GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No. 2021/EEM/180/5-Part(1) New Delhi 18.04.2023

Principal Chief Electrical Engineers
All Zonal Railways & PUs.

Sub: **Target for the Tr.D & Electrical Genl. services for the year 2023-24.**

The targets of Tr. D and Electrical general services for zonal Railways/Production units for year 23-24 are given as under :

Tr.D

i. Improvement in asset reliability – Railway wise targets as **Annexure-I.**
ii. Zero overdue maintenance of TrD assets with regards to 44-point Reliability Action Plan, Updating 44 point reliability action plan over Railsaver on monthly basis.
iii. Grant of NOC for power flow under open access by coordinating Railway for the States of West Bengal, Odisha, Chhattisgarh, Tamil Nadu, Kerala, Telangana and Bihar for additional 30 MW.
iv. Complete switchover to TDMS with all modules OHE, PSI, TPC, RCC/SCADA, STORES/WORKS, Unregulated OHE & Tower Wagon. 100% switchover to TDMS. **TDC-June'2023.**
v. Implementation of TEMS.
vi. Training of all Tr.D staff of newly Electrified territory should be completed in all respect.
vii. Completion of action plan items enclosed as **Annexure II** by **March 2024**.

General Services

i. Saving in non-traction energy - 5%.
ii. Implementation of Energy Efficiency Policy dated 30.12.2022 as per **Annexure III**.
iii. Conduct of Electrical Safety audit of LV installations and their compliance.
iv. Complete switchover to **'Rail Bijli Samadhan'** complaint management system. No physical complaint after **June'2023.**
v. Installation of solar plants of **89 MW** capacity by March 2024. Railway wise distribution given in **Annexure-I**.
vi. As a part of Budget fulfillment of item no. 77 of Budget Speech for FY 2017-18, **717 nos**. Railway stations to be provided with rooftop solar plants. Railway wise distribution given in **Annexure-I**.
vii. Installation of **275 lifts** and **220 escalators** by March 2024. Railway wise distribution given in **Annexure-I**.
viii. Power line crossing upto 33 kV to be made underground.

Others

1. Target of Specific Energy Consumption (in kWH/1000 GTKMs) for year 2023-24 as **Annexure-I.**

2. All Pink Book works of Plan Head-36 more than 3 years old should be completed and closed by March 2024.

All Railways shall make action plan to achieve above targets and send it to Railway Board along with quarterly targets of each action plan item by 30.04.2023. All PCEEs are requested to review the targets on monthly basis.

This issues with the approval of Competent Authority.

18.4.23

(Nisha Manohar Patil)
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Annexure-I

S.N	Railway	SEC (Passenger)	SEC (Goods)	OHE failure cases (2022-23)	Rooftop Solar (MW)	No. of stations to be covered with Solar Plants	No. of Escalators	No. of Lifts
1	CR	18.00	6.03	21	4.00	81	26	30
2	ER	18.70	5.04	25	14.00	81	8	20
3	ECR	19.22	4.29	49	6.00	29	8	16
4	ECoR	18.00	5.06	20	10.00	65	8	8
5	NR	17.70	4.87	56	3.00	42	30	18
6	NCR	18.05	5.30	25	5.00	12	10	20
7	NER	15.04	7.70	21	8.00	69	8	8
8	NFR	19.44	10.00	14	2.00	10	8	8
9	NWR	18.00	9.10	16	8.00	25	20	20
10	SR	18.57	6.10	19	3.00	18	20	19
11	SCR	18.63	4.01	27	1.00	75	8	34
12	SER	14.80	5.83	30	5.00	136	10	20
13	SECR	18.60	5.90	20	5.00	6	8	8
14	SWR	18.56	9.95	22	5.00	34	10	8
15	WR	19.03	4.61	20	1.00	10	30	30
16	WCR	18.01	5.80	27	6.00	24	8	8
17	MR	-	-	-	1.00	0	0	0
18	RCF	-	-	-	2.00	-	-	-
	Total	-	-	**412**	**89.00**	**717**	**220**	**275**

Annexure II

1. Compliance of RDSO SMI for bird prevention (Item 11 of Rly Bd 44 Point Action Plan).
2. Maximum No. of Splices per tension length (15 nos.) and minimum distance between two splices (100 m) to be ensured. (Item 17 of Rly Bd 44 Point Action Plan).
3. Double Contact wire provision at RRA Loc. as per RDSO SMI no. TI/MI/0058 (to prevent Contact wire parting at RRA locations).
4. Shifting of IOL ahead of STOP Signals.
5. Provision of Neutral Section in front of TSS.
6. Modification in connection of disconnector assembly on Top of lightning arrester (LA) as per RDSO SMI No. TI/SMI/0048 (Revision 1).
7. Replacement of Steel Anti creep wire with Copper catenary wire in polluted and coastal area.
8. Provision of 160 sqmm isolator jumpers.
9. Power line crossing upto 33 kV to be made underground.

Annexure III

Action Points	Timelines		
	2023-24	2024-25	2025-26
I. Sustainable Buildings			
1. All existing buildings (having connected load of 30 kW or more) to be made, as far as possible, BEE Shunya/Shunya+ label including installation of Smart Meters for monitoring.	i. Shunya/Shunya+ compliance check ii. 20% existing buildings to be Shunya/Shunya+ certified	40% existing buildings to be Shunya/Shunya+ certified	Balance 40% existing buildings to be Shunya/Shunya+ certified
2. All new and upcoming buildings of 30 KW and above to be made SuperECBC compliant	i. SuperECBC compliance check ii.Integration of Super ECBC Compliance in station redevelopment and new construction tenders as per the guidelines issued by Rly.Bd.	SuperECBC Compliance check at tender and contsruction stage for all upcoming building	SuperECBC Compliance check at tender and contsruction stage for all upcoming building
3. All new residential buildings to be Eco Niwas Samhita compliant	i. Eco Niwas Samhita compliance check ii. Integration of Eco-Niwas Samhita compliance in construction tenders for residential buildings/colonies as per the guidelines issued by Rly.Bd.	Eco-Niwas Samhita Compliance check at tender and contsruction stage for all upcoming residential buildings/colonies/soceitie	Eco-Niwas Samhita Compliance check at tender and contsruction stage for all upcoming residential buildings/colonies/soceities
4. Adoption of ESCO model to implement EE initiatives in existing buildings.	i. Identify Energy Intensive Building. ii. Investment Grade Energy Auditing and ESCO Contracting for EE retrofit implementation for 20% energy intensive existing building	Investment Grade Energy Auditing and ESCO Contracting for EE retrofit implementation for 40% energy intensive existing building.	Investment Grade Energy Auditing and ESCO Contracting for EE retrofit implementation for 40% energy intensive existing building
II. Cloud based centralized Web-Portal for data management, Control and Monitoring			
1. Development of cloud-based data management web portal, led by CRIS.	i. Development of application platform (IR-NIYANTRAC) by CRIS ii. Identify electrical assets for integration with IR- NIYANTRAC	Application Upgradation by CRIS as per assets planned to be integrated.	
2. Installation of IOT devices/smart devices by Railways which are integrable with CRIS application platform.	i. Sanction of an Umbrella work for Zonal Railways in 2023-24. iv. 50% of electrical assets to be integrated with IR NIYANTRAC	50% of electrical assets to be integrated with IR NIYANTRAC	
2.1 Integration of all web-based applications of ZRs to a centralized portal.			
2.2 Online energy use monitoring			

2.3 Intelligent lighting management at stations including 30%-70% platform lighting through NTES			
2.4 Intelligent water management system, control & monitoring of valves, pumps and overhead water tanks.			
2.5 Operational status monitoring of escalators and lifts.			
2.6 Web based energy meter reading, bill generation and payment for housing colonies			
III. Energy Efficiency in Equipment and Appliances			
1. Procurement of BEE 5 star rated appliances.	i. Action plan along with work proposals to be finalized by all Zonal Railways for 100% procurement to be done	Ongoing process	Ongoing process
2. 30%-70% platform lighting circuit segregation.	i. Identification of stations where 30%-70% lighting circuit is not segregated and controlled automatically ii. 50% platforms to be installed with 30%-70% platform lighting circuit segregation	50% platforms to be installed with 30%-70% platform lighting circuit segregation	
3. Replacement of conventional fans with BLDC fans (indoor use).	Replacement of conventional fans with BLDC fans in 50% of existing buildings	Replacement of conventional fans with BLDC fans in 50% of existing buildings	
4. Energy efficiency measures in Workshops, Production units, Loco sheds including use of VFD drives, energy efficient motors, etc.	50 % buildings of Workshops, Production units, Loco sheds to be conducted with Investment Grade Energy Auditing and ESCO Contracting for EE retrofit implementation.	50 % buildings of Workshops, Production units, Loco sheds to be conducted with Investment Grade Energy Auditing and ESCO Contracting for EE retrofit implementation.	
5. Adoption of low carbon cooling systems based on local conditions.	Zonal Railways to explore the feasibility for adoption of low carbon cooling systems based on local condition and implement the same in any one installation per year		
6. Adoption of Lighting, Fan, and AC Controllers.	Integration of controllers in 50% of existing building	Integration of controllers in 50% of existing building	
IV.Power Quality Compensators			
1. Ensuring provision of APFCs	i. Identification of load centres which doesn't have APFCs	i. Installation of APFCs in the 70% identified load centres.	

	ii. Installation of APF Cs in the 30% identifie d load centres iii.Identification of loa d centres having defect ive APFCs iv.Operationalization o f 100% defective APF Cs		
2. Power Quality Restorers sho uld be used as needed	i. Identification of load centers for Power Qua lity Audit ii. Power Quality auidt and Installation of Po wer quality Restorers a t 50% of identified loa d centre	i.Power Quality auidt and Installation of Power qua lity Restorers at 50% of i dentified load centre	
V. Capacity Building and Awareness			
1. Periodic training of the IR Of ficials ✓ Training of Officers, Superv isors and Staff ✓ Hosting training in associati on with IRIEEN, STC and CTIs ✓ Different batches should be nominated for holistic capacity building ✓ Training course - aligned wi th IR objective of net zero carb on emissions	i. Training of staff -eve ry 6 months (IRIEEN ongoing) ii. Training module de velopment for IRICEN iii. Training of Zonal Railways and Producti on Units on EE Policy concepts	Quarterly/Half yearly trai ning of staff at IRIEEN a nd IRICEN	
2. Development of Printed/Digi tal awareness campaign and Fra mework for Energy Efficiency Awards ✓ Development of content alig ning with IR strategies. ✓ Development of presentatio ns, flyers, pamphlets etc. ✓ Development of sustainabili ty-oriented poster for railway st ations and office corridors. ✓ Framework development fo r "Energy Efficiency Awards"	i. Development of first set of awareness medi a content ii. Awareness campaig n in atleast one office a nd one railway station in each division	• Awareness campaign in all major offices and majo r railway stations in each divisions	
	i. Framework develop ment for energy efficie ncy awards ii. Roll-out energy effi ciency awards in zones /divisions	Roll out Annual Energy E fficiency Awards for year 2	
3. Reporting of Energy Efficien cy and Net Zero actions ✓ Development of reporting te mplate ✓ Periodic schedule of reporti ng ✓ Access to information amon g all stakeholders within IR	Quarterly reporting by ZR to Railway Board	Quarterly reporting by Z R to Railway Board	