

ACTION PLAN FOR ENERGY CONSERVATION

- **DC-AC CONVERSION OF BB & PA DIVISION**

- Saving in energy per TKM = 564.07 KWH
- Saving achieved for TLA-IGP/year = Rs.16.05 Cr.
- Expected saving after completion of project/year = Rs.124 Cr

- **INTRODUCTION OF AC DC EMU RAKES**

- Saving of 1.03 units per motor coach per km. for AC/DC EMUs. (Average energy consumption of DC EMUs i.e.4.75 units/Km (-) AC-DC EMUs i.e. 3.72 units/Km)
- Saving of 15,77,336 units for 90 AC/DC motor coaches earning 61005 km. per day i.e. .9.00 Cr per annum.
- If all rakes are replaced energy saving would be Rs 30 Cr per annum.

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- **INTRODUCTION OF THREE PHASE ELECTRIC LOCOMOTIVE WITH REGENERATIVE BREAKING**
 - No. of WAG -9 Loco on Central Railway = 60 Nos.
 - Energy saving per day per Loco = 2233 KWH
 - Total energy saving per day = $2233 \times 60 \times 0.9 = 120582$ KWH
 - Total energy saving/year = $120582 \times 365 = 44012430$ KWH
 - Total energy saving achieved/year = $44012430 \times 4.38 = \text{Rs.19.28 Cr.}$
- **COMMISSIONING OF VARIABLE CAPACITOR BANK AT TSS**
 - TATA Power Co. - PF of TSS are more than 95%
 - Requires Capacitor Bank after conversion with 25KV AC system in BB & PA division
 - Tender awarded for 2 TSS at Kasara and TMM
 - Work is being proposed for remaining TSS in WP 09-10

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▪ **MPEB Jurisdiction**

- **Fixed Capacitor Bank available at all TSS – 7 Nos**
- **DRPC commissioned – 2 (MTY,BZU)**
- **DRPC under commission –(PAR,GDYA) – 2 Nos.**
- **DRPC approved in WP 08-09 - 1**
- **Being proposed in WP 09-10 – 2 Nos.**

▪ **MSEB Area**

- **Total TSS – 22 Nos.**
- **Fixed Capacitor available – 3 TSS**
- **DRPC Commissioned – 3 TSS**
- **Work sanctioned – 7 TSS work under progress**
- **Works being proposed in WP 09-10– 9 TSS**

- **Revival of THK Power Plant –Expected Saving of 110 Crore Per Annum Project is being prepared.**
- **Taking supply through open Access System for existing**

ACTION PLAN FOR ENERGY CONSERVATION

- **RATIONALIZATION OF TSS ZONE TO CONTROL MAXIMUM DEMAND AND ENERGY CONSUMPTION ABOVE MINIMUM GUARANTEED LEVEL**
- **Nagpur division - Provision of neutral section between Teegaon -Chichonda to extend feeding zone of PAR TSS to avoid TMC charges**
- **PARALLELING OF POWER TRANSFORMER TO CONTROL MAXIMUM DEMAND AT BSL - 3 TSS, NGP – 2 TSS**
- **PROVISION OF COASTING BOARD – 100 % PROVIDED IN ALL DIVISION**
- **MONITORING OF ENERGY CONSUMPTION TRAINWISE AND DRIVERWISE AS PER TRIP RATION – 100% ENERGY METER PROVIDED ON ALL AC ELECTRIC LOCOS**
- **LUBRICATION OF SIDE FACE OF RAIL AT CURVE LOCATION**

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- **USE OF DBR BY LOCO PILOTS - 100 % LOCOMOTIVE ARE PROVIDED WITH DBR**
- **RELAXATION OF SPEED RESTRICTION OF 60 KMPH FOR 50 N BOX LOADED GOODS TRAINS WITH (CC +2 + 6/8) LOADS**
- **IMPROVEMENT IN DYNAMIC SPEED OF FREIGHT TRAINS**
- **REDUCTION IN MOVEMENT OF EMPTY TRAINS TO IMPROVE GTKM**
- **ENERGY AUDIT OF TRACTION SUB STATION – WR TSS NOMINATED RAILWAY BOARD**
- **CORRECT ACCOUNTAL OF GTKM -EXCESS LOAD ARE NOT ACCOUNTED WHERE FOIS TERMINAL ARE NOT PROVIDED**
- **REVISION OF CONTRACT DEMAND OF TSS IN MPSEB AREA**
- **COMPLETED EXPECT PANDHURNA TSS**