



Advanced Energy is an independent third-party organization, providing an economical approach to testing and evaluating product and service claims.

A CUSTOMIZED APPROACH TO EVALUATING SCHOOL BUS PERFORMANCE

October 2009

Advanced Energy has unique insight on the performance of school buses, gained largely through our work with the Plug-in Hybrid Electric School Bus Project. In our evaluations of the plug-in school buses, we identified three main factors influencing bus performance: **equipment, driver and route**. These factors are not only applicable to plug-in hybrid bus performance, but to standard diesel buses as well. Advanced Energy can help you evaluate how these factors are affecting your fleet's performance and how the interaction between these factors further impacts bus performance.

Equipment

Major school bus manufacturers now offer hybrid drive trains and advanced engines to help reduce fuel consumption in new buses. However, these options do not address the existing school bus fleet. There are a variety of services such as enhanced maintenance and products such as fuel additives and retrofit kits that are marketed to improve performance and reduce fuel consumption in an existing fleet. Often, school transportation providers do not know how to best evaluate these products and services. Advanced Energy can help. We serve as an independent third-party organization, providing an economical approach to testing and evaluating product and service claims.



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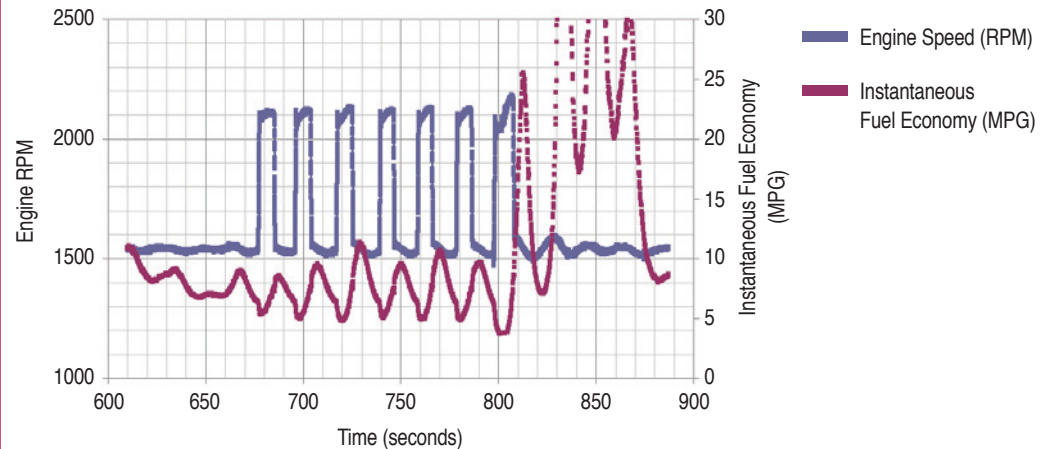


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Driver and Route

Driver training and route selection can have a significant impact on bus performance. Using on-board data logging equipment, we are able to collect information on how a driver is operating a bus. This equipment also allows us to determine the characteristics of a route that may affect bus performance. This information can be used to evaluate the effectiveness of existing driver training programs, help with the development of new training programs and determine the suitability of a route for a particular bus.

Cycle Shifting During Highway Driving & Associated Fuel Economy



Advanced Energy determined that this school bus was cycle shifting at highway speeds. This issue would likely have remained unnoticed without the use of Advanced Energy's on-board data logging system. With this information, we helped the district identify solutions to improve bus performance.

Customized Performance Evaluation

Advanced Energy specializes in customized testing and engineering to properly evaluate a school bus' performance. Our data logging systems allow for real-time measurement of parameters such as fuel economy, manifold air pressure, engine revolutions per minute and more. Our expert analysis and reports provide decision makers with data based on real-world performance, giving them the tools necessary for making informed purchasing decisions.

About Advanced Energy

Advanced Energy is a Raleigh, N.C.-based non-profit committed to a future in which energy needs are met at reasonable costs and with the least negative consequences. The organization continues to work collaboratively to demonstrate that industry, government and non-profits can successfully work together to improve the environment and encourage the economy. For almost 30 years, Advanced Energy has created economic, environmental and societal benefits through innovative and market-based approaches to energy issues.

For More Information

Please contact Staci Haggis
at 919-857-9000 or visit our Web site at
www.advancedenergy.org/transportation

