International Newsroom

School buses will lead the charge on electrification

By Trish Reed

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Most students board their yellow school buses each day without much thought; it is part of their routine. Almost 536,800 school buses are entrusted to transport 28.5 million children to school in North America every school day, making school buses the largest mass transit system which just so happens to carry the most precious cargo. What students and their parents may not realize is the vehicle that transports them has always been and continues to be safest and most reliable transportation for students across North America.

IC Bus strives to positively impact and contribute to equity in education through reliable, safe transportation. To ensure we can deliver on that commitment long-term, we must also invest in the future of transportation. We have recently reimagined the future of transportation with the release of our IC Bus Electric CE Series school bus that highlights efficiency, sustainability and technology while still supporting the safety and reliability we are known for.

Why Go Electric?

Supporting the switch to electric is the right thing to do, and more importantly, there is a right way to do it. Electric school buses are an option that provides safe transport for students while also reinforcing our corporate focus of being stewards of sustainability. Our goal is to educate not only customers, but parents, students, directors, administrators, and bus drivers on “why” electric school buses are at the forefront of success for all commercial electric vehicles

(EVs).

As the transportation industry has ramped up discussions on vehicle electrification, no market is better positioned for this transformation more than school buses. The bus industry is a promising point of entry for electric vehicles because they run the same daily routes, which are typically short routes, and those vehicles return to a home base at the end of their morning and afternoon runs. Consistent routes allow school bus fleets to set up charging stations where electric school buses can recharge every night and be ready to run the next morning. Like many electric vehicles, IC Bus Electric CE Series school buses also features regenerative braking technology, perfect for routes with frequent stops. Regenerative braking provides incremental battery charging whenever the driver applies the brake to slow the vehicle.

Students living in low-income urban areas are increasingly susceptible to health issues due to their increased exposure to smog. Ensuring that updated powertrain technologies of all types are readily available to school districts can help protect the health and safety of all students who ride the bus. By leveraging clean powertrain options along with electric buses, we can help to reduce greenhouse gas emissions. According to a report from the World Resources Institute, electrifying school buses can help reduce greenhouse gas emissions from all buses by 50%.

Electric buses support a more sustainable future and can help protect the health of learning, growing children. Investing in electrification for a school bus fleet is an investment in zero-emission technologies that will ensure a clean future for those students who ride IC Bus school buses today, and for their future families.

The next step for electric school bus adoption is ensuring customers have the necessary support and consultation to make the decision that is best for their

fleet. How can IC Bus answer customers' questions and overcome this barrier of entry?

How IC Bus Supports Customers

As the school bus market leader, IC Bus can leverage our established and trusted dealer network, along with our reputation in setting the highest safety and technology standards for student transport. That same support and product development has gone into the design and implementation of electrification technologies for our school buses.

When evaluating the viability of electric school bus adoption, customers need to understand the value electrification brings to their fleet. That requires an evaluation of the overall implementation and operational costs to ensure at least cost parity with clean diesel, gasoline, or propane options. To provide guidance during this evaluation process, our customers work closely with the IC Bus team and their dealer from the beginning. The IC Bus team works with customers through the entire EV assessment and implementation process to support the full vehicle lifecycle. This process is managed through our 5 Cs approach: Consulting, Charging, Constructing, Connectivity and Conserving.

The informative, individually tailored presentation is what kicks off the consultation process, answering baseline EV questions before the in-depth work starts, including highlighting the sustainability efforts Navistar has made to contribute to a greener future for the kids our buses transport daily.

The consulting process gives IC Bus the chance to meet face-to-face with customers during onsite visits and determine the best option for their individual fleet needs. IC Bus and our dealers continue through the consultation portion of the 5 Cs to collect route data, evaluate it and work through route simulations to understand the full scope of asset utilization,

understanding charging infrastructure requirements, meet with technicians for EV service training, educate local first responders.

Our dealer network also plays a large role in helping the customer stay connected to us at all times, whether it be service needs or other questions. The consultation phase will determine the best routes to maximize range, taking the guesswork and potential stress out of the customers' hands. Based on the data that is collected, IC Bus can recommend guidelines on specing the bus including battery capacity, and what type of charging infrastructure will need to be installed to appropriately support the fleet. The ultimate goal, setting up buses and their routes for long-term success, will ensure that all students can be picked up and dropped off smoothly.

The consultation process is also where IC Bus, with our local dealer, helps customers find grants and funding for their electric fleet. The recently passed federal infrastructure bill dedicated almost $90 billion for funding public transit and reducing emissions, and allocated $7.5 billion to build a national EV charging infrastructure. IC Bus and the local dealer can provide guidance on grant funding available for fleets based on state, vehicle type and charging infrastructure.

Over time, the cost to buy, own and operate EVs will drop as adoption will improve scale and as technology continually improves battery design. With the support of the new infrastructure bill, the electric school bus segment will lead the charge on EV adoption.

Not only is consultation critical to answer our customers' questions and ease them into the EV process, but it also provides the necessary support after the initial vehicle sale is done. IC Bus helps navigate our customers through all steps of change management that ultimately comes with the transition to electric.

Electric Buses in the Real World

All it takes is a few success stories for potential customers to become invested. Look no further to see the success of this consultative approach than

from school districts operating electric buses in the real world. IC Bus currently has a fleet of 18 electric buses running in school district 20 in Castlegar, British Columbia, Canada.

The rural school district lies among steep mountains that receive plenty of snow and ice for a good portion of the year. The colder temperatures and more challenging terrain pose a unique opportunity to highlight the full capability and realistic application of electric school buses for other geographical locations – not just warm and sunny California. We wanted to showcase that our buses can run anywhere. Rain, snow, sun, mountains, deserts, you name it, our electric bus can handle it.

Thirty years ago, EVs seemed impossible; 30 years from now, they will be the new normal, as will other means of alternative fuels and power. The transition to electric buses is coming, but only if we work with customers in advance to make the best decisions on electric adoption in their fleet and support them through every step of their electrification journey. As with any new technology or idea, questions arise and not all of them are easy to answer.

We at IC Bus have created a process to ease our customers into the adoption of all EVs and ensure they feel comfortable. Navistar and IC Bus are much more than a manufacturer; we are a partner and guide in helping to create a greener future. We aspire to see the children who will eventually be making the world’s most important decisions have the opportunity to grow up in a clean environment made possible by technology. Riding to school on an electric bus is an astounding step toward making that future a reality.

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