

## **The BIDIRECTIONAL Act**

*Senator John Hickenlooper and Representative Jason Crow*

**Senate sponsors:** Senators Hickenlooper, Bennet, Smith, King, Heinrich, Klobuchar

**House sponsors:** Representatives Crow, Kuster

**List of official supporters:** Accelera by Cummins, Advanced Energy United, Blue Bird, Chambers for Innovation and Clean Energy, Community Organization for Resource Efficiency (CORE), EDF, Electrification Coalition, Environment America, Highland Electric Fleets, Lion Electric, La Plata Electric Association, NRECA, Nuvve, PIRG, Proterra, RMI, Xcel Energy

### **Quotes:**

**Accelera by Cummins:** “As a battery and electrified components supplier and integrator, Accelera by Cummins is proud to support the BIDIRECTIONAL Act to accelerate deployment of zero-emissions school bus fleets. School buses are an excellent candidate for electrification, and their vehicle-to-grid capabilities make them an important tool in the clean energy transition in the United States. With our partner Blue Bird, Accelera has deployed over 750 electric school buses across the country to date. Programs like the one established with this bill will help enable widespread adoption of electric buses and positively impact the health of our children and communities as we shift to a net zero future.” - Brian Wilson, General Manager of Electrified Components, Accelera by Cummins

**Advanced Energy United (AEU):** “Bidirectional charging is key to making our grid more resilient, making our energy more affordable, and unlocking the full potential of electric vehicles. School buses are an ideal use case for this vehicle-to-grid technology, with predictable usage that closely matches grid needs and could save schools money. We strongly support states and utilities establishing permanent programs that utilize this technology and thank Senator Hickenlooper and Representative Crow for their leadership on this issue.” - Ryan Gallentine, Director, Electrifying Transportation, Advanced Energy United

**Blue Bird:** “For nearly 100 years, Blue Bird Corporation has been recognized as a technology leader and innovator of school buses in North America. Today, the company is the proven clean student transportation leader with more than 700 electric school buses in operation. All Blue Bird electric buses come standard with groundbreaking vehicle- to-grid (V2G) capability. Blue Bird lauds the proposed bipartisan BIDIRECTIONAL Act to advance the deployment of electric school buses, as well as vehicle-to-grid (V2G), vehicle-to- building (V2B), and vehicle-to- everything (V2X) technologies. Deploying V2G-enabled school buses will promote grid resiliency, affordability, and sustainability nationwide.”

**Chambers for Innovation and Clean Energy:** “Chambers for Innovation and Clean Energy strongly supports the innovative concepts and policy represented in The BIDIRECTIONAL Act. As the nation seeks to address the opportunities and challenges of a fully electrified transportation sector, we must look to innovation to speed up the transition and ensure that we structure the transition in the most efficient and forward-thinking way possible. This legislation recognizes the benefits that electric school buses can bring to the grid, in reducing upfront capital expenditures of school systems, and accelerating the nation’s transition to a clean energy electric grid.” - Ryan Evans, executive director, Chambers for Innovation and Clean Energy

**Community Organization for Resource Efficiency (CORE):** “The average school bus sits idle for 90 percent of its life. The BIDIRECTIONAL Act proposes to put this idle time to good use by transforming electric school buses into energy piggy banks, allowing utility companies to store and withdraw electricity as needed to smooth out the ebb and flow of our daily energy demands. This system also holds the promise of serving as a real-time science laboratory, inspiring school-aged children across the country to play an active role in reshaping our energy future. A smarter grid and smarter kids. The BIDIRECTIONAL Act is just another example of the productive and pragmatic vision we have come to expect from Senator Hickenlooper and Representative Crow. As the CEO for the Community Office for Resource Efficiency, I give this bill my full endorsement.” - Dallas Blaney, CEO of CORE

**Environmental Defense Fund (EDF):** “Electric buses are a cleaner, healthier, and more cost-effective way to get children to school. They also can bolster a more reliable power grid by storing energy in low-demand times for use during high-demand hours. Sen. Hickenlooper and Rep. Crow’s BIDIRECTIONAL Act will advance vehicle-to-grid technology, helping to maximize the economic and community benefits that electric school buses can offer. That includes keeping the lights on for our children and families in critical buildings during emergencies, providing power when we need it most.” – Elizabeth Gore, Senior Vice President, Political Affairs, Environmental Defense Fund

**Electrification Coalition:** “Electric vehicles improve our national security, grid security, and climate resiliency, as they can serve as mobile power and storage units through vehicle-to-grid technology. The Electrification Coalition is pleased to support the BIDIRECTIONAL Act, which will create a dedicated program at the Department of Energy that will deploy electric school buses with bidirectional charging capabilities. The EC has long advocated for deploying more electric school buses due to the grid resiliency benefits they provide to communities, in addition to the clean air and carbon reduction benefits,” said Ben Prochazka, Executive Director of the Electrification Coalition.

**Environment America:** "Dirty, diesel school buses don't do our kids or our climate any favors. Instead, we should be switching to clean, electric school buses which have no tailpipe emissions, and school districts in all 50 states are doing just that. If we equip these renewable-powered buses with vehicle-to-grid technology, they can even store energy and feed it back to the electrical grid when we need it. Sen. Hickenlooper and Representative Crow's BIDIRECTIONAL Act would help accelerate the shift to clean buses that also provide us with clean power. Let's roll!"

- Lisa Frank, executive director of Environment America's Washington Legislative Office

**Highland Electric Fleets:** "We applaud Senator Hickenlooper and his team for their leadership on this important issue," said Matt Stanberry, Managing Director at Highland Electric Fleets, a leading provider of fleet electrification. "We are operating vehicle-to-grid enabled school buses in multiple communities today, and see a host of benefits to deploying these grid-scale assets more broadly since they enable all communities to enhance resiliency, increase renewable energy integration, and clean the air."

**Lion Electric:** "As the demand for electric vehicles, including all electric, zero-emission school buses grows, it is critical that legislators and industry leaders push toward vehicle-to-grid (V2G) technology standards and implementation," stated Nate Baguio, Senior Vice President of Commercial Development at Lion Electric. "This is one of the primary reasons we fully support Senator Hickenlooper's (CO) Bidirectional Act Bill that would facilitate how energy flows between electric school buses to the grid (V2G), to a building (V2B), or to everything in between (V2X)."

**La Plata Electric Association (LPEA):** "La Plata Electric Association is actively engaged with our school districts in V2G fleet electrification. The Bidirectional Act addresses key components required to sustain and scale the natural partnership between utilities and school districts. Through structured collaboration with shared benefits funding for electric school bus fleets can be achieved in the long term. Establishing these partnerships based on mutual benefits will help our communities achieve a clean, healthy, and affordable means of transporting our children."

**National Rural Electric Cooperative Association (NRECA):** "As our nation works towards a future that depends on electricity to power the American economy, finding innovative ways to meet consumer and community needs is crucial. Electric school buses could be a key part of this transition if they're able to provide backup power to the grid when not in use. We thank Sen. Hickenlooper for his leadership with this bill, which will help promote continued innovation in electric vehicle technology." Louis Finkel, Senior Vice President, Government Relations, National Rural Electric Cooperative Association (NRECA)

**Nuvve:** “As the global leader in vehicle-to-grid, or V2G, technology, Nuvve supports smart policies that futureproof government investments in transportation electrification. That’s why Nuvve offers its enthusiastic support for Sen. Hickenlooper’s and Representative Crow’s proposed BIDIRECTIONAL Act. Electric vehicles can become a valuable energy storage resource, but without investments in bidirectional charging capability that enable V2G, their ability to create a cleaner, more resilient power grid won’t be realized. The proposed program includes important incentives for American school districts to install bidirectional charging infrastructure as part of their school bus electrification programs. With this capability, school bus fleets can export surplus electricity to the grid reducing the cost of switching to electric fleets while also achieving clean commutes for students and drivers and leaving more funds available for instruction. Longer term, revisions to PURPA (Public Utility Regulatory Policies Act of 1978) will help establish procedures to interconnect EVs as grid resources and provide compensation for the grid services that EVs are well-suited to provide.” - Gregory Poilasne, Co-Founder, Chairman & CEO, Nuvve Holding Corporation

**Public Interest Research Group (PIRG):** “Kids should be able to get to school without a daily dose of toxic pollution. Electric school buses are the safest, cleanest choice of our children and our environment, and thanks to the bipartisan infrastructure law, they are starting to roll out in communities over the country. Electric buses can be even more of a win for our communities when they're equipped with vehicle-to-grid technology. When school buses have the ability to send clean power to buildings or back onto the grid, we can cut electricity costs for ratepayers, improve grid stability, and make sure our communities are more resilient in the wake of extreme weather events.” - Laura Davis, transportation advocate, U.S. PIRG

**RMI:** “Electric vehicle-to-grid school buses provide an incredible opportunity to reduce costs for schools, stabilize the grid, improve the air quality for children on school buses, and combat climate change. This legislation will help scale this beneficial technology and support schools and communities looking to strengthen their grid and reduce their dependency on gasoline and diesel.” - Clay Stranger, Managing Director of Carbon Free Mobility, RMI

**Xcel Energy:** “We applaud Senator Hickenlooper and Representative Crow’s leadership to encourage deployment of electric school buses. In combination with the right state policies, this bill presents a great opportunity to both improve the quality of air that our children breathe and help support the grid in a way that benefits all customers. We look forward to working closely with the school districts we serve to encourage the use of electric school buses and evaluate the safe, reliable and affordable integration of the buses’ vehicle-to-grid capabilities on our system.” - Frank Prager, Senior Vice President of Strategy, Security and External Affairs and Chief Sustainability Officer, Xcel Energy