ABSTRACT

Environment, Climate Change and Forest Department - Announcement for the year 2025-2026 – Conversion of 700 diesel buses to CNG (Compressed Natural Gas) buses for reducing air pollution and lowering the carbon footprint, at a cost of Rs. 66.29 Crore – Administrative Sanction - Accorded – Orders - Issued.

ENVIRONMENT, CLIMATE CHANGE AND FOREST (EC.4) DEPARTMENT

G.O.(2D).No.116 **Dated:16.06.2025**
விசுவாவசு, ஆனி– 02
திருவள்ளுவர்ஆண்டு –2056

Read:

1. From the Additional Chief Secretary to Government and Chairman of Tamil Nadu State Transport Undertakings efile.No 243 /CH5 /CHO /2024, dated. 13.12.2024.

2. From the Chairperson, Tamil Nadu Pollution Control Board, letter No. TNPCB / P&D/09060/ 2025, dated. 13.05.2025.

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ORDER:

The Hon'ble Minister (Finance and Environment, Climate Change) has made the following announcement on 14.03.2025, during the Tamil Nadu Legislative Assembly Budget session for the year 2025-2026 :

"To reduce air pollution and lower the carbon footprint, 700 diesel buses operated by State Transport Corporations will be converted to CNG (Compressed Natural Gas) buses at a cost of Rs. 70 Crore, funded by the Tamil Nadu Pollution Control Board."

2. In the letter first read above, the Additional Chief Secretary to Government and Chairman of Tamil Nadu State Transport Undertakings (STUs) has requested the Chairperson, Tamil Nadu Pollution Control Board to sanction an amount of Rs.66.29 crore to convert 700 Number of diesel buses to CNG towards "Clean and Green Mobility" in the State.

(PTO)

3. Based on the above announcement and on the request of Transport Department, the Chairperson, Tamil Nadu Pollution Control Board, in her letter 2nd read above has sent a proposal for conversion of 700 Diesel buses into Compressed Natural Gas (CNG).

I.PREAMBLE

In the current scenario of global warming due to toxic gas emissions and air pollution and transport being one of the significant contributor to air pollution, including particulate matter and carbon footprint, the need for transition from fossil fuels to green fuels is highly felt.

II. NEED FOR FUEL TRANSITION IN STUs.

The transition to green fuels in State Transport Corporations, especially for buses, is essential for multiple reasons, encompassing environmental, economic, and social aspects. Green fuels like electricity, CNG, LNG and biofuels produce significantly lower greenhouse gas (GHG) emissions compared to conventional fossil fuels. This helps combat climate change by reducing the carbon footprint of State transport systems. Green fuels produce fewer harmful emissions, leading to better air quality and reduced health risks for the population and are also more cost friendlier compared to fossil fuels. Hence, transitioning to CNG is crucial by retrofitting existing diesel engines with CNG engines through proven CNG kit conversion technology. CNG buses are significantly cleaner, emitting fewer pollutants like NOx, PM, and CO, contributing to improved air quality. CNG buses reduce harmful pollutants like particulate matter (PM) and nitrogen oxides (NOx) by up to 98% and 70%, respectively, contributing to better air quality and reduced respiratory health risks. Lower CO_2 emissions make CNG buses more climate-friendly than High Speed Diesel buses. CNG is preferable in urban and metropolitan areas where air quality standards are stringent. CNG buses emit 25% less CO_2, supporting climate change mitigation goals. Unlike HSD, CNG is virtually sulfur-free, eliminating SOx emissions entirely. It will significantly contribute to the STUs in transition towards "Clean and Green Mobility" in the State. As a pilot initiative, Tamil Nadu STUs have retrofitted 18 diesel buses with CNG systems, demonstrating superior operational performance compared to diesel buses. This initiative has also resulted in substantial cost saving of Rs. 6.50 per kilometre operated.

III. TASKS INVOLVED IN CNG RETROFITMENT

Conversion of Diesel Buses as CNG buses involves various tasks and considerations such as ensuring that the vehicles performance remains on par with the original diesel/petrol vehicle standards with no compromise on safety, reliability of emissions, as follows.

1. Feasibility Assessment.

2. Engine and Fuel System Conversion:

3. Fuelling Infrastructure:

4. Other aspects.

AIS 028(Automotive Industry Standard 028) provides comprehensive guidelines for the conversion of vehicles from diesel/petrol to CNG. These guidelines ensure that the conversion process is safe, efficient, and environmentally friendly. The key aspects of AIS 028 for CNG conversion covers the following aspects:

1. General Requirements
2. CNG System Design
3. Engine Modification
4. Safety and Testing Standards
5. Compliance with Emission Standards
6. Documentation and Certification
7. Maintenance and Inspection
8. Training and Certification for Technicians
9. Environmental Impact

IV. Fund Requirement:

The cost breakup for CNG bus conversion in TN State Transport Undertakings for one bus is as follows:-

Sl. No.	Details of Components	Total Cost in Rs.
1.	CNG Cylinders with valve – 90Ltrs	3,27,237/-
2.	Cylinder Brackets	43,083/-
3.	CNG Parts – Category 1	38,467/-
4.	CNG Kit - Sequential	3,83,886/-
5.	Engine Parts Category 1 & 2	85,083/-
6.	Conversion Cost / Lathworks etc	69,240/-
	Total	9,46,996/-

4. The Chairperson, Tamil Nadu Pollution Control Board has therefore, requested necessary orders of the Government on the proposal for conversion of 700 diesel buses operated by State Transport Corporations to CNG (Compressed Natural Gas) buses at a cost of Rs. 66.29 Crore, funded by the Tamil Nadu Pollution Control Board, so as to reduce air pollution and lower the carbon footprint.

5. After careful examination of the above proposal of the Chairperson, Tamil Nadu Pollution Control Board, the Government hereby accord administrative sanction for conversion of 700 diesel buses operated by the State Transport Corporations to CNG buses, to reduce air pollution and lower the Carbon footprint at a total cost of Rs.66.29 Crore (Rupees Sixty Six Crore and Twenty Nine Lakh only), funded by Tamil Nadu Pollution Control Board.

(BY ORDER OF THE GOVERNOR)

SUPRIYA SAHU
ADDITIONAL CHIEF SECRETARY TO GOVERNMENT

To
The Chairperson,
Tamil Nadu Pollution Control Board,
Chennai-32.
The Transport Department, Secretariat Chennai-9.
The Principal Accountant General (A&E), Chennai-18.
The Pay and Accounts Office, Chennai-35

Copy to:
The Special Personal Assistant to Hon'ble Minister (Finance and E&CC), Chennai-9.
The Private Secretary to Additional Chief Secretary to Government, Environment, Climate Change and Forest Department, Chennai-9
Environment, Climate Change & Forest (EC-1)Department, Chennai-9
Stock File / Spare Copy.

//FORWARDED BY ORDER//

16/12/25
SECTION OFFICER