



Tata Power – DISCOM - Mumbai

Tata Power Footprints



Power Generation Capacity



Thermal- 7340 MW



Waste Heat/BFG- 375 MW



Hydro- 693 MW



Wind- 1161 MW



Solar- 1388 MW

Power Transmission



Transmission: Over 1188 Ckt kms. of transmission lines, connecting generating stations to 24 receiving stations.



Powerlinks Transmission Ltd- It is the testimony of a pioneering Public-Private Partnership (PPP) in the transmission sector in India covering ckt km of 2332 km

Retail Power Distribution



Mumbai- 0.7 mn customers



Delhi- 1.7 mn customers

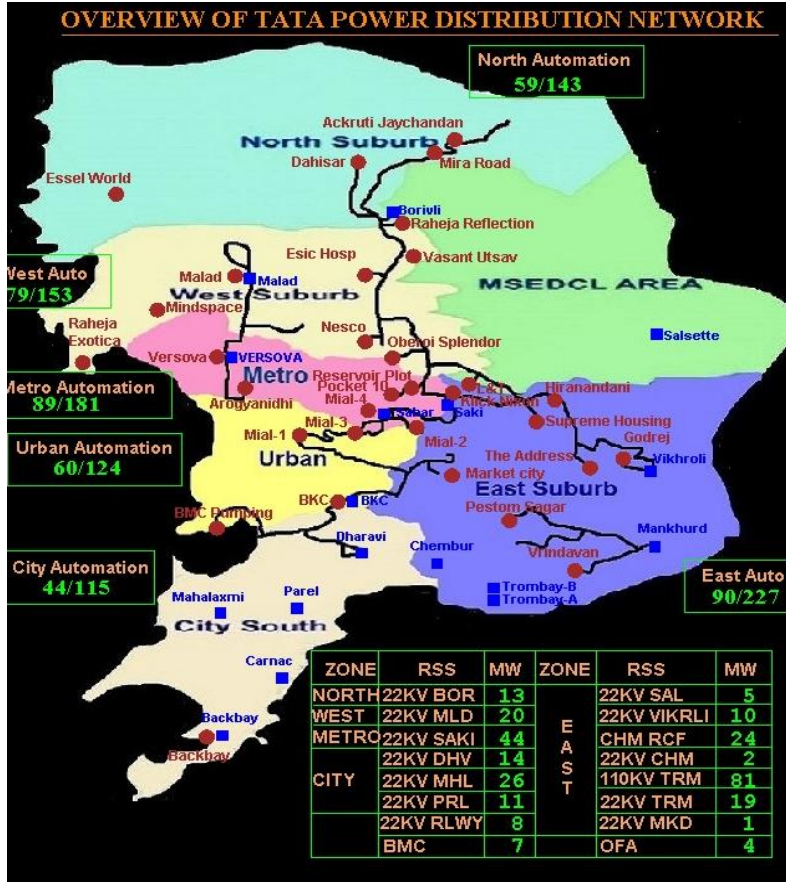


Ajmer DF - 0.15 mn customers

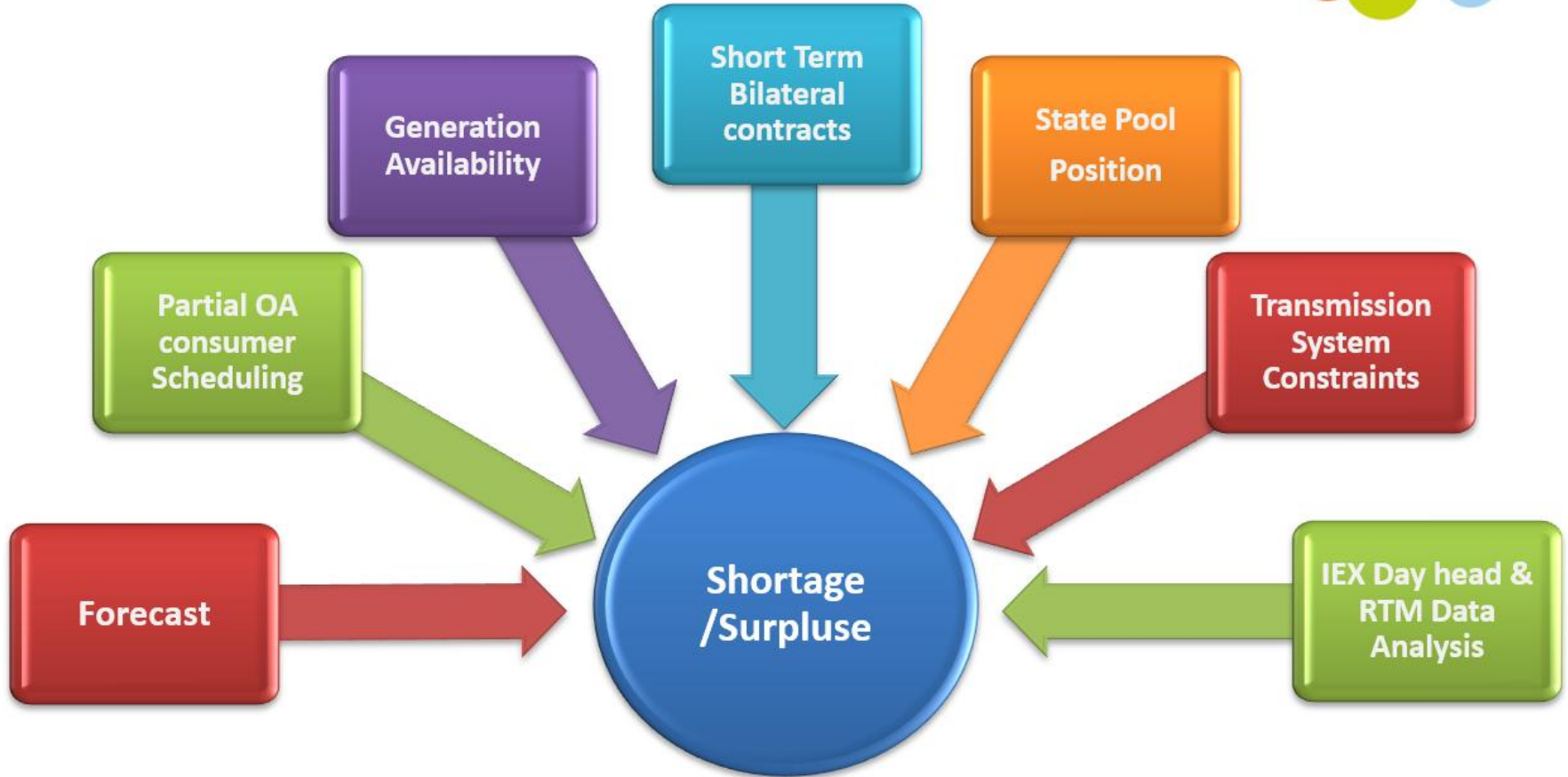


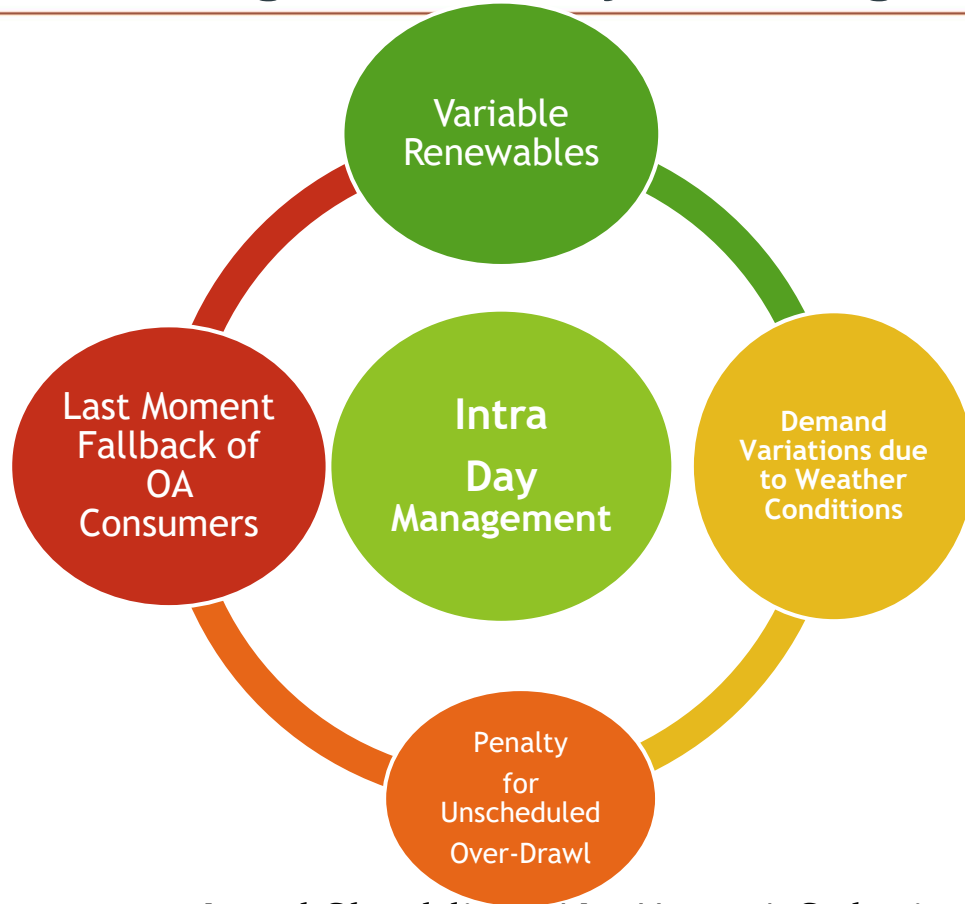
TPCODL – 2.6 mn customers

Tata Power has generation capacity of 12,742 MW



- Tata Power Distribution
 - Distribution Sub Station - 34 Nos.
 - Consumer Sub Station – 979 Nos.
 - 1.5 Lakhs direct and 5.6 Lakhs change-over about 900 MW Demand





Load Shedding -No More A Solution



Thermal Sources

- Pick-Up but Costlier
- Ramp Rate Restrictions
- Can't operate below technical minimum –
No opportunity for distress sale



Hydro Sources

- Used to meet intra-day demand variations
- Easy to Vary; Cheaper
- Still restricted resource due to KWTA, Tailrace
User Requirement, Water Availability

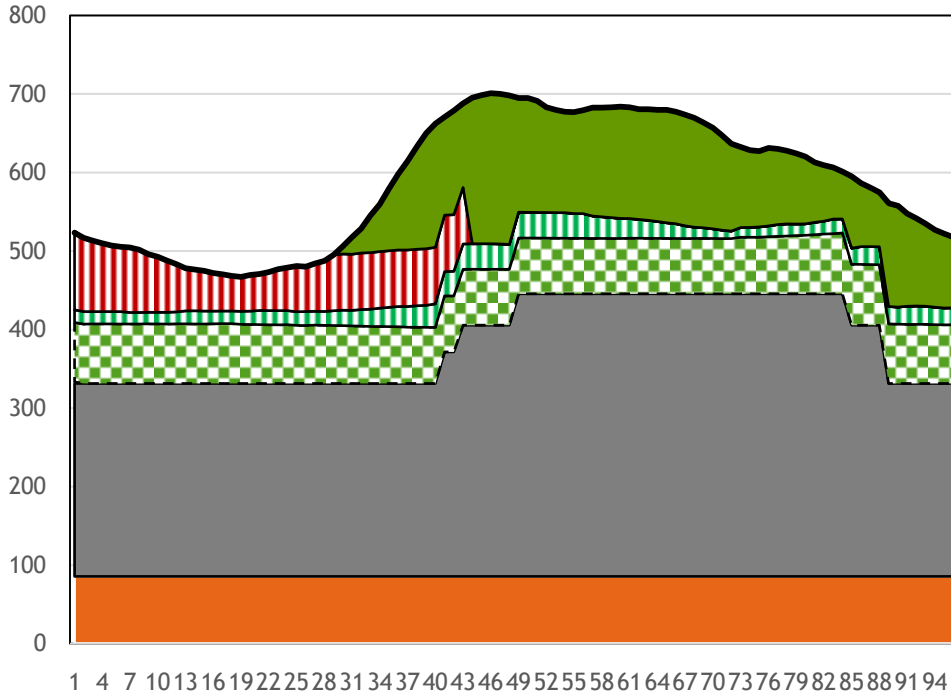


- Tata Power-D has been participating in the Real time Market, right from Day-1. Tata Power-D has been benefitted from RTM as below,
 - **Backing down of costly thermal generation & utilizing cheap power in RTM –**
While planning day ahead purchases, some margin is kept for power purchase in RTM, if the rates are less than Thermal generation Variable cost.
 - **Hydro Resource Optimisation**
Hydro generation is limited in nature as there are many restrictions such as KWTA, Tailrace user's requirement, water availability as per Monsoon variations etc. Hence hydro generation is to be used vary judiciously. With the availability of RTM, whenever opportunity is available, power is purchased by conserving hydro generation.
 - **DSM Management and to avoid ADMS**

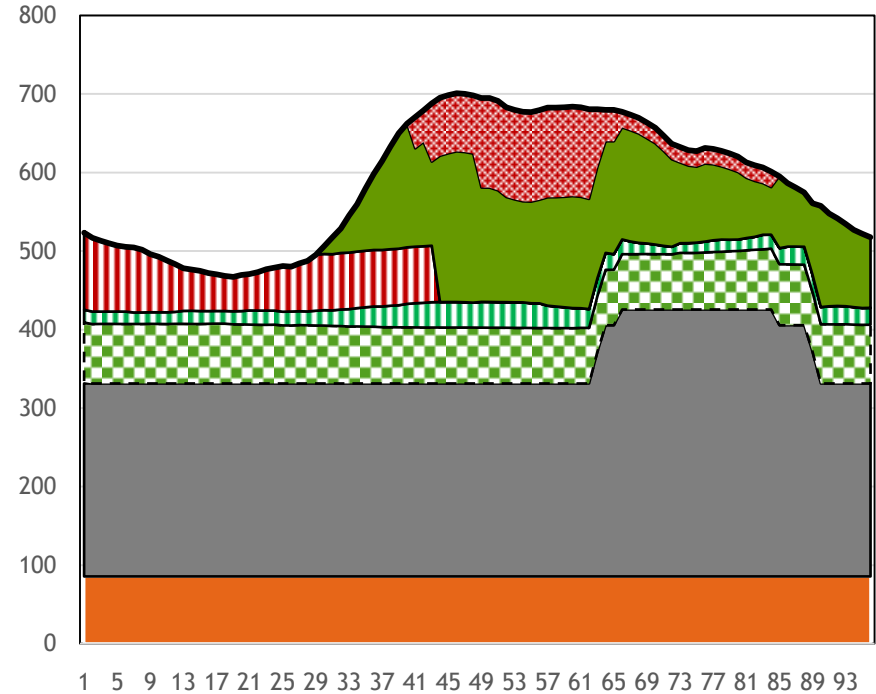
Thermal & Hydro Optimization



TPC-D Day Ahead Planning



TPC-D Real Time Operation



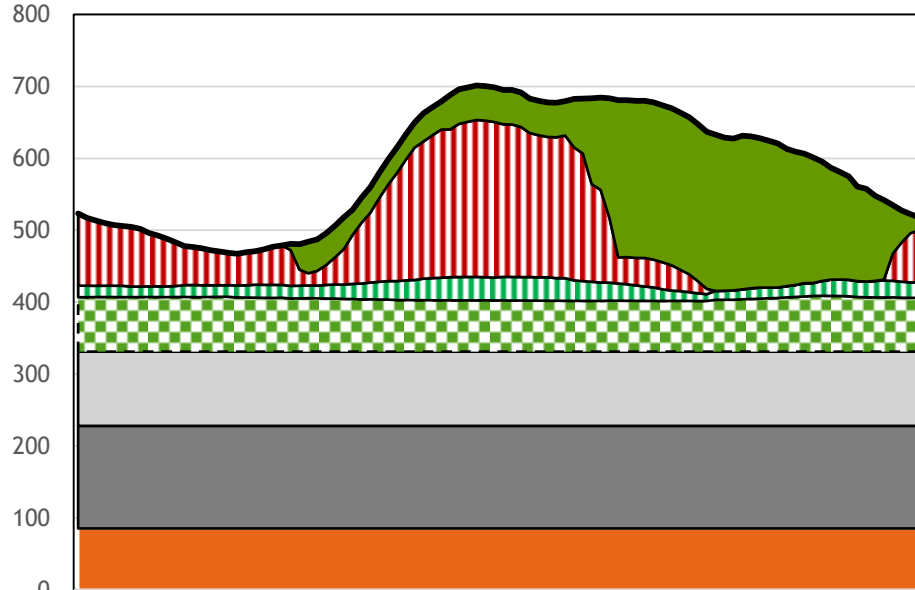
- Shortage
- Hydro TPC-D
- RE
- #REF!
- Purchase
- #REF!
- Thermal
- Gas
- TPC-D Req

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OA Consumer not getting Power in DA Market



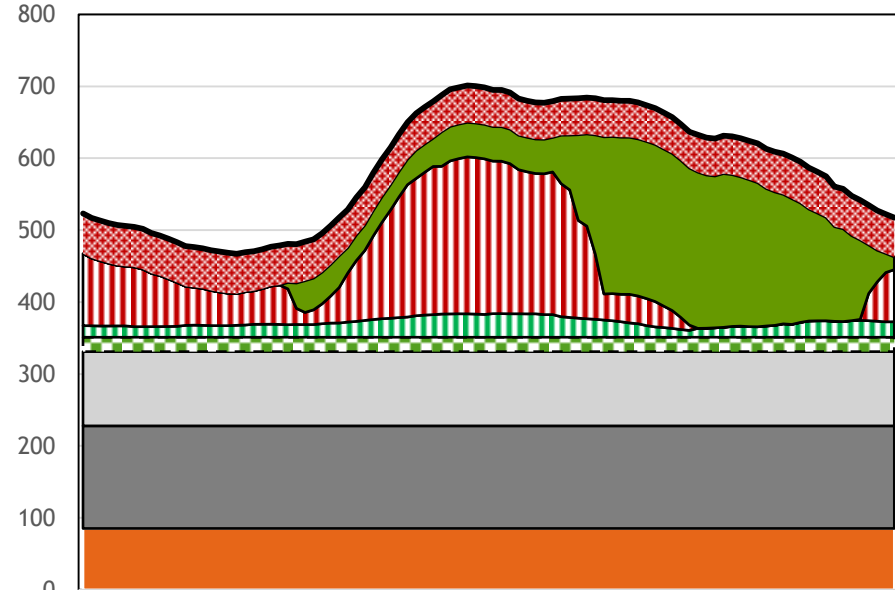
TPC-D Day Ahead Planning - IEX DA Purchase



1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64 67 70 73 76 79 82 85 88 91 94

- Unit-7
- Unit-5
- Unit-8
- STOA
- MTOA
- OA Consumer
- RE
- IEX
- Hydro TPC-D
- Shortage
- TPC-D Req

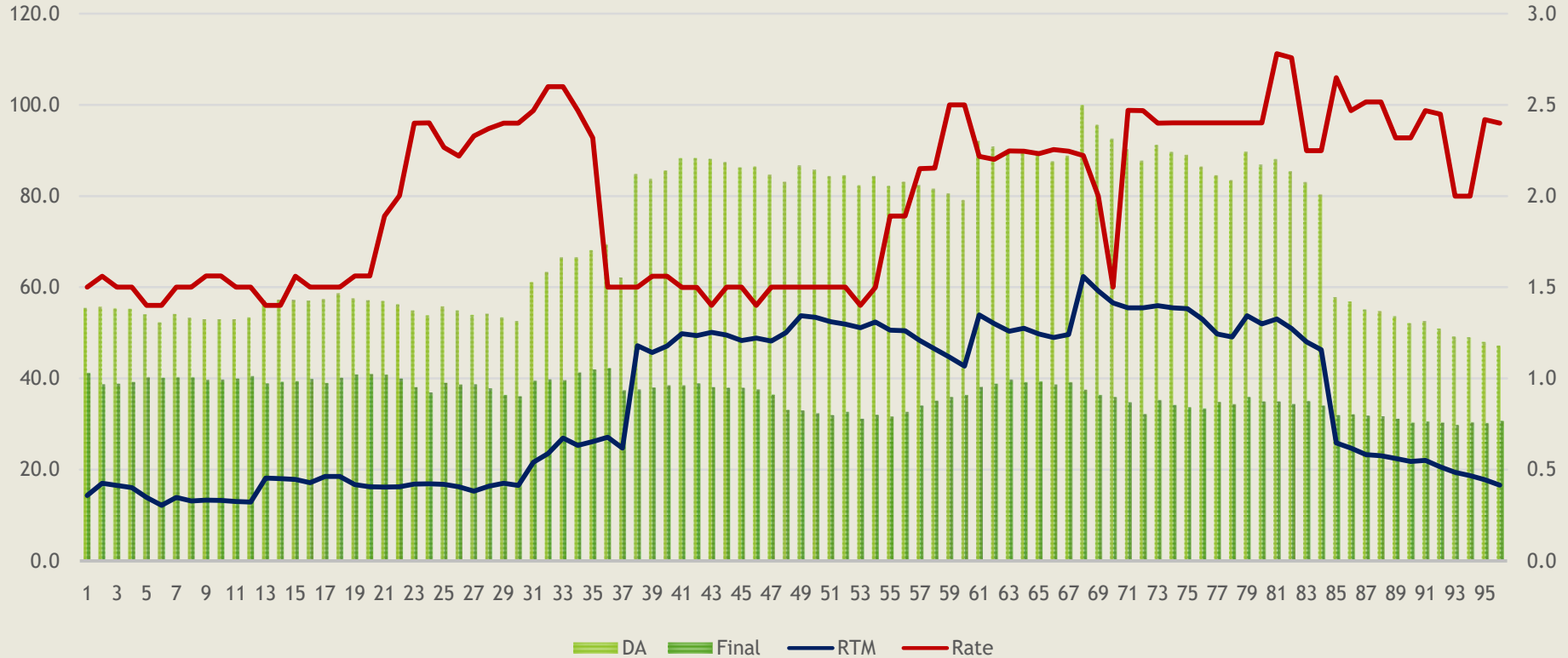
TPC-D Day Ahead Planning - OA consumer -DAM



1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64 67 70 73 76 79 82 85 88 91 94

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VARIATION IN WIND GENERATION IS MANAGED WITH RTM

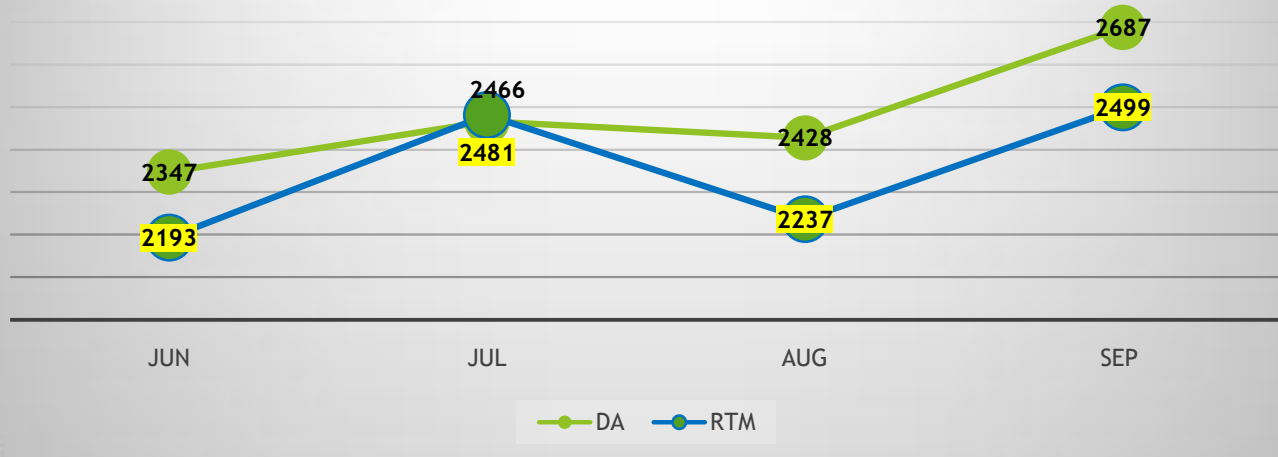


RTM Overview Till Date



	DA -MU	RTM	Rs-PU	Rs-PU	% Reduction in PP Cost
Jul	65.2	11.2	2.7	2.4	Appx.3% reduction
Aug	29.6	17.2	2.8	2.6	
Sep	66.2	57.2	2.9	2.7	

DA and RTM Monthly Average Rate



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Thank You!

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