

INTEGRAL COACH FACTORY, Chennai - 600038

No.Elec/Goals/V-28


Office of the Dy.CEE/C&D  
Date : 18.05.2018

MR-MA/IMS & Dy.CME/QC

Sub : Electrical Departmental goals 2018-19 – reg.

A copy of the Electrical Departmental goals for 2018-19 duly approved by PCEE/ICF is enclosed herewith for updating in your records and in IMS website.

Encl : As above

  
18/05/18  
(M.RAMANATHAN)  
Dy. Chief Elec. Engineer / C&D

प्रतिलिपि प्रेषित /Copy to:


PCEE ; CDE/E, CEE/QA, CECE; for kind information.  
Dy. CEE / P, Dy. CEE / I; Dy. CEE / D;  
Dy. CEE / C, Dy. CEE / EMU;  
SEE/Commg., SEE/MRVC  
AWM / Elec. -I, AWM/Elec.-II, AWM/Elec.-III,  
AEE/Plg., AEE / MPO, AEE/M- I ,AEE/M-II, AEE/L

} for information.

## GOALS FOR ELECTRICAL DEPARTMENT 2018-19

### A) PERFORMANCE GOALS

1. To meet production target as per the latest Production programme of ICF.
2. Maintaining average out turn of 160 LHB coaches per month.
3. Maintaining average out turn of 15 LHB power car coaches per month.
4. Implementation of noise reduction measures in power cars.
5. To assist ICF production as per Programme by making timely arrangement of materials ( both stock and non stock) duly coordinating with stores department for the following builds
  - a. LHB coaches
  - b. 3 phase AC EMU
  - c. 1600 HP DEMU
  - d. 1600 HP DEMU HALDIA
  - e. Kolkatta Metro
  - f. Srilankan DEMU
  - g. MEMU
  - h. DETC
  - i. MG NMR
6. Manufacturing of PROTO TYPE rakes of (a) MEMU (On Board), (b) TRAIN 18, (c) Srilankan DEMU Rakes, (d) Air conditioned AC EMU with under slung electrics with 50% powering & (e) MEMU ( Under slung).
7. Maintaining the out turn of 8 rakes of AC EMU & MEMU per month.
8. Maintaining out turn of 7 DETC coaches per month.
9. Reprinting of ICF approved Electrical Vendor list and issue of amendments on Bi-monthly basis.
10. To submit PR for each revised version to stores within 10 days
11. Processing of non stock indents within 10 days of time.
12. Furnishing of technical comments for OT cases within 7 days of time


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## GOALS FOR ELECTRICAL DEPARTMENT 2018-19

### B. QUALITY GOALS

1. Development of Android APP for Electrical Inspection activities.
2. Extension of Raised walking platform at commissioning shed
3. Provision of resistive load bank for DETC coaches.
4. Provision of scaffold bridge for accessing roof area of the coaches.
5. Review of vendor's approval status based on field performance on quality and supply etc..
6. Ensuring closing of customer complaints under warranty from user railways within 35 days
7. Development of new sources, particularly for LHB coaches.
8. Reduction of non-moving inventory to the tune of Rs 50 lakhs.
9. Furnishing of various material position for special builds and long lead items on monthly basis.
10. To restrict energy consumption per ECU production to 3800 units for the year 2018-19.
11. To limit machine breakdown on Electrical account to less than 0.40% of total machine hours.
12. Installing and commissioning of SCADA in HT power distribution system for monitoring before Dec 2018.
13. Conversion of all 400W metal halide flood light fittings into 300W LED flood light fittings.
14. Replacement of conventional light fittings with energy efficient LED fittings in all colonies by April 2018.
15. Provision of two numbers of 1250 KVA DG set at furnishing division before June 2018
16. Replacement of 75 Nos of old non-star rated ACs into 5 star rated ACs in ICF
17. Automation of street lights of all colonies.
18. Provision of 500 smart meters at ICF colonies for remote monitoring as Phase-II.
19. Reducing compressor energy consumption by 5% over previous year.
20. Commissioning of 24 numbers of VCBs for compatibility with SCADA system by July 2018

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## GOALS FOR ELECTRICAL DEPARTMENT 2018-19

### C) PRODUCTIVITY IMPROVEMENT

1. Provision of Double Starter Battery Charger in LWLRRM coaches.
2. Implementation of HOG in All POWER CAR and LHB AC Coaches.
3. Provision of Door way FDB in all LS/DD Coaches.
4. Preparation of LHB harness in Shop 39 ( 40% of Total Required)
5. Provision of 120 AH Battery in all LHB Non AC Coaches.
6. Provision of EFT & BCS in all LHB Non AC Coaches.
7. Use of Aluminum Coupler in Place of Hose Pipe in Conduit.
8. Provision of LED light Fitting in all Coaches.
9. Provision of BRL in LACCN coaches.
10. Provision of SS Battery boxes in all Coaches.
11. Provision of Reverse cycle RMPU in 25 EOG LHB AC coaches.
12. Provision of Exhaust fan in place of double inlet blowers in LHB AC and Non AC coaches.
13. Provision of 4.5 kW RBC in place of EBCs in LHA AC Coaches.
14. Implementation of wide window in all LHB Non-AC coaches.
15. Implementation of ASR in LSCN coaches
16. Introduction of Wi-Fi based PAPIS in all LHB AC coaches.
17. Provisions of Cab AC in MEMU and AC EMU rakes.
18. Provision of 25KV OHE line from ICF/Furnishing to Annanagar
19. Provision of two VFD for paint booth.
21. Provision of two VFD in Cranes for Re-Generative braking.

### D) DESIGN IMPROVEMENT


1. Development of new design for fan guard.
2. Provision of CCTV in LHB coaches.
3. Networking of CCTV in EMU/MEMU
4. Introduction of PECU in Ladies compartment of EMU rakes and in all coaches of EMU rakes provided with HVAC and automatic sliding doors.

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## GOALS FOR ELECTRICAL DEPARTMENT 2018-19

5. Introduction of Electrically operated passenger alarm switch in EMU/DEMU
6. Provision of PAIL in all coaches of EMUs
7. Relocation of ISU handle in front of Motorman in air conditioned rake with BHEL electrics
8. Provision of Wi-Fi based infotainment system in Train set -18
9. Provision of imported pantry equipment in 4 coaches of Train set-18
10. Provision of oil free compressors in EMU rakes
11. Provision of mobile and Laptop charging sockets in Train set-18
12. Provision of LED based head light and auxiliary head light in EMU rakes and Train set -18
13. Elimination of roof junction box for Lights and fans in EMUs/DEMUs
14. Fault diagnostics monitoring system and joy stick type master controller in DETC.
15. Introduction of couplers for TM connection.
16. Development of BLDC Exhaust fan for LHB coaches
17. Push in type terminal board in end wall terminal board in EMUs/DEMUs.
18. Use of 750V grade cable for control circuits for ICF harness preparation
19. Introduction of Microprocessor based SBC in LHB power car.
20. Implementation of improved RMPU bellow for LHB AC coaches
21. Introduction of connectors for RMPU and Engine controls in SBC in LWLRRM
22. Introduction of new design RBCs in all coaches
23. Modification of exhaust fan arrangement for SBC in Power car.
24. Modified terminal arrangement for Lights and fans distribution in LHB AC coaches.
25. Implementation of enhanced mobile charging socket in LHB AC and non-AC coaches
26. Introduction of Entertainment on Demand and passenger information system through Wi-Fi for passengers using their personal gadgets.
27. Introduction of change of description advice through SAP
28. Provision of ultra-capacitor for engine starting in power car
29. Provision of High capacity RMVU in 3 phase EMU coaches

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## GOALS FOR ELECTRICAL DEPARTMENT 2018-19

### E. DEVELOPMENT OF NEW DESIGNS

1. Train 2018
2. DEMU for Srilankan railways
3. LHB Underslung SLR with 500 KVA DA set
4. Metro – Zhuzhou
5. Underslung DEMU
6. Underslung 3 Phase MEMU
7. Underslung Air conditioned AC EMU
8. Partial Air conditioning of 3 Phase EMU rakes plying in Mumbai area.
9. AC RA
10. SG LHB General Second class
11. SG LHB AC 3 tier
12. ICF drawings for existing design
  - a. LHB General Second class
  - b. LHB Sleeper class
  - c. LHB AC 2 Tier
  - d. LHB AC 3 Tier
  - e. LHB Power car
  - f. 3 Phase air conditioned BHEL rake – 24 sets
  - g. 3 phase EMU rakes – 96 sets

### F. GREEN ENERGY

1. Maintaining Green Energy using windmills and Solar energy to meet 100% of annual energy consumption of the ICF factory.
2. Installation and Commissioning of additional 2 MWp Roof top solar panel at LHB Shed Phase II under PPPA model.
3. Conversion of 6 Nos of 40HP as 25 HP submersible pumps.


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## GOALS FOR ELECTRICAL DEPARTMENT 2018-19

### G. ENVIRONMENT, OCCUPATIONAL HEALTH & SAFETY

1. Additional 25 Nos Low speed High Volume Fan at ICF premises as Phase II
2. Provision of 120 Nos of De contactor boxes with RCCB and Earth Continuity circuit for welding sets.
3. Provision of Bins for Collection of Off-Cuts in all Bays for Proper Disposal
4. Up gradation of Shop 28 & 35 offices, Shop-33 Meeting room.
5. To introduce heavy duty hydraulic lifting table for loading major electrical equipment in self propelled coaches to maintain safe working.
6. Reduction in wastage of cable off cuts in Kolkatta metro coaches.
7. Up gradation of Shop-29 office.
8. Provision of display of working parameters viz torque, drawings, etc.

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