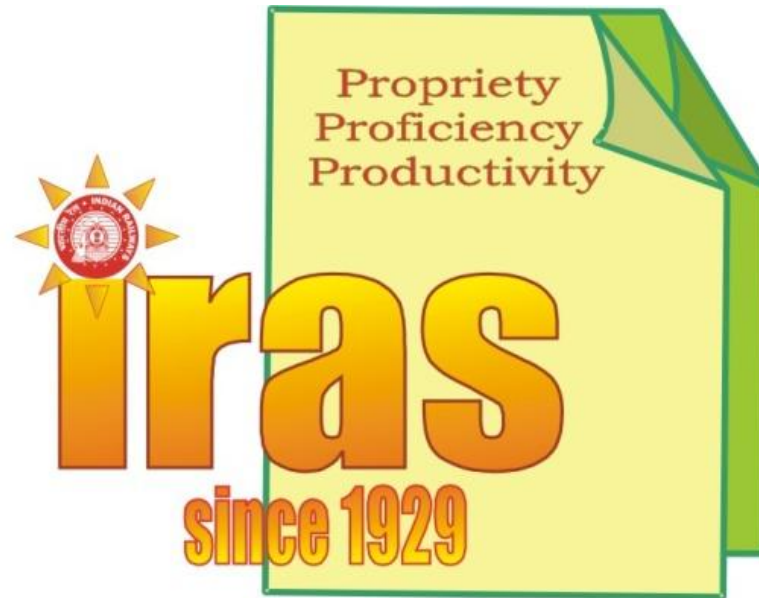


Welcome



IRAS DAY- 2015

FA&CAO's CONFERENCE



IRAS DAY - 2015

28-11-2015

Minute to Minute Programme

SN	Time	Event
1	9.30 : 10.00	Assembly at Manekshaw Centre, Parade Road, Delhi Cantonment, New Delhi
2	10.00 : 12.00	FA&CAO's Conference
3	12.00 : 12.30	Arrival of Guests
4	12.30 : 14.00	IRAS DAY Celebration
4.1	12.30 : 12.35	Lighting of the lamp
4.2	12.35 : 12.40	Invocation
4.3	12.40 : 12.50	Welcome address by AM/F,
4.4	12.50 : 13.00	Address by AM/B
4.5	13.00 : 13.10	Speech by Shri Narendra, IRAS, Director(Finance)/Acquisi, Mtioninistry of Defence, GOI
4.6	13.10 : 13.20	Speech by Shri Bharat Salhotra, Ex. IRAS, Managing Director, Alstom Transport India Limited
4.7	13.20 : 13.30	Speech by Shri Sanjeeva Shivesh, Ex. IRAS, CEO, The Entrepreneurship School (TES)
4.8	13.30 : 13.40	Address by Chief Guest, Shri V. Sivakumaran, Ex. Financial Commissioner (Railways)
4.9	13.40 : 13.55	Address by Shri S. Mookerjee, Financial Commissioner (Railways)
4.10	13.55 : 14.00	Vote of Thanks by Adv./F (Secretary General, IRAS Association),
5	14.00 : 15.30	Lunch
6	15.30 : 16.00	IRAS Association General Body Meeting
7	16.00 : 18.00	Presentations by FA&CAOs of Zonal Railways
8	18.00	IRAS Day-2015 concludes.
9	18.00 : 18.30	High Tea

OUTLINE OF THE PRESENTATION

- Financial impact of the Pay

Commission

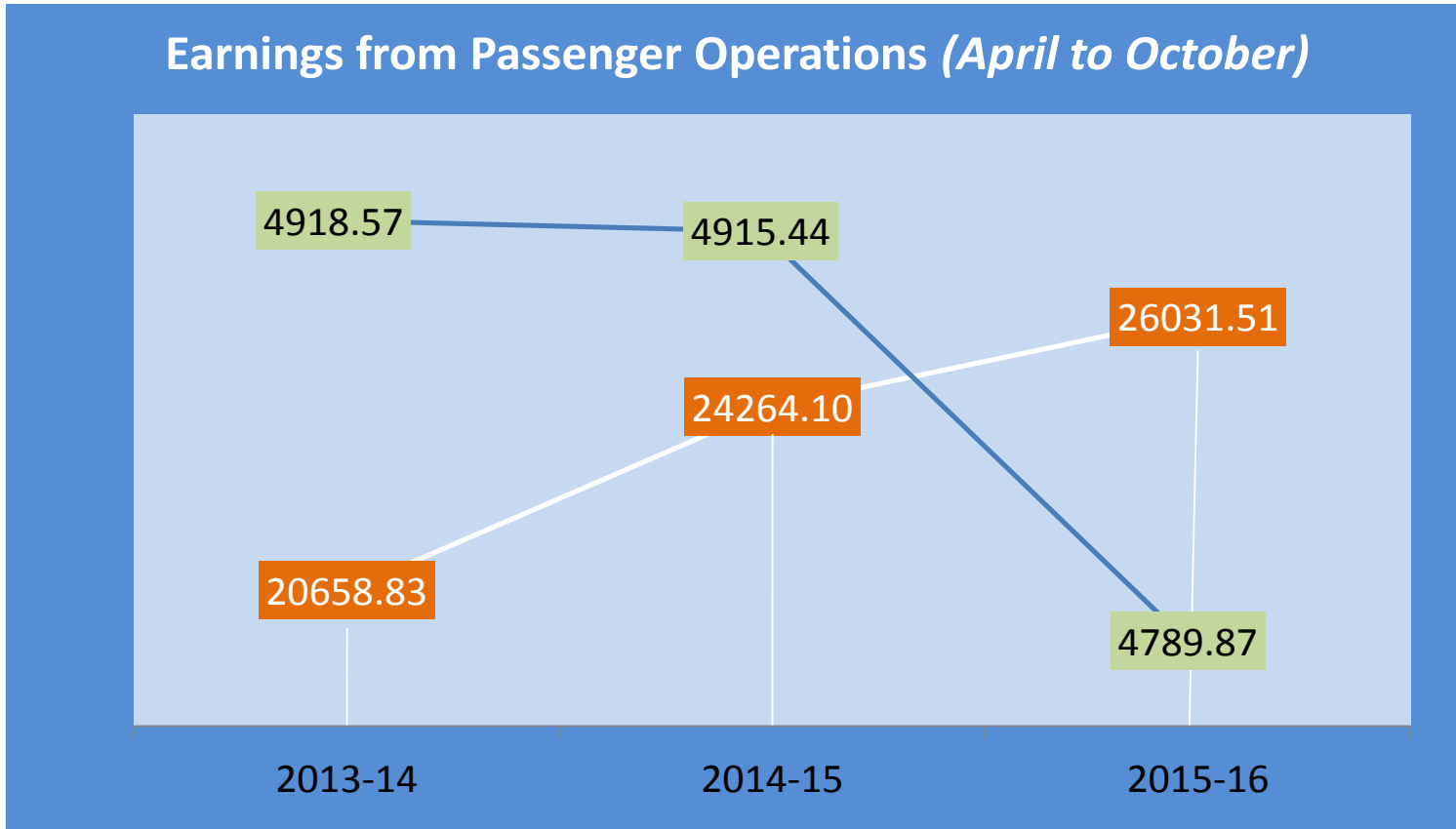
- Economy measures

Financial Impact

	BE 15-16	Growth over COPPY	Annualized growth (since 2007-08)	Likely Post-7 th PC growth
Staff Cost	58,333	10%	15.7%	38%
Pension Outgo	33,220	15%	19.6%	56%

- The 7th PC will put stress on revenue generation which has not been encouraging so far.
- Traffic Earnings required to grow at 27% to 30% to meet the impact .
- Hence ,close monitoring of expenditure along with cost cutting measures and initiatives.

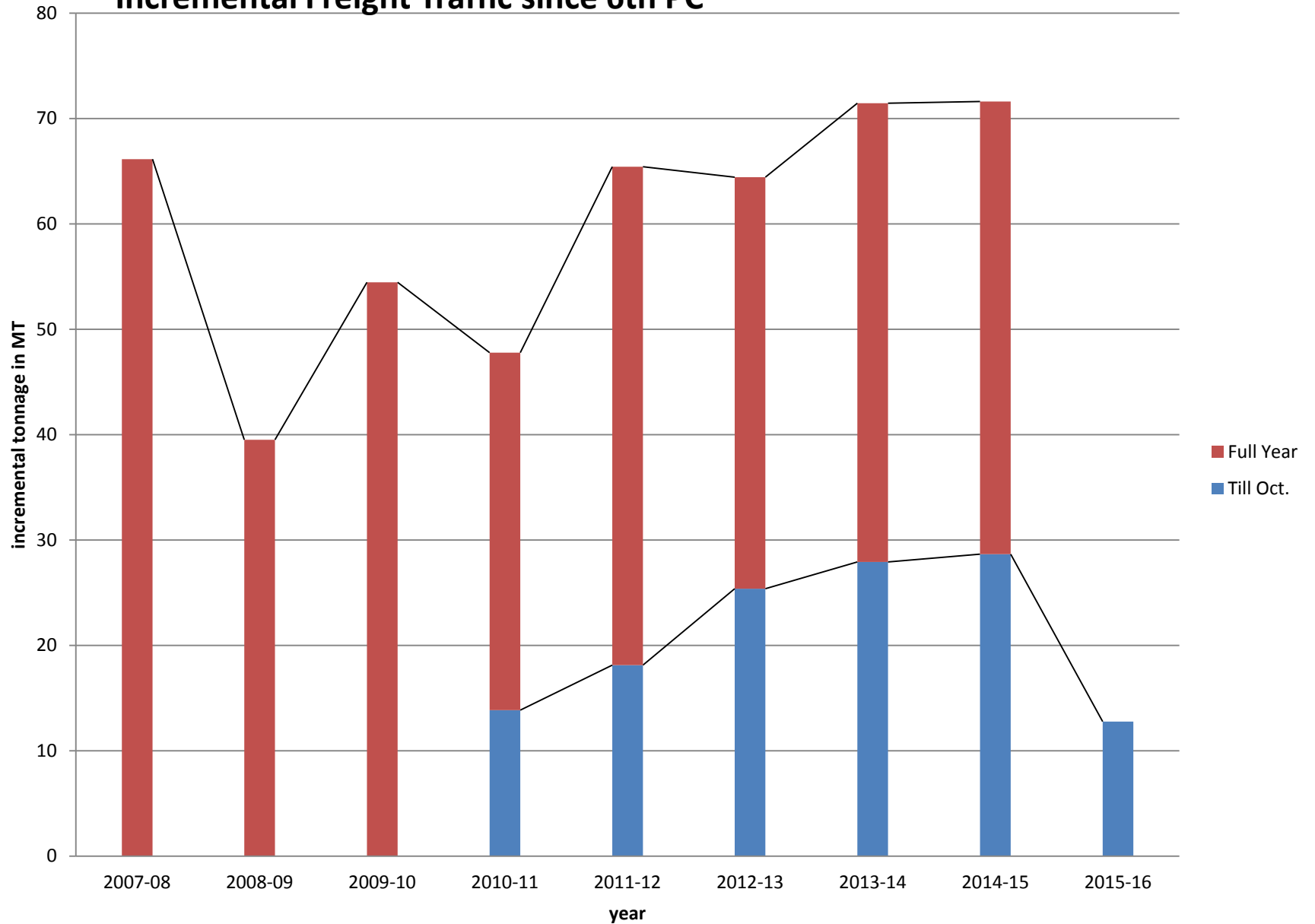
Trends in Originating Passenger & Earnings



Rs in crore

In million

Incremental Freight Traffic since 6th PC



IMPACT ANALYSIS – *pay & allowances*

Item	Factor over & above growth in ‘business as usual’
Salary	2.57
D.A.	would start with zero.
NPS	2.57 (factor of pay)
Tpt A	1.03
HRA	2.05 (3 slabs of 24%, 16% & 8% of new basic)
CEA	1.25
Travelling Exp.	1.45 (general increase eg. New rate Rs1000 old rate of Rs 690)
Transfer Allow.	2.73 (now 80% of new basic)

IMPACT ANALYSIS – *pay & allowances*

Item	Factor over & above growth in ‘business as usual’
Wages POH	1.168 (basic 2.57/2.19)
PLB	2.57
NDA	1.164 (earlier basic*2.2/200 and now basic*2.57/200)
OTA	1.5 (rate increased by 50%)
KMA	1.164 (2.57/2.19)
All Other Allow.	1.5 (generalised increase factored in the 7th PC report)

IMPACT ANALYSIS - *pension*

Item	Factor over & above growth in 'business as usual'
DCRG	2
Leave Encashment	2.57
Commutation	2.57
Pension (excluding settlement dues)	2.57

Economy Measures

- Detailed instructions issued by FC to all the GMs.
- Projected savings targeted at 4% over & above SL.
- Zonal Railways to churn out own ideas to improve savings target.
- Special attention drawn to **52** allowances abolished, **38** allowances subsumed & all interest-free advances abolished. List of allowances paid under these in 2013-14,14-15 & 15-16 (Dec) be sent to board by 5.1.16.
- Note: Deferment of Expenditure not expenditure control & specific steps required.

Six groups of economy measures

- Administrative measures to effect austerity, economy and specific cost control.
- Energy and fuel
- Workshops and Production Units.
- Earnings & Receipts
- Scrap sale
- Other items

Special emphasis

- ***Fuel***

- Capturing of fuel savings on account of low traffic in FY 2015-16 including due to cancellation of trains etc.
- Instructions issued vide No. 2015/fuel/282/10 (5) dated 13.11.2015 by DME (Traction)/Rly Bd to be complied with.

- ***Train cancellation***

- ✓ Trains having occupancy of less than 50% be reviewed.
- ✓ Any trains being cancelled be evaluated for reduction in fixed and variable costs such as OBHS, CTS, fuel, TA of staff on board, mileage of crew, contracts for maintenance in sick-line/pit-line, pest control costs etc. All linked inventory to be reviewed.

Administrative measures

- Hospitality and entertainment including ban on holding of meetings and conferences at star hotels.
- Publicity except safety awareness and for trains.
- Petrol/diesel for road vehicles: 15% cut in amount and commensurate cut in consumption.
- Procurement of PCs and computer consumables strictly on need basis.
- Telephone/internet/stationery/cartridges, drives etc.: 20% reduction
- Hiring of vehicles to be capped at the level prevalent on date.
- Air Travel: no air travel upto JAG. For SG only one-way travel, if unavoidable. In all cases all air travel would be in economy class only.
- Travelling Expenses, OTA, NDA, NHA: A comparative position is to be drawn for 2013-14, 2014-15 and 2015-16 (upto Dec.'15)

Contd.....

- Pending all recruitments to fill vacancies of non-safety/non-operating posts. Ban on creation of new non-safety/non-operating posts including temporary posts and work-charged posts.
- TA/DA for more than 15 days to be approved by the DRM/CWMs in field and by PHODs in HQrs. Booking of staff for carrying daks, files etc from field to HQrs to be stopped. If monthly OTA is more than Rs 5000/- (five thousand), approval of DRM/CWM/SAG officer required.
- PU 28 'direct purchase' to be reduced by 20%.
- 10% cut on all D&G charges in the estimates.

Energy and fuel

- HSD issued from RCDs/fuelling points for 'other purposes' to be stopped.
- Daily analysis of light engine movement.
- Non-traction / General Services: This reflects energy consumed in Buildings, streets, workshops, stations etc. 10% reduction in unit consumption and cost.
- Loco-wise energy consumption data of passenger, EMU, DEMU and goods locos.
- Regular counseling of loco pilots; shutting off of idle locos

Workshops and Production Units

- Shop floor inventory be reduced & TOR targets be recast
- Special drive to review AAC's of high value & high inventory items.

Earnings & Receipts

- Position of waiver of demurrage & wharfage to be closely monitored.
- Efficacy of special (non-routine ticket checking drives) ; Fortress checks
- Assessment of PKM growth vis-à-vis VKM growth.
- Performance of JTBS, PRS, UTS & ATVM's to be monitored. Underutilized PRS counters be used for sale of UTS tickets
- Trains having occupancy of less than 50% be reviewed.

Contd...

- Siding shunting charges to be recovered & agreements to be finalized and kept current.
- Up-to-date billing
- 100% weighment of commodities
- Review of Tatkal quota
- Movement of commercial couriers be reduced.
- SLR, VPU tenders to be finalised
- Integration of service contracts at stations & trains.
- Review of train stoppages

Scrap sale

- Identification of additional scrap
- Write-back of capital-at-charge

Other items

- Increasing trend in Arbitration awards to be reviewed for better contract management.
- Pension expenditure review especially w.r.t. pension master.
- Review of all types of suspense balances.
- Cost-benefit analysis of outsourcing activity hitherto done departmentally. To be carried for all such jobs done over last 5 years.
- Staff on-board train for various activities to be reviewed.
- Review of out-sourced p-way activities, especially in the light of gangmen recruitment in 2013-14, 2014-15 and current fiscal so far.
- Shop-floor inventory management as also inventory, including consumable inventory, issued but not consumed in Open Line.
- Uneconomic Branch Lines: measures to reduce costs and improve revenues.
- Disposal of old and inefficient locomotives.
- Redeployment of surplus cadre/staff.
- Review of MCNTM criteria for track posts.
- Zero-base Review of crew links, rake links and working time table.

Reduction in Inventory of HSD

BY

A. K. BIJALWAN, ED(FINANCE)/RB

Reduction in Inventory of HSD

- The inventory level to be reduced to 5-7 days.**
- CME, COS and FA&CAO to decide target inventory levels by 1.12.2015**
- Supply to RDI may be reduced in staggered manner and exercise to be completed by 31.1.2016**
- Railway Board has issued instruction to General Managers**

Sale/lease of locomotives with residual life

- **Older locomotives with residual life to be identified**
- **Sidings/Port authority which may be requiring these locomotives may be identified.**
- **FA&CAO's may also like to suggest modalities to lease/sell locomotives.**
- **Railway Board has advised Zonal Railways.**

Age wise census of Electric locomotives

Type	HP	25-30 years	30-35 years	35-40 years	>40 years
WAM 4	3640		123	40	3
WAP 1	3800	9	5		
WAG 5	3850	106	69	1	
WAG 5H	3850	151	16		
WAG 5TAO	3850	92	35		
WAG 5P	3850	64	8		
WAG 6	6000	11			
Total		433	256	41	3

Age wise census of Diesel locomotives

Type	HP	26-30 years	31-35 years	36 years	36-40 years	>41 years
WDM 2	2600	17	120	53	158	32
WDM 3A	3100	337	214	13	2	
WDM 7	2000	14				
WDM 6	1350		2			
WDS 6	1400	117	37			
WDS 4B	700		8			
WDS 4D	700	5	1	1	2	
Total		490	382	67	162	32

Reducing and Rationalizing Cost of Electric Traction

Sanjay Upreti

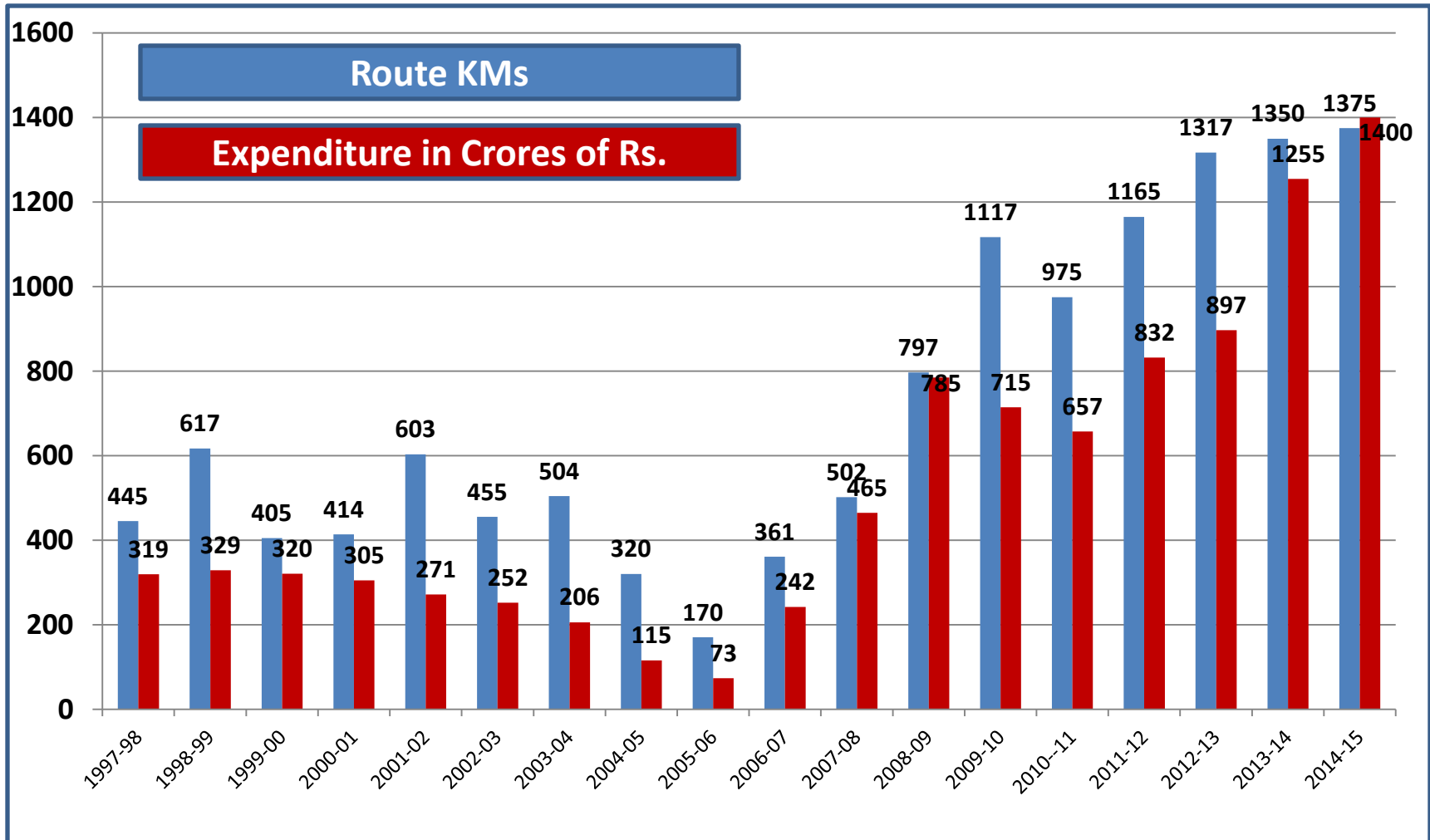
Executive Director Finance (Commercial)

BUDGET PROUNCEMENT OF 2015-16

Hon'ble MR's budget speech 2015-16:

“Item 106: It is proposed to procure power through the bidding process at economical tariff from generating companies, power exchanges, and bilateral arrangements. This initiative is likely to result in substantial savings of at least Rs. 3,000 crore in next few years.”

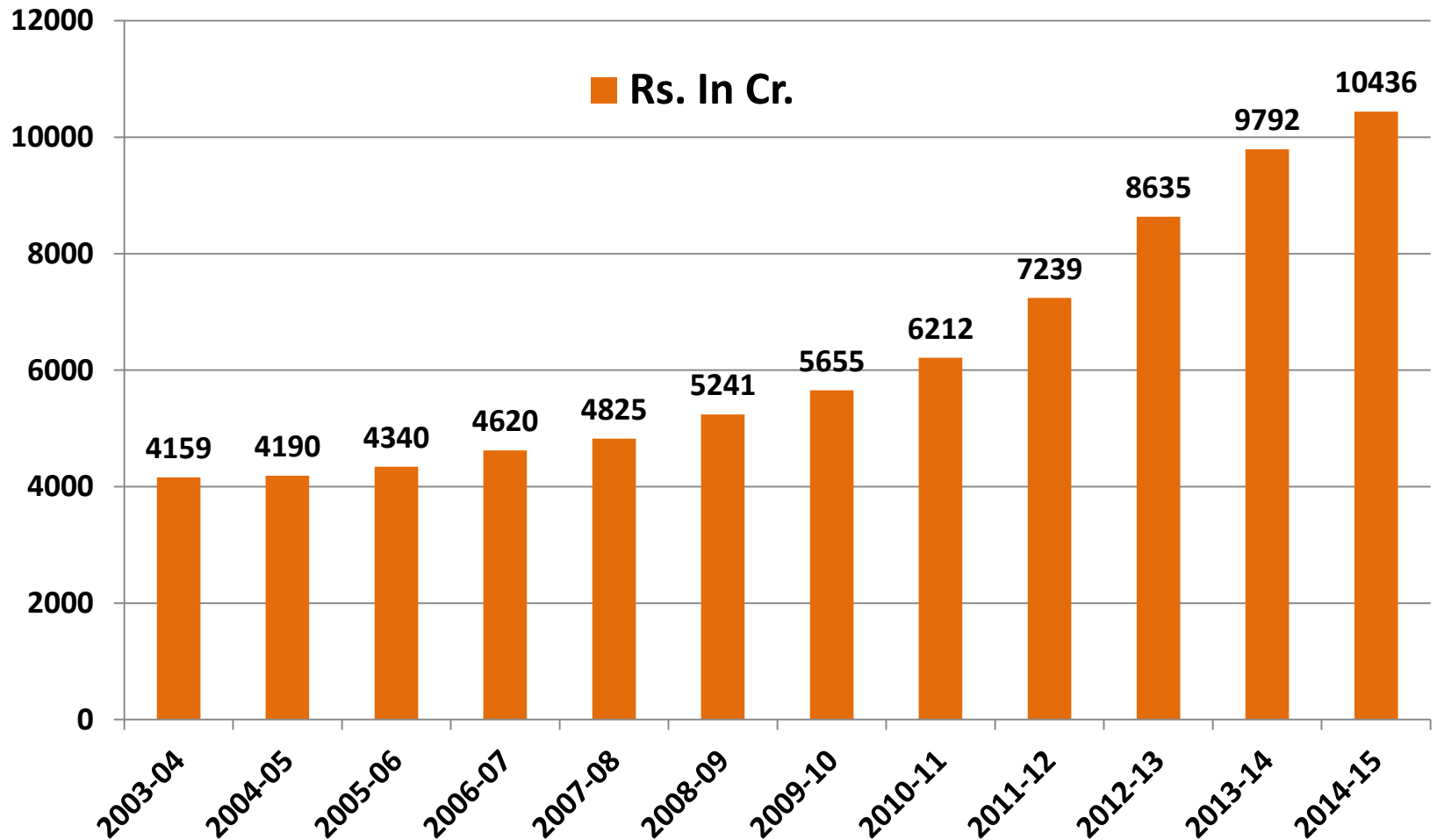
Growth of Electrified Routes and Expenditure on Electrification



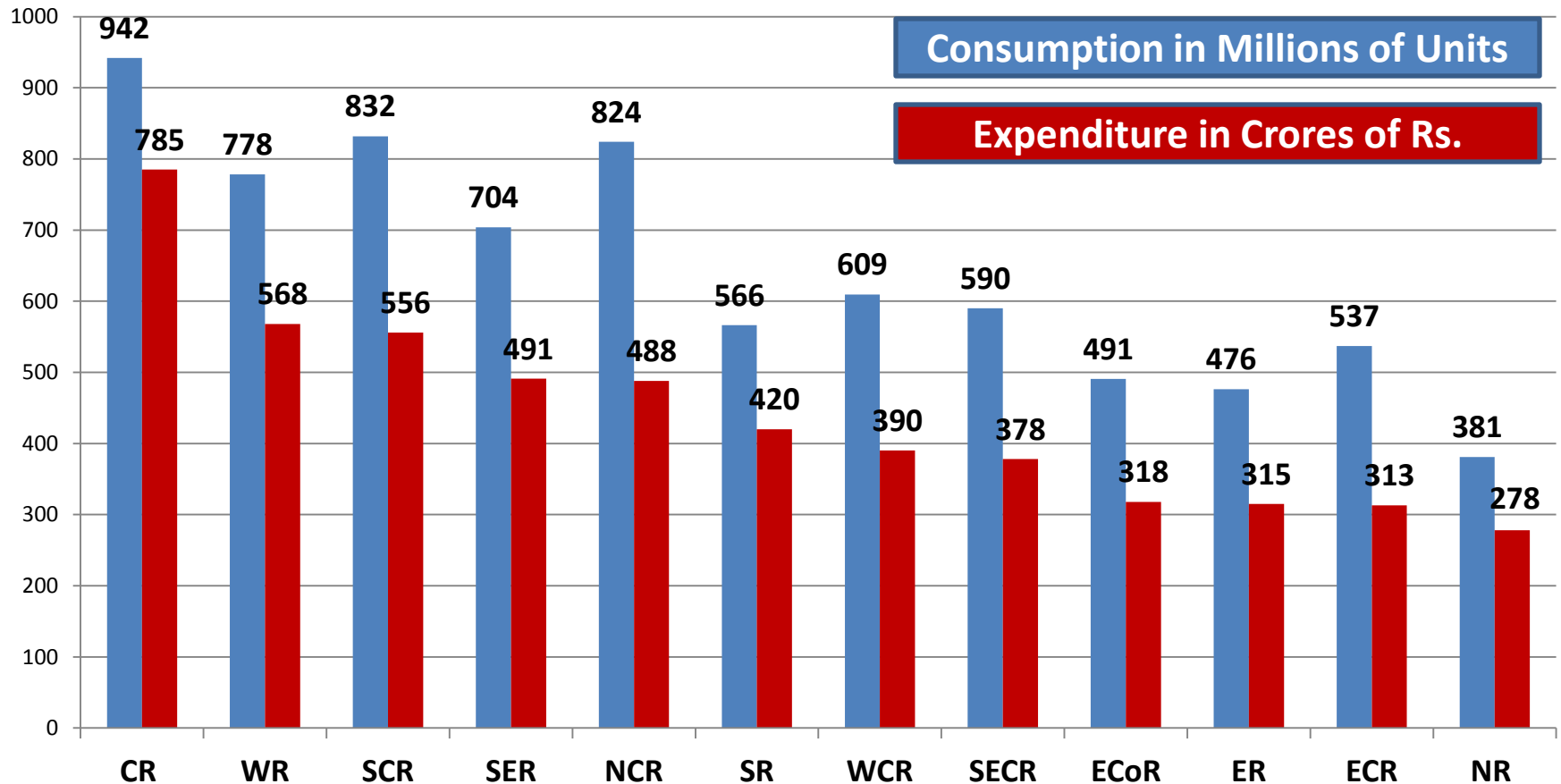
Electrification Works – Current status

- **As on 1.4.2015**
 - Physical throw forward of 4935 KM
- **Works sanctioned in 2015-16**
 - 6608 KM
- **Total works on hand**
 - 11543 KM (equal to last 15 years electrification)
- **Target for 2015-16**
 - 1600 KM
- **Achievement to end of Oct.'15**
 - 618 KM

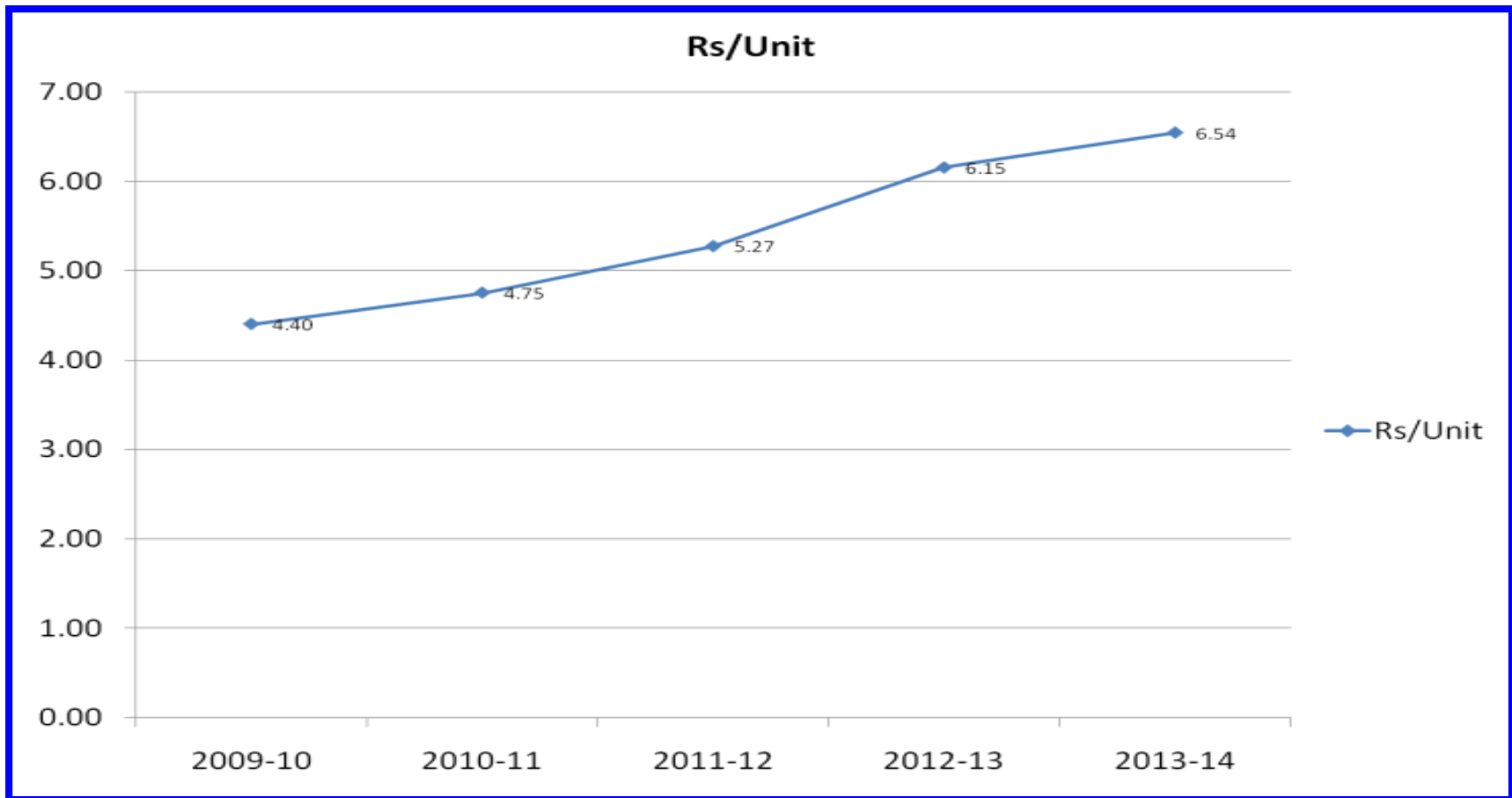
Expenditure on Electric Traction



Traction Electricity Consumption and Expenditure April'15 –Sept'15



- Procurement of electricity for traction in NCR is most economical and CR least economical.
- Consumption on SCR and NCR is similar; expenditure in NCR is substantially lower.
- Consumption in ECoR and ER is lower than ECR but expenditure is higher than ECR.



Average cost of power in 2014-15:

Rs.6.79 per unit

Ranging from Rs.3.83 to Rs.9.35 per unit

Recapitulation

- Pace of electrification has increased.
- Expenditure on electricity for traction has increased by more than 2 times in the last decade.
- There is wide variation in the unit cost of procurement across different Railways.
- The unit cost of electricity has been going up.

Fresh look into the entire gamut of supply chain management of Electricity.

Present System of Procurement

- Long term agreement with DISCOM.
- Billing is done for energy consumed and Contract Demand.
- Railway pays fix charges for the Contract Demand.
- ***If the drawl of energy exceeds maximum contract demand for 15 minutes the entire month is charge at a rate which is much higher than the contract demand rate.***
 - For example Madhya Gujarat Bijli Company Ltd. Charges **@Rs.180 per KVA** per month up to the contract demand.
 - If billing demand is an excess of contract demand even for 15 minutes in a month the charges are **Rs.425 per KVA** per month.

Proposed Action

- **Contract Demand Analysis**

- Analyze long term drawl of power.
- Compare the same with contract demand.
- Analyze seasonal variations and study the peak drawl.
- Assess impact of reducing contract demand which may result in reduction of payments in some months and higher payments due to penalty in a month or two.

- **Substation utilisation analysis**

- Assess the drawl of power from sub stations and analyse whether combining two or more substations would result in a more uniform drawl of power

POWER PROCUREMENT – Way Forward

- Deemed licensee status to IR and Migration from DISCOMs:
 - Ministry of Power in May 2014 clarified that IR is a deemed licensee.
 - Railways can procure power as distribution licensee directly from Generating companies at reduced rates through:
 - competitive bidding process,
 - through power exchanges,
 - bi-lateral arrangements,
 - allocation route from Ministry of Power.
 - Migration from DISCOMs for traction load connected to State Transmission Utility (STU) network completely generally connected to 132 kV & above.

Cost implications in procurement of power

- **Cost of electricity at generator end**
 - Approx. Rs 4.00 per unit
- **CTU and STU charges Wheeling charges**
 - Approx. Rs. 1.00 per unit
- **Total Likely cost**
 - Approx Rs 5.0 per unit
- **Present average cost**
 - Rs 6.8 per unit
- **Saving**
 - Approx. Rs 1.8 per unit (30%)

Power Trading – Some Salient Features

- Power trading is bringing together buyers and sellers together on a common platform i.e. power exchange for purchase and sale of electricity.
- There are two exchanges
 - Power Exchange (PXIL)
 - Energy Exchange (EXIL) in the country.
- Prerequisites for undertaking trading
 - membership is required.
 - License from the Appropriate Commission/Government i.
- The rate is determined based on demand and supply.
- Bidding for quantum of power and rate is made one day in advance at power exchanges.
- Payment is to be made in advance to the Exchange for the amount of power to be procured for next day at the time of bidding.
- In case procured power is not used next day, the same is sold automatically, the rate for which is frequency based.

Energy conservation Measures-

Electrical loco

- Regular counseling of Loco pilots for use of maximum regeneration braking.
- Train loco pilots for improving driving skills on Simulator
- Provision of Coasting Board for assisting running staff.
- Shutting off of idle locomotives in shed / yards.
- While working on MU formation switch off trailing loco in case of light load.
- Switch of loco blowers when waiting is > 15 minutes.

Measures initiated :

Energy Conservation - Non-traction

- Energy auditing of major load centers
- Segregating of 70:30 lighting circuits at platforms
- Use of energy efficient luminaries & fans.
- Policy to Procure star rated equipment
- Automation of pumps
- Power factor Improvement measures
- Timers for high mast lighting and sensors in offices

These measures have maintained Energy consumption over last 3 yrs despite increase in load @ 5% per yr.

**BEST PRACTICES IN PROCUREMENT IN
MINISTRY OF DEFENCE**

LIMITATIONS

- Discussion restricted to Capital Acquisition
- Largely relevant to Stores procurement

HOWEVER

- We can adopt certain practices that suit :
 - Both Works and Stores tenders
 - Processing and decision making on Capital projects
 - Specifications and standardization of scales

Basic difference in Project sanction and Procurement Philosophy between MoD and MoR

MoR	MoD
Project sanction and project acquisition are two distinct activities	In MoD both are closely interlinked
Same Rules exist for both Revenue and Capital Acquisition	Different guidelines for Revenue and Capital
Authority for Acquisition – Codes , Rules for entering into Supply contracts, large number of instructions	Single Booklet termed Defense Procurement Manual (DPM) for Revenue Procurement and Defense Procurement Procedure (DPP) for Capital Acquisition.
Same wings entrusted with both Capital and Revenue procurement	Separate wings for Revenue and Capital procurement

Project Sanction cycle

- In MoR Capital Projects are sanctioned annually , as part of annual budgetary exercise.
- MoD – Capital Acquisition projects sanctioned in the Ministry , on a monthly basis :
 - No sanction power is delegated.
 - **SCAPCHC**- Projects upto Rs. 150 Crores
 - **DPB**- Projects between Rs 150-300 Crores
 - **DAC** - All proposals over Rs 300 crores.

BENEFITS

- Capital Acquisition planning is a regular activity unlike Railways where it is reduced to an annual activity and a budgetary exercise.
- There is possibility for review, discussion and remedy before final acceptance.
- All stakeholders get adequate time to respond and if need be, seek amendments.

SUGGESTIONS

- **A system of monthly examination of projects , to be consolidated in Pink Book for the Annual Budget. Will permit detailed examination and remediation before approval. Current practice of “CONVINCE OR PERISH “ disappears.**

Prerequisites for Processing Capital Acquisition Cases

- **PLANNING**
- **SCALING**
- **SPECIFICATIONS**
- **MODE OF PROCUREMENT**

Planning

MoR	MoD
<p>1. Proposals based on Executive requirement</p> <p>2. Where VISION document exists, not backed by actionable plan.</p>	<p>An Acquisition proposal, to be considered for approval, must form part of a hierarchy of Plan:-</p> <ul style="list-style-type: none">• 15 Year LTIPP- HQIDS prepares a long term 15 year Plan (Currently 2012-27) termed Long Term Integrated Perspective Plan.• 5 Year SCAP – Within this prepared Five Year Service Capital Acquisition Plan – lists equipments to be acquired, based on operational requirements and funds availability.• AAP- under this is the Annual Acquisition Plan of procurement over a two year period:<ul style="list-style-type: none"><input type="checkbox"/> AAP Part A- Lists all cases where procurement process initiated or work sanctioned.<input type="checkbox"/> AAB Part B- List of works proposed for sanction in the current year.

Contrasting examples of Planning

- **Electric Locomotives-**
- **Diverse holdings with major implications of inventory carrying costs**
- **CLW:**
 - Tap changer technology based Freight and passenger Locomotives- **obsolete**
 - Thyristor based 3 Phase 6000 HP Freight and Passenger locomotives- **obsolete**
 - **IGBT based** 3 Phase 6000 HP Freight and Passenger locomotives
- **Madhepura Electric Locomotive Factory** – IGBT based 12000 HP Locomotives
- **Dankuni** – 9000 HP JICA locomotives
- **Potential problems-**
 - Interchange of spares not possible
 - Specialised manpower for different Locos
 - Different maintenance practices, M&P and tools

Contrasting examples of planning- Contd.

- **Artillery modernization plan-**

- No new inductions after BOFORS

- Detailed Modernization plan prepared. These include -

- Weapon systems identified for up-gradation**

- Ammunition up-gradation**

- Phasing out of weapon systems**

- New Inductions-**

Mix of International Buy with ToT, indigenous development

- Observation and targeting tools**

- Manpower planning through rationalization and expansion**

MoR	MoD
<ul style="list-style-type: none"> •Consolidated Guidelines missing. •Stray initiatives restricted to Rolling Stock spares. 	<p>Mandatory Scaling of all Capital equipment –</p> <p>On induction of any new equipment, Unit entitlement worked out.</p> <p>Approval process is detailed and well laid out-</p> <ul style="list-style-type: none"> • Scales validated by DGMO •Approved by Scaling Committee •Sanctioned -Powers same as for Tenders. ➤All proposals in excess of Rs. 150 Crores- By MoD including MoD (Finance). ➤Sanction authority- RM/FM/CCS •If equipment not scaled but urgent, only 50% of quantities proposed can be sanctioned.

Key Issues checked in Mod(Finance)

- **In case being scaled for the first time , basis of required quantities :** Study Report, Authority who approved the Report
- **In case of Scaling on replacement account :** If the new equipment is technologically more advanced, whether one is to ne replacement is essential or lesser numbers meet the requirement.
- **In case of replacements, present holding of current equipment and its de-induction schedule.**
- **Additional Requirement** – Cross checked with sanction for new raisings
- Whether there are additional requirements of manpower, other equipment etc.
- In case of accessories , cross link with actual scaling and holding of main equipment

Specifications

MoR

- Framed at time of Tendering
- **Emphasis is on Product specifications-** Focus on inputs measures – material specifications, IEEE standards, designs and drawings.
- **Decided by Executive and RDSO.**

MoD

- No proposal can be processed before specifications prepared and approved.
- **Performance Specification-** Termed **SQRs (Service Quality Requirements)** Focus on output measures such as range, accuracy of fire
- **A detailed Consultative process-**
 - ❑ RFI, market interaction, data from Defense Attaches abroad, Internet, Defense journals.
 - ❑ Draft SQRs circulated to stakeholders for comments
 - ❑ Approved by Committee headed by Dy. Chief. – GSEPC in case of Army.

Negatives and Positives of Product vs. Performance Specifications

MoR- Product Specifications	MoD- Performance Specifications
<p>Benefits:</p> <ul style="list-style-type: none">• Match offer against requirement.• Quick Tender Finalization <p>Drawbacks-</p> <ul style="list-style-type: none">• Subjectivity where most not all specs met.➤ My experience with RDSO TRs and Kolkata Metro• Specification finalization purely domain of Executive + RDSO/PUs.• Wider consultation absent, even for new products.• CVC guidelines for new complex products being violated.	<p>Benefits:</p> <ul style="list-style-type: none">• Stringent trials• No failure in performance <p>Drawbacks-</p> <ul style="list-style-type: none">• Tender finalization delayed• NCNC trials reduce Vendor participation.• TC has little leeway to discharge a tender.

CVC CIRCULAR NO 01/02/11 ON TRANSPARENCY IN TENDERING SYSTEM

- Where plant/equipment to be procured is of complex nature and procuring organization does not possess full knowledge:
 - Float expression of interest
 - Finalise specifications after technical discussions with reputed manufacturers/ suppliers and other stakeholders.
 - Then invite techno-commercial offer.
- DPP provisions relating to finalization of GSQRs are in line with this.
- In MoR, such concept missing. Technical discussions held at pre-bid stage.
- Pre-bid is not meant to revisit tender criteria but we often treat it as such.
- Case of Coaches for Kolkata Metro- changes in eligibility requirement after pre-bid.

Mode of Procurement

- DPP recognises different modes of procurement and lays down the preferred hierarchy.
- Proposal must justify a given choice
- **First necessity** : Single versus multi-vendor bid
 - Justify Single Vendor bid
 - In case of multi vendor proposal, include results of RFI showing Vendors who responded and their suitability in the technical compliance matrix.
- **Second necessity** : Source of Procurement in declining preference
 - **Buy Indian** - at least 30% indigenous content on total cost basis
 - **Buy Global with ToT**
 - **Buy Global**

Additional Facts on Modes of Procurement

- **Inter-Governmental Agreements-** Normal rules of tender discarded and Agreement between the Indian and the selling Government .
- We have a large order value of procurement with US Government under their **foreign Management Sales (FMS)**.
 - **Large number of high value projects**
 - **All negotiations and Agreements between US Government (USG) and MoD.**
 - **USG does procurement from their sources (Private suppliers) on behalf of Gov.**
 - **All normal rules of Government procurement , applicable to US procurements, also followed for FMS cases.**
 - **Benefits- Transparency, ease of mind being Govt. to Govt. procurement, no need for export licenses.**

Suggestions

- **Scaling :**
 - There is need to identify units/ structures where uniform yardsticks in terms of manpower, hierarchy, vehicles, tools, M&P, spares etc can be uniformly laid down Eg- Loco Sheds, Track Machine Depots, Coaching depots etc.
 - Uniformity of resources will lead to common practices across units, proliferation of best practices, efficiencies.
- **Specifications**-We should shift to a mix of both Product and Performance specifications
 - Product specifications ideal for equipment already inducted
 - Performance specifications suited for new products/technologies and EPC Contracts
 - **Story of first 132 Traction Motors of 22 ABB Locomotives.**

Procurement Strategy

- MoD differentiates between “**COTS – Commercially off the shelf item**” and specialised item where SQRs framed
- **For COTS item – DGS&D or Open Tender**
- For specialised items, the normal mode of procurement is based on “**Special Limited Tender**” Mode-
 - Vendor identification through the net and existing list available, before any proposal.
 - RFP issued to Vendors who respond to RFI, substantially meet the commercial compliance matrix i.e QR parameters specified in the RFI
- Preference is to minimise variety, to keep inventory costs low, ensure ease of use and training. Example- Heavy mobility vehicles (HMV)– Earlier BEML’s TATRA
- Now all HMV 6x6 will be Tata Motors and 8x8 will be Ashok Leyland

Sanction process in MoD

MoD- Proposal termed **SoC (Statement of Case)** has specified FORMAT. Some of the questions to be answered are-

- Proposed Categorization/ mode of procurement
- Quantities, costs and basis of cost
- Scaling and GSQR
- Details of Deficiency in Capability
- If it can be addressed by change in Doctrine/ tactic .

Most significant: Examined on file by concerned Departments.

However, final decision in **collective manner by SCAPCHC/DPB/DAC.**

- Representatives of all Departments present at these meetings held monthly.
- Project sponsoring department presents its case , highlights comments of other departments and its remarks.
- Members discuss, debate, seek clarification and finally decide.

Tendering Process in MoD

- **RFP forms part of the DPP. Only changes permitted are-**
 - Delivery Schedule
 - QRs to be specified and Trail methodology.
- **Following are pre-specified and no change permitted-**
 - Payment terms
 - Bid Evaluation
 - Liquidated Damages
- **Vetting of Tender Documents-** Two stage-
 - **Stage 1** – Normally Director /Undersecretary level Committee
 - **Stage 2- Second stage vetting** – JS level Committee
 - Approval by Vice Chief/ DG (Acquisition)
 - Committee involves all stakeholders- Ministry, Finance, Services, EME, DGQA and if required, DRDO and DDP.

Tendering process contd.

- All Capital procurements are done through “**Single Stage two packet system of tendering**” - Separate technical and commercial bids.
- **Bid Evaluation provides for adoption of DCF Technique and L1 based on NPV** in all cases where there is AMC or offers result in differing cash flow over the years.
- **Effort to nullify distorting effect of taxes -**
 - In **Global tenders** – Foreign offers are calculated based on CIP and Indian bidders by elimination of Excise, VAT/Sales Tax and other local levies.
 - In **indigenous procurement**- Bids considered by disregarding Excise duty. Efforts on to ensure bid evaluation done by ignoring all taxes.
- **Currency of Sanction**- Sanction to the project lapses if RFP is not issued within one year from date of sanction.

Tendering process contd.

- Pre Bid conference is mandatory
- **Single Bid situation-** If in case of multi-vendor bid :
 - Where only one bid found complaint at TEC stage , bid process cancelled.
 - Where in course of trials, only one bidder found successful, bid process continues- Assumption- Bids were received in a competitive situation.
- **Extension of time for extension of offers-** Maximum 4 weeks, beyond that approval of RM required on file.
- **Extension of time for fielding equipment for trials-** Maximum 45 days. Beyond that approval of DAC is required.

Tender Finalization

Technical Evaluation:

- Done exclusively by Services without any role of MoD or MoD(Finance).
- Is restricted to review of technical offer only.
- Technical evaluation consists of
 - **TEC-** Paper evaluation of offers received –checked via a vie RFP specified technical parameters.
 - **Field Trials-**
 - User Trials – Actual exploitation of equipment. One winter and one summer trial.
 - Maintenance Evaluation and Quality Assurance Trails by EME and DGQA.
 - **General Staff Evaluation**
 - **Technical Oversight Committee (TOC)**

Commercial Evaluation:

- 1. Convening of CNC-** Multi disciplinary body of minimum 11 members.
- 2. Functions of CNC-** Strictly related to Commercial issues except where GS Evaluation has certain conditional ties.
 - **Benchmarking before opening of offers** – A unique feature of MoD.
Note- No negotiations should be resorted to unless quoted rates are higher than the benchmarked rates.
 - **Offers opened only after benchmarking**
 - **Compliance Statement**
 - **Comparative statement of Tenders**
 - **Declaration of L1.**
 - **Deviations sanctioned only by DAC.**
 - **CNC to address all complaints received .**

Contracts

- **Contract template provided in DPP**
- **Vetting of Contract Agreement-** Jointly by AM and FM at JS level.

Post Contract Modifications

1. **Changes having nil financial implications–** AM and FM
2. **Changes having Financial implications-** Only by RM
3. **Payments-** For International suppliers: LC payment

Indigenous Suppliers- Direct Bank Transfer

Indigenous suppliers in Global tenders- proposed LC payment.

Suggestions

- **Evolve a new procurement philosophy-**
 - **Open Tender is a mantra in MoR.**
 - **Fail to recognise-** highly technical department ; optimal solution- **multi vendor bid** for Quality product
 - Multiple platforms have cost implications
 - **Focus should be** - Technically complex items ; 3-4 sources adequate ; else kill innovation; overt cost minimization also leads to quality issues.
- **Must adopt Single stage two bid package especially for Capital Acquisition**
 - The technical bid should focus not merely on Technical eligibility criteria but a serious examination of Technical specifications.
- ✓ My experience with RFQ of Madhepura, Dankuni and Kanchrapara; Technical bid merely examination of eligibility, RFP issued after 60 months

Suggestions contd

- Ideally, fashion the bids in such a manner that Finance member's role restricted only to Commercial issues and Financial eligibility criteria.
- **Time for submission of bids-** Define minimum threshold as existing 30 days + maximum ceiling on extension.
- Further, time for bid submission should be fixed realistically – 30 days not suited for EPC/PPP/ Design and build contracts
- ✓ **Recent case of Development tender in MoD-** inadequate time leading to Single bid situation.
- **Bid Evaluation-** Adoption of DCF technique wherever different offers lead to differing cash flows.
- **Benchmarking** before opening of commercial bid
- There should be restricted delegation of powers where there are deviations from the Tender document.

Fast Track Procurement

- Procedure designed for meeting urgent operational requirements.
- It refers to procurements under “Buy Category” and includes both equipment already inducted in to service and new equipment.
- Requirements of SQRs, Scaling dispensed with. IF SQRs not formulated, Services can formulate broad operational requirements for procurement.
- There is no field trial or GS Evaluation.
- Only Technical examination , based on data submitted , is to be done.
- For already inducted equipment, Single Vendor procurement and for new equipment multi-vendor/Inter Government procurement.

Strict Time-lines prescribed for FTP:

1. DAC approval to the proposal – 7 days
 2. Preparation, vetting and issue of RFP – 10 days
 3. Receipt of offers- 30-45 days
 4. Technical Evaluation – 10 days
 5. CNC proceedings- 15-30 days
 6. Contract to be signed after approval- 112-169 days
 7. Supply Period- 3-12 months
- **Monitoring Mechanism- DPB**
 - **A healthy practice over MoR where often our only response to urgency is to float single Tender.**

Make Projects

- A transparent mechanism for induction of new systems.
- **Story of Track fittings- 2012.**
 - Modernisation often Vendor driven.
 - Recourse to Open tender, finalise on single bids.
- MoD has structured provision for induction of new systems via indigenous manufacture , under “**Make project**”
 - **Strategic , Complex and Security sensitive systems to be developed by DRDO.**
 - **However, high technology complex systems to be developed under “Make” by Private sector/OFB/DPSUs**
 - Must form part of LTIPP and AAP.
 - Sanctioned as “Make” project by DAC.
 - Preliminary SQRs to be framed

Make Project contd

- PSQRs to differentiate between essential and desirable parameters.
- Essential parameters to be based on proven state of the art technology available in India/abroad and desirable on futuristic/emerging technologies.
- PSQRs can be revised during prototype development
- Select list of Vendors through EoI
- Shortlist two Vendors based on capability- Quality based scoring selection- mix of performance, level of technology and R&D, access to ToT and levels of Technology transfer (mere license to IPR) and financials. Level of technology offered primary criteria.
- Shortlisted Vendors to submit DPR –
 - Broad technical details
 - Detailed Bill of Material with cost
 - Financials
 - Exit criteria, Risk Register and risk mitigation plan

Make Project contd

- If DPR accepted, execute development contract for design and manufacture of Prototype
- MoD funds 80% of the cost, DA funds 20%
- Stage payments on achievement of pre-specified milestones.
- All IPRs produced by MoD funds finally vest with MoD.
- A project Management team including reps from services, DRDO, DGQA, EME, User , Finance and DDP constituted for Vendor selection , DPR finalization and project monitoring.
- Prototype to undergo field trials and GS Evaluation.
- If approved GSQRs formulated.
- Regular tendering process with successful DAs for bulk quantity initiated.
- **Prototype must have minimum 30% indigenous content on total cost basis.**



The
Entrepreneurship |
School

INNOVATION STARTUPS INTRAPRENEURSHIP

Something NEW
is just a few moments
away

Eastman Kodak



A random spark..



.. give us a **fresh** pair of eyes to discover our innate talents



IDEA to INNOVATION is a LONG journey

New idea is a HUGE challenge



Difficult to handle
Doubts in success
Dangerous to implement

Imagine.. The year is 1876

We are facing the GREAT FAMINE in INDIA

Queen Victoria is now the Empress of India

Eastern Railway Network has reached AGRA

You Head the New Initiatives Unit in EIR. Robert Stephenson, sends a note to you:

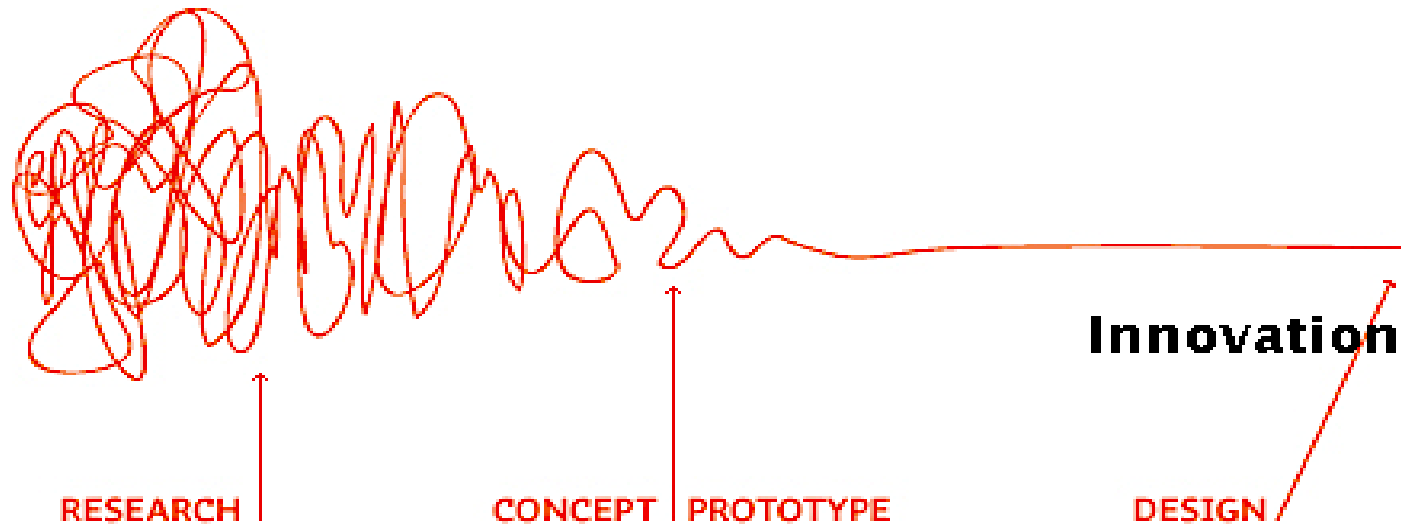
“Jyoti Ganguly has developed a method to transmit voice over wire.”

Should we....?

Safe

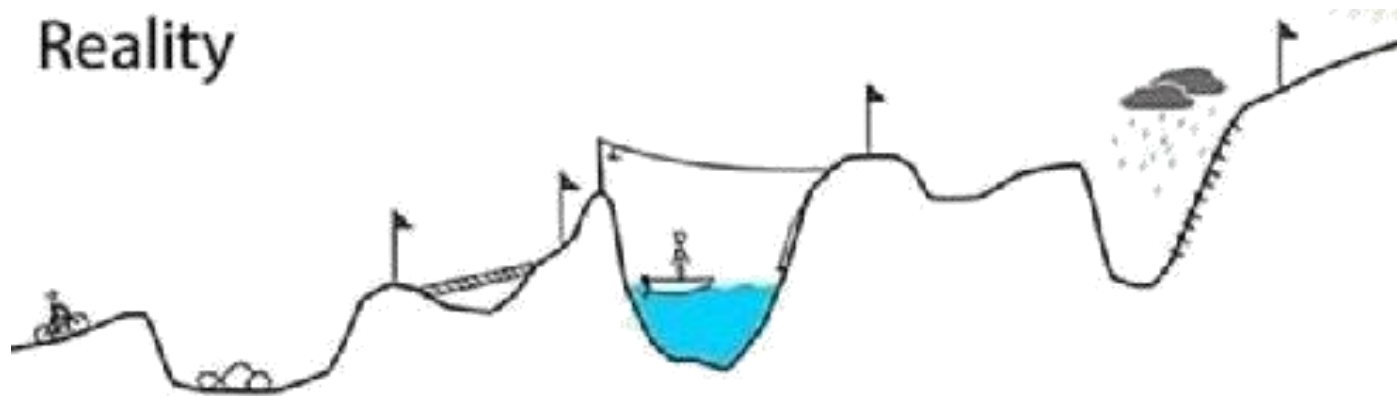
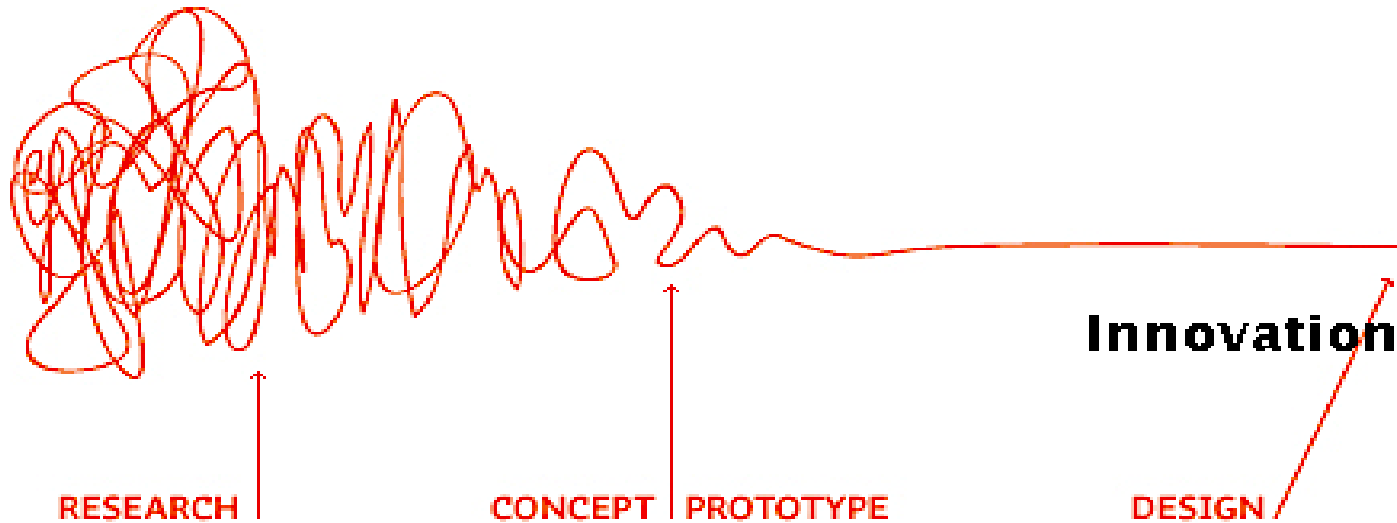
is risky

The Challenge of Iteration



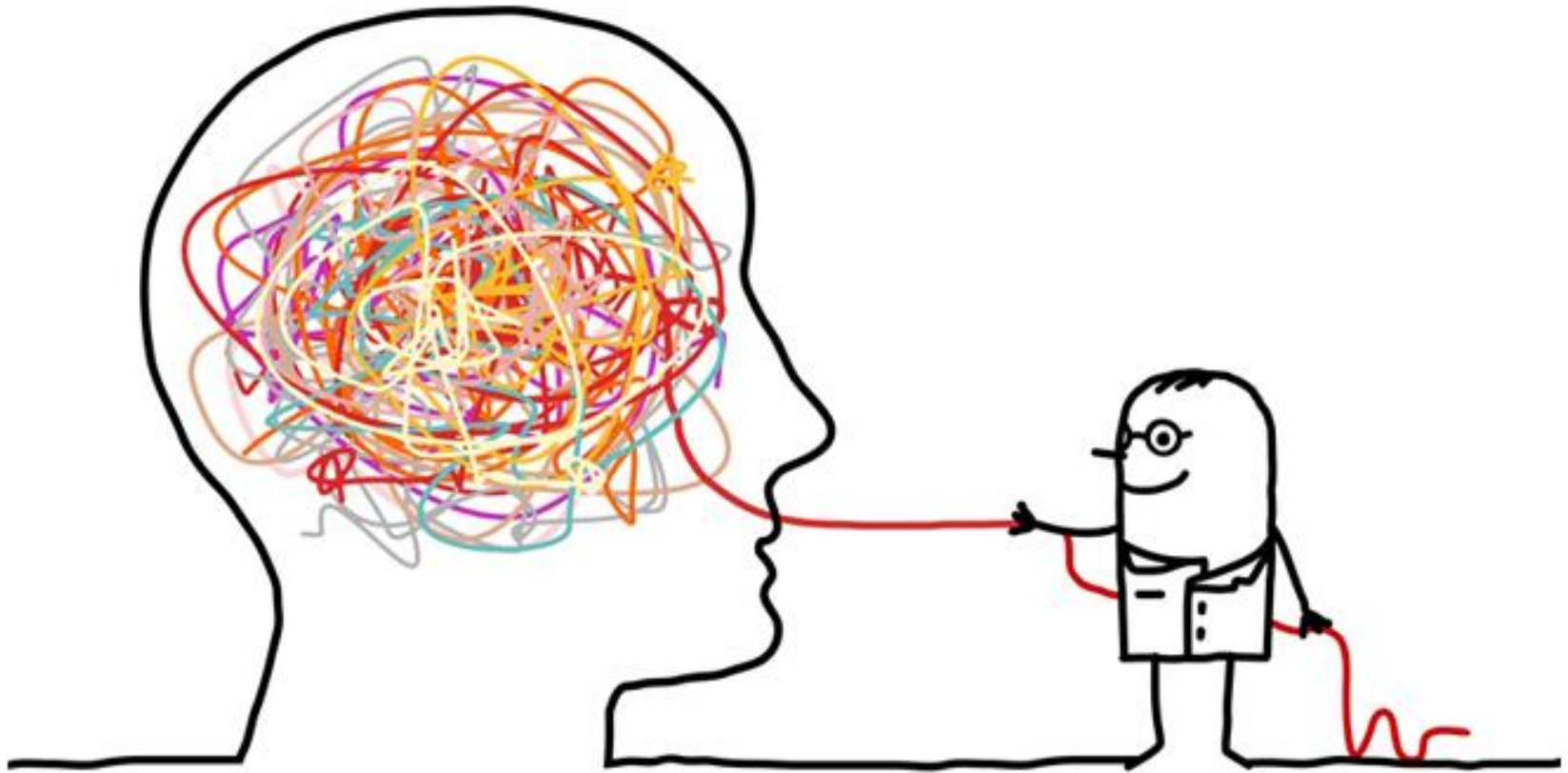
Use Case / Business Case

The reality of INNOVATION



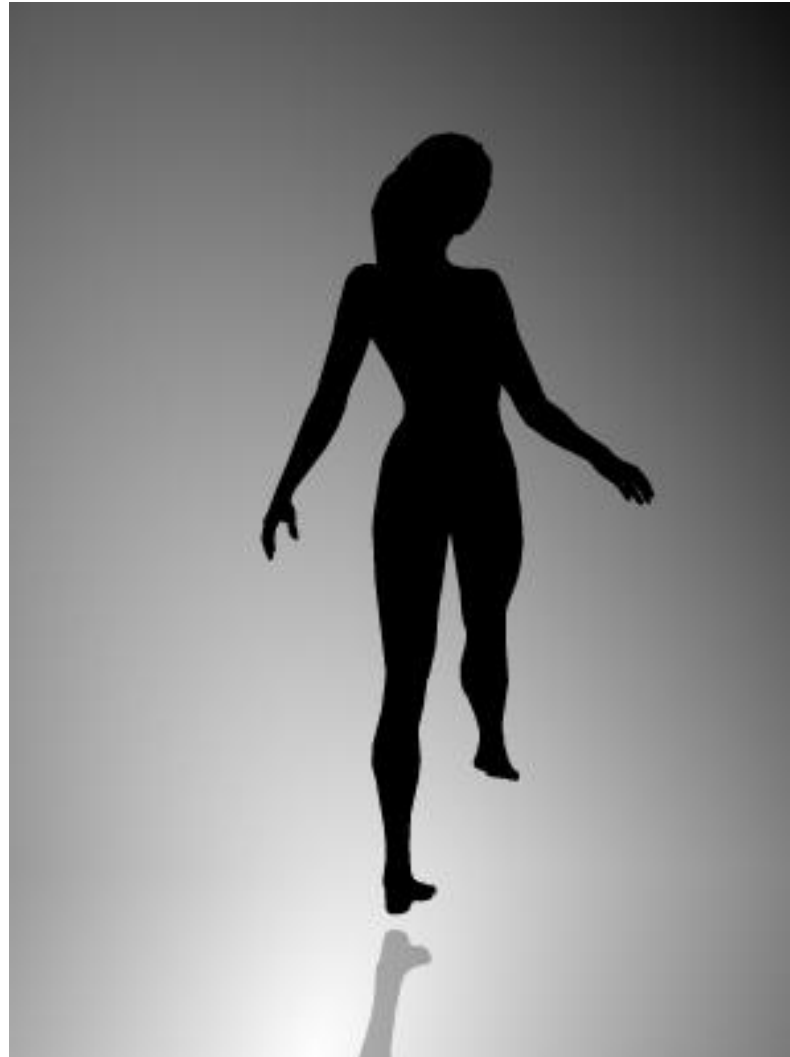
.. VALLEYS of DEATH

**Innovation = “enlightened”
trial and error**



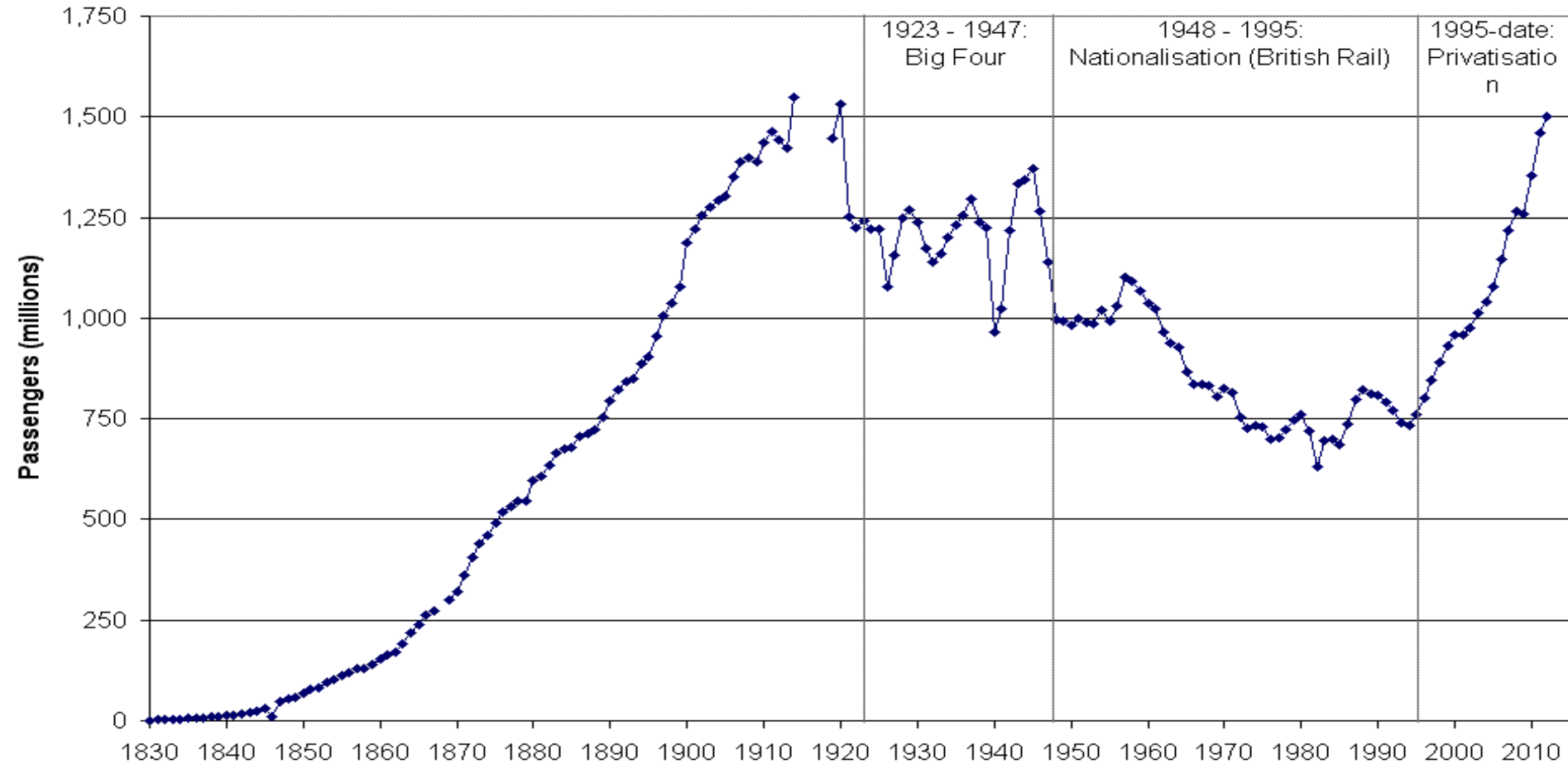
Experimentation requires patient support

Success is Perception



INNOVATION Matters for IR

The NEW GOLDEN AGE ...



THE BIG OPPORTUNITY:
D.E Rail Journey per person per annum is 20 ~ 35

**The Golden Age
will come**

provided

**we are prepared
for EPIPHANY**

Mobility and lifestyle hub for business, leisure and connectivity

Monitoring drone for predictive maintenance and improved security



2

1

Electronic tagging of cargo for reliable tracking and reduced delays

Intelligent robots unload and sort cargo

Automatic gauge change for cross-border travel

10

Automatic freight trains distribute freight and goods on the go

12

Alternative power sources from hydrogen, nuclear, air propulsion or magnetic levitation



11

13

3

Ticketless and security technology eliminates gate-lines in stations

Intelligent robots to repair and maintain infrastructure

5

Energy flooring that generates electricity from footfall

Virtual shopping wall that offers convenience and ease

4

Driverless pods powered by clean energy

7

Real-time passenger information for seamless journey planning

17

Smart window glazing dims automatically to control heat and glare

Flexible interiors that cater for different passenger needs

15

16

Automated passenger trains optimise running time and reliability

6

Underground freight pipelines for moving goods in cities

8

© P&G House



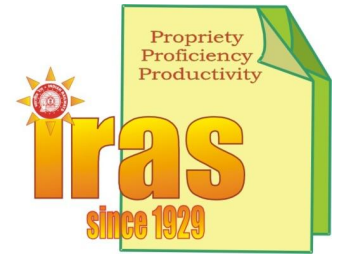
Tackle the ROADBLOCKS

N.I.H

Support START-UPS

Support INTRAPRENEURS

IRAS DAY- 2015



**EXTRAORDINARY
GENERAL BODY MEETING
OF
IRAS ASSOCIATION**

Changes proposed in Constitution

EXISTING GOVERNING COUNCIL MEMBERS	PROPOSED GOVERNING COUNCIL MEMBERS
President Vice President Secretary General Treasurer Joint secretary-I Joint Secretary-II	Patron – AM(F) & AM(B) President Secretary General Treasurer Joint secretary-I Joint Secretary-II Joint Secretary-III (from other than Delhi Area) 3 Members

Powers to amend constitution :

Item 8. The General Body will have power to amend constitution by 2/3 rd majority amongst those present subject to attendance not less than 24 members.



OPTIMIZING EXPENDITURE ON TRACTION ENERGY

Allahabad Division

NORTH CENTRAL RAILWAY

Overview

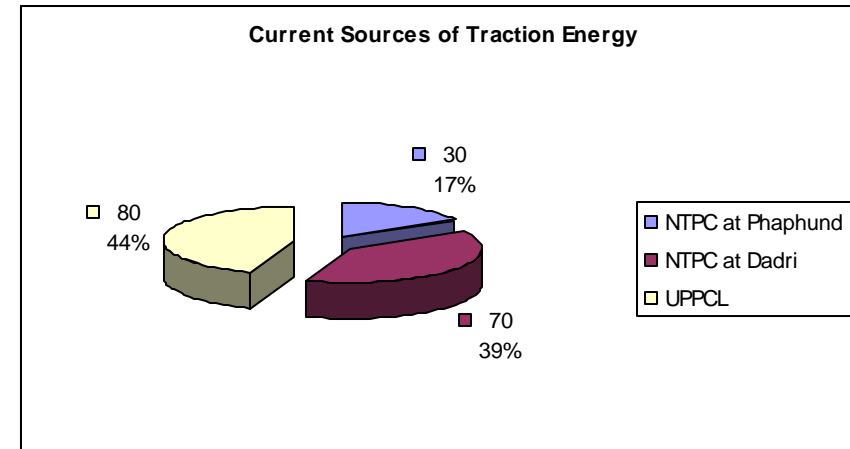


- The electrification of routes is set to increase over NCR.
- With the phasing out of diesel locomotives and increase in line capacity, the expenditure on traction energy will further increase and become a major component of non staff cost for IR.

Description		ALD Division	NCR	IR
Present Electrification	%age	74.22%	56.92 %	39.92%
	Route kms	783.66	1831	26269
Proposed Electrification	%age	9.75%	-	9.88%
	Route kms	102.97	-	6500

Sources of Traction Energy

- Total contract demand for traction in ALD = 180 MW (breakup shown alongside)
- **NTPC**- feeds 100 MW Power in CNB-GZB section through two points namely Phaphund (30MW) & Dadri (70MW)
- **UPPCL**- feeds 80MW power in section MGS-CNB at 10 points:
132 KV : Narayanpur, Pathraiya, Bheerpur, Manauri, Radhanagar
25 KV: Chunar, Jigna, Rewa Road, Sirathu, Malwan





Reduction in Revenue expenditure – existing possibilities

- Through vendor selection. Presence of multiple private and public sector players in the energy market and competition between them can be used to IR's advantage.
- By exploring new financial instruments while entering into contracts.
- Timely payments availing rebates and other benefits offered by suppliers etc.

Average Rebate for the month of Oct-2015 (Fig. in Lacs).

NTPC	@ 2.1%	22.24
DVC	@ 2%	21.77
UPPCL	@ 0.25%	6.25

Savings through vendor selection



1. A power purchase agreement was signed with DVC on 05.02.2015 for availing 50MW traction power supply through Short Term Open Access for the period Mar-15 to Nov-15.
2. Earlier average unit rate through NTPC was Rs. 4.78 (for F.Y.2015-16) , present average unit rate through DVC is Rs. 3.91 (for F.Y.2015-16).
3. Since above agreement is upto 30.11.15 , a new Power purchase agreement for procurement of 50 MW Power has been signed with Adani Power limited on 15.10.2015 @ Rs.3.69 per KWH through bidding on Medium Term Open Access basis for the period of 3 years.

Analysis of Traction Energy Consumption & Payment for year 2013-2014, 2014-2015 & 2015-2016 in Allahabad Division



Sl. No.	Items	Supply System	Year		
			13-14	14-15	15-16(upto Sept-15)
1	Energy consumption in (MU)	25 KV (five points)	208.68	197.43	91.20
		132 KV (five points)	211.94	213.16	113.17
		UPPCL (Total)	420.62	410.59	204.37
		Avg. per month of UPPCL	35.05	34.22	34.06
		NTPC	805.26	766.95	195.7
		Avg. per month of NTPC	67.11	63.91	32.62
		DVC	0	37.67	200.63
		Avg. per month OF DVC	0.00	37.67	33.44
		Total	1225.88	1215.21	600.70

Sl. No.	Items	Supply System	Year		
			13-14	14-15	15-16(upto Sept-15)
2	Charges in Crores of Rs.	25 KV (five points)	139.48	140.61	70.37
		132 KV (five points)	138.58	152.28	85.4
		UPPCL (Total)	278.06	292.89	155.77
		Avg. per month of UPPCL	23.17	24.41	25.96
		NTPC	546.05	453.3	93.56
		Avg. per month of NTPC	45.50	37.78	15.59
		DVC	0	15.23	78.39
		Avg. per month of DVC	0.00	15.23	13.07
		Total	824.11	761.42	327.72

Sl. No.	Items	Supply System	Year		
			13-14	14-15	15-16(upto Sept-15)
3	Average Rate in per Unit	25 KV five points	6.68	7.12	7.72
		132 KV five points	6.54	7.14	7.54
		UPPCL (Avg.)	6.61	7.13	7.63
		NTPC	6.78	5.91	4.78
		DVC	0	4.04	3.91
		Total	6.72	6.37	5.44



Through financial instruments

- LC “ It is a bank guarantee equivalent to 105% of monthly billing, issued by Nationalized bank on the basis of payment of commission charges at specified rate.”

**Percentage of LC charges levied for NTPC supply of Rs. 31.94 Cr.
(Fig.in Rs.)**

NTPC	@ 0.012% + Service tax	1894876 /- Annually
NRLDC	@ 0.012% + Service tax	1659/- Annually
PGCIL	@ 0.012% + Service tax	127982/- Annually

Contd.....

Contd.....



- LOA “ It is an Assurance issued by RBI free of cost, equivalent to 105% of one month estimated billing in Million unit.”
- As LOA has been executed in compliance of Railway Board’s Instruction in lieu of LC in ALD division in f/o DVC for Rs.15.57 Crore. Shifting from LC to LOA has resulted in saving of annual LC charges for Rs. 947438/-.

Saving through other means



- A petition was filed in UPERC/Lucknow for implementation of Simultaneous Maximum Demand, which had been decided in favour of Railways resulting in saving of Rs.8.83 crores in the financial year 2015-16. SMD implemented from May-2010 and saving has been made for Rs.80cr upto Sep-2015.
- As per CERC guideline, beneficiaries who are maintaining revolving LC are eligible for 2% rebate. In this context a new rebate scheme has been launched by NTPC vide which a rebate of 2.1% will be given for prompt payment, which has been opted by Railways. As a result of this new scheme, Rs.7.01 lakhs saved in FY 2015-16.
- A representation was made by Allahabad division to UPERC for acceptance of rebate on prompt payment in the public hearing at Varanasi. After concerted efforts by the Railways, representation was accepted by UPERC and guidelines issued for rebate (@ 0.25%) on prompt payment resulting in saving of Rs. 37.39 lakhs in FY 2015-16.

Contd.....

Contd.....



- An agreement was executed between Railways and NTPC in 1998 with the clause that Railways will pay @ Rs.0.80/- per unit as service charge. In this regard a supplementary agreement has been executed on 29.1.15 for discontinuing the service charge @ Rs.0.80 per unit. This has resulted in saving of Rs.10.17 crores in FY 2015-16.



Steps under pipeline

- Proposal for 50 MW additional power from REMCL through bidding process in section CNB-GZB is currently under process.
- Naini Grid Sub-Station (NYN-GSS) is likely to be commissioned in Mar-16, thus 40 MW power is required at NYN-GSS to discontinue the UPPCL power supply in NYN-CNB section (as Avg. rate of UPPCL is higher).
- Simultaneous Maximum Demand has been proposed for all power distribution companies.

North Central Railway Allahabad Division

Demand no.10 (Operating Expenses-Fuel) MH-300 (330)bb

P.U.	Act.1 st 6 Month		Act. Exp. for Last 6 month		Act. Exp. 2+4	Revised Estimate 3+5	Budget Allotment	Variation	Anticipated Saving
			Actual	Estimated 8-3					
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2015-16	Col.7-6	Col.7-8
1	2	3	4	5	6	7	8	9	10
32	3248229	2731965	3115707	3147335	6363936	5879300	7258312	-484636	-1379012
99	170748	137935	162607	165649	333355	303584	382612	-29771	-79028
Total	3418977	2869900	3278314	3312984	6697291	6182884	7640924	-514407	-1458040
Cr. MH 900	-170748	-141903	-156443	-156093	-327191	-297996	-411428	29195	113432
Net	3248229	2727997	3121871	3156891	6370100	5884888	7229496	-485212	-1344608

**Revenue Lost
due to
running of undersized Block rakes
by FA&CAO/ECOR**



Moot points

- Charging of undersized block rakes at T/L class is a common phenomena.
- Block rakes containing **unfit for loading wagons** are allowed to run along with loaded fit wagons against indents for block rake.
- Railway ends up realizing the freight at T/L class for the fit wagons only.
- The freight for the unfit wagons in the rake which are run are foregone.

Standard rake size and rationale

Rationale:

To maximize revenue per rake without incurring additional operating cost.

Standard Rake size:

Standard rake size is notified considering wagon length, length of loop line, wagon type, PCC, engine capacity etc. The latest notification vide Rate Master Circular/Block rakes/2015, circulated vide No. TCR/1017/2015/01 dt 05.06.15

Charging:

Freight is realized at TL class for the fit wagons only against indents for block rake.

Case Study

Transaction Month-May 2014

- No. of rakes during the month - 3565
- No. of rakes with unloadable wagons (Undersized rakes) - 835
- No. of unloadable wagons – 2843
- % of undersized rakes – 23.42%
- Total Revenue earned during the month –
Rs1062.67 crores
- Revenue foregone- Rs13.69 crores (1.3%)

Case Study ... continued

Transaction Month-October 2015

- No. of rakes during the month - 4022
- No. of rakes with unloadable wagons (Undersized rakes) - 1093
- No. of unloadable wagons – 3865
- % of undersized rakes – 27.18%
- Total Revenue earned during the month – Rs 1489.84 crs
- Revenue foregone- Rs 20.26crs (1.36%)

No. of Undersized rakes

Wagon deficiency	May-14	Oct-15
Upto 5 wagons	689	911
6 to 10 wagons	109	144
11 to 15 wagons	28	24
More than 15 wagons	9	14

Observations

Type of deficiencies in wagons

- a) Bottom hole
- b) Door damaged
- c) Side panel bulge/Cut
- d) Roof hole (Covered wagons) in monsoon
- e) Lock defect/DOM cylinder defect (BOBRN)

Observations ... contd

- Rakes were of standard block size.
- Wagons '**fit for running but unfit for loading**' are in the rake along with fit wagons.
- Unfit for loading wagons are neither repaired nor detached on detection/certification.
- Avoidable empty haulage is earned along with freight foregone.

Suggestions

Suggestions to prevent running of undersized rakes :

- Mobile repair unit of Carriage and Wagon staff
- Repair by Siding holder -
 - repairing cost adjustable from Damage & Deficiencies charges; or
 - on billing & payment
- Incentive to siding holder for repairing

Suggestions ... *Contd.*

- Ensuring accountability for formation of standard size block rakes.
- Reporting of unfit wagons by the staff in the RMS
- Wagons with major deficiency may be detached and attended to.

NWR

Review of Contracts in Negative PVC Scenario



North Western Railway, Jaipur
28.11.2015

Review of contracts in negative PVC scenario

- Non submission of PVC claims by Contractors in case of downward trend of prices.
- Saving due to reduction in rate on account of negative PVC as per GCC clause 46(a).
- The negative trend of PVC is primarily more predominant in the category of 'other works contract'.

Components in category of 'other works contract'

- Labour component - 30 %
- Material component - 40 %
- Fuel component -15 %
- Fixed component - 15%

Indices trend

Component	Oct-2014	Sept-2015	Difference	% Variation
Labour	253	266	13	+5.1
Material	183.70	176.60	-7.1	-3.86
Fuel	210.80	175.60	-35.2	-16.70

Impact of PVC as per component weightage between Oct 2014 to Sep 2015

- Labour $0.30 \times 5.1 = (+)1.53$
- Material $0.40 \times (-)3.86 = (-)1.54$
- Fuel $0.15 \times (-)16.70 = (-)2.51$
- Net overall impact $= (-)2.52\%$
- 2.52 % is the saving on a payment made in case where tender opened in Oct-14 and certain payment became due after one year. However, this percentage will vary on case to case basis.

Case study

- 7 cases have been reviewed in NWR
- Period of PVC Oct 2014 to June 2015
- Amount paid = Rs. 20,04,18,916
- PVC Recovery detected = Rs. 21,45,778
- Average recovery impact = 1.07%

Tentative Financial impact

(A) Plan head 30 (ROB/RUB)

- Expenditure from April 15 to Oct 15 = Rs. 105 crore
- Anticipated Saving considering average factor of 1.07% = $105 \times 1.07\% = 1.12$ crore

(B) Plan head 29 (RSW), 32 (BR), 51 (SQ), 52 (SA), 53 (PA) & 64 (OSW)

- Expenditure from April 15 to Oct 15 = Rs. 58 crore
- Anticipated Saving considering avg factor of 1.07% = $58 \times 1.07\% = 0.62$ cr

(C) Total impact for 7 months = $1.12 + 0.62 = 1.74$ cr

(D) Anticipated impact for one year = $((1.74/7) \times 12) = 3$ cr

(E) Other plan heads like 11 (NL), 14 (GC), 15 (DL) etc have components of earth works, ballast, tunneling contracts as well as 'other works contract'. These will also have PVC savings accordingly.

Action plan

- For all cases of PVC applicability contracts, PVC calculation sheet to be made part of running bill irrespective of any claim by contractor
- All units to make a list of PVC contracts by 15thDec-2015
- Review previous payments by 15.01.2016
- Recovery to be ensured during current financial year





ESTIMATING TRACK RENEWAL – Solapur Model

- Sharing of information
- Savings enhancement steps

Presented by Shahzad Shah, IRAS
FA&CAO, Central Railway

THE STRATEGY UNDERTAKEN

- Track Management System Data taken.
- 1 staff of Accounts office stationed in Divisional Control – collect and collate data of caution orders, Ballast balances, Hopper Movements.
- Caution Order Programme - Data entry of various cautions, KM-wise 
- Both data collated and matched to find out:
 - actual requirement of Ballast.
 - track condition and
 - redundancies in the various proposals by overlapping detected 

WHAT IS TO BE LEGISLATED ?

1. The Track Management System should have a read-only access for Accounts Department both at Zonal Headquarters and Divisions.
2. Permanent Staffing of single shift of accounts in all Divisional Control and sharing of the data related to Ballast movement, Hoppers,etc
3. Track Diagrams should be part of all Track Renewal and related estimates.
4. Directives to be issued by the Engineering (Track) Directorate in consultation with Finance Directorate

A SAVINGS OF 3% TO 100 % IN VARIOUS TRACK
RENEWAL ESTIMATES ACHIEVED

IN SIX MONTHS RS 6 CRORES SAVINGS
ACHIEVED IN SOLAPUR DIVISION IN ONE PLAN
HEAD

BASIC SYSTEM IMPROVED – CAN BE
IMMEDIATELY IMPLEMENTED IN ALL 68
DIVISIONS OF IR – APPROX ANNUAL SAVINGS
RS 1000 CRS



THANK YOU

