementing SCADA systems in 9 towns for real-time monitoring and control of the distribution network, 3 nos. of highly dense strategic locations are identified for GIS Substation, upgradation of 154 CKM of 33kV lines and 1410 CKM of 11kV line under modernisation component of RDSS.

#### b. <u>Distribution Reliability Improvement Project funded by ASIAN DEVELOPMENT BANK (ADB)</u>

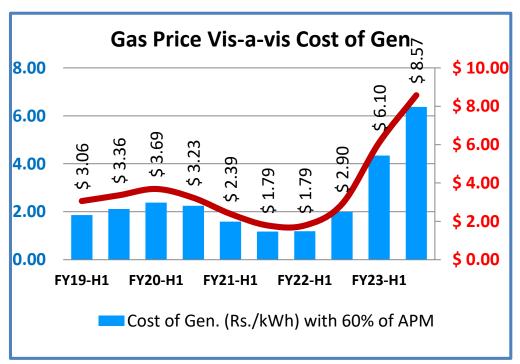
- ❖ Funding Pattern: Asian Development Bank (ADB) 80%, Govt. of Tripura 20%
- Duration of Project: 3 (Three) Years.
- Following works are to be done under ADB:
  - Construction of 143 KM under Ground Cable, 1650 KM Covered Conductor and 1800 KM of LT AB Cable
  - Installation of 1.2 Lakh Smart Meter.
  - Construction of 1262 KM High Voltage Distribution System (HVDS)
  - Renovation of 27 nos. of 33/11 KV Sub-station.
  - Distribution Automation (FPI/Sectionaliser/Auto Re-closure)
  - Setting up of a Transformer Testing Lab (1 Nos) at ESD-Bishalgarh.
  - Distribution Network Mapping and Consumer Indexing through GIS.

### **Issues & Challenges**

#### **Generation:**

- Non-availability of pollution clearance of our Rukhia Plant restrict us for using 2 out of 3 nos. 21 MW units and thus reducing our overall efficiency & increasing the cost of generation.
- ☐ Reason behind increase of Average Cost of Generation:-
  - ➤ Escalation in gas price from 1.74 USD to 5.142 USD from the period of 1<sup>st</sup> Oct 2022 to 31<sup>st</sup> March 2023 resulting in increase of generation cost for both of the gas based Power Plant ie. For GTPS, Rokhia PP and GTPS Barmura PP.

POWER STATION	PRESENT GENERATIN G CAPACITY	Total c	ost of Ge ( Rs/ Kw	neration h)
	(MW)	2020-21	2021-22	2022-23 (up to Dec.)
GTPS, Rokhia	19	2.61	2.82	7.66*
GTPS, Baramura	39	2.24	2.88	5.37*
HEP, Gumti	2	2.78	2.41	2.10



### **Issues & Challenges**

Contd...

#### **Transmission:**

ROW issues resulting non completion of long pending transmission lines & thus creating hindrance for proper evacuating of power.

#### **Distribution:**

- □ No tariff hike since 2014 rather reduction of 2.34% due to increase of rebate from 2% to 5%.
- ☐ Increase of POC charges impacting around Rs.80 Cr. additional per annum.
- ☐ Increase of APM Gas price around 196% impacting around Rs.202 Cr. additional per annum
- Delay in payment of cross border power because of Bangladesh internal issue. Present dues around Rs.122 Cr.
- AT&C Loss of TSECL gradually decreasing from 34.94% (FY19) to 26.05% (FY23). Though it is still high, TSECL is trying to reduce it to 19% as per RDSS set target by FY25.
- Unresolved issue of NEEPCO power purchase rate because of escalation of original project cost, matter pending at APTEL and status quo to be maintained as per the latest APTEL order.

# Future Roadmap: Vision 2030 TSECL's own initiative

#### **Separation of TPGL:**

TSECL is aiming to separate assets and functionalities of TPGL through formation of an independent organisation by FY 2025-26.

#### **\*** Conversion of existing Overhead Electrical lines by Under Ground Cables:

Aiming to implement in Agartala and other District Head Quarters.

#### **EV Charging Stations:**

TSECL is aiming to set up Charging Stations for Electrical Vehicle (EV) at different strategic locations though out the state.

#### **\*** Floating Solar Power Plant :

Planning to set up a **Floating Solar Power Plant** at Dumbur Lake of 100 MWp capacity.

#### **\*** Battery Storage:

Planning to set up **Battery Storage** for utilisation of Solar Power at Peak/Night Hours.

#### **❖** Asset Mapping:

Asset Mapping up to the consumers level has been planned on GIS platform to facilitate proper energy auditing.

#### **❖** Installation of 130 MWp Flouting Solar Plant :

TSECL plan for setting up 130 MW Flouting Solar Plant at Gomati Reservoir through NTPC.

### **Way Forward**

#### **GENERATION**

☐ Taken up with State Pollution Control Board & MoEF for early Pollution Certificate of the existing Plant.

#### **TRANSMISSION**

Already taken up with Administration to resolve the ROW issue jointly.

#### **DISTRIBUTION**

- ☐ Submitted tariff Petition for coming year tariff along with regularisation of past expenditures.
- ☐ Follow up with the concerned Govt. for settlement of dues.
- ☐ Converting from bare to cover conductors for LT lines to arrest pilferage.
- ☐ Taken up with Bangladesh Govt. & suggested for Rupee transaction.

# Thank You

#### **Status of Distribution Project under RDSS**

#### (Physical Status)

SI. No.	Description of Work	Name of Agency	Present Status	
Α	Prepaid & Smart Metering			
1	11kV Outgoing Feeder Metering - 473 Nos (Fund allotted – Rs.2.00 Cr.)		Tender has been cancelled due	
2	Distribution Transformer Metering - 14,908 Nos (Fund allotted - Rs.34.00 Cr.)	Yet to be awarded	to high quoted price. RFP is	
3	Consumer Smart Prepaid Metering - 4.47 Lakh (Fund allotted - Rs.268.00 Cr.)		under preparation for retender.	
4	Consumer Prepaid Metering - 1 Lakh (Costing: Rs.18.00 Cr., Fund Booked- Rs.12.00 Cr.)	Departmental Execution	Meters had already been purchased. Installation to be started shortly.	
В	Infrastructure Development for Loss Reduction			
1	Dhalai Package: LOA Value- Rs.22.22 Cr.			
	LT AB Cable-332 KM, HVDS- 43 KM, Feeder Bifurcation- 10 CKM		90% GPS Survey works is	
2	Khowai Package: LOA Value- Rs.50.10 Cr.		completed. GTP & Drawings are	
	LT AB Cable- 854 KM, HVDS- 86 CKM, Feeder Bifurcation- 24 CKM	Techno Power Enterprises Pvt. Ltd.,	approved . 15% major materials ( Pole, Conductor) are reached	
3	Sepahijala Package: LOA Value- Rs.89.37 Cr.	Kolkata		
	LT AB Cable- 1453 KM, HVDS- 79 CKM, Feeder Bifurcation- 42 CKM		at site.	
4	Gomati Package: LOA Value- Rs.72.09 Cr.			
	LT AB Cable- 1190KM, HVDS- 134 CKM, Feeder Bifurcation- 28 CKM			
5	West Tripura Package: LOA Value- Rs.50.10 Cr.		GPS Survey works in progress. Approval of Vendor, GTP &	
	LT AB Cable- 723 KM, HVDS- 106 CKM, Feeder Bifurcation- 26 CKM	Enn Aar Poles, Guwahati		
6	North Tripura Package: LOA Value- Rs.72.43 Cr. LT AB Cable- 1109 KM, HVDS- 143 CKM, Feeder Bifurcation- 35 CKM		Drawings are in process.	
	Unakoti Package			
7	LT AB Cable- 440 KM, HVDS- 37 KM, Feeder Bifurcation- 10 CKM	Suhara Powerline Pvt. Ltd., Nagpur	BOD has advised to re-examine	
	South Tripura Package		the tenders	
8	LT AB Cable- 760 KM, HVDS- 90 CKM, Feeder Bifurcation- 10 CKM	Bhattacharya Construction, Agartala		
С	IT/OT Works for Loss Reduction			
1	Revenue Management System (in OPEX Mode) (Fund allotted- Rs.20.00 Cr.)	BCITS Ltd.	In Operation but REC has	
	Centralise Customer Care Centre	Teleperformance Global Services	disallowed and instruct to float	
2	(in OPEX Mode) (Fund allotted - <b>Rs.10 Cr.</b> )	Pvt. Ltd.	fresh tender.	
3	Deployment of Cloud Server for existing ERP System inc. implementation of Project Execution Management System. (LOA Value- <b>Rs.1.88 Cr.</b> )	Tata Consultacy Services Ltd.	Preparation of Cloud Infrastructure is completed & Designing of PEMS is in progress.	
4	Online Transformer Monitoring System (Fund allotted: Rs.10.00 Cr.)	Yet to be awarded	RFP is under preparation	

#### **Status of Distribution Project under ADB Funded Project**

#### (Physical Status)

SL No	Description	Name of Agency	Status	
	Package-I (Renovation of Sub Station – 27 nos)			
1	Supply of items & Construction for R & M of 33/11KV Sub-station with supply & installation of FPI's/RMU/Auto reclosers, Supply of vehicle mounted Cable fault locator and Transformer repairing centre with testing Lab. LOA Value=Rs.56.83 Cr	T & T Project Limited, Kolkata	DGPS survey work is completed , GTP & Drawings is approved and agency offered for inspection of major materials & <b>24 nos RMU had already been installed</b> .	
	Package-II (UG CABLE- 143.46 KM, CC- 758.00 KM, ABC – 515.00 KM)			
	Turnkey contract for Supply & construction of New / Augmentation of 33KV /11KV/LT lines,		DGPS survey work is completed, GTP & Drawings is approved and agency offered for inspection of major materials. <b>412 nos</b>	
2	Lot-1, EC-I & II WEST LOA Value=Rs.119.72 Cr	L & T Limited,	Pole erected & 2.60 KM UG Cable laying work is completed &	
	Lot-2, EC-KHOWAI LOA Value=Rs.70.20 Cr	Chennai	balance work is in progress.	
	Lot-3, EC-DHARMANAGAR & UNAKOTI & DHALAI(Re-tender)		BOD has advised for re-tendering.	
	Package-III ( CC- 892.00 KM, ABC – 385.00KM)			
	Turnkey contract for Supply & construction of New / Augmentation of 33KV /11KV/LT lines,	Techno	DGPS survey work is completed, GTP & Drawings is approved and agency offered for inspection of major materials & <b>7573</b>	
3	Lot-1, EC-SEPAIJALA, LOA Value = Rs.75.84 Cr	Electrical &	nos Pole erected & 3.50 KM Covered Conductor stringing	
	Lot-2, EC-GOMATI, LOA Value = Rs.91.86 Cr	Engineering, Kolkata	work is completed & balance work is in progress.	
	Lot-3, EC-BELONIA, LOA Value = Rs.62.88 Cr	Koikata		
4	Package-IV (Smart Meter) (1.50Lacs)		NOC received from ADB on 01/08/2023 which will be placed in the next BOD for approval.	
	Supply & installation works for Smart Metering			
	Package-V [HVDS] (11KV – 1262.00 KM,16KVA – 582 Nos, 25 KVA - 547 Nos)			
5	Turnkey contract for Supply & construction of HVDS in selected areas or feeder		After finalization of Package-I to Package-IV, re-allocation of cost of Package-V will be determined.	
	Package-VI			
6	i) Consultancy firm(Technical & financial roadmap) : Network Survey, mapping & distribution Roadmap Planning report		Shorting of Consultant by EOI has been done, now RFP will floated by 21/08/2023	
	ii) Consultancy firm: PIC 32		NOC is received from ADB.(L1 bidder – WAPCOS)	
7	Contingency @5%			

### (Financial Status) **LOA details**

#### Status of Distribution Project under ADB Funded Project

SI. No.	Description	Name of Against	LOA value excluding	LOA value including
1	Package-I	Name of Agency	GST (in Rs)	GST (in Rs)
	Supply of items & Construction for R & M of 33/11KV Sub-station with supply & installation of FPI's/RMU/Auto reclosers, Supply of vehicle mounted Cable fault locator .	T & T Project Limited,Kolkata	568372317.00	670679334.00
2	Package-II			
	Turnkey contract for Supply & construction of New / Augmentation of			
	33KV /11KV/LT lines,			
	Lot-1, EC-I & II WEST	L & T Limited, Chennai	1197296442.34	1412809802.00
	Lot-2, EC-KHOWAI	L & I Lillilleu, Cheillai	702080295.28	828454748.00
	Package-III			
3	Turnkey contract for Supply & construction of New / Augmentation of			
	33KV /11KV/LT lines,			
	Lot-1, EC-SEPAIJALA	Techno Electrical & Engineering, Kolkata	758474850.15	895000005.00
	Lot-2, EC-GOMATI		918644067.80	1084000000.00
	Lot-3, EC-BELONIA	Linginieering, Norkata	628813559.32	742000000.00
	TOTAL	4773681531.89	5632943889.00	

Two agreements signed

- 1. Loan Agreement signed on 30-12-2022
- 2. Project Agreement signed on 30-12-2022

The Govt. of Tripura released Rs.47.00 Cr. on 19/01/2023 and Rs.74.00 Cr. 02/08/2023 i.e. Rs.121.00 Cr. which is disbursed among the awarded agencies.



#### **Annexure-III**

	DETAILS OF SERCS WHO HAVE SPECIFIED THRESHOLD LIMITS						
Sl.	SERC	Threshold	Remarks	Link			
No.		Limit (₹)		_			
1.	Rajasthan	250 Cr.	RVPN must adhere to ₹ 250.00	POF			
			Crore limit, prioritize TBCB				
			process, prevent project splitting,	Order.pdf			
			and consider GSS + bays + lines as				
			one to avoid cost reduction.				
2.	Assam	100 Cr.	-	<u>Order</u>			
3.	Bihar	100 Cr.	-	<u>Order</u>			
4.	Gujarat	100 Cr.	Excluding land cost	<u>Order</u>			
5.	Haryana	100 Cr.	-	<u>Order</u>			
6.	Himachal Pradesh	45 Cr.	For Intra State Transmission Line	<u>Order</u>			
			or Sub-station or both				
			Transmission Line and Sub-station				
			as a package (where the proposed				
			Transmission Line is associated				
			with the proposed Sub-station)				
7.	Uttar Pradesh	_	Projects of 220 kV & above	<u>Order</u>			
			voltage level being part of STU				
			shall be implemented through				
			TBCB route. *				
8.	Jharkhand	175 Cr	Any deviation from the guidelines	<u>Order</u>			
			should have prior approval of the				
			Commission				
9.	Madhya Pradesh	250 Cr.	-	<u>Order</u>			
10.	Maharashtra	500 Cr	Excluding land cost	<u>Order</u>			
11.	Orissa	100 Cr.	Except projects of 400kV and	<u>Order</u>			
			above voltage level and projects of				
			strategic importance.				
12.	Punjab	250 Cr.	-	<u>Order</u>			
13.	Uttarakhand	100 Cr.	-	<u>Order</u>			
14.	J&K And Ladakh	100 Cr.	-	<u>Order</u>			
15.	Chattisgarh	250 Cr.	State Govt. must get approval for	<u>Order</u>			
			strategic/critical transmission				
			projects exceeding TBCB limit.				

<sup>\*</sup> Certain greenfield intra-State transmission projects will be included in the RTM framework under Section 62 of the Act, subject to the Commission's approval. These projects include:

<sup>(</sup>a) Strategic projects or urgent works supported by State Government recommendations.

<sup>(</sup>b) Deposit-funded works.

<sup>(</sup>c) Small schemes like LILO lines costing up to Rs. 100 Crores. Excess costs beyond this will be borne by the licensee, not through Regulated Tariff.