



United States General Accounting Office
Washington, DC 20548

Resources, Community, and
Economic Development Division

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March 31, 2000

The Honorable Richard C. Shelby
Chairman
The Honorable Frank Lautenberg
Ranking Minority Member
Subcommittee on Transportation
Committee on Appropriations
United States Senate

The Honorable Frank R. Wolf
Chairman
The Honorable Martin Sabo
Ranking Minority Member
Subcommittee on Transportation
and Related Agencies
Committee on Appropriations
House of Representatives

Subject: Mass Transit: Review of the Tren Urbano Finance Plan

The Federal Transit Administration's (FTA) New Starts program provides funds for new transit systems and extensions to existing systems. Full funding grant agreements set the terms and conditions for federal participation in these projects. In March 1996, FTA committed \$307.4 million in New Starts funds to the Puerto Rico Highway and Transportation Authority (the Authority) to help it construct its Tren Urbano project—a 10.7-mile rapid rail line that will serve existing and projected development in the San Juan metropolitan area. The project—expected to cost about \$1.25 billion at the time of the grant agreement—has experienced significant cost growth (about 34 percent) since then because of numerous scope changes. In order to reflect the project's scope changes, cost increases, and current schedule, the Authority revised its finance plan, and on July 19, 1999, FTA amended the grant agreement.

Concern over the project's cost growth led to a provision in the conference report accompanying the Department of Transportation and Related Agencies Appropriations Act for fiscal year 2000 making funds contingent on the Authority's completion of a finance plan setting forth what the full cost will be to complete the project and how the Authority expects to pay these costs among other things. The report also directed GAO to conduct an independent analysis of the plan and report to the House and Senate Committees on Appropriations. Accordingly, this report provides information on (1) the financing of the project and (2) the reasonableness of the assumptions contained in the finance plan.

In summary, we found that the Authority has sufficient funding to meet the expected cost of the project without seeking additional New Starts funds or adversely affecting other parts of the transportation system in Puerto Rico. To finance the project, the Authority plans to use a combination of federal New Starts funds (18 percent), other federal transportation funds (25 percent), and local funds (57 percent). The finance plan identifies numerous local funding sources, including the proceeds of taxes and other receivables that have been committed to the Authority by law and do not require further legislative action.

In addition, we found that the Authority's finance plan contains reasonable cost and financing assumptions. We did, however, find that a number of issues could affect the project's schedule and cost. For example, some of the project's contractors have had problems meeting construction milestones because of the lack of skilled labor. Nevertheless, in light of the Authority's significant dedicated revenues and bonding capacity, the Authority should be able to pay for future cost increases if they occur.

Background

Created in 1965, the Authority is responsible for the construction of highways and related transportation projects in Puerto Rico. The Authority has broad powers to carry out its responsibilities, including complete control and supervision of all highway and other transportation projects owned, operated, or constructed by the Authority; the authority to set tolls and other charges for the use of the highway and other transportation projects; and the authority to issue bonds, notes, or other obligations.

The Authority's Tren Urbano project is one of FTA's "turnkey" projects, which incorporates contracts to design, build, operate, and maintain the transit system. The project is nearly 60 percent complete. The schedule in the amended full funding grant agreement projects a revenue operating date of 2002—10 months later than estimated when the grant agreement was signed in 1996. During 1996 and 1997, seven design-build contracts were awarded for different segments of the project. One of the contractors—known as the systems contractor—is also responsible for installing all systemwide components and for operating and maintaining the project for an initial period of 5 years, which could be extended for an additional 5 years at the Authority's option. The system is expected to carry 113,300 riders a day in 2010.

At the time the grant agreement was signed, the project was estimated to cost about \$1.25 billion. As of March 2000, the project was expected to cost about \$1.7 billion—\$426 million (or 34 percent) higher than the original estimate. This cost growth is primarily because of scope changes. Approximately 2 years elapsed between the preparation of the estimate used in the grant agreement and the award of all the design-build contracts. During this period, the Authority changed the project's design by adding two stations and 10 railcars and made numerous alignment changes and station enhancements. When awarded, the contracts were \$172 million higher than the original estimate. Since the contract awards, an additional \$158 million has been approved for scope changes for such things as systems work for the added stations, an enhanced fare collection system, and additional construction management services. Moreover, costs have increased by \$52 million (4 percent of the original estimate) to cover change orders or unforeseen work not related to scope changes. Approximately \$44 million remains in the budget to cover contingencies for future claims or additional changes.

The Authority Has Sufficient Capacity to Finance Tren Urbano

The finance plan and supporting documentation show that the Authority can pay the \$1.7 billion estimated cost to complete the Tren Urbano project without seeking additional New Starts funds or adversely affecting other parts of the transportation system. Under the project's finance plan and amended grant agreement, the amount of federal New Starts funds remains unchanged—\$307.4 million. In addition, the project will use \$141 million of FTA's mass transit formula funds and about \$260 million of federal highway funds that can be used for mass transit projects.¹ The plan is consistent with the Authority's 5-year capital improvement program, which is focused on constructing the Tren Urbano project and includes funds for the Authority's highway projects. Some of these highway projects are designed to improve access to the Tren Urbano stations. Because the Authority has achieved most of its highway objectives, its highway investment each year is expected to decrease from \$364 million in fiscal year 2000 to \$170 million in fiscal year 2003.

The Authority will also use \$962 million in local funds to finance the project, including \$300 million to repay a federal loan over 35 years.² (As of March 14, 2000, the loan had not been completed.) The Authority receives substantial funding from dedicated local sources and bond proceeds. In the current fiscal year, the Authority estimates these dedicated revenues will be about \$485 million. These local funding sources include the proceeds of gasoline taxes, diesel oil taxes, motor vehicle license fees, highway tolls, investment income, and petroleum taxes. They have been committed to the Authority by law and do not require further legislative action.

In addition to revenues from dedicated funding sources, the Authority may issue bonds. Proceeds from the Authority's most recent \$1.1 billion bond issue will be spent on the Tren Urbano project and other transportation projects. FTA's financial consultant reviewed the Authority's finance plan and reported in November 1999 that the grantee had the financial capacity to complete the project without adversely affecting other parts of its transportation system (with or without the federal loan).

Finance Plan's Assumptions Are Reasonable

We found that the Authority's finance plan contains reasonable cost and financing assumptions. The Authority's new cost estimate of \$1.7 billion for the Tren Urbano project resulted from a comprehensive internal cost review and includes the cost of the project's scope changes. FTA's project management oversight contractor reviewed this estimate prior to FTA's amending the grant agreement and did not identify any additional cost increases.

According to Tren Urbano officials, there are no outstanding high-risk issues that could significantly affect costs. For example, they cite the facts that all seven of the design-build contracts have been awarded and that the project is nearly 60 percent complete. They also point out that the Authority has entered into a 5-year fixed-price contract for the operation and maintenance of the system, which could be extended for an additional 5 years at the Authority's option. Furthermore, these officials point out that the tunneling phase of the

¹ With certain limitations, states can use certain other federal highway and mass transit funds to help pay for New Starts transit projects like Tren Urbano.

² The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) enacted as part of the Transportation Equity Act for the 21st Century authorizes DOT to provide loans to eligible projects, which must be repaid in whole or part from dedicated revenue sources, such as tolls or passenger fares.

project is 95 percent complete, right-of-way acquisitions are 99 percent complete, and there is no significant litigation affecting the project.

The finance plan's assumptions regarding the Authority's current and future obligations and how it expects to meet these obligations are also reasonable. The Authority's approach to forecasting revenues and expenditures has been conservative and based on historical data. For example, from fiscal year 1994 through fiscal year 1999, actual revenues from dedicated sources exceeded projected revenues by an average of \$20 million, or 7 percent. Furthermore, after fiscal year 1999, the plan projects a growth rate for these revenues of about 1 percent annually—a very conservative estimate compared with the growth rate experienced in prior years.

However, we note that there are a number of issues that could affect the project's schedule and cost. Some of the contractors have had problems meeting agreed-upon construction milestones because of a lack of skilled labor. Project officials are developing a master schedule that would integrate the schedules of the individual construction contracts. FTA's project management oversight contractor believes the master schedule can serve as an important management tool for monitoring the progress of the individual contractors and their subsequent impacts on the systems work. The Authority is taking additional steps to mitigate its problems with contractors, such as renegotiating the lead contract responsibility for three of the seven project segments. However, continued delays could result in additional cost increases and delay the project's opening date, especially if they affect the ability of the systems contractor to perform its work on schedule. Nevertheless, in light of the Authority's significant dedicated revenues and bonding capacity, the Authority should be able to pay for future cost increases if they occur.

Agency Comments

We provided the Authority with a draft of this report for review and comment. Authority officials, including the Project Director and Director of Planning, told us that they agreed with the report's contents. They also provided us with minor technical comments, which we have incorporated where appropriate.

Scope and Methodology

To perform our analysis for this report, we reviewed the Authority's finance plan, the financial management consultant's assessment of the plan, and relevant supporting documentation. We interviewed appropriate Authority officials and the financial management consultant to discuss the cost and financing assumptions underlying the plan. We also met with the financial consultant to discuss the scope of his work and the results of his assessment. To obtain information about the project's cost and status, we visited the project and met with the Authority's senior management and FTA's project management oversight contractor. We also met with FTA headquarters and regional officials to obtain specific information on this project and to coordinate our work on other projects' finance plans. We performed our work from January through March 2000 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Honorable Rodney E. Slater, Secretary of Transportation; the Honorable Nuria Fernandez, Acting Administrator, Federal Transit Administration; the Honorable Jacob J. Lew, Director, Office of Management and Budget; and other interested parties. We are making copies available to others on request.

Key contributors to this report include Kirk Kiester, Carol Ruchala, and Ron Stouffer. Please call me at (202) 512-3650 if you have any questions about the report.



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