

**ASSEMBLY, No. 2031**  
**STATE OF NEW JERSEY**  
**211th LEGISLATURE**

INTRODUCED FEBRUARY 5, 2004

**Sponsored by:**

**Assemblyman JOHN S. WISNIEWSKI**

**District 19 (Middlesex)**

**Co-Sponsored by:**

**Assemblymen Gibson and Stack**

**SYNOPSIS**

Requires DOT to conduct study of Personal Rapid Transit to alleviate congestion and supplement rail transportation options.

**CURRENT VERSION OF TEXT**

As introduced.

**(Sponsorship Updated As Of: 9/24/2004)**

AN ACT requiring a study of the viability of Personal Rapid Transit applications as a supplement to transportation system options.

**BE IT ENACTED** *by the Senate and General Assembly of the State of New Jersey:*

1. The Legislature finds and declares that:

a. New Jersey's transportation needs are broad and diverse. It is in the State's interest to actively improve and diversify the system that has proven fundamental to its long-term economic success; which has as its hallmarks the ability to move large volumes of people and goods through an extensive intermodal network of roads, rail, seaports and airports.

b. As new technologies have been made viable, the State has benefited from being an early-adopter, implementing a combination of public and user-fee funded roads, heavy and light rail networks, an extensive public bus system, and most critically, integrating these parts through intermodal transfer stations. This system has proven to be a bedrock of economic growth for the State, enabling it to diversify its economy over the years, by being a leader in shipping transfer through its ports and heavy-rail systems, and more recently, able to move large workforce populations and support tourist and entertainment venues through its passenger and light-rail systems. The key to the system's success has been the linking of the parts, in which passengers can rely on intermodal transfer, from rails to roads.

c. It is in the State's economic interest to investigate new types of service which may improve the usefulness and integration of existing platforms, provide fast, inexpensive travel options, reduce capital costs of projects, and reduce pollution from motor vehicle travel. Personal Rapid Transit (hereinafter "PRT") is one such technology currently being made available.

d. According to the Federal Transit Administration, average capital cost per two-way mile for heavy rail is \$150 million, and for light rail is \$70 million. For operating cost per passenger mile: heavy rail is \$1.20, light rail is \$1.80. However, PRT has the potential to cost much less than heavy and light-rail applications, carry high capacity, be flexibly located, and require much less physical "footprint," potentially reducing easement impact for currently scheduled projects. PRT studies have shown a capital cost of about one-tenth the cost of existing rail technology, with similarly low operating costs. A demonstration of PRT in Minneapolis, Minnesota found that PRT can be built for \$15 million per two-way mile, has an operating cost of about \$0.40 per passenger mile, and operated at a break-even fare (including depreciation) of \$0.60 per trip.

e. The transportation system of New Jersey may benefit greatly from fostering a niche role for profitably managed rapid transit as a supplement to its current system. It is in the State's interest to consider the integration of PRT into its transportation system.

2. The Commissioner of Transportation, in consultation with the Executive Director of the New Jersey Transit Corporation (hereinafter, the “corporation”), shall prepare and submit, within one year of the effective date of this act, to the Chair of the Senate Transportation Committee and the Chair of the Assembly Transportation Committee, or the respective successor committees, as appropriate, a written report which evaluates the viability of PRT as a supplement to the corporation’s current project plans and future possibilities. The report shall include the following:

a. A complete and thorough description of PRT technology, and a comparison with the corporation’s current light rail and heavy rail systems, including potential differences in capital and operating costs, ridership, and break-even fares, and State subsidy required.

b. A detailed examination as to the extent PRT application could be expected to reduce traffic congestion in various regions throughout the State.

c. An assessment of the estimated savings or costs of PRT applications, including the acquisition of property and rights-of-way, which compares current cost estimates for future rail stations with that of locating such stations in less expensive easements and supplementing the stations with PRT.

d. A recommendation as to which options overall are most sensitive to the environmental concerns of the region as well as to the feasibility and safety of traffic management and impact in the region.

3. This act shall take effect immediately.

## STATEMENT

This bill would require the Department of Transportation, in consultation with the New Jersey Transit Corporation, to conduct a study of Personal Rapid Transit technology and assess the viability of integrating PRT into its project plans, to improve and integrate its intermodal mass transit system.

The report, which shall be submitted in one year, shall include a description of possible options, including the technology to be utilized in any new construction; an examination as to the extent PRT could be expected to reduce traffic congestion in the region; an assessment of the estimated costs of applying PRT, including the acquisition of property and rights-of-way. The report shall include a comparison of capital and operating cost of constructing

PRT versus Heavy and Light Rail systems, the break-even fare required for all systems, and public ridership subsidy required for all systems.

Personal Rapid Transit systems are privately managed supplements to an intermodal transportation system, which have potential to greatly leverage the usability of current projects. PRT is a fully-automated system with small, on-demand driverless vehicles running on an elevated network of guideways, offering individual trips without intermediate stops. These service characteristics are comparable to an automobile. In suburbs or along freeway routes, the carrying capacity of PRT can be equal to 3 lanes of freeway traffic, taking only seven feet of width space compared to 50 feet of freeway width. The route has a low environmental impact: a post every 90 feet supports a lightweight aluminum guideway, on which passenger vehicles run. The emission free cars are propelled and slowed by linear induction motors, with a fuel efficiency equivalent to about 85 miles per gallon.

PRT systems have been shown in demonstration projects to cost a fraction of existing rail systems to both build and operate, allowing a niche role for a private sector, for-profit rapid transit system in the State, thus diversifying the State's integrated, intermodal system. The system is intended to link with existing routes and stations. Potential benefits include allowing increased safety on short distance trips, in which riders may find more adequate parking at a distance from the light or heavy rail station, and allowing rail stations to locate "off-site," with lower easement and construction costs, minimizing station impact on existing parking and roads in established urban areas.

According to the Federal Transit Administration, average capital cost per two-way mile for heavy rail is \$150 million, and for light rail is \$70 million. For operating cost per passenger mile, heavy rail is \$1.20, light rail is \$1.80. A PRT demonstration in Minneapolis, Minnesota showed capital costs of about 1/10 the cost of existing rail technology. The demonstration study showed that PRT can be built for \$15 million per two-way mile, and operated at a break-even fare (including depreciation) of \$0.60 per trip. The operating cost alone was found to be \$0.40 per passenger mile.