

House of Representatives Transportation Committee

Alternative Fueled Vehicles and the Motor License Fund

Testimony of Stephen G. Bland, CEO, Port Authority of Allegheny County

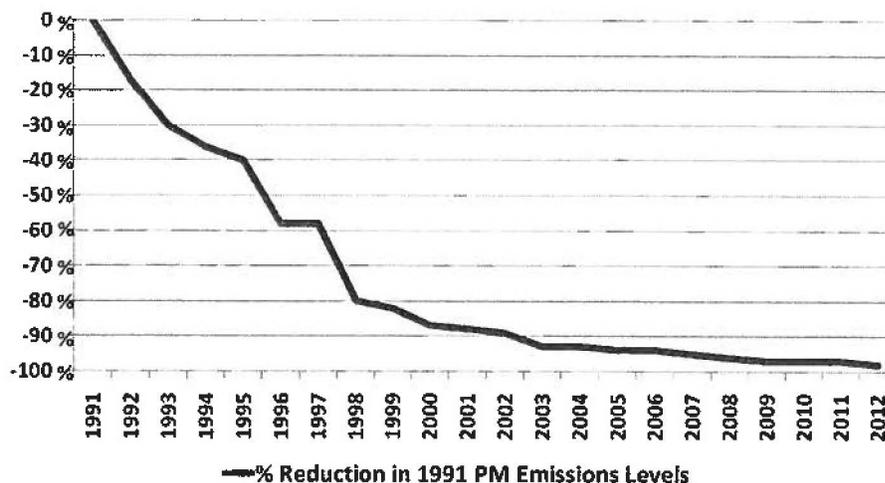
Thank you Mr. Chairman and Members of the Committee. My name is Steve Bland, and I am the Chief Executive Officer of the Port Authority of Allegheny County. The Port Authority is Pennsylvania's second largest public transportation operator, with a fleet of 700 transit coaches and 85 light rail vehicles. On an annual basis, approximately 68 million transit trips are taken on Port Authority services in Southwestern Pennsylvania.

I am especially pleased to testify before you today, as your hearing ties into 3 areas in which Port Authority is very actively engaged at this time:

1. Reducing our overall emissions profile for our fleet.
2. Taking a hard look at the feasibility of converting our fleet to natural gas operation.
3. Utilizing provisions of the recently passed public private partnership legislation to accomplish the above.

In terms of reducing our emissions profile, the Port Authority has been very aggressive on this front for many years. The chart below shows the 20-year trend in particulate emission reduction for the Authority's bus fleet. Particulate emissions are the "black soot" often most closely associated with diesel engine technology.

Port Authority of Allegheny County Particulate Matter (PM) Emissions



Over the past 20 years, Port Authority has reduced its total emissions of particulate matter by over 97%. Advances in this area have come through a variety of means, most important being improvements in diesel engine technology and the introduction of ultra-low sulfur diesel fuel over the past 20 years. However, in addition to this nationwide improvement, Port Authority has employed the following significant steps, among many others:

1. Deployment of 26 hybrid-electric buses into its fleet. These buses consumer approximately 30% less fuel per mile than a standard clean diesel bus.
2. Introduction of biodiesel fuel into our entire fleet.
3. Partnership with the Allegheny County Health Department to revamp vehicle idling procedures, significantly reducing vehicle idling. These procedures became the basis for Allegheny County vehicle idling regulations a number of years ago, and have more recently been implemented statewide in the past 2 years.
4. Service redesign to reduce “unproductive” service miles (ie: mileage spent in deadhead service) and improve service productivity by over 50%.

These efforts have also translated into significantly reduced fuel usage, as diesel fuel consumption for Port Authority has declined by over 3.6 million gallons annually since 2002 – over 1/3.

This leads us to current and future efforts. Two years ago, Port Authority began a partnership with the Heinz Endowments (under their Breathe Initiative) and the EQT Corporation to explore the feasibility of converting the Authority’s bus fleet to Natural Gas.

Buses fueled by natural gas benefit from lower emissions for certain pollutants, as well as very low pricing for natural gas in the current market relative to diesel fuel. Because natural gas is more likely to be domestically produced, it has also been less subject to the price volatility we have experienced with diesel fuel and similar petroleum based products.

The primary disadvantage associated with natural gas is the incremental cost of transit buses – about \$60,000 for a standard 40’ transit bus; and the upfront expense of retrofitting the Authority’s bus operating facilities to include both high capacity fast-fill fueling stations and bus maintenance and storage areas with adequate ventilation, electrical fixtures and leak detection equipment to meet code and safety requirements.

Preliminary estimates by the Authority projected expenses in the \$50 - \$70 million range to retrofit its operating facilities for natural gas, and \$40 - \$50 million in incremental costs associated with the purchase of natural gas buses. Using standard life cycles for buses and facility upgrades, an internal rate of return was calculated to determine the prudence of converting the fleet to natural gas. Using then current futures pricing scenarios for both diesel fuel and natural gas, the Authority calculated that a conversion to natural gas did not make sense on purely financial terms, projecting a -4.5% rate of

return at the time, which could drop to -9.5% if there were as little as a 10% decrease in fuel price spread.

At this point, the partnership among the Port Authority, Heinz Endowments and EQT Corporation came in; and it is where the Commonwealth's new public-private partnership legislation will (hopefully) play a strong role.

In order to make a stronger case for a natural gas conversion, the single most significant occurrence would be to decrease the cost of the upfront capital investment in facilities. Toward this end, the Endowments funded an engineering assessment of all Port Authority bus operating facilities to assess feasibility, scope and cost of retrofitting for natural gas bus operation. This engineering study is still in process, but has identified a number of key issues that will need to be considered. Some significant issues include:

1. Several authority bus facilities may lack sufficient space to accommodate necessary natural gas fueling infrastructure. In all cases, the Authority's operating facilities are land locked, with no vacant property available for expansion.
2. Some facilities may require rehabilitation beyond that required simply to handle natural gas. For example, the storage facility at West Mifflin is height restricted such that the roof support structure would have to be raised in order to accommodate taller natural gas buses.
3. Natural gas supply line pressure may be a concern at certain Authority facilities, and would require significant investment from the gas utility to upgrade line pressure.
4. Neighborhood context may be a challenge in some cases. As an example, the rear of the East Liberty Bus Division abuts the Bakery Square Development in East Liberty and installation of high capacity gas compression equipment on this site may be difficult to achieve.
5. It is unlikely that natural gas fueling facilities can be designed that match the Authority's current vehicle service cycle time. Adding time to the Authority's service cycle time would require the addition of more service personnel, and additional financial resources, to complete the fueling and service cycle each day.

With the robust information anticipated from the feasibility study, the Authority's present intent is to utilize provisions of the new PPP Legislation to engage private sector support for a long-term commitment to a natural gas fleet conversion. In simplest terms, the Authority seeks to answer the question,

"would the private sector be willing to invest the funds necessary to put the infrastructure in place to allow the Authority to convert to natural gas fleet operations, with

their repayment coming from a future flow of payments based on the savings the Authority achieves in purchasing natural gas in lieu of diesel fuel?"

The Authority's intent is to issue a "Request for Expressions of Interest" later this year to determine that interest, using information obtained in the feasibility study as a basis. The success in finding private sector partners will likely depend on a number of factors:

1. The private sectors beliefs about future price spreads between diesel fuel and natural gas.
2. The certainty and magnitude of costs associated with capital investments necessary to operate a natural gas fleet.
3. Future certainty over the Authority's service levels and fleet replacement schedule.
4. The availability/potential availability of 3rd party "gap funding" to reduce the overall cost of the project. Examples of such gap funding could be from governmental sources and/or the philanthropic community. Toward that end, the Authority has obtained \$3 million in Federal funds toward a retrofit of its West Mifflin Bus Operating facility, if this project can advance.

Of course, I would be remiss in testifying before any State Legislative Panel if I did not close by mentioning the need for a long-term, predictable, sustainable source of funding for transportation in Pennsylvania. Over the past 5 years, Port Authority has reduced service levels by approximately 30% and reduced its total bus fleet by over 300 vehicles. Looking into the future, we believe it will be very difficult to get any serious private sector interest in this project unless those investors can be assured that our service levels, mileage profiles and fleet replacement cycles are realistic and sustainable.

Again, thank you Mr. Chairman and Members. I would be happy to entertain any questions you might have.