

A9046 DINOWITZ BILL MEMO

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This bill memo describes the intent of the bill based on discussions with many constituents including environmental groups, transit agencies, labor, NYPA, NYSERDA and others.

This bill is intended to focus specifically on transit bus emissions in New York State.

- There are about 8,500 transit buses in New York State
 - o 5,800 in New York City, about 2,700 in upstate transit agencies
- Total annual greenhouse gas savings will be approximately 900,000 metric tons of CO₂
- Healthcare cost savings in New York City alone will be about \$150k per bus per year or about \$870 million per year.
- Addresses environmental justice challenges posed by conventional bus emissions

The DOT and NYSERDA will form a panel specifically focused on this legislation for the transit agencies within NY State. Their task will be the conversion of conventional transit buses to zero emission buses (ZEBs) within transit agencies to achieve the objectives described in the legislation.

The conversion to zero emission buses must be approached in a fashion that takes into consideration the needs and abilities of each of the transit agencies as well as the technical considerations required to achieve the legislative objectives with an understanding of the ZEB manufacturing industry as well as of the utility requirements for power to support each ZEB transit agency fleet. At the same time, it is critical to understand the financial and economic implications on each transit agency as well as to the state. To accomplish these objectives, the panel is provided with 3 objectives described below.

The panel will consist of 7 members, one representative each from NYC Transit, the Regional Transit Service (RTS – Rochester), NYPA, NYSERDA, DEC, DOT, and NY State Division of Budget.

The panel will convene by no later than 60 days after this legislation is signed and they will have 12 months to initiate the procurement described below. The purpose of the procurement is to provide lower prices for transit agencies while providing steady volumes for multiple manufacturers in the nascent industry.

The Utility Infrastructure Studies described below, funded by the state, will be controlled by NYPA using guidance from the transit agencies and the utilities, and will take into account CLCPA long term goals for renewable energy. The study will be initiated within 90 days of the convening of the panel. The Project Funding activities for each transit agency, and for the state as a whole, will be driven by the Division of Budget using industry financial expertise as needed. The Procurement will be led by the panel working closely with the MTA rep and the RTS rep.

The panel will convene as needed to initiate all activities, to review project status and as needed when questions and follow ups arise that require decisions by the panel. DOT and NYSERDA will provide quarterly project updates to the members of the panel.

Panel Objectives:

- 1) Statewide ZEB Procurement – All transit agencies with a minimum of 25 buses in their fleets are to be included. Smaller transit agencies may opt in. Each transit agency will provide a year by year 10-year fleet conversion commitment to the panel that will equal at least 35% of their fleet in aggregate. Each transit agency will thereby commit to purchasing that many electric buses in those timeframes. This should provide those transit agencies with the least amount of ZEB experience with the ability to purchase small volumes in the early years and gradually build up their purchases as they gain technology expertise, building the required infrastructure in tandem with the utilities who will be bringing power to the depot or wherever the transit agency designates the need.

The panel will use 50% of the transit agency commitments to drive a statewide procurement of electric buses on behalf of all of the transit agencies. The purpose of the large purchasing commitment is to provide for lower bus prices and to encourage manufacturers to manufacture and/or provide content from NY State. At the same time, the large contracts will facilitate growth and stability in the nascent industry by providing them with annual volume commitments that grow year over year.

The intent is to award the fixed volume commitment to 3 ZEB manufacturers who will each get one third of the commitment volumes (i.e. one third of the 50% of the transit agency total commitment volumes). The remaining 50% of the volumes, the volumes not committed under the contract but committed by the transit agency to the state, may be purchased by the individual transit agencies from any manufacturer. This gives each transit agencies flexibility and leverage with the manufacturers who have been provided the committed volumes. Transit agencies should feel free to swap volumes between years and volumes by manufacturer with other transit agencies. Each manufacturer must meet normal specification requirements of each transit agency and transit agencies may order any model that they want. Manufacturers must be able to demonstrate the ability to supply the volumes required by the contract. The procurement should also contain labor considerations such as Manufacturers with union shops and/or those willing to consider US Employment Plan (USEP) guidelines: Good paying jobs, retraining workers etc.

As part of the procurement, the panel should consider using a cost-plus model for pricing, with a focus specifically on battery costs. The ideal objective would be to drive towards price parity between electric buses and conventional buses by the end of the 10-year period. A contract that includes volume growth over time helps manufacturers with their business model and allows them to plan for growth and to build in manufacturing efficiencies to reach manufacturing scale. NYC Transit can guide this portion of the procurement.

The panel will take into consideration the limitations and changes in the technology. For example, in order to achieve the required range in winter months, transit agencies may initially select to purchase ZEBs with diesel heaters. Heating the bus would otherwise drain the batteries and reduce the bus range, making buses unusable for some bus routes. Longer term, however, bus manufacturers will develop alternative technologies such as heat pumps and longer-range batteries which will negate the need for diesel heaters in future purchases.

At the end of the procurement contract in 2031, all future transit bus purchases must be ZEBs and transit agencies are free to purchase from any vendor.

- 2) Utility Infrastructure Studies – The panel should drive Utility Infrastructure plans to provide an understanding of power requirements, transmission and distribution needs, reliability and resiliency for each transit agency. Among the plan outputs is a requirement for a financial assessment. The planning must take into account technology, the needs of each transit agency, as well as financial considerations. Ideally, alternative scenarios would be developed that demonstrate the pros and cons of each alongside of the commensurate costs of each. These studies should be funded by the state and kicked off within 90 days of the panel convening, with NYPA driving the activity.
- 3) Project Funding – State funding will be required to achieve the state’s objectives. Studies, funded by the state, should be performed for each transit agency as part of their planning process. The financial assessments should be aggregated with the financial results of the Utility Infrastructure Studies to provide a year by year view of the financial requirements for the state. Some of the funding may be obtained by transit agencies through grants. Some of the funding may be obtained by the State through programs like the VW Settlement, CMAQ or DERA. The remainder of the funds will have to be funded through state revenues. Note that if the transit agency implementations are effective, there will be offsetting savings from lower maintenance costs and lower fuel costs that should be considered. If the procurement is successful, then ZEB costs will be lower.