

METROLITE AND METRONEO

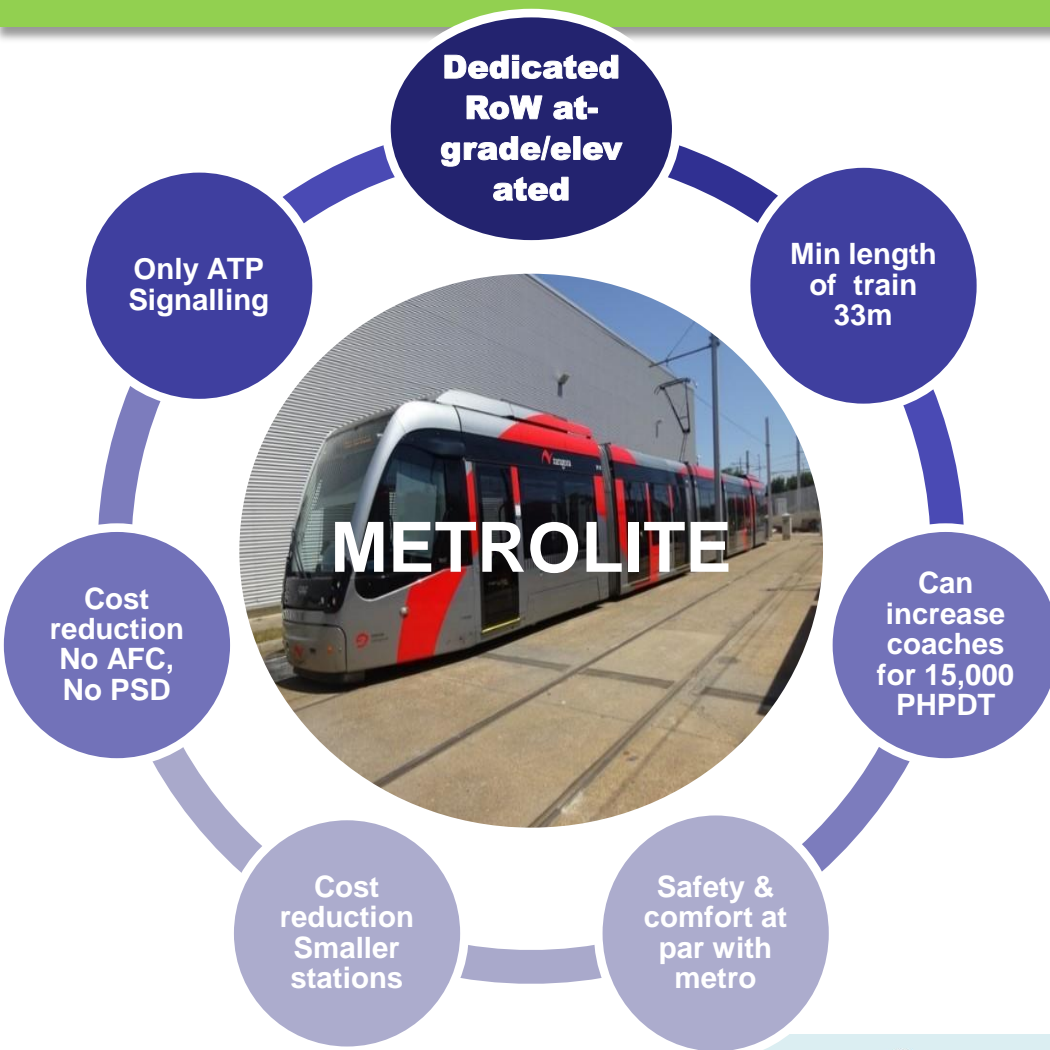




WHY METROLITE?

- Requirement of cost effective MRTS for tier 2/3 cities – with PHPDT upto 15,000
- Bus transit system cater upto 5,000 PHPDT which is insufficient
- Heavy metro is economical for PHPDT greater than 15,000.
- Suitable rail based light metro system operating successfully worldwide.
- MoHUA has issued standard specifications for rail based light metro system named Metrolite for use in tier 2/3 Indian cities.

FEATURES OF METROLITE



BROAD METROLITE SPECIFICATIONS APPROVED

- RoW of 7.6m, standard gauged track
- Platform width of 1.12m, side evacuation between tracks.
- Low floor rolling stock, max 12T axle load with PHPDT upto 15,000
- Upto 300 pax capacity at AW3 loading, max operation speed is 60kmph
- 750VDC traction power supply
- ATP only signalling (GOA1) integrated with road signals, CCTV surveillance in stations.

COST ASPECTS OF METROLITE COMPARED TO HEAVY METRO

SN	Sub-system	Description	MetroLite (Rs.Cr/KM)	Heavy Metro (Rs.Cr/KM)
1	Viaduct	Smaller viaduct	33	37
2	Stations	Concourse eliminated, platforms height is reduced	18	55
3	Track	Ballast less embedded track at grade systems	9	9
4	Traction & PSI	Lesser power requirement	10	12
5	Rolling Stock	Smaller rolling stock	17	20
6	Signalling	GoA 1 based ATP signalling	7	12
7	Depot	Less depot area	3.5	6
8	Misc. Utilities		3	4
9	Telecom & Security	Smaller stations with optimal telecom services	0.3	6
10	Ticket vending (AFC)	No AFC gates	0.5	3.5
	Taxes, Contingencies etc., @ 35%		35.4	58
Gross Total including GST in INR for Cr/KM elevated section			137	222

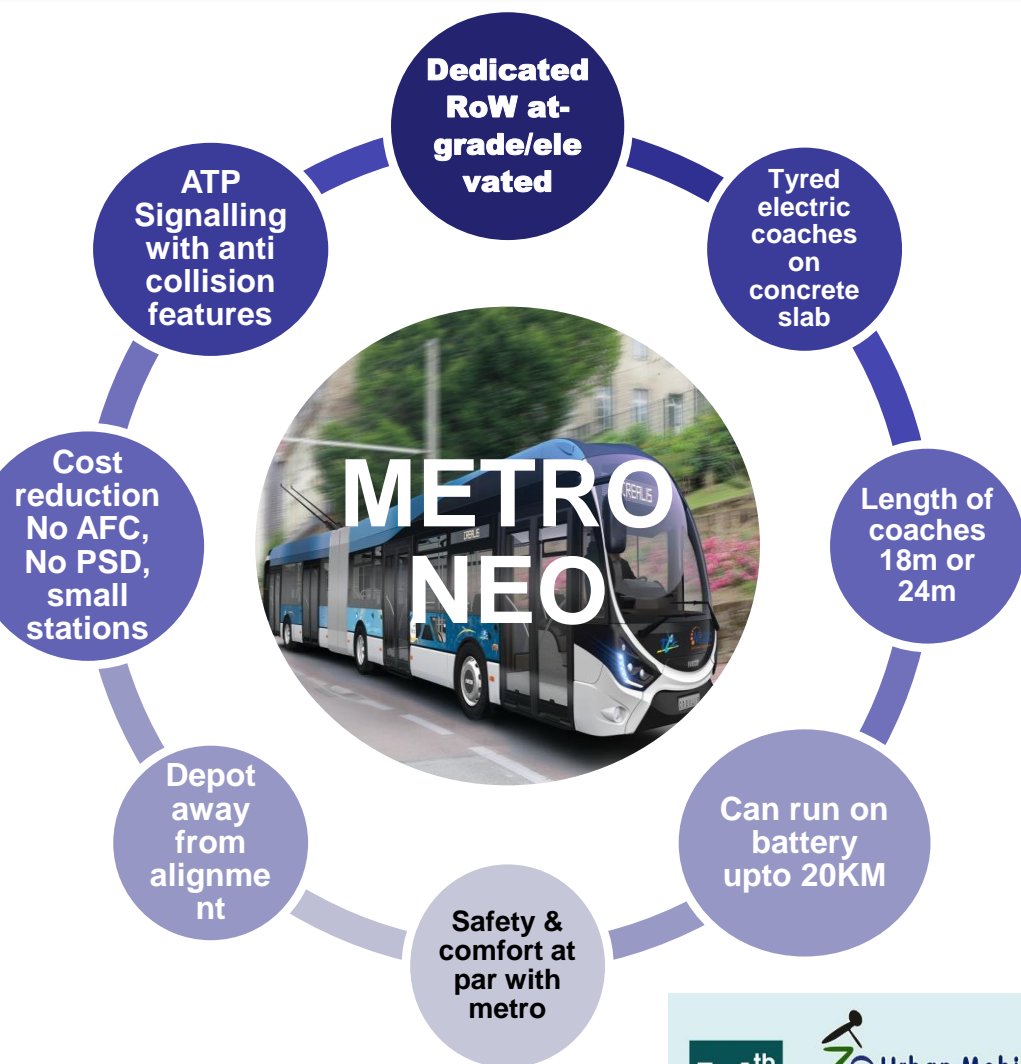
METRONEO SYSTEM



WHY METRONEO?

- Heavy Metro rail is economical for PHPDT greater than 15,000
- Rail based LRT, MettrodLite address traffic requirement upto 15,000 PHPDT.
- Peculiar requirement of Indian cities require an innovative and cost effective solution
- MetroNeo is India centric solution for tier 2/3 cities for 8,000 PHPDT MoHUA has issued standard specifications for rubber tyred metro coaches running on OHE named MetrodLite for use in tier 2/3 Indian cities.

FEATURES OF METRONEO



BROAD METRONEO SPECIFICATIONS APPROVED

- **Dedicated RoW of 8m**
- **Platform width of 1.12m, emergency side evacuation**
- **Low floor rolling stock around 10T axle load**
- **Caters PHPDT 8,000 and extendable upto PHPDT 10,000**
- **Upto 250 pax capacity for 24m coach and 200pax for 18m coach at AW3 loading**
- **750VDC OHE twin wire electrification. Coaches can run on battery where OHE is not feasible.**
- **ATP signalling with anti collision features and central control, CCTV surveillance in stations**

COST ASPECTS OF METRONEO COMPARED TO HEAVY METRO

SN	Sub-system	Description	Metro neo (Rs.Cr/KM)	Heavy Metro (Rs.Cr/KM)
1	Viaduct	Smaller viaduct	31.5	37
2	Stations	Concourse eliminated, platforms height is reduced	5	55
3	Track	No track	0	9
4	Traction & PSI		6.5	12
5	Rolling Stock	Tyred electric coaches	9	20
6	Signalling	ATP signalling with anti collision	1	12
7	Depot	Less depot area	2	6
8	Misc. Utilities		2	4
9	Telecom & Security	Smaller stations with optimal telecom services	1.5	6
10	Ticket vending (AFC)	No AFC gates	0.5	3.5
	Taxes, Contingencies etc., @ 35%		20.5	58
Gross Total including GST in INR for Cr/KM elevated section			81	222

METROLITE VS. METRONEO

Parameters	Metro lite	Metro Neo
RoW	Dedicated RoW with fencing/parapet wall	Dedicated RoW with fencing/parapet wall
RoW /viaduct width	7.6m	8m
Min Platform width	1.12m	1.12m, island PF width = 4m,
Track	Standard Guage	No track, kerb/centre rail guidance
Items minimized	AFC gates, DFMD, separate concourse	AFC gates, DFMD, separate concourse
Axle load & PHPDT	12T axle load, PHPDT upto 15,000	Around 10T axle load, PHPDT = 8,000 extendable to 10,000
length x width of rolling stock	33m x 2.65m	18m or 24m x 2.55m
low floor height	300-350mm	300-350mm
Pax capacity @ AW3	300 pax in 3 car train	200 pax for 18m coach, 250 pax for 24m coach
Traction	750VDC OHE or embedded 3rd rail	750VDC OHE, can run upto 25KM with battery supply where OHE is not present
Signalling & Telecom	CBTC ATP GOA1, CCTV surveillance & TETRA radio	ATP only with anti collision features CCTV surveillance, radio and OFC based network
Cost	Rs. 137 Cr/KM for elevated sections	Rs. 81 Cr/KM for elevated sections

WAY FORWARD

Cities under consideration for implementing MetroLite and Metroneo are

MetroLite

- Ritala- Narela
- Gorakhpur
- Jammu
- Srinagar

MetroNeo

- Nashik
- Warangal (Telangana)
- Dehradun



THANK YOU