

System Improvements towards cost reduction

Sr DFM/BRC

System Improvements - Engg

- Construction and Maintenance of Quarters at BOOT Mode.
- Construction of Boundary wall next to track in city areas on PPP mode with advertising rights with the private player.
- Fixed maintenance allowance for petty Quarter maintenance to staff, IOW staff only for maintenance of service Building and colony Maintenance.

System Improvements - Engg

- IRPSM to be expanded to cover estimate sanction, LOA, Billing , completion report etc.
- Revenue works can also be processed on system like IRPSM , to be monitored at Zonal level.
- Equivalent manpower for Large Track Machines can be decided since sanctioned strength remains the same inspite of mechanisation of track maintenance.

System Improvements - Engg

- Travelling gateman for Uneconomical Branch Line .
- AEN as personnel officer?
- Only one PVC bill for contracts below a certain value (2 Crs) to save time and efforts of executive and accounts staff.

System Improvements - Engg

- Fixed Performa to certify before the award of tender that plan are ready and site available .
- Incentives/ penalties / milestones as a part of tender conditions.
- Release of SD to be linked with Completion Report .

Others....

- Zone work for Electrical General service.
- Distribution of linen on the trains.
- Requirement of Guard ?
- Fixed line phones at residence after CUG, Patch between Railway and BSNL network.
- Mobile trolleys / briefcase for running staff.
- Fixed children education allowance like newspaper allowance.

Savings - Quantification

- Travelling gateman

UBL	Total LC	Unmanned	Manned	Interlocked	Non Interlocked	Potential TGM
BRC	590	416	174	50	124	40

• Potential saving = $40 \times 25000 \times 12 = \text{Rs } 1.2 \text{ Crs per annum}$

Savings - Quantification

BSNL Phone

- By surrendering at residence, 35 connections
 - $35 \times 400 \times 12 = \text{Rs } 1.7 \text{ lakhs per annum}$
- Financial implication of Patch line from Railway line to BSNL network- Rs 90,000/ per month i.e 10.8 lakhs per annum. Can be surrendered considering CUG phones to supervisors.

Savings - Quantification

- Scheme Mushkil Aasan under which a van sells Railway Ticket at different points at Anand.
- Launched in 7.6.2012, Avg sale is 29 tickets per day as against 95 tickets through counter.
- Expenditure
 - Staff salary Rs 6.33 lakhs
 - Vehicle hire Rs 3.22 Lakhs
 - Net connectivity charges Rs 28848/-Total Rs 9.85 Lakhs / annum

Thanks

Power saving measures at Palanpur Station

- Replacing standard fittings with LED fittings.
- GSM based Pump Operation.
- Solar water heater of 500LPD.
- Energy efficient fans.
- Energy saver in AC waiting Hall.
- Star rated electrical appliances.
- LED station name board.
- 30% - 70% light management.
- Total Expenditure Rs 20,60,075.
- Actual reduction in power bill by Rs 1.78 lacs during Jan – July 15 as compared to Jan – July 14.

Power saving measures at Palanpur Station

TYPE	Annual Consumption (in KWH)	Annual Consumption (in KWH)	Savings in Annual Consumption	Savings in Rs units
Light fittings	129473	35785	72%	608973
GSM Pump	174266	152484	12%	141591
Solar Geyser	8760	0	100%	56940
EE Fans	42048	28032	33%	91104
5 Star rates AC	335070	279225	17%	362993
Station Name Board	19710	2628	87%	111033
30-70% Light	8760	3628	59%	40475
Energy saver at AC WH	28382	22730	20%	36726
Others	2146	211	90%	5466
Total	7,48,615	5,24,723		14,55,301

Roof top Solar Power Panel

- 10 kwp Solar Power Panel provided on top of Canteen.
- Cost of Equipment Rs 9,34,705.
- Started power production on Nov 2nd 2015.
- Avg yield is 45.13kwh per kwp.
- Yield so far in 14 days is 594 kwh.
- Power bill saved is Rs 5,346.
- Annual saving expected is Rs 1.5lacs.
- 5 yr guarantee. Expected life 15 years.
- <file:///C:/Users/SR.DFM/Desktop/presentation/PV%20Dashboard%20-%20DRM%20Office,%20Ahmedabad.html>

Outsourcing of Health Units

Study conducted in April 2014 of SrDMO/MSH.

- Health unit at MSH has one SrDMO and ADMO.
- No of staff 10.
- Staff salary per month Rs 3,67,990.
- Average OPD cases per day 25.
- One Ambulance with driver. Avg Km run 200kms per month.
- No facility for admitting patients.
- No Xray, Blood Test, ECG or Physio-Therapy facilities.
- Working Hours 8:30 am to 12:00 pm and 4:30 pm to 6:30 pm
- 11 Health units in ADI Division

Cost of treatment of OPD cases

Item	Amount
Staff cost	637000
Medicine	52000
Imprest	2000
Ambulance Imprest	2000
Electrical bill	3000
Hospital Maintenance	2500
Total	698500
OPD per month *	733
Cost per OPD Visit	953
* Jan - March 14	

COST OF ATTENDING TO ONE OUTDOOR PATIENT IN RAILWAY HOSPITAL, Vadodara (2013-14)

- Salary & Other components – Rs.6,22,68,243.53/-
- Cost incurred by Other Departments – Rs. 6,40,541.4/-
- Expanse in demand 11-J-200 is - Rs. 5,06,68,800/-
- Expanse in demand 11-J-300 is - Rs.11,88,000 Rs/-
- Other Cost – Rs. 33,08,488.8/-
- Gross Total- Rs. 11,80,74,073.7/-
- Total 9060 Patients attended the OPD (July month)
- Hence $9060 * 12 = 108720$ per year.

- Cost per patient = **Rs 1086** /-

Maintenance cost reduction in Coaching stock and increasing earnings.

Present Stock and maintenance practices.

- Type
- RPC IV
- Limitations
- ICF Twin pipe air brake.

Maintenance cost reduction in Coaching stock and increasing earnings.

Present Stock and maintenance practices.

- Type
- RPC IV
- Limitations
 - 6 Hours for primary maintenance
 - 4 hours for secondary maintenance
 - 3500 kms for valid BPC for running a train
 - 96 hours of running of train
 - 24 hours idling time

Maintenance cost reduction in Coaching stock and increasing earnings.

Present Stock and maintenance practices.

- Type
- RPC IV
- Limitations
 - Frequent inspections
 - Visual examination
 - Less availability of coach
 - Manpower requirement
 - More sick lines, pit lines, washing lines
 - Maintenance of infrastructure.

Alternative scenario

- Increasing the round trip periodicity from 3500 Kms. To 5000 Kms.
- Cutting down the maintenance time of primary schedule from 6 Hrs to 4 Hrs.
- More LHB coaches
- Online monitoring of defects avoiding frequent examination and maintenance
- Design improvement in frequently failing items
- Development of plug-in type items to minimize maintenance time.
- Wheel Impact Load detection (WILD) shall be upgraded and provided at important junctions of Indian Railways
- Use of Automatic coach washing plant with ETP

Pit Occupation Chart (Present)

		AHMEDABAD STATION PIT OCCUPATION CHART 01.10.2015																								
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PIT 1 (26 CH)	S	12934 BCT												79431 (ABR) + 79430 (ANND)				12902 BCT				12934				
	M	12934 BCT												12917 NZM				12947 PNBE				12934				
	T	12934 BCT												79431 (ABR) + 79430 (ANND)				12934								
	W	12934 BCT												12917 NZM				12947 PNBE				12934				
	TH	12934 BCT												79431 (ABR) + 79430 (ANND)				12934								
	F	12934 BCT												12917 NZM				12934								
SA	12934 BCT												79431 (ABR)				12934									
PIT 2 (26 CH)	S									12844 PURI								12932 BCT								
	M									12844 PURI								12902 BCT				12932				
	T	12932 BCT												16501 SBC				12902 BCT				12932				
	W	12932 BCT																12902 BCT				12932				
	TH	12932 BCT												12844 PURI				12902 BCT				12932				
	F	12932 BCT												18406 PURI				12902 BCT				12932				
SA	12932 BCT												12844 PURI				12902 BCT									
PIT 3 (24 CH)	S	12655 MAS												12915 DLI								12655				
	M	12655 MAS												12915 DLI								12655				
	T	12655 MAS												12915 DLI				19420 MAS				12655				
	W	12655 MAS												12915 DLI								12655				
	TH	12655 MAS												12915 DLI								12655				
	F	12655 MAS												12915 DLI								12655				
SA	12655 MAS												12915 DLI								12655					
PIT 4 (24 CH)	S	15270 MFP												19165 DBG								12833 HWH				
	M													19167 BSB								12833 HWH				
	T													19167 BSB								12833 HWH				
	W													19165 DBG								12833 HWH				
	TH													19167 BSB								12833 HWH				
	F													19165 DBG								12833 HWH				
SA	19420 MAS												19167 BSB								12833 HWH					
OLD PIT 5 (17 CH)	S	19107 UHP												12957 NDLS												
	M													12957 NDLS												
	T													12957 NDLS												
	W													12957 NDLS				DEMU BRC								
	TH													12957 NDLS												
	F													12957 NDLS				12473 JAT								
SA													12957 NDLS													

■ Primary Maintenance

■ Secondary Maintenance

■ Terminating Examination

Pit Occupation Chart (with 5000 kms & 4 Hrs)

AHMEDABAD STATION PIT OCCUPATION CHART 01.10.2015																											
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
PIT 1 (26 CH)	S	12934 BCT										79431(ABR) + 79430 (ANND)						12932 BCT									
	M							12917 NZM						12947 PNBE													
	T							79431 (ABR) + 79430 (ANND)												19420 MAS							
	W							12947 PNBE												DEMU BRC							
	TH	12934 BCT										79431 (ABR) + 79430 (ANND)						12902 BCT									
	F							12917 NZM												12902 BCT							
SA																											
PIT 2 (26 CH)	S	19420 MAS										19165 DBG						12915/DLI									
	M	19107 UHP										19167 BSB						12915/DLI									
	T							19167 BSB						12957/NDLS													
	W							19165 DBG						12957/NDLS													
	TH	12932 BCT										19167 BSB						12915/DLI									
	F							19165 DBG						12915/DLI													
SA							19167 BSB						12915/12957														

OCCUPATION OF PIT LINES (Trains)

Description	Pit Line No.1	Pit Line No.2	Pit Line No.3	Pit Line No.4	Pit Line No.5	Total	Total Occupation
Existing Occupation	3	3	2.1	2.1	1.3	11.5	11.5
Total PM+SM Coaches	3+0	2+1	1.1+1	1+1.1	1.2+0.1	8.3+3.2	
PM Trains	3	2	1.1	1	1.2	8.3	8.3
➤ PM Coaches	62	38	42	22	25	189	189
SM Trains		1	1	1.1	1	3.2	3.2
➤ SM Coaches		23	24	27	3.5	77.5	77.5
	May be increased (in terms of trains)						
If up to 5000 Kms runs , additional occupation	1.2	1.2	1.1			3.5	
If maint. Hours is 4 & 5000 kms runs	2	2				4	

PIT LINE HOURS UTILISATION (SEVEN DAYS)

PITLINE	Total capacity in hours in 7 days (Hours)	Present scenario		Based on <5000 km		Based on 4 hrs + <5000 km		
		Existing Utilization (Maint.hrs)	Idle hours at present (including shunting)	Utilization (Maint.hrs)	Idle hours (including shunting)	Utilization (Maint.hrs)	Idle hours (including shunting)	
1	168	126	42	126	42	140	28	
2	168	126	42	126	42	140	28	
3	168	89	79	126	42	56	112	
4	168	89	79		168		168	
5	168	55	113		168		168	
Total	840	485	355	378	462	336	504	
Overall utilization of pit lines								
			Maintenance hours			Idle Hours available		
Cap. Per pit	Nos of pits	Total cap. In hrs	Utilized at present	After adopting 5000 kms	After adopting 4 hrs +5000 kms	Utilized at present	After adopting 5000 kms	After adopting 4 hrs +5000 kms
168 hrs	5	840	485	378	336	355	462	504

OCCUPAION INCREASED IN PIT LINES FOR ADDITIONAL TRAINS

SNo.	Frequency Of trains	Existing Occupation (Trains)	If up to 5000 Kms runs , additional occupation (Trains)	If maint. Hours is 4 & 5000 kms runs (Trains)
1	DAILY	7	+8	+9
2	WEEKLY	5	+2.2	+4
3	Bi-WEEKLY	2		
4	Tri-WEEKLY+	4		
		18	10.2	+13

Benefits

- Increase availability of coaches for earnings. An enhancement of 10% earning due to this will amount to Rs.7 .03 crores Per month Only on ADI division. (on basis of last year passenger services earning , last year passenger earning is Rs.850 crs)
- Savings in manpower
 - 0.9 men/coach is deputed during primary maintenance.
 - 0.75 men/coach is under gear examination/repair, brake system testing and repair.
 - With Online monitoring system the requirement of staff will reduce by 50%
 - 268 coach depot will save around Rs. 32 lacs.
- Saving in Capital Cost:
 - Each new pit line cost around 7-8 crore rupees.
 - As it doubles the pit line occupation, the saving is in tune of 28-30 crores rupees for setting up of additional requirement.

Ahmedabad station under PPP

- There are 37 BG+19 MG originating trains and 15 BG passing trains.
- There are 30 BG weekly/bi-weekly/tri-weekly originating trains and 71 weekly/bi-weekly/tri-weekly passing trains.
- Daily average traffic is around 1.4 lakh passengers and approx. 276 ton parcel (including luggage, parcel, perishables and leased traffic).
- Daily average Earning is Rs. 56,27,742/-.

Earnings

Sl. No.	Activity	Approx. yearly Earning (Rs.) 2014-15
1)	PRS	42,19,18,256
2)	UTS	129,23,29,981
3)	Parcel (Including Luggage, Hard Parcel, Perishables & Leasing)	46,38,23,118
4)	Ticket Checking	39,47,976
5)	Cloak Room (License Fees after being awarded on Contract)	10,21,000
6)	Retiring Rooms and Dormitories	37,28,028
7)	Parking Plots (Out of 8, only 2 operated by agency)	1,68,00,000
8)	Toilets (all operated on Pay & Use basis by agency)	20,91,763
9)	Commercial Publicity	74,00,000
10)	Catering (As License Fees)	2,44,00,000
11)	ATMs (As License Fees)	36,00,000
	TOTAL	224,10,60,122

Expenditure on staff cost

Sl. No.	Department	Sanctioned Strength	MOR	Average yearly Expenditure(Rs.)
1)	Commercial	705	619	24,04,86,312
2)	Operating	303	312	12,41,94,552
3)	Electrical	207	174	7,68,66,108
4)	RPF	172	152	7,30,36,872
5)	S&T	341	212	13,29,05,904
6)	Medical	20	19	99,25,860
7)	Engineering	166	101	4,45,99,608
	TOTAL	1914	1589	70,20,15,216

Expenditure other than staff.

Sl. No.	Department	Average yearly Expenditure (Rs.)
1)	Commercial (Mechanized Cleaning Contracts)	3,78,98,343
2)	Commercial (House Keeping at TTE Rest Room & ORH)	18,91,892
3)	Engineering (Zonal Contract for ordinary maintenance and repairs of Station and PFs)	67,32,799
5)	Electrical (Stores)	4,56,000
6)	Electrical (Maintenance Contract)	-
7)	Electrical Power Bill	2,97,07,760
8)	S&T (Stores)	5,38,320
9)	S&T (Maintenance Contract)	14,45,000
	TOTAL	7,86,70,114

Constraints.

- Lack of resources for modernisation.
- Curtailment of man power requirements.
- High maintenance cost of assets.
- No plan for replacement of ageing assets.
- Poor adoption of latest technology .

Savings in Expenditure

1. COST OF STAFF			
DEPARTMENT	NO OF STAFF	ANNUAL SALARY	TOTAL EMOLUMENTS
ENGG	89	3,28,70,178	4,27,31,231
ELECTRICAL	83	3,11,82,645	4,05,37,438
S&T	67	3,01,49,457	3,91,94,294
RPF	172	7,30,36,872	9,49,47,933
MEDICAL	20	99,25,860	1,29,03,618
2. COMMERCIAL STAFF			
COMMERCIAL UTS	76	3,41,99,384	4,44,59,199
3. STORES			400000
ENGG			500000
ELECTRICAL			538312
S&T			
4. OUTSOURCED ACTIVITIES			
STATION CLEANING			3,78,00,000
ZONE MAINTENANCE			70,00,000
HANDLING CONTARCT			20,00,000
OTHER MISC AMC CONTARCTS			30,00,000
5. ELECTRICITY CHARGES			
ELECTRICAL CHARGES			2,97,07,760
6. DEPRECIATION OF FIXED ASSETS			
STATION BUILDING	3,12,600 SQFT		3,28,23,000
	AT 1500 PER SQFT	46,89,00,000	
ELECTRICAL	4.32 CR AT 10%		43,00,000
S&T	1.01 CR AT 33%		35,00,000
TOTAL			39,63,42,785

Thanks

Benefits of project

Coach	ICF	LHB
	Integral coach factory	Linke Holfmann Busch
Length with buffer	22.296 mts	24.00 mts
Length without buffer	21.336 mts	23.540 mts
Width	3.245 mts	3.030 mts
made of	stainless steel as compared to mild steel (which is a less ductile material and also heavier than stainless steel) in ICF coaches, this increases its shock bearing capacity in case of a mishap.	
Brakes	Disc brakes whereas ICF coaches have thread brake system hence shorter stopping distance	

Coach	ICF	LHB	Benefits of LBH Coaches
	Integral coach factory	Linke Holfmann Busch	
Noise level	100 decibles	60 decibles	Less noise pollution.
FAC	22	24	LHB coaches have extra seating capacity as compared to ICF coaches (LHB 3-AC - 72 & ICF 3-AC - 64) thus increased revenue every run. On an average 10% capacity increased. (if we run 24 coaches per train)
ACCW	46	54	
ACCN	64	72	
Maintenance Period	6 hrs	6 hrs	
Coadal Life	25 years	35 years	LHB coaches requires less maintenance (intermediate hauling every 5 Lac kms, and periodic hauling every 10 Lac kms) whereas an ICF coach has a shorter maintenance schedule (intermediate hauling every 2 Lac kms and periodic hauling every 4 Lac kms), so by the time an ICF coach is hauled 2 times, an LHB coach can still travel 1 Lac km extra. Thus reduced maintenance cost. Life span is more then ICF coaches with less maintenance.
POH	18 month	36 months	
IOH	9 months	18 months	
Cost in lacs			
Safety & Passenger comfortness			Primary suspension system in LHB coach has coil spring with hydraulic damper and control arm and secondary suspension system springs directly mounted on the sides of frames. This increase comfort in LHB Also I coaches and reduces vibration, and also increases the safety because it has lower rolling effects. CF coaches suspension have a problem of oil spillage from the dashpot.

Coach	ICF	LHB	Benefits of LBH Coaches
	Integral coach factory	Linke Holfmann Busch	
Speed	130 kmph	160 kmph	LHB coaches have a shorter wheel base thus improved ability to negotiate curves at higher speeds.
Environment	Orthodox Toilet System	Controlled Discharge Toilet System (CDTS)	The main objective of introducing this type of lavatories in coaches of Indian Railways to have clean environment around Railway Track within city limits, station premises and maintenance sidings. This system works on electro- pneumatic principle where in, the waste generated from the coach lavatories during run is collected in a retention tank and is disposed off far away from the city limits on meeting certain predefined conditions.
Other features and their utility			The coaches do not climb over each and crash because of a special type of CBC (centre buffer coupler). It is the same thing that is also responsible for the jerk you experience as the train accelerates/decelerates. ICF coaches have screw couplers.

Benefits of project

Rolling stock availability:

- Due to adoption of modern maintenance technologies as above are estimated to enhance rolling stock availability by 20%.
- Will result in more earning.
- An enhancement of 10% earning due to this will amount to Rs.7 .03 crores Per month Only on ADI division. (on basis of last year passenger services earning , last year passenger earning is Rs.850 crs)

Saving of Manpower:

- 0.9 men/coach is deputed during primary maintenance.
- 0.75 men/coach is under gear examination/repair, brake system testing and repair.
- With Online monitoring system the requirement of staff will reduce by 50%
- Saving of Rs. 32.92 lakh Per month (268 coach maintained per day at ADI depot at average manpower cost of Rs. 409.52/coach)

Benefits of project

Saving in Capital Cost:

- Each new pit line cost approximately Rs.8 crore.
- As it near by two times the pit line occupation, the saving is in tune of 20 crores rupees for setting up of additional requirement.
- Better coach utilization will help in reduction in requirement of additional coaches and massive cost.

SAVINGS

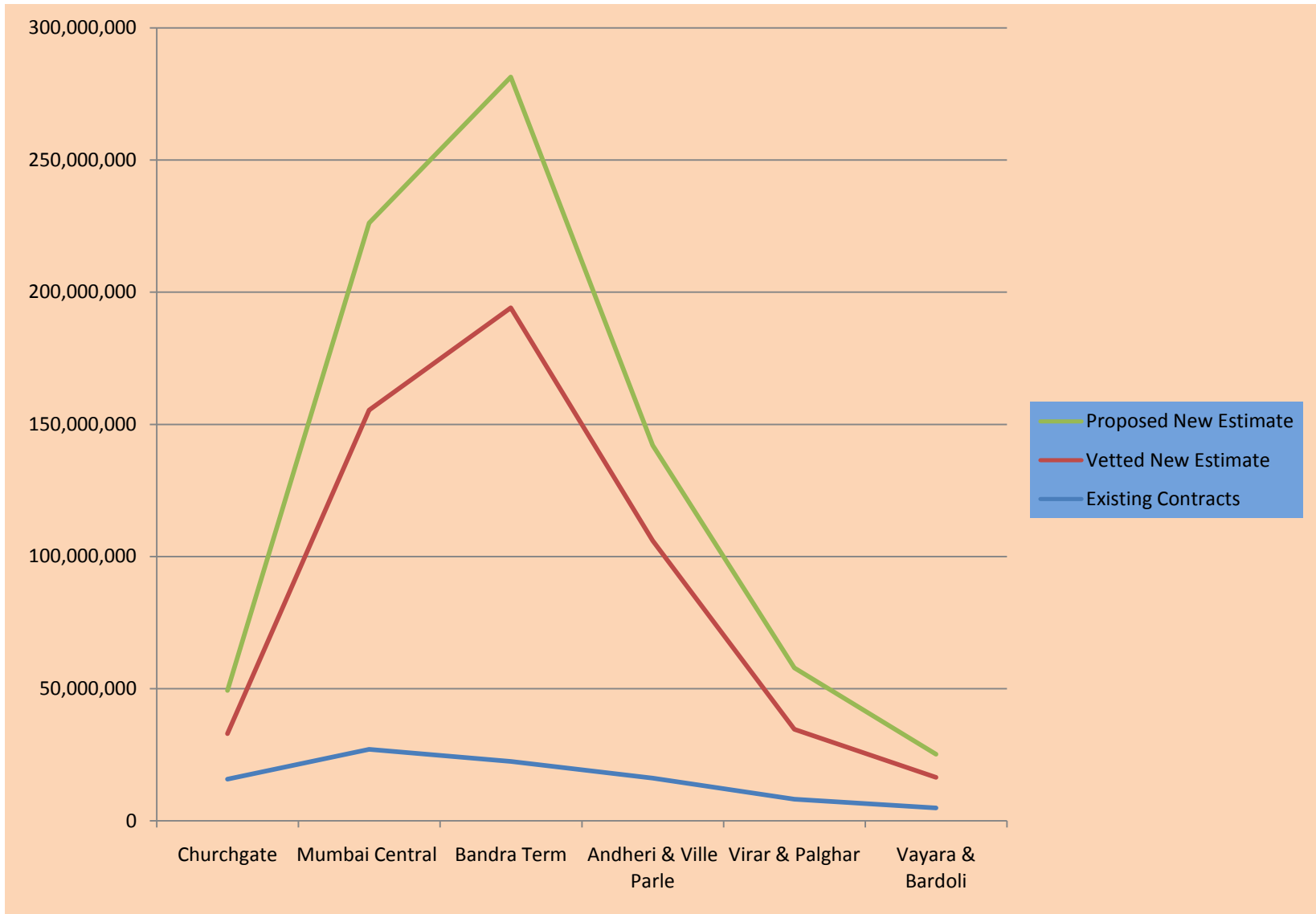
Interdepartmental Policy Issues

SrDFM BCT

Commercial

Cleaning Contracts

Sr. No	Stations	Existing Contracts	Peiod (Yr)	Proposed New Estimate	Vetted New Estimate	Period (Yr)	Remarks
1	Churchgate	1,57,42,978	3	1,71,27,946 (8.80 %)	1,63,92,479 (4.13 %)	3	
2	Mumbai Central	2,69,66,976	3	12,83,79,149 (376.06 %)	7,08,30,949 (162.66 %)	3	Integrated Cleaning Policy Savings achieved is Rs.14,17,44,762/- i.e.(47% over proposed estimate value)
3	Bandra Terminus	2,24,40,580	3	17,15,72,136 (664.56 %)	8,73,75,574 (289.36 %)	3	
4	Andheri & Ville Parle	1,60,58,684	2	8,98,55,988 (459.55 %)	3,61,77,867 (125.29 %)	3	2,53,12,099 Vetted & tender Discharged
5	Virar & Palghar	81,10,879	2	2,64,18,843 (225.72 %)	2,33,64,382 (188.06 %)	3	Earlier vetted for 1,47,03,097 then re-vetted for 2,11,67,478
6	Vyara & Bardoli	48,56,310	2	1,15,06,085 (136.93%)	88,13,849 (81.49 %)	2	Increase in area due to doubling of lines, new offices, platforms & inclusion of minor colony



Suggestions

- Measurements prescribed in cleanliness policy are not realistic
- Need more Objectivity
- Station wise limits of expenditure – affordability
- Policies should be complimentary and not conflicting

Energy Saving Policy

- Rly Bd has set a target of savings of Rs 5000 Cr on Energy bill in next 5 yrs.
- Tap Renewable Energy, like Solar Energy, LED fittings, etc.
- Proposals for using renewable energy sources should be formulated keeping Rly Bd guidelines Dt. 21-12-09 about calculating & claiming subsidies from MNRE for taking green / renewable energy initiatives. At estimate level calculate probable subsidy & saving component for claiming subsidy from MNRE.

CSR AT BCT STN

1. CSR initiatives in switching over from traditional lighting methods to LED
2. M/s Syska had replaced old lightings with new LED fittings under CSR activities at zero cost in lieu of 2 display boards for credits.
3. Cost of two displays of $20' \times 4' = 80$ Sq feet \times Rs 505 =
Rs 40400 \times 2 = Rs 80800 PA

Annual savings from LED Lights at BCT Stn

Sr. No	Details	Unit consumption per annum BCT-Stn	BCT - Stn (PA Cost) Amt. In Rs.	Unit consumption per annum BCT - Div	BCT - DIV (PA Cost) Amt. In Rs.
1	Existing Luminaries	3,17,550	31,75,500	82,75,014	8,27,50,140
2	Replaced luminaries	1,27,020	12,70,200	33,10,006*	3,31,00,060
3	Savings #	1,90,530	19,05,300	49,65,008	4,96,50,080
4	% Cost savings		60		60
	Cost of replacement		50,00,000		13,03,00,000*

* Approximate units considered in proportion to BCT-Stn

Cost is assumed at Rs 10/- per unit

Conflict with Advt. Policy

- At one site if additional area is identified, the preference will be given to the existing contractor.
- If the existing contractor refuses then invite open tender
- No policy for CSR schemes – eg. Syska

Efficient Delivery

- SMS System has been implemented where information can be accessed by contractors and employees regarding status of their bills or other records.

ITEMS	FORMAT	PURPOSE	EXAMPLE to 9004499199
Provident Fund Balance	PFI PFNumber	To know PF Balance	PFI 12152432
PF Application Status	PAI PFNumber	To know the status of PF Loan Application	PAI 13505397
Pass & Leave Account Status	PLI PFNumber	Tells the balance of pass and various leaves	PLI 13505634
Latest Bill Details of a PAN	BLI PAN	Receive bill status through SMS	BLI AAAPV7528E
Bill details of a CO6number	BLI CO6number	Receive the status of that particular bill	BLI 2010182000698
Bill details by mail	BLI PAN emailid	Receive bill details by mail	BLI AAAPV7528E emailid
Bill Details of a year by mail	BLI0809 PAN emailid	Receive bill details of that PAN for that year	BLI0809 AAAPV7528E emailid
Pension Payments	PNI PFNumber	Tells the status of various pensionary dues	PNI 13198956
Tax	TAX CO6number	Various tax deductions of a particular CO6	TAX 2010182000698
TDS of a PAN	TDS PAN	TDS of a particular PAN No	TDS AAAPV7528E
TDS of a CO6number	TDS CO6number	TDS of a particular CO6number	TDS 2010182000698
TDS through email	TDS PAN emailid	Receive TDS details by email	TDS AAAPV7528E emailid
TDS of a particular year	TDSYEAR PAN emailid	Receive TDS of a year by email	TDS0809 AAAPV7528E emailid

Accrued Interest for HBA	HBA PFNumber emailid	Receive HBA details by email	HBA 22004671 emailid
Form16	Form16 PAN emailid	Receive Form16 by email	Form16 ACZPM0999B emailid
Form16 of a particular year	Form160809 PAN emailid	Receive Form 16 of a particular year by mail	Form160809 ACZPM0999B emailid
Pension Pay Order	PPO PFNumber emailid	Get a copy of PPO by email	PPO 13229734 emailid
AUTO Alerts	Given for PF, pension, bills and files	Ensure automatic alerts to stakeholders	System generated
File details	BAR Keywords	To get 5 Barcode numbers and Subject of File matching that keyword	BAR Housekeeping
File in accounts	FILE BARCODE NUMBER	To Know status of that file	File 1280813419906

Service sheets of accounts staff have been scanned and is available on railnet

Confidential reports for the last 5 years of all accounts staff has also been uploaded on railnet.

Leave records of accounts staff has been updated and is available on railnet.

Efforts have been made to approach various utilities like MTNL BSNL BEST MSEB GEB to get consolidated bills for various meters to reduce work load. MTNL and BSNL have been consolidated. Some locations for MSEB has also been consolidated.

- Salary mode has been converted from ECS to NEFT and payment is now credited to account on the same day.
- Cash payment has been discontinued for salary and where ever bank details are not available payment is made by cheque.
- Supplementary bills has been discontinued. All allowances are now added in the regular salary bill.

Month	Sep-15	Oct-15	% 09-15	% 10-15
NEFT	11442	22697	44.58	91.05
NECS	13492	1872		
Self CHQ	730	359		
Total	25664	24928		

Thank You

Ideas for costing System improvement, Innovative practices & Other Activities

Presented by

Ravi Ranjan Kumar

Sr.DFM-RTM

Cost Reduction

Total Fuel expenditure % of RTM division

Total Exp to
end of OCT-15

(558.33 Cr)
(OWE)

Total Exp of 10H
to end of OCT-15

(82.99)
(Fuel+ Electric)

Total Expenditure
of RTM

Division is 15%

Fuel, GTKM & SFC

- **Fuel**
- Filling of Fuel from RCD of Ratlam Division in Western Railway's locomotives are being debited to Home Railway Expenditure under Demand No.10-H Similarly Ratlam Division are accepting the Debit from Foreign Railway for which Locomotives pertains to this Division.
- If filling of Fuel from RCD of RTM Division in Foreign Railway's locomotives than Debit raised to concern railways by RTM Division.
- Fuel Rate will be applicable as advised by Nodal Department of Hqrs. Office Churchgate.
- **GTKM**
- Formula of GTKM = (Gross tonne x Distance)
- Kinds of GTKM :- 1. Passenger 2. Goods.
- GTKM for passenger traffic adopted as advised by Compilation office Ajmer, GTKM for Goods traffic as advised by Sr.DME (Co.) ADI as per FOIS. because such GTKM is more realistic than compare to compilation office Ajmer
- **SFC**:- Specific Fuel Consumption in other words Fuel Consumption per Kilometre by Locomotives. Rate of SFC adopted for raising or accepting the debits as advised by Railway Board.
- There are two types of adjustments made through e-recon are as under :
- Debit & Credit on Account of Filling of Fuel and adjustment made by respective accounting Unit as per stock holding.
- Debit & Credit on Account of GTKM(Borad gauge) earned by respective Locomotives of Western Railway is Centralised only at Ratlam Division as a Nodal office of Western Railway & charged under Demand No. 10-H-200.

Saving in Fuel by avoid detention

- Detention results in loss of Earning besides higher Maintenance costs
- How much Would Detention for one Hour Costs ?
- How much Money can be saved by preventing Detention for one Hour ?
- Detention to Diesel loco Rs. 12890/-
- Detention to Elect. Loco Rs. 12740/-
- Idling of AC coach Rs. 870/-
- Sleeper Coach detention Rs. 440/-
- General coach detention Rs. 450/-
- Detention to covered Wagon Rs. 810/-
- Detention to open Wagon Rs. 690/-
- Detention to Flat Wagon Rs. 740/-

Source :- As per Traffic Costing

Difference of GTKM between 2014-15 and 2015-16 (up to Sep) Fig in Thou

6	GTKM for the Year 2014-15				Month	GTKM for the Year 2015-16				Difference			
	Rate per Thous Ltr	Pass	Goods	Amt.		Rate per Thous Ltr	Pass	Goods	Amt.	Rate per Thous Ltr	Pass	Goods	Amt.
1	2	3	4	5	6	7	8	9	10	11(6-2)	12(7-3)	13(8-4)	14
Apr-14	68631	667318	3716993	620081	Apr-15	54090	853096	3508786	556965	14541	185778	-208207	63116
May-14	68631	698336	4023434	620081	May-15	57041	827693	3810629	586781	11590	129357	-212805	33300
Jun-14	62924	748033	3960055	627974	Jun-15	57041	836394	3690390	586781	5883	88361	-269665	41193
Jul-14	62924	775609	4553861	575755	Jul-15	52859	860632	3923546	572265	10065	85023	-630315	3190
Aug-14	64353	790903	4350545	822753	Aug-15	47405	847160	3027862	481777	16948	56257	-1322683	340976
Sep-14	64353	815014	3972918	600092	Sep-15	47405	863435	3398030	481777	16948	48421	-574888	118315
Total		4495213	24577806	3866736			5088410	21359243	3266646		593197	-3218563	600090

Saving on account of Electric H.T. bills

- Power factor should be 95% & above to get rebate from state electricity board.
- Prompt payment of High Tension bills 7 days prior to due date to get 0.25% rebate.
- Maximum Demand should be maintained upto the level of Contract Demand
- Presently RTM division getting benefit of rebate to the tune of 9.5 Cr. Per annum to maintain power factor upto 95% & above

Action to be taken for fuel saving

- **Running Staff:-**

- The costing shall be done to maximum extent particularly in Down gradients.
- The train should be started in time so that need for running the train at max. speed is avoided.
- The light engine should be shut down if the halt is of more than 15".
- New drivers may be booked for few trips with competent goods drivers as co-driver for ensuring to learn correct costing and controlling techniques.
- During speed restrictions the controlling should be done well in time making use of costing so as to avoid over controlling of trains.

- **Control**

- The precedence of the train should be kept barest minimum.
- Goods trains should be regulated preferably at a station after rising gradient so that train could be controlled by notching down conserving fuel.
- The bunching of trains should be avoided by properly regulating and planning the movement of trains.
- Pre departure detentions should be reduced.
- Terminal detentions should be reduced.

- **Station Staff:-**

- The signals should be given well in time to avoid encountering signals on approach by running staff.
- Stabling of trains on main line should be avoided, which calls for passing through trains vis loop.
- In case of late arrival of trains at station with longer halts the departing signal may be given earlier to use make up time on traffic account and reduce the need for running the train at max. speed.

- **Engineering Department:-**

- The caution order should be regularly reviewed and should be kept to the barest minimum.
- Detonators should be provided before banner flag to avoid use of emergency brake.
- In temporary speed restriction board either florescent strip should be provided or HS lamp should be lit during night.
- T/P, T/G should be provided after temporary speed restriction.

- **S&T Deptt:-**

- The visibility of signals should be kept very good particularly in down gradients so that running staff need not apply.

- **C&W Deptt:-**

- 1. During rolling in examination at major stations brake binding should be reported and attended.

- **Power controllers:-**

- 1. If brake binding in load is noticed it should be coordinated with CCR for soaring of the problem.
- 2. Running of light engines on loco account should be restricted.

Occupancy Ratio of Passenger Trains

- If the occupancy is less than 50% of passenger trains, same may be discontinued to reduce the operating expenditure like-

<u>Train No.</u>	<u>From</u>	<u>To</u>	<u>Occupation %</u>
22186	INDB	BPL	16.06% (Per Trip Per Day Saving Rs.4,63,148/-)
19802	INDB	KTT	29.83%
22184	INDB	HBBJ	7.23%
11702	INDB	JBP	4.53%
19329	INDB	UDZ	49.87%

Total Goods Earning (Originating Basis)

Fig In Cr

For Oct-14	To end of Oct-14	For Oct-15	To end of Oct-15	Remarks
1032.53 Cr.	5182.43 Cr.	991.92 Cr	6659.94 Cr	Down fall during Oct-2015 40.61

Commodity wise earnings of Ratlam Division

Fig In Cr

For Oct-2014	To end of Oct-2014	Commodity	For Oct-2015	To end of Oct-2015
54.66	368.22	Cement	64.65	405.04
16.92	84.66	Food Grains	9.94	52.87
0.00	00.04	Fertilizer	0.00	0.53
14.38	132.27	Mineral Oil	14.75	100.19
17.61	91.15	Oth. Goods & DOC/ Chemical	12.88	147.99

Increase in Earnings

1. **Implementation of Incentive Scheme**:-For goods terminal & PFT (RSWM-Namali) to attract traffic in RTM division like Kota Stone,Chemical,Food grains etc.some incentive scheme should be implemented terminal wise(not commodity wise) which will be more helpful to switchover Road traffic to Rly to generate more goods earning.
2. **Higher Detention charges** :- During Inspection at LMNR good terminal is has been noticed that Private parties are using our Wharf & Wagons as a godown paying minimum charges like Wharfage & Demurrage Such Practice should be discourage imposing higher rate of detention charges
3. **Short lead of CC+6 route** should be convert into CC+8 route which help to enhance the Carrying Capacity upto 04 tonne per wagon.
4. **Minimise Operating Expense** :- As per extant guideline Rly. is charging freight for shortest route whereas apportionment is being made on carried route basis. So goods earning per kilometer receiving less compare to operating expense
5. **Electrification of COR-RTM section** :- (Proposal should be moved)
 - A) All cement traffic originate from the section
 - B) Only such section is Non electrified
 - C) Shunting of Loco should be eliminate
 - D) Minmise Fuel Consumption (in Gross)
 - E) Minimise detention of Loco coaches Wagons also

Efficient Delivery

1. Better & close Co-ordination between HQ & Division
2. Centralised innovation centre
3. Periodical transfer & Training of all supervisors of Accounts deptt. as seniority maintained at HQ level to enhance working skill & adopted uniform policy among all divisions.
4. Regular meeting at HQ level should be organized to review performance and fast disposal of important issues
5. Immediate guideline regarding policy matter should be communicated by HQ to Division

Thanks

Ideas for costing System improvement, Innovative practices & Other Activities

Presented by

Ravi Ranjan Kumar

Sr.DFM-RTM

Cost Reduction

Total Fuel expenditure % of RTM division

Total Exp to
end of OCT-15

(558.33 Cr)
(OWE)

Total Exp of 10H
to end of OCT-15

(82.99)
(Fuel+ Electric)

Total Expenditure
of RTM

Division is 15%

Fuel, GTKM & SFC

- **Fuel**
- Filling of Fuel from RCD of Ratlam Division in Western Railway's locomotives are being debited to Home Railway Expenditure under Demand No.10-H Similarly Ratlam Division are accepting the Debit from Foreign Railway for which Locomotives pertains to this Division.
- If filling of Fuel from RCD of RTM Division in Foreign Railway's locomotives than Debit raised to concern railways by RTM Division.
- Fuel Rate will be applicable as advised by Nodal Department of Hqrs. Office Churchgate.
- **GTKM**
- Formula of GTKM = (Gross tonne x Distance)
- Kinds of GTKM :- 1. Passenger 2. Goods.
- GTKM for passenger traffic adopted as advised by Compilation office Ajmer, GTKM for Goods traffic as advised by Sr.DME (Co.) ADI as per FOIS. because such GTKM is more realistic than compare to compilation office Ajmer
- **SFC**:- Specific Fuel Consumption in other words Fuel Consumption per Kilometre by Locomotives. Rate of SFC adopted for raising or accepting the debits as advised by Railway Board.
- There are two types of adjustments made through e-recon are as under :
- Debit & Credit on Account of Filling of Fuel and adjustment made by respective accounting Unit as per stock holding.
- Debit & Credit on Account of GTKM(Borad gauge) earned by respective Locomotives of Western Railway is Centralised only at Ratlam Division as a Nodal office of Western Railway & charged under Demand No. 10-H-200.

Saving in Fuel by avoid detention

- Detention results in loss of Earning besides higher Maintenance costs
- How much Would Detention for one Hour Costs ?
- How much Money can be saved by preventing Detention for one Hour ?
- Detention to Diesel loco Rs. 12890/-
- Detention to Elect. Loco Rs. 12740/-
- Idling of AC coach Rs. 870/-
- Sleeper Coach detention Rs. 440/-
- General coach detention Rs. 450/-
- Detention to covered Wagon Rs. 810/-
- Detention to open Wagon Rs. 690/-
- Detention to Flat Wagon Rs. 740/-

Source :- As per Traffic Costing

Difference of GTKM between 2014-15 and 2015-16 (up to Sep) Fig in Thou

6	GTKM for the Year 2014-15				Month	GTKM for the Year 2015-16				Difference			
	Rate per Thous Ltr	Pass	Goods	Amt.		Rate per Thous Ltr	Pass	Goods	Amt.	Rate per Thous Ltr	Pass	Goods	Amt.
1	2	3	4	5	6	7	8	9	10	11(6-2)	12(7-3)	13(8-4)	14
Apr-14	68631	667318	3716993	620081	Apr-15	54090	853096	3508786	556965	14541	185778	-208207	63116
May-14	68631	698336	4023434	620081	May-15	57041	827693	3810629	586781	11590	129357	-212805	33300
Jun-14	62924	748033	3960055	627974	Jun-15	57041	836394	3690390	586781	5883	88361	-269665	41193
Jul-14	62924	775609	4553861	575755	Jul-15	52859	860632	3923546	572265	10065	85023	-630315	3190
Aug-14	64353	790903	4350545	822753	Aug-15	47405	847160	3027862	481777	16948	56257	-1322683	340976
Sep-14	64353	815014	3972918	600092	Sep-15	47405	863435	3398030	481777	16948	48421	-574888	118315
Total		4495213	24577806	3866736			5088410	21359243	3266646		593197	-3218563	600090

Saving on account of Electric H.T. bills

- Power factor should be 95% & above to get rebate from state electricity board.
- Prompt payment of High Tension bills 7 days prior to due date to get 0.25% rebate.
- Maximum Demand should be maintained upto the level of Contract Demand
- Presently RTM division getting benefit of rebate to the tune of 9.5 Cr. Per annum to maintain power factor upto 95% & above

Action to be taken for fuel saving

- **Running Staff:-**

- The costing shall be done to maximum extent particularly in Down gradients.
- The train should be started in time so that need for running the train at max. speed is avoided.
- The light engine should be shut down if the halt is of more than 15".
- New drivers may be booked for few trips with competent goods drivers as co-driver for ensuring to learn correct costing and controlling techniques.
- During speed restrictions the controlling should be done well in time making use of costing so as to avoid over controlling of trains.

- **Control**

- The precedence of the train should be kept barest minimum.
- Goods trains should be regulated preferably at a station after rising gradient so that train could be controlled by notching down conserving fuel.
- The bunching of trains should be avoided by properly regulating and planning the movement of trains.
- Pre departure detentions should be reduced.
- Terminal detentions should be reduced.

- **Station Staff:-**

- The signals should be given well in time to avoid encountering signals on approach by running staff.
- Stabling of trains on main line should be avoided, which calls for passing through trains vis loop.
- In case of late arrival of trains at station with longer halts the departing signal may be given earlier to use make up time on traffic account and reduce the need for running the train at max. speed.

- **Engineering Department:-**

- The caution order should be regularly reviewed and should be kept to the barest minimum.
- Detonators should be provided before banner flag to avoid use of emergency brake.
- In temporary speed restriction board either florescent strip should be provided or HS lamp should be lit during night.
- T/P, T/G should be provided after temporary speed restriction.

- **S&T Deptt:-**

- The visibility of signals should be kept very good particularly in down gradients so that running staff need not apply.

- **C&W Deptt:-**

- 1. During rolling in examination at major stations brake binding should be reported and attended.

- **Power controllers:-**

- 1. If brake binding in load is noticed it should be coordinated with CCR for soaring of the problem.
- 2. Running of light engines on loco account should be restricted.

Occupancy Ratio of Passenger Trains

- If the occupancy is less than 50% of passenger trains, same may be discontinued to reduce the operating expenditure like-

<u>Train No.</u>	<u>From</u>	<u>To</u>	<u>Occupation %</u>
22186	INDB	BPL	16.06% (Per Trip Per Day Saving Rs.4,63,148/-)
19802	INDB	KTT	29.83%
22184	INDB	HBBJ	7.23%
11702	INDB	JBP	4.53%
19329	INDB	UDZ	49.87%

Total Goods Earning (Originating Basis)

Fig In Cr

For Oct-14	To end of Oct-14	For Oct-15	To end of Oct-15	Remarks
1032.53 Cr.	5182.43 Cr.	991.92 Cr	6659.94 Cr	Down fall during Oct-2015 40.61

Commodity wise earnings of Ratlam Division

Fig In Cr

For Oct-2014	To end of Oct-2014	Commodity	For Oct-2015	To end of Oct-2015
54.66	368.22	Cement	64.65	405.04
16.92	84.66	Food Grains	9.94	52.87
0.00	00.04	Fertilizer	0.00	0.53
14.38	132.27	Mineral Oil	14.75	100.19
17.61	91.15	Oth. Goods & DOC/ Chemical	12.88	147.99

Increase in Earnings

1. **Implementation of Incentive Scheme**:-For goods terminal & PFT (RSWM-Namali) to attract traffic in RTM division like Kota Stone,Chemical,Food grains etc.some incentive scheme should be implemented terminal wise(not commodity wise) which will be more helpful to switchover Road traffic to Rly to generate more goods earning.
2. **Higher Detention charges** :- During Inspection at LMNR good terminal is has been noticed that Private parties are using our Wharf & Wagons as a godown paying minimum charges like Wharfage & Demurrage Such Practice should be discourage imposing higher rate of detention charges
3. **Short lead of CC+6 route** should be convert into CC+8 route which help to enhance the Carrying Capacity upto 04 tonne per wagon.
4. **Minimise Operating Expense** :- As per extant guideline Rly. is charging freight for shortest route whereas apportionment is being made on carried route basis. So goods earning per kilometer receiving less compare to operating expense
5. **Electrification of COR-RTM section** :- (Proposal should be moved)
 - A) All cement traffic originate from the section
 - B) Only such section is Non electrified
 - C) Shunting of Loco should be eliminate
 - D) Minmise Fuel Consumption (in Gross)
 - E) Minimise detention of Loco coaches Wagons also

Efficient Delivery

1. Better & close Co-ordination between HQ & Division
2. Centralised innovation centre
3. Periodical transfer & Training of all supervisors of Accounts deptt. as seniority maintained at HQ level to enhance working skill & adopted uniform policy among all divisions.
4. Regular meeting at HQ level should be organized to review performance and fast disposal of important issues
5. Immediate guideline regarding policy matter should be communicated by HQ to Division

Thanks