

EPCA Report **No 97**

Special Report seeking urgent intervention on augmentation of public transport, including approval for phase IV of Delhi Metro and advancement in schedule for additional buses

July 1, 2019

Summary of key issues for the consideration of the Hon'ble Supreme Court

It is clear that without an augmented public transport system, Delhi and other cities of India will not be able to combat toxic air pollution. It is also clear that currently our public transport infrastructure is grossly inadequate. Cities like Beijing, for instance, have 107 buses per lakh people. Delhi has 17 buses per lakh people. But what is also alarming is that these buses are rapidly aging – all of DTC's current 3600 on-road buses are over 8 years of age and will be required to be phased out within the next few years. This, when growth of private vehicles is a key contributor to air pollution in the city, is a matter of grave concern.

But in spite of the growing concern about toxic air pollution in the city and its surrounding areas and the clear link with vehicles, we are not reversing the decline of public transport in the city at the scale and speed needed.

EPCA is bringing this report to the Hon'ble Supreme Court and is seeking urgent intervention on the following issues:

- a. **Resolve the pending issues that are delaying the approval for phase IV of the Delhi metro.** The phase IV is critical as it will add another 104 km to the network; it is designed to join the current network and will densify it and make the system more viable and attractive to commuters.
- b. **Expedition of the approval process and schedule for induction of new buses in the city.** The city has not added new buses into its fleet for the past 4 years. The Hon'ble Supreme Court is monitoring the induction schedule for additional buses. EPCA has reviewed the progress on this matter and finds that the schedule needs to be expedited.

The Metro phase IV clearance is a matter of urgency and the further delay will cost the city enormously. This proposal for this phase of metro was first submitted in 2014 and work was to begin by 2016. But there is a stalemate in the discussions between the Union Government and the Delhi government on different financial aspects of the project. The Delhi government has on April 10, 2019 communicated its direction that DMRC would not start work of Delhi Metro phase-IV till these issues are resolved.

EPCA has discussed the unresolved issues that are delaying the crucial public transport project. The key difference stems from the national Metro Rail Policy of August 2017, which specifies the role of the Union government in public transport infrastructure projects. As per the policy, the Central government would provide financing assistance, up to a ceiling of 20 per cent of the cost of state metro projects and it states that the responsibility of the project sustainability vests with the state government. The Delhi government has made it conditional that given that the ownership of the Delhi metro is divided equally between the Union and the state, the Central government must share the land and taxes proportionately. The lack of resolution to these outstanding issues has led to an unfortunate impasse.

EPCA has examined these issues and finds that there are possible ways of moving ahead in the matter. It has detailed these in the report for the consideration of the Hon'ble Court and for it to take a view in the matter. The intervention of the Hon'ble Court is vital in resolving this much delayed project.

EPCA would also propose that even as the unresolved issues are being sorted out, under the directions of the Hon'ble Supreme Court, **it would be important to allow for the 3 corridors of the phase IV metro, which have already got the necessary clearance, to proceed.** It will take some time, after the go-ahead, for the project to start work on the ground. EPCA is certain that by then the unresolved issues will be amicably sorted under the directions of the Hon'ble Court. This will ensure that the city is not deprived of crucial public transport projects, which are needed for its common agenda to combat air pollution.

1. Role of public transport in air pollution mitigation

It is not possible to reduce toxic air pollution in Delhi without reducing the rate of motorisation and this is only possible if there is a viable public transport system, which is modern, convenient, affordable and safe. Therefore, the agenda for clean air requires augmentation of public transport.

The current high rates of motorization mean that transportation contributes massively to Delhi's air pollution. As per a study by SAFAR-India (2018), almost 40% of PM_{2.5} in Delhi is contributed by vehicles alone¹. A 2018 study by the Centre for Science and Environment (CSE) titled Urban Commute revealed that Delhi fares the worst in the country in terms of pollution, carbon emissions and energy consumption by urban commute (see Figure 1)

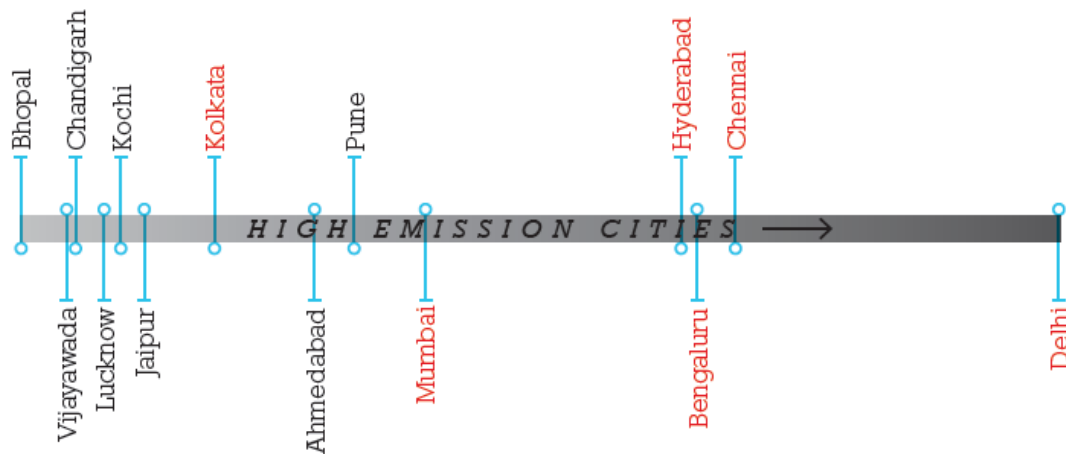


Figure 1: Delhi ranks worst amongst metropolitan and megacities of India in terms of air pollution from urban commuting. Therefore, the agenda for public transport is essential component of the clean air action plan. This means moving a substantial volume of trips to public transport and non-motorized transport by making buses and metro a preferred choice of travel.

2. Current share of public transport in the city

It is estimated that there are some 1512² lakh passenger km travelled daily in the city (other than walking and cycling).

The main modes of public transport in the city are as follows:

DTC: 3600 on-road buses as of June 30, 2019

Cluster buses: 1679 buses as of June 30, 2019

¹ SAFAR-India, 2018, *SAFAR-High Resolution Emission Inventory of Mega City Delhi – 2018*, Ministry of Earth Sciences, Govt. of India

² As it is not possible to compare different modes of travel on daily trips/ridership, this report has converted all trips into passenger km using the following km based on metro and DTC calculations. For metro 17.6 km/trip (as per their data); for DTC and cluster bus, 8 km/trip and for all modes on an average 5-6 km/trip. The total motorized trips has been estimated as 252 lakh trips in the city based on different estimates.

Metro: 291.58 km in Delhi and another 58.84 km in NCR (of this only 7.5 km in Delhi is still not operational).

There is no study which establishes the current ridership of the different modes of travel. Also there are discrepancies in the data as well as differing methodologies and so inter-mode comparison is difficult.

For instance, while 1679 cluster buses are estimated to have 12 lakh riders per day, DTC with 3600 buses estimates that it carries some 30 lakh riders daily. The problem is the way the total ridership is calculated. The daily bus passes as of April 2018 were roughly 55% of the total ridership in DTC and it is assumed that each bus pass is used for 6 trips daily. This assumption increases the ridership, which has no basis and is difficult to justify. On the other hand, the cluster buses, which accept the same DTC daily pass, estimate that each pass is used for 2 trips per day. Therefore, if some basic correction is done to this data, it can be estimated that DTC ridership is not 30 lakh trips per day, but somewhere in the region of 20-25 lakh trips per day.

There is also the difference in the way daily trips are calculated in different modes of travel. In metro, once a passenger enters the system, even if there is inter-change in trains for the completion of the trip, the total journey is taken as one trip. In the case of buses where there are inter-changes, the trips are separately counted. Therefore, it is difficult to compare the daily trips for different modes of public transport.

EPCA has after discussion with officials of Delhi transport department; DTC, cluster bus and metro normalised the data and converted all riders into passenger km travelled. This allows for comparative analysis between different modes of transport in the city.

Table: Share of different modes of public transport in Delhi

	Ridership per day	Passenger km/daily	% of total passenger km in city
Delhi Metro	25 lakh	440 lakh	30%
DTC bus	20-25 lakh	160-200 lakh	11-13%
Cluster bus	12 lakh	96 lakh	6%
Total bus and metro		736 lakh	49%
Total private vehicles and others (except walk and cycle)			51%

Total passenger km travelled daily in city	252 lakh	1512 lakh	100%
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From the above, it is clear the share of public transport in daily passenger trips/km travelled must be urgently increased so that the city can combat toxic air pollution. This can only be done if there is an adequate provision of public transport in the city. In other words, the metro system must be built expeditiously and the number of well-serviced and reliable buses must be increased expeditiously.

However, the reverse is happening currently. This in spite of the urgency of air pollution control in the city:

1. The approval for 103.94 km phase IV of the Delhi metro has been held up since 2014, when the project was submitted to the Union government for its approval. There is a stalemate in the discussions between the Union Government and the Delhi government on different financial aspects of the project. The Delhi government has on April 10, 2019 communicated its direction that DMRC would not start work of Delhi Metro phase-IV till these issues are resolved (Annexure 1).

2. The progress on procurement of buses, though somewhat advanced in past 6 months, is still unsatisfactory and will not be able to compensate for the rapidly aging fleet of buses, which operates in the city.

Cities across the world have invested in developing huge metro networks as well as large-scale bus systems. In comparison, Delhi is very far off (See Table: Comparison of public transport supply across cities in the world). Beijing with comparable population has 107 buses per lakh population in contrast to 17 in Delhi.

Table: Comparison of public transport supply across cities

City	Metropolitan Area		Bus		MRT		Bus Fleet/ lakh population	MRT km/ lakh population
	Population persons ('000)	Area (km ²)	Fleet Size	Daily Ridership (million)	Km	Daily Ridership (million)		
London	8302	1572	7500	6.4	402	3.2	90	05
Singapore	5312	716	4212	3.5	167	2.2	79	03
Tokyo	13277	2189	1462	0.6	305	2.2	11	02

Hong Kong	7184	1104	5743	3.8	178	4	80	02
Beijing	20186	16411	21628	13.8	554	6.7	107	03
Shanghai	23475	6341	16235	7.6	588	6.2	69	03
Seoul	10442	605	7512	4.6	327	6.9	72	03
Delhi	26720	1483	5279	3.2	215	2.7	17	01

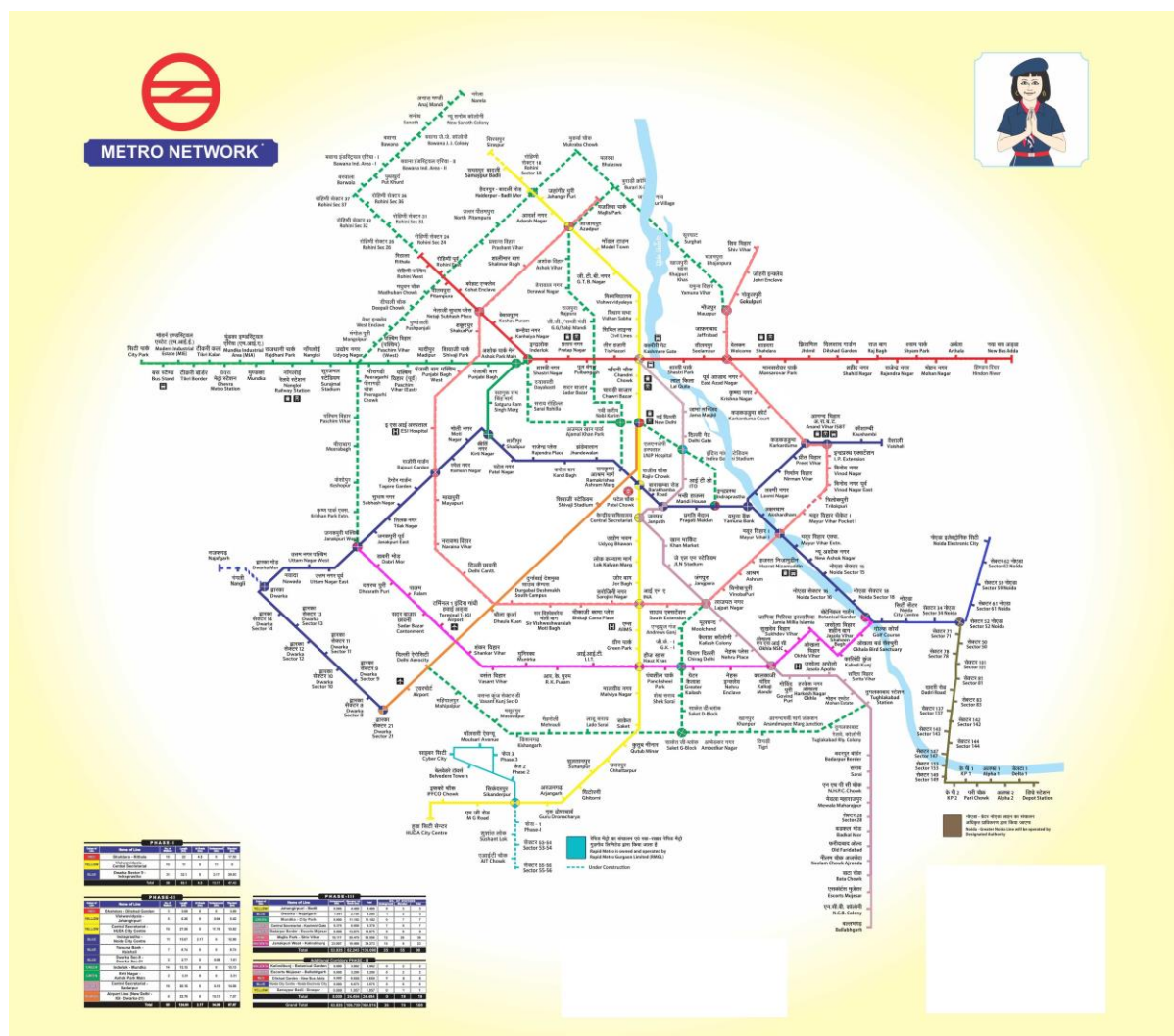
It is for this reason that EPCA is submitting this special report for the urgent attention and intervention of the Hon'ble Supreme Court.

3. Importance of Phase IV of Delhi Metro

The phase IV of the Delhi metro consists of 6 corridors with a total length of 103.94 km. This phase will inter-connect many parts of the city and is primarily meant to increase ridership through densification of the network within the city. The DPR has projected that this phase would add some 18.6 lakh riders per day (328 lakh passenger km per day). This will add significantly to the public transport infrastructure in the city. This combined with buses and last-mile connectivity (pedestrian and other facilities) would greatly improve the public transport network in the city and provide options for car-free travel.

Phase IV corridors: connecting the city

Sn o	Corridor	Underground Length	Elevated Length	Total Length
1	Aerocity to Tughlakabad	14.62	5.58	20.20
2	Lajpat Nagar to Saket G Block	2.07	5.89	7.96
3	Inderlok to Indraprastha	12.58	-	12.58
4	Janakpuri West to R.K. Ashram	7.74	21.18	28.92
5	Mukundpur – Maujpur	-	12.54	12.54
6	Rithala – Bawana – Narela	-	21.73	21.73
	Total	37.01	66.92	103.93



However, the project approval has been held up for lack of agreement between the Union government, Ministry of Housing and Urban Affairs (MoHUA) and the Government of National Capital Territory of Delhi (GNCTD).

3.1 Chronology of phase 4 metro

Delhi Metro Rail Corporation (DMRC) has submitted a note on the chronology of the project (see Annexure 2). The highlights are as follows:

October 7, 2014: Delhi metro submits DPR of phase 4 with 6 corridors to Delhi and Union government for scrutiny and approval. In November 2014, Union government asks it to get approval of GNCTD.

June 2016: GNCTD gives in-principle approval without financial commitment.

January 12, 2017: GNCTD gives approval for 6 corridors of phase IV at a cost of Rs 55,208 crore, subject to the payment of entire Central taxes by GOI.

February 3, 2017: MoHUA returns the proposal asking DMRC to sort out the issue of reimbursement of 50% Central taxes by GNCTD.

May 2017, June 2017: GNCTD and MoHUA continue to correspond without agreement on the issue of financing of the project.

January 2018: DMRC submits a revised DPR for 3 priority corridors to MoHUA, which is processed for scrutiny and sanction.

December 12, 2018: DMRC board approves revised proposal for phase 4 at a cost of Rs 46,845 crore, which is submitted to Delhi government for approval.

December 19, 2018: Delhi Cabinet approves the revised proposal of phase 4 at a cost of Rs 46,845 crore but subject to conditions as below (see annexure 3):

- i. In place of the earlier approval for the Metro Phase-IV project vide Cabinet Decision No. 2459 dated 06.01.2017, the project would be implemented with the revised funding plan with completion cost of Rs. 46,845 crores and share of GNCTD amounting to Rs. 9707.50 crores.
- ii. The operating losses if any, will be shared between GNCTD and GoI in the 50:50 proportion for Phase-IV of DMRC project
- iii. The approval is subject to the condition that GNCTD shall not bear any liability with respect to repayment of the JICA Loan including repayment of loan, interest thereof or any other liability arising from the JICA Loan.

March 9, 2019: MoHUA approves 3 priority corridors of phase IV at a cost of Rs 24,948.65 crore, totalling 61.66 km (Annexure 4):

- a. Aerocity to Tuglakabad (20.20 km)
- b. R K Ashram to Janakpuri (west) (28.92 km)
- c. Mukundpur-Maujpur (12.54 km)

April 10, 2019: Delhi government writes to DMRC that it should not start the work of phase IV till the MoHUA revises the approval communicated dated March 9, 2019 in tune with the approval concurred by the Government of NCT of Delhi dated 19.12.2018. It states that there can be no change in the overall project cost and of the 3 corridors and that the share of percentage of GNCTD

would remain the same as per the approval awarded by the Delhi cabinet (Annexure 5).

June 6, 2019: Secretary MoHUA writes to Delhi Chief Secretary stating that the project financing has been done in consonance with the Metro Rail Policy of August 2017. He states that the conditions laid down by the Delhi government; that the operating losses, if any, are to be shared between GOI and GNCTD in 50:50 ratio and that the state government will not bear any liability of repayment of JICA loan are against the norms laid down in the policy. The metro projects of all other cities like Bhopal, Indore, Kanpur, Patna, Agra etc have been sanctioned the same financial pattern as of Delhi Metro Phase IV. He requests the Delhi government to review the decision to stop work of phase IV and to lift the embargo at the earliest in public interest (Annexure 6).

The phase IV of Delhi remains stayed pending resolution of these outstanding issues. The project should have started in April 1, 2016 and according to DMRC, the escalation in project costs would increase with each passing year.

3.2 Examination of conditions raised by Delhi government

Issues that are still to be resolved

EPCA has discussed the matter with representatives of MoHUA, Delhi government and DMRC and its understanding is as follows:

	Issue	GOI position	GNCTD position	EPCA's examination of issue
1.	Bearing the operational loss	To be borne by state government	Shared 50:50 ratio between state and Union	As per data provided by DMRC there is no operating loss in the past 5 years. Also the DPR for phase 4 of the project projects the financial internal rate of return (FIRR) at 6.63 to 8.03% based on income accruals (Annexure 7-8). Therefore, this issue, however, important, <u>is notional</u> as it is not in the interest of the public transport operator to run the system with operational losses.
2.	Repayment of JICA loan in case of	As per 2017 policy the state government	GOI must bear 100% of this liability	DMRC has provided EPCA statement showing the projected year-wise JICA loan principle and interest payment from 2019-20 to 2048-49 for the loan

	default or currency fluctuation cost on JICA loan	will provide support to ensure financial sustainability during operations		<p>already received (annexure 9). This repayment schedule has been factored into the financial management and projected income and expenditure of DMRC. Furthermore, DMRC has never defaulted on the loan repayment and there is no reason to believe that with the additional phase, this situation will change.</p> <p>The loan for phase 4 has still not been secured as matter of financial approval requires resolution between Delhi and Union government.</p> <p>EPCA is of the view that this issue, however important in terms of the principle for the Delhi government, <u>is notional</u> as there is no reason to believe that there will be a default in payment of the loans.</p>
3.	Sharing of land cost	To be borne by state government. 2017 policy states that Central government will provide support to metro projects in the form of equity and subordinate debt subject to an overall limit of 20% of the cost of the project.	To be shared in 50:50 ratio as Delhi metro ownership is 50% with Central government	According to DMRC estimates the cost implication in 3 priority corridors is Rs 1223.60 crore (Annexure 10)
4.	Taxes	Central taxes to be borne in the ratio of 50:50% and state taxes to be	All taxes to be borne in the ratio of 1:2 between	According to DMRC the implication amounts to Rs 162.72 crore (Annexure 10)

		borne by GNCTD	GOI and GNCTD	
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3.3 Possible resolution to the current impasse over financial conditions of phase IV of Delhi metro

The funding pattern of the phase IV is as follows:

Cost and funding of phase IV metro (3 priority corridors)

	Source of funding	Amount (Rs/crore)	% of total cost without land cost
1	Equity by GOI	3399.06	16.36%
2	Subordinate debt for central taxes by GOI (50%)	755.14	3.64%
3	Equity by GNCTD	3399.06	16.36%
4	Subordinate debt for central taxes by GNCTD (50%)	755.14	3.64%
5	Grant from DDA	1000.00	4.81%
6.	Loan bi-multi-lateral agency	11462.60	55.19%
	Sub-total	20,771	
7.	Subordinate debt for state taxes by GNCTD	1243.31	
8.	Subordinate debt for land and R&R by GNCTD	2447.19	
	Sub-total	24,461.50	
9.	Concessionaire fund (PPP component)	427.64	
10.	IDC on external loan (DMRC to bear)	59.51	
	Grand total	24,948.64	

The total share of the Delhi government as the project approval stands today is **Rs 7844.07 crore** (for the first 3 corridors).

The Delhi Cabinet in its approval of December 2018 had given approval for the total cost of **Rs 5994.50 crore** for the 3 priority corridors (see Annexure 11)

Cost share of 3 Priority corridors as approved by GNCTD Cabinet in December 2018

Source of Fund	Amount (Rs./Crore)
Equity by GNCTD	2295.00
Subordinate Debt for Central Taxes by GNCTD	2454.00

Subordinate Debt for Land by GNCTD (50%)	1245.50
Total	5994.50

Therefore, the difference in financial terms is at most Rs 1800 crore, which constitutes some 7 per cent of the total project cost of these 3 key corridors.

DMRC in its submission to EPCA of July 1, 2019 has put the estimate at some Rs 1386 crore (see Annexure 10).

The options for resolving the issue are as follows:

1. DDA has agreed to pay Rs 5000 crore for the 6 corridors and its contribution for the first 3 corridors could be increased to either partially or completely taking on the difference between the Delhi cabinet approved cost for the 3 corridors as against the final approved cost.
2. Delhi government makes the provision for this one-time payment for this public transport project in its future budget. EPCA understands that payment is not due for at least one year from the date of approval of the project.

Pending resolution, the priority (3-corridors) of the phase IV should be allowed to start so that there is no further delay in the crucial project.

4. Inadequacy of schedule for induction of new buses for public transport

It is clear that buses provide an equally crucial role in public transport of the city. The Delhi government has submitted affidavits to the Hon'ble Supreme Court on its proposals to induct new buses in the city.

EPCA has reviewed the progress on the induction of buses and while there is movement, the status is still unsatisfactory.

The situation is more urgent because the current fleet of DTC buses – 3780 in total and 3600 on-road buses – are now nearing their age-limit. All buses of DTC are above 8-10 years. The current maintenance contract for the operation of the buses is for 10 years and any extension in the period will come at a higher cost as older buses will require much more maintenance. And so replacement becomes critical as more and more buses would be phased out in the coming 2-3 years.

At the current rate, induction of the buses would not keep up with the requirement of buses or the speed of replacement that is needed.

According to the directions of the Hon'ble Supreme Court in 1998, the city should have 10,000 buses.

The 2018 study by Delhi Integrated Multi-Modal Transit System (DIMTS) finds that with route rationalisation, the city requires 11,500 buses. According to this study the following is required:

9195 conventional size buses (12 metres)

1481 midi buses

824 mini-buses

As against this projection the city has 5,279 buses in the city. There is a gap of 4000-5000 buses, even discounting the aging of the current fleet.

The status of the current bus procurement is as follows:

	Bus type and who will manage	No of buses to be procured	Status of procurement
1	Cluster bus: standard floor bus	1000	Buses will start arriving in the city in July 2019 and are expected to be all in by January 2020 (annexure 12 for delivery schedule)
2	Cluster bus: low-floor AC	650	Financial bids opened and decision will be sent to cabinet for approval soon. After that order will be placed and delivery schedule agreed upon.
3.	Cluster bus: low-floor AC	350	Tender was unsuccessful as there was only one bid. Will be re-bid and the process will be initiated soon
4.	Cluster bus: e-buses	385	Process of opening bids is ongoing. It is difficult to estimate date of approval yet.

5.	DTC: low-floor AC bus	1000	File with minister for taking approval to circulate Cabinet note for procurement of buses. Will take minimum of 13 weeks to place order and 44 weeks for delivery after the approval is given by Delhi Cabinet to start process of procurement.
6.	DTC: e-buses		DTC planning to apply under Union government's FAME II project. No information yet on the number and date

Based on the above examination, it is clear that the number of additional buses that will be on Delhi roads by January 2020 are 1000 and an additional 650 buses could be on roads soon after.

This would not be sufficient and therefore, the procurement strategies of the remaining buses must be expedited.

The intervention of the Hon'ble Supreme Court is requested in this matter.

Annexure 1

GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI
TRANSPORT DEPARTMENT
5/9, UNDER HILL ROAD, DELHI-110054.

F. No. 3(129)/TPT/MRTS/2011/PFI/651

Dated: 10/4/19

To

Sh. Ashu Sharma,
General Manager/Finance,
Metro Bhawan, Fire Brigade Lane,
Barakhamba Road,
New Delhi-110001.

Sub: Release of funds for Phase-IV – Start of the Work.

Sir,

This is with reference to your letter no. DMRC/Fin./Budget/Phase-IV/2018-19 dated 01.04.19, wherein it is requested that not to link the start of Phase-IV work with the amendment to the sanction order dated 09.03.19 of GoI.

In this regard, I am directed to reiterate that DMRC would not start the work of Delhi Metro Phase-IV project till the Ministry of Housing & Urban Affairs, GoI revises the approval communicated vide its letter no. K-14011/60/2014-MRTS-I (Vol. I) dated 09.03.2019 of three priority corridors of Delhi Metro Phase-IV (including additional 244 Cars) in tune with the approval concurred by the Govt. of NCT of Delhi vide Cabinet Decision No. 2666 dated 19.12.2018. There cannot be any change in overall project cost and the project cost of 3 priority corridors (including additional 244 cars) as compared to the overall project cost and the project cost of 3 priority corridors (including additional 244 cars) as per the approval concurred by the Govt. of Delhi vide Cabinet Decision No. 2666 dated 19.12.2018. Further, the share percentage of GNCTD in the project cost would remain the same as per the approval of GNCTD vide Cabinet Decision No. 2666 dated 19.12.2018.

Yours faithfully,

Iman
(Tarun Kapoor)

Dy. Commissioner (MRTS)

Copy to:

1. Secretary to Hon'ble Minister of Transport.
2. Managing Director, Delhi Metro Rail Corporation, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110001.

Status of Delhi Metro Phase-4

As desired status of Delhi Metro Phase-4 Project is given as under:

1. Delhi Metro Rail Corporation Ltd. (DMRC) prepared and submitted the Detailed Project Report (DPR) of Phase-4 of Delhi Metro consisting of six Corridors having a total length of 103.93 km to Delhi Government as well as Ministry of Urban Development, GOI on 7th October 2014. The details of the proposed Metro corridors in Phase-4 are as under:-

Sl.No.	Corridor	Underground Length	Elevated Length	Total Length
1	Aerocity to Tughlakabad	14.62	5.58	20.20
2	Lajpat Nagar to Saket G Block	2.07	5.89	7.96
3	Inderlok to Indraprastha	12.58	-	12.58
4	Janakpuri West to R.K. Ashram	7.74	21.18	28.92
5	Mukundpur – Maujpur	-	12.54	12.54
6	Rithala – Bawana – Narela	-	21.73	21.73
	Total	37.01	66.92	103.93

2. DMRC was advised by MoHUA to submit the proposal with the approval of GNCTD in Nov 2014. GNCTD conveyed 'in-principle' approval without financial commitment in June 2016. DMRC was again requested by MoHUA to obtain the approval of GNCTD with financial commitment.
3. Delhi Government communicated approval of Councils of Minister of GNCTD for Phase-IV Corridors of Delhi Metro at a cost of Rs 55,208 crores vide their letter F.NO.3(129)/TPT/MRTS/2011/PF/1996-98 dated 12.01.2017. However it was subject to payment of entire Central Taxes by Government of India.
4. MoHUA returned the proposal vide their letter dated 3.2.2017 asking DMRC to sort out the issue of reimbursement of 50% Central Taxes by GNCTD, along with some other minor observations.
5. GNCTD dated 19.05.2017 reiterated its earlier stance of not bearing the cost towards central taxes. Vide DO letter dated 08.06.2017 Hon'ble Urban Development Minister requested Hon'ble Chief Minister of Delhi to review the financing plan of DMRC Phase-IV. Govt. of India could not proceed for the sanction of the project for want of clear cut approval and commitment on funding by GNCTD.
6. DMRC vide letter dated 15.01.2018 had proposed to MoHUA that the 3 priority corridors may be sanctioned in the first stage and the remaining corridors may be considered in the later stage. In continuation to the above letter, DMRC vide letter dated 24.01.2018 submitted the modified DPR to MoH&UA giving options 1 & 2 respectively for 3 priority corridors and all six corridors as per Metro Rail Policy 2017. The proposal was without financial approval of GNCTD.
7. MoHUA started appraisal of the proposal of three priority corridors even without financial commitment from GNCTD. Department of Expenditure (DoE), accorded in principle approval for three priority corridors in June 2018. Thereafter inter-ministerial consultation of the proposal started. However financial commitment of GNCTD remains awaited.

8. DMRC Board in its 130th Meeting held on 10.12.2018 had approved the revised proposal of Phase-4 at a cost of Rs 46,845 Crores. The same has been intimated to Delhi Government vide letter dated 11.12.2018 requesting early approval of Phase-4.
9. Delhi Cabinet in its Meeting held on 19.12.2018 had approved the revised proposal of Phase-4 at a cost of Rs 46,845 Crores. Vide letter dated 27.12.2018 Delhi Government had communicated the approval of Phase -4 Project by Delhi Cabinet. The approval of the GNCTD was subject of certain conditions as below: -
- In place of the earlier approval for the Metro Phase -IV project vide Cabinet Decision No.2459 dated 06.01.2017, the project would be implemented with the revised funding plan with completion cost of Rs.46,845 crores and share of GNCTD amounting to Rs.9707.50 crore as indicated in Para 6 of the Cabinet Note.
 - The operating losses if any, will be shared between GNCTD and GoI in the 50:50 proportion for Phase -IV of DMRC project.
 - The approval is subject to the condition that GNCTD shall not bear any liability with respect to repayment of the JICA Loan including repayment of loan, interest thereof or any other liability arising from the JICA Loan.
10. Meanwhile Govt. of India after following due process of sanctioning the project, sanctioned the 3 priority corridors of Phase -IV at a total cost of Rs.24,948.65 crores as below: -

S.No.	Corridor	Length (KM)
1.	Aerocity – Tughlakabad	20.20
2.	R.K. Ashram – Janakpuri (W)	28.92
3.	Mukundpur- Maujpur	12.54
	Total	61.66

11. The funding pattern for the above 3 corridors as sanctioned by the GoI is as below: -

Sources of Funding	Amount (in Crores of Rs.)	Percentage
Equity by GoI	3399.06	16.36%
Equity by GNCTD	3399.06	16.36%
Subordinate Debt for Central Taxes (Custom & CGST) by GoI (50%)	755.14	3.64%
Subordinate Debt for Central Taxes (Custom & CGST) by GNCTD (50%)	755.14	3.64%
Grant from DDA	1000.00	4.81%
Loan from Bilateral /Multilateral Agency	11462.60	55.19%
Sub Total	20771.00	100.00%
Concessionaire Fund (PPP Component)	427.64	
Subordinate Debt for State Taxes (SGST) by GNCTD	1243.31	
Subordinate Debt for Land and R&R by GNCTD	2447.19	
Sub Total	24889.14	
IDC on external Loan (to be borne by DMRC)	59.51	
Grand Total	24948.65	

12. The funding pattern sanctioned above is not acceptable to the GNCTD and accordingly, GNCTD while sanctioning the part fund for the project has directed DMRC not to start the work of Phase -IV till the funding pattern as sanctioned by the GoI has modified in tune with the approval of Cabinet of GNCTD vide their letter No.3(129)/TPT/MRTS/2011/643 dated 26.03.2019.
13. The above stand of GNCTD has further been reiterated vide their letter No. F.No.3(129)TPT/MRTS/2011/PF/651 dated 10.04.2019.
14. The work of 3 priority corridors of DMRC Phase-IV could be started only when GNCTD lifts the embargo at the earliest.
15. MoHUA vide DO letter dated 06/06/2019 has requested GNCTD to review the decision of the GNCTD of stopping the DMRC Phase-4 work and lift the embargo at the earliest.

MOST URGENT

**GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI
TRANSPORT DEPARTMENT: MRTS BRANCH
5/9 UNDER HILL ROAD, DELHI-110054**

F. No. 3(129)/TPT/MRTS/2011/PFI/562

Dated: 27/12/2018

O/o Secy Cum Commissioner (Tpt.)
Tpt. 2018 26778
28/12/2018 To

Managing Director,
Delhi Metro Rail Corporation,
Metro Bhawan, Fire Brigade Lane,
Barakhamba Road, New Delhi-110001.

Sub: Cabinet decision No. 2666 dated 19.12.2018 of GNCTD on Metro Phase-IV project- implementation thereof.

Sir,

Please find enclosed herewith a copy of the cabinet decision No. 2666 dated 19.12.2018 of GNCTD, in the matter regarding implementation of Metro Phase-IV project. Para 3.7 and Para 7 of the said cabinet note, referred in the cabinet decision are as under:

Para 3.7: The Phase-IV project consists of following six corridors with total length of 103.93 Kms:

Sl.	Corridor	Length (km)			No. of Stations
		Underground	Elevated	Total	
1.	Rithala – Bawana – Narela.	0	21.73	21.73	16
2.	Janakpuri West – R.K. Ashram	7.74	21.18	28.92	25
3.	Mukundpur – Maujpur	0	12.54	12.54	6
4.	Inderlok – Indraprastha	12.58	0	12.58	10
5.	Aero City – Tughlakabad	14.62	5.58	20.2	15
6.	Lajpat Nagar – Saket G Block	2.07	5.89	7.96	7
	Total	37.01	66.92	103.93	79

Para 7:-

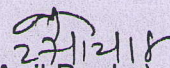
- (i) In place of the earlier approval for the Metro Phase-IV project vide Cabinet Decision No. 2459 dated 06.01.2017, the project would be implemented with the revised funding plan with completion cost of Rs. 46,845 crores and share of GNCTD amounting to Rs. 9707.50 Crore as indicated in Para 6 of the Cabinet Note.

- (ii) *The operating losses if any, will be shared between GNCTD and Gol in the 50:50 proportion for Phase-IV of DMRC project.*
- (iii) *The approval is subject to the condition that GNCTD shall not bear any liability with respect to repayment of the JICA Loan including repayment of loan, interest thereof or any other liability arising from the JICA Loan.*

It is requested to take necessary action for implementation of the said cabinet decision.

Yours faithfully,

Encl: a/a.


(Anil Banka)
Spl. Commissioner (MRTS)

Copy for information to:

1. Secretary to Hon'ble Minister of Transport.
- ✓ 2. PS to Pr. Secretary-cum-Commissioner (Tpt.)

GAD/18/65549
24/12/18

CONFIDENTIAL
CABINET MATTER

GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI
GENERAL ADMINISTRATION DEPARTMENT
(CO-ORDINATION BRANCH)

DELHI SECRETARIAT, I.P. ESTATE, NEW DELHI

No.F.3/3/2018/GAD/CN/4635-4646

Dated: 21.12.2018

CABINET DECISION NO. 2666 DATED 19.12.2018

Subject: Amendment of the Cabinet Decision 2459 dated 06.01.2017 on Metro Phase – IV project.

Decision: The Council of Ministers considered the note of Secretary (Transport) and approved the proposal contained in para 7 of the Cabinet Note, and also decided that DMRC would construct elevated roads on top of the elevated sections of metro corridor No. 1, 2, and 3 as in the table in Para 3.7, for which Delhi Government would bear the cost.

SCF (AB)

--Sd/--

(Vijay Kumar Dev)

Secretary to the Cabinet

Dated: 21.12.2018

No.F.3/3/2018/GAD/CN/4635-4646

1. Pr. Secretary to Lt. Governor, Delhi.
2. Addl. Secretary to the Chief Minister, Delhi.
3. Secretary to Dy. Chief Minister, Govt. of NCT of Delhi.
4. Secretary to Minister, Labour, Govt. of NCT of Delhi.
5. Secretary to Minister, Health, Govt. of NCT of Delhi.
6. Secretary to Minister, Food and Supply, Govt. of NCT of Delhi.
7. Secretary to Minister, Social Welfare, Govt. of NCT of Delhi.
8. Secretary to Minister, Transport, Govt. of NCT of Delhi.
9. Secretary (Transport), Govt. of NCT of Delhi, with request to upload ATR on CDMS
10. OSD to Chief Secretary, Govt. of NCT of Delhi.
11. Hindi Officer, Language Department, Govt. of NCT of Delhi for translation.
12. Guard file.

(Amitabh Kundoo)

Dy. Secretary (GAD)

No. K-14011/60/2014-MRTS-I(Vol.I)
Government of India
Ministry of Housing and Urban Affairs
(MRTS-I)

322-C, Nirman Bhawan, New Delhi
Dated the 09th March, 2019.

To

The Managing Director,
Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Brigade Lane,
Barakhamba Road,
New Delhi - 110001.

Subject: Approval of three priority corridors of Phase-IV of Delhi Metro project viz. (i) Aerocity to Tughlakabad, (ii) R.K. Ashram to Janakpuri (West) and (iii) Mukundpur - Maujpur within Delhi Area.

Sir,

I am directed to refer to Delhi Metro Rail Corporation Ltd. (DMRC) letter No. DMRC/CS/Phase-IV/2014 dated 08.03.2019 and to convey the approval of Government of India on the three priority corridors of Phase-IV of Delhi Metro project viz. (i) Aerocity to Tughlakabad, (ii) R.K. Ashram to Janakpuri (West) and (iii) Mukundpur - Maujpur within Delhi Area which is to be implemented by DMRC. The approved funding pattern is as below:

Sources of Funding	Amount (in crore of ₹)	Percentage
Equity by GOI	3399.06	16.36%
Equity by GNCTD	3399.06	16.36%
Subordinate Debt for Central Taxes (Custom & CGST) by GOI (50%)	755.14	3.64%
Subordinate Debt for Central Taxes (Custom & CGST) by GNCTD (50%)	755.14	3.64%
Grant from DDA	1000.00	4.81%
Loan from Bilateral/Multilateral Agency	11462.60	55.19%
Sub-Total	20771.00	100.00%
Concessionaire Fund (PPP Component)	427.64	
Subordinate Debt for State Taxes (SGST) by GNCTD	1243.31	
Subordinate Debt for Land and R&R by GNCTD	2447.19	
Sub Total	24889.14	
IDC on external loan (to be borne by DMRC)	59.51	
Grand Total	24948.65	

78/C

2. The detailed sanction order containing the conditions of sanction by the Government of India will be communicated in due course. //

Yours faithfully,

M. K. Sinha
9/3/19

(M.K. Sinha)

OSD(UT) & E.O. Joint Secretary

Telefax: 23061114

Copy to:

1. Chief Secretary, Government of National Capital Territory of Delhi, Delhi Secretariat, I.P. Estate, New Delhi - 110002.
2. Vice-Chairman, Delhi Development Authority (DDA), Vikas Sadan, INA, New Delhi - 110023.

M. K. Sinha
9/3/19

(M.K. Sinha)

OSD(UT) & E.O. Joint Secretary

Annexure 5

GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI
TRANSPORT DEPARTMENT
5/9, UNDER HILL ROAD, DELHI-110054.

F. No. 3(129)/TPT/MRTS/2011/PFI/651

Dated: 10/4/19

To

Sh. Ashu Sharma,
General Manager/Finance,
Metro Bhawan, Fire Brigade Lane,
Barakhamba Road,
New Delhi-110001.

Sub: Release of funds for Phase-IV – Start of the Work.

Sir,

This is with reference to your letter no. DMRC/Fin./Budget/Phase-IV/2018-19 dated 01.04.19, wherein it is requested that not to link the start of Phase-IV work with the amendment to the sanction order dated 09.03.19 of Gol.

In this regard, I am directed to reiterate that DMRC would not start the work of Delhi Metro Phase-IV project till the Ministry of Housing & Urban Affairs, Gol revises the approval communicated vide its letter no. K-14011/60/2014-MRTS-I (Vol. I) dated 09.03.2019 of three priority corridors of Delhi Metro Phase-IV (including additional 244 Cars) in tune with the approval concurred by the Govt. of NCT of Delhi vide Cabinet Decision No. 2666 dated 19.12.2018. There cannot be any change in overall project cost and the project cost of 3 priority corridors (including additional 244 cars) as compared to the overall project cost and the project cost of 3 priority corridors (including additional 244 cars) as per the approval concurred by the Govt. of Delhi vide Cabinet Decision No. 2666 dated 19.12.2018. Further, the share percentage of GNCTD in the project cost would remain the same as per the approval of GNCTD vide Cabinet Decision No. 2666 dated 19.12.2018.

Yours faithfully,

Imap
10/04/19
(Tarun Kapoor)

Dy. Commissioner (MRTS)

Copy to:

1. Secretary to Hon'ble Minister of Transport.
2. Managing Director, Delhi Metro Rail Corporation, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110001.

Scanned by CamScanner

दुर्गा शंकर मिश्र
सचिव

Durga Shanker Mishra
Secretary



सत्यमेव जयते



Annexure 6. 25

भारत सरकार

आवासन और शहरी कार्य मंत्रालय
निर्माण भवन, नई दिल्ली-110011

Government of India
Ministry of Housing and Urban Affairs
Nirman Bhawan, New Delhi-110011

D.O. No. K-14011/60/2014-MRTS-I (Vol.I)

June 06, 2019

Dear Vijay,

Kindly refer to GNCTD's letter No. F.No.3(129)/TPT/MRTS/2011/PF/651 dated 10.04.2019 wherein it has directed Delhi Metro Rail Corporation Ltd. (DMRC) **not to start the work of Delhi Metro Phase-IV** till Ministry of Housing and Urban Affairs (MoHUA) revises its approval in tune with their approval (copy enclosed).

2. You are aware that Metro Rail Projects are approved after detailed examination which includes extensive inter-ministerial consultation. Proposals are appraised using due process, which takes time. Proposal for Delhi Metro Phase-IV in its final form was received at the end of December, 2018. Considering the urgency and importance of this project, which was pending with Government of Delhi for some reason or the other since October, 2014, Government of India processed the approval for three priority corridors, which were highly populated and facing serious congestion in urban transport before the advent of model code of conduct. These three priority corridors are (1) Aerocity to Tughlakabad (20.20 km), (2) Janakpuri West to R.K. Ashram (28.92 km) and (3) Mukundpur to Maujpur (12.54 km). Public Investment Board (PIB) in its meeting held on 26.02.2019, after detailed discussion with various stakeholders including representative of GNCTD, recommended the proposal of these corridors of Delhi Metro Phase-IV for the approval, which was subsequently approved by the Union Cabinet in March, 2019. The remaining three corridors are currently under appraisal.

3. It may be recalled that Government of India formulated Metro Rail Policy in August, 2017 and the States/UTs were advised to recast their proposals of metro project in line with provisions in the policy. GNCTD vide its letter dated 27.12.2018 to DMRC, conveyed approval on all six corridors of phase-IV subject to the condition that operating losses, if any, are to be shared between GoI and GNCTD in 50:50 ratio and the State Government will not bear any liability of repayment of JICA loan. These conditions posed by GNCTD are against the norms laid down in Metro Rail Policy, 2017 and

Contd....

also what was agreed to by Delhi Government in Delhi Metro phase-III project. It is mentioned here that metro rail projects of other cities like Bhopal, Indore, Kanpur, Patna, Agra, Surat etc. have been sanctioned on the same financing pattern as that of Delhi Metro phase-IV in accordance with Metro Rail Policy, 2017.

4. You are aware that there cannot be any special privileged condition for Delhi. All metro projects in any part of the country are approved as per Metro Rail Policy, 2017 or practices evolved over the years. These conditions were applied in approving Delhi Metro Phase-4 Project. Hence, there is no question of accepting the recommendation of GNCTD, as mentioned above, which has not been done for any other metro project.

5. The final cost of the project is arrived at after scrutiny by various stakeholders and appraisal by Public Investment Board (PIB) which may even be less than that proposed by the State Govt. It is not understood why GNCTD has taken the stand that there cannot be any change in overall project cost and project cost of three priority corridors from what has been sanctioned by GNCTD. Kindly appreciate that States/UTs submit the proposal, which are assessed as per laid down norms and policy and are then sanctioned by Govt. of India.

6. You will agree that in order to reduce road congestion, accidents and vehicular pollution, and providing highly needed connectivity to the citizens and visitors of Delhi, expansion of the Metro Network is essential. **Delhi Metro phase-IV project has already been delayed by more than four years for want of approval by GNCTD. The directive of GNCTD to DMRC not to start the work of phase-IV will further jeopardise the expansion of metro network in the capital and leave it devoid of its benefits apart from adding to cost and time overruns.**

7. I would, therefore, like to request you to review the decision of the GNCTD for stopping the work of Delhi Metro Phase-IV and lift this embargo at the earliest in public interests.

Regards,

Encl: As above.

Yours Sincerely,

(Signature)

(Durga Shanker Mishra)

Shri Vijay Kumar Dev, IAS
Chief Secretary,
Govt. of National Capital Territory of Delhi
New Secretariat Building, I.P. Estate
Delhi - 110002

Income & Expenditure during Last five years of Delhi MRTS Project

Rs./Cr.

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18
Revenue	1,366.38	1,507.34	1,651.75	1,768.75	2,615.99
Expenses	987.93	1,223.56	1,406.58	1,602.68	2,088.34
Net Operating (+)Profit/(-)Loss	378.45	283.78	245.17	166.07	527.65
Add: Income from Rental & Advertisement	279.02	312.98	385.68	410.25	411.27
(+)Profit/(-)Loss before Depreciation & Interest	657.47	596.76	630.85	576.32	938.92
Operating Ratio	60.04%	67.22%	69.04%	73.55%	68.98%

considered to be covered by roads/streets/ green area/ utilities etc. The additional income from sale of additional 1 FAR will be channelled as a dedicated stream of revenue to the Metro administration.

20.4 Financial Internal Rate of Return (FIRR)

The Financial Internal Rate of Return (FIRR) calculated obtained for 30 years life cycle business model including construction period without and with TOD & VCF income for the corridors of Phase-IV is tabulated in Table 20.10 below:

Table 20.10 FIRR

Particulars	FIRR without Additional TOD & VCF Income	FIRR with Additional TOD & VCF Income
Phase IV (Six Corridors)	6.63%	8.03%

20.4.1 Financial Internal Rate of Return (FIRR) without additional TOD & VCF income

The Financial Internal Rate of Return (FIRR) calculated based on the initial capital cost, fare box collection, other income and O&M costs but without Additional TOD & VCF income for a period of 30 years business model for the corridors of Phase-IV is placed in table 20.10 below:

Table 20.10 –FIRR

(With all Taxes & without Additional TOD & VCF income)

Year			Rs. in Crores								
			Outflow					Inflow			Cash Flow
			Comple tion Cost	Additio nal Cost	Running Expenses	Replace ment costs	Total Costs	Fare Box Revenue	PB & ADVT	Total Revenue	IRR
2018	-	2019	1239				1239			0	-1239
2019	-	2020	4348				4348			0	-4348
2020	-	2021	6374				6374			0	-6374
2021	-	2022	8594				8594			0	-8594
2022	-	2023	8976				8976			0	-8976
2023	-	2024	8559				8559			0	-8559
2024	-	2025	5829	0	284		6113	456	91	547	-5566
2025	-	2026	0	0	1756		1756	1931	386	2317	561
2026	-	2027	0	87	1805		1892	2303	461	2764	872
2027	-	2028	0	0	1860		1860	2440	488	2928	1068
2028	-	2029	0	0	1926		1926	2907	581	3488	1562
2029	-	2030	0	0	1994		1994	3082	616	3698	1704
2030	-	2031	0	0	2068		2068	3791	758	4549	2481
2031	-	2032	0	1228	2150		3378	4019	804	4823	1445
2032	-	2033	0	0	2240		2240	4710	942	5652	3412
2033	-	2034	0	0	2434		2434	4897	979	5876	3442
2034	-	2035	0	0	2545		2545	5704	1141	6845	4300
2035	-	2036	0	0	2421		2421	5932	1186	7118	4697



Year			Outflow					Inflow			Cash Flow
			Comple tion Cost	Additi onal Cost	Runni ng Expenses	Replac ement costs	Total Costs	Fare Box Revenue	PB & ADVT	Total Revenue	IRR
2036	-	2037	0	2137	2586		4723	7112	1422	8534	3811
2037	-	2038	0	0	2763		2763	7397	1479	8876	6113
2038	-	2039	0	0	2964		2964	8896	1779	10675	7711
2039	-	2040	0	0	3169		3169	9252	1850	11102	7933
2040	-	2041	0	0	3390		3390	10844	2169	13013	9623
2041	-	2042	0	6911	3626		10537	11276	2255	13531	2994
2042	-	2043	0	0	3881		3881	12838	2568	15406	11525
2043	-	2044	0	0	4427		4427	13223	2645	15868	11441
2044	-	2045	0	0	4736	4195	8931	15520	3104	18624	9693
2045	-	2046	0	0	5068	4405	9473	15986	3197	19183	9710
2046	-	2047	0	0	5425	0	5425	19112	3822	22934	17509
2047	-	2048	0	0	5809	0	5809	19685	3937	23622	17813
Total			43919	10363	71327	8600	134209	193313	38660	231973	6.83%

20.4.2 Financial Internal Rate of Return (FIRR) with additional TOD & VCF income

The Financial Internal Rate of Return (FIRR) calculated based on the initial capital cost, fare box collection, other income and O&M costs but with Additional TOD & VCF income for a period of 30 years business model for the corridors of Phase-IV is placed in table 20.11 below: -

Table 20.11 –FIRR
(With all Taxes & with Additional TOD & VCF income)

Year			Outflow					Inflow				Cash Flow
			Comple tion Cost	Additi onal Cost	Runni ng Expenses	Replac ement costs	Total Costs	Fare Box Revenue	PB & ADVT	Income from Additional FAR	Total Revenue	IRR
2018	-	2019	1239				1239				0	-1239
2019	-	2020	4348				4348				0	-4348
2020	-	2021	6374				6374				0	-6374
2021	-	2022	8594				8594				0	-8594
2022	-	2023	8976				8976				0	-8976
2023	-	2024	8559				8559				0	-8559
2024	-	2025	5829	0	284		6113	456	91	0	547	-5566
2025	-	2026	0	0	1756		1756	1931	386	0	2317	561
2026	-	2027	0	87	1805		1892	2303	461	0	2764	872
2027	-	2028	0	0	1860		1860	2440	488	0	2928	1068
2028	-	2029	0	0	1926		1926	2907	581	938	4426	2500
2029	-	2030	0	0	1994		1994	3082	616	985	4683	2689
2030	-	2031	0	0	2068		2068	3791	758	1034	5583	3515
2031	-	2032	0	1228	2150		3378	4019	804	1086	5909	2531
2032	-	2033	0	0	2240		2240	4710	942	1140	6792	4552
2033	-	2034	0	0	2434		2434	4897	979	1197	7073	4639
2034	-	2035	0	0	2545		2545	5704	1141	1257	8102	5557
2035	-	2036	0	0	2421		2421	5932	1186	1320	8438	6017
2036	-	2037	0	2137	2586		4723	7112	1422	1386	9920	5197
2037	-	2038	0	0	2763		2763	7397	1479	1455	10331	7568

Year			Outflow					Inflow				Cash Flow
			Completi ion Cost	Additi onal Cost	Runni ng Expen ses	Replac ement costs	Total Costs	Fare Box Revenue	PB & ADVT	Income from Additional FAR	Total Revenue	IRR
2038	-	2039	0	0	2964		2964	8896	1779	1528	12203	9239
2039	-	2040	0	0	3169		3169	9252	1850	1604	12706	9537
2040	-	2041	0	0	3390		3390	10844	2169	1684	14697	11307
2041	-	2042	0	6911	3626		10537	11276	2255	1768	15299	4762
2042	-	2043	0	0	3881		3881	12838	2568	1856	17262	13381
2043	-	2044	0	0	4427	0	4427	13223	2645	1949	17817	13390
2044	-	2045	0	0	4736	4195	8931	15520	3104	2046	20670	11739
2045	-	2046	0	0	5068	4405	9473	15986	3197	2148	21331	11858
2046	-	2047	0	0	5425	0	5425	19112	3822	2255	25189	19764
2047	-	2048	0	0	5809	0	5809	19685	3937	2368	25990	20181
Total			43919	10363	71327	8600	13420	193313	38660	31004	262977	8039%

20.4.3 The various sensitivities with regard to increase/decrease in capital costs, revenues and O&M costs for the corridors are shown in Table 20.12.1 (without additional TOD&VCF income) & 20.12.2 (with additional TOD&VCF income) below:

Table 20.12.1 –FIRR Sensitivity
(Without additional TOD & VCF income)

Capital Cost with Central Taxes and land cost			
20% increase in capital cost	10% increase in capital cost	10% decrease in capital cost	20% decrease in capital cost
5.46%	6.02%	7.31%	8.09%
Revenue			
20% decrease in Fare Box revenue	10% decrease in Fare Box revenue	10% increase in Fare Box revenue	20% increase in Fare Box revenue
4.16%	5.49%	7.64%	8.55%
O&M COSTS			
10% increase in O&M cost		10% decrease in O&M cost	
6.26%		6.99%	

Table 20.12.2 –FIRR Sensitivity
(With additional TOD & VCF income)

Capital Cost with Central Taxes and land cost			
20% increase in capital cost	10% increase in capital cost	10% decrease in capital cost	20% decrease in capital cost
6.81%	7.39%	8.75%	9.56%
Revenue			
20% decrease in Fare Box revenue	10% decrease in Fare Box revenue	10% increase in Fare Box revenue	20% increase in Fare Box revenue
5.97%	7.06%	8.91%	9.71%
O&M COSTS			
10% increase in O&M cost		10% decrease in O&M cost	
7.70%		8.35%	

The above sensitivities have been worked out independently for each factor.

**Statement Showing Projected Year- wise JICA Loan Principal &
Interest Payment to GOI from 2019-20 to 2048-49**

Rs./Crore

FY	Repayment of Loan	Interest payment	Total
	1	2	3=1+2
2019-2020	764.76	428.54	1,193.30
2020-2021	808.68	434.52	1,243.20
2021-2022	988.56	435.95	1,424.51
2022-2023	1,168.44	421.81	1,590.25
2023-2024	1,380.45	405.89	1,786.34
2024-2025	1,592.45	399.78	1,992.23
2025-2026	1,592.45	380.25	1,972.70
2026-2027	1,672.15	358.24	2,030.39
2027-2028	1,724.46	336.23	2,060.69
2028-2029	1,724.46	313.41	2,037.87
2029-2030	1,724.46	289.78	2,014.24
2030-2031	1,724.46	266.15	1,990.61
2031-2032	1,711.79	242.51	1,954.30
2032-2033	1,656.54	218.94	1,875.48
2033-2034	1,457.33	163.23	1,620.56
2034-2035	1,346.28	143.30	1,489.58
2035-2036	1,310.68	124.58	1,435.26
2036-2037	1,284.20	106.28	1,390.48
2037-2038	1,259.33	88.33	1,347.66
2038-2039	1,095.51	71.10	1,166.61
2039-2040	899.23	55.91	955.14
2040-2041	811.39	42.80	854.19
2041-2042	811.39	30.60	841.99
2042-2043	479.34	19.61	498.95
2043-2044	479.34	12.24	491.58
2044-2045	84.69	6.38	91.07
2045-2046	84.69	5.03	89.72
2046-2047	84.69	3.69	88.38
2047-2048	84.69	2.35	87.04
2048-2049	84.69	0.00	84.69
Total	31,891.59	5,807.43	37,699.02

Issues pertaining to MRTS Phase-IV Funding between GNCTD and Gol**Concerns raised by GNCTD:**

"Gol revises the approval communicated by its letter no. K-14011/60/2014-MRTS-I (Vol.I) dated 09.03.2019 of three priority corridors of Delhi Metro Phase-IV (including additional 244 cars) in tune with the approval concurred by the Govt. of NCT of Delhi vide Cabinet Decision No. 2666 dated 19.12.2018. There cannot be any change in overall project cost and project cost of three priority corridors (including additional 244 cars) as compared to the overall project cost and the project cost of three priority corridors (including additional 244 cars) as per the approval concurred by the Govt. of Delhi vide Cabinet Decision no. 2666 dated 19.12.2018. Further, the share percentage of GNCTD in the project cost would remain the same as per the approval of GNCTD vide Cabinet Decision No. 2666 dated 19.12.2018".

Differences as raised by GNCTD are summarised below:

S.No	Issue	As per sanction order of Govt. of India (Gol)	Stand of GNCTD	DMRC Remarks
1.	Sharing of Land Cost	Land cost is to be borne by state govt.	Land Cost to be shared in 50:50 ratio.	The difference of implication is Rs 1223.60 Crore
2.	Taxes	Central taxes to be borne in the ratio of 50:50 and states taxes to be borne by GNCTD.	All taxes to be borne in the ratio of 1:2 between Gol and GNCTD as approved by Cabinet of GNCTD while approving DPR of Phase-IV.	The difference of implication is Rs 162.72 Crore
3.	Bearing the Operational Loss	To be borne by state govt.	Operational Loss should be shared 50:50 ratio.	It is only hypothetical case and as per the DPR and cash flow, no loss is envisaged. Till now, there is no operational loss; therefore, it is not relevant.
4.	Bearing the currency fluctuation cost on JICA Loan.	To be shared in 50:50 ratio.	GNCTD will not bear the cost arising out of currency fluctuation.	-
5.	Responsibility of repayment of JICA Loan in case of default by DMRC.	To be borne by GNCTD.	GNCTD will not bear this cost.	As per the cash flow, there is no default expected from DMRC and till now DMRC has not defaulted on Loan repayment.

Note: With the above difference in opinion at Sr. No. 1 & Sr. No. 2 above, total implication is Rs 1386.32 Crores.

CIN No. U74899DL 1995G01068150

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दिल्ली मेट्रो रेल कॉर्पोरेशन लि० DELHI METRO RAIL CORPORATION LTD.

(भारत सरकार एवं दिल्ली सरकार का संयुक्त उपक्रम)
(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)

No. DMRC/Fin/Budget/Phase – IV/2018-19

Dated: 14.03.2019

Dy. Commissioner (MRTS),
Govt. of National Capital Territory of Delhi,
Transport Department,
5/9, Under Hill Road,
Delhi -110054

Sub: Metro Phase IV Project.

Ref: Your letter No.3 (129)/TPT/MRTS/2011/PF/629 Dated 14.03.2019.

This is with reference to your above referred letter seeking details of changes in terms of three priority corridors of Phase IV as approved by Govt. of India viz-a-viz all six corridors approved by GNCTD. As the numbers of corridors in both the sanctions are different, a direct comparison cannot be drawn. However, the below table compares cost share of 3 priority corridors included in GNCTD approval with the cost of these corridors as approved by Govt. of India.

Source of Fund	Cost of all 6 Corridors as approved by GNCTD		Cost Share of 3 Priority Corridors as part of Cabinet approval of GNCTD		Cost of 3 Priority Corridors as per Govt. of India approval	
	All 6 Corridors including 334 cars		3 Priority Corridors and including Additional 244 cars		3 Priority Corridors and including Additional 244 cars	
	Rs./Crore		Rs./Crore		Rs./Crore	
	Amount	%	Amount	%	Amount	%
Equity by GOI	3623.00	8.08%	2295.00	8.08%	3399.06	16.36%
Equity by GNCTD	3623.00	8.08%	2295.00	8.08%	3399.06	16.36%
Subordinate Debt for Central Taxes by GOI	1981.00	4.42%	1227.00	4.32%	755.14	3.64%
Subordinate Debt for Central Taxes by GNCTD	3963.00	8.84%	2454.00	8.64%	755.14	3.64%
Subordinate Debt for Land by GOI (50%)	2121.50	4.73%	1245.50	4.39%	0.00	0.00%
Subordinate Debt for Land by GNCTD (50%)	2121.50	4.73%	1245.50	4.39%	0.00	0.00%

Grant from DDA	5000.00	11.15%	1000.00	3.52%	1000.00	4.81%
Internal Accrual of DMRC	500.00	1.12%	0.00	0.00%	0.00	0.00%
Pass Through Assistance from GOI against JICA Loan @ 0.20% P.A	21905.00	48.85%	16640.00	58.59%	11462.60	55.19%
Sub-Total	44838.00	100.00%	20402.00	100.00%	20771.00	100.00%
Concessional Fund (PPP component)	1941.00		413.00		427.64	
Subordinate Debt for State Taxes (SGST) by GNCTD	0.00		0.00		1243.31	
Subordinate Debt for Land and R&R by GNCTD	0.00		0.00		2447.19	
Sub-Total	46779.00		28815.00		24889.14	
PTA from GOI for IDC on JICA loan	66.00		50.00		59.51	
Grand Total	46845.00		28865.00		24948.65	

It would be seen from the above table that the overall project cost of three priority corridors has been reduced from Rs.28,865.00 Cr. to Rs.24,948.65 Cr. The overall cost share of GNCTD and the GOI has been kept at 20% each. Central Taxes have been apportioned equally between the two governments, while State Taxes are to be borne by the GNCTD in line with the arrangement followed in Phase III. Land cost has also been assigned to GNCTD.

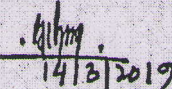
In terms of three priority corridors, GNCTD has got the approval of below mentioned cost as part of the sanction of Rs.46,845.00 Cr for entire Phase IV.

(Rs/Cr)		
Particulars	Sanction available as part of the total Phase -IV	Funds being requested in RE (2018-19)
Equity	2295.00	50.00
SD for Central Taxes	*755.14	50.00
SD for Land	1245.50	100.00
Total	4294.64	200.00

* Restricted to GOI Sanction

In view of the above, it is requested that fund to the tune of Rs.200 as provided in the RE (2018-19) may please be released as already requested. This is within the sanction already taken from GNCTD Cabinet.

This issues with the approval of competent authority.


 (Ashu Sharma)
 General Manger/Finance

Induction Schedule of Standard Floor Buses*

S.No.	Cl. No.	Name	Depots	Schedule d buses	Schedule of Induction of buses							
					June	July	August	September	October	November	December	January
1.	13	Antony Road Transport Solutions Private Limited	Revla Kanpur Dwarka Sector-22	100 250	25	25	40	40	40	40	60	80
2.	14 (part)	Uniwold Transerve Pvt. Ltd.	Kharkhari Nahar	120	Nil	Nil	14	14	19	24	24	25
3.	16A	Antony Road Transport Solutions Private Limited	Bawana Sector-1 Ranikhera -1	90 160	0	25	35	35	35	35	35	50
4.	16B	Green City Transport Corporation Private Limited	Ranikhera-2 Ranikhera-3	140 140	Nil	50	60	60	65	45	Nil	Nil
Total					25	100	149	149	159	144	119	155

*As per the concession agreement the induction of buses are required to be started from August 2019. However, the concessionaires are being persuaded to implement the above mentioned schedule.

ANNEXURE-12