

MapleSim Fleet Forward

Be Confident in Your Electrification Strategy



In response to mounting concerns about climate change, many municipalities are working to increase the use of public transit while reducing the carbon emissions generated by that transit. For many transit authorities, the way forward includes incorporating more electric vehicles into their fleets. However, moving to an electric bus system can present serious challenges.

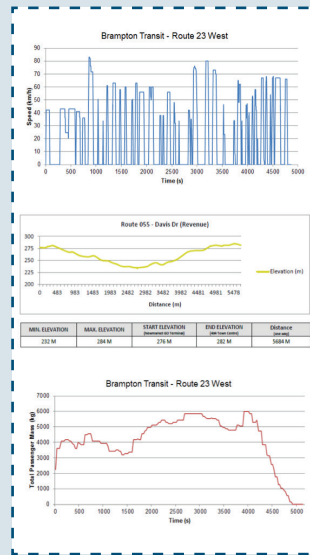
MapleSim Fleet Forward gives you the information you need to develop your electrification strategy with confidence. By combining virtual prototyping techniques, electrification expertise, and data about your actual buses and bus routes, MapleSim Fleet Forward analyzes electric bus behavior under a variety of conditions, so you can identify problems before they occur, and make informed decisions. And because the simulation and analysis is done virtually, you're provided insight into your specific electrification needs at a fraction of the cost of physical testing.

What MapleSim Fleet Forward Can Tell You

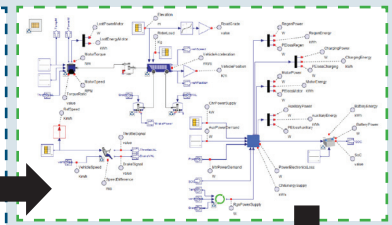
By taking a MapleSim Fleet Forward approach, you get the information you need to make informed decisions, before the first electric bus ever hits the road. This includes:

- Bus range for given routes, passenger loading, weather, and more
- Number of buses required for service
- Charging time and costs
- Energy performance compared to a comparable diesel bus
- Expected environmental benefits of electrification, such as CO₂ reductions
- ... and more

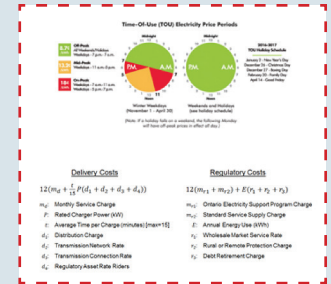
Route Profile



Battery Electric Bus Model



Analyze Results



Be Confident in Your Electrification Strategy with MapleSim Fleet Forward.

Ask us How.

The Partnership

MapleSim Fleet Forward was made possible by a strategic partnership between Maplesoft and the National Research Council of Canada. Together, they provide a comprehensive set of tools and services to help transit authorities determine the best electrification strategy for their city.



Maplesoft

System-Level Modeling and Simulation Expertise

- High-fidelity, physics-based models of electric buses using the system-level modeling tool, MapleSim™
- Advanced battery models to ensure accurate energy calculations, using the MapleSim Battery Library
- Extensive automotive experience for IC and EV powertrains, vehicle dynamics, electronics, and controls

NRC

Electrification Expertise for Vehicle Design, Integration, and Analysis

- Expert configuration services to ensure an expert fit for each fleet
- Consultation services to ensure best practices, working closely with regulators
- Customization and training services for quick, effective implementations



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