

Advocacy Talking Points: Zero-Emissions Buses in Public Transit



Join us in advocating for zero-emission buses to transform our community's future. Cleaner air, greater equity, and a legacy of sustainability can all be ours if we lead in green innovation, saving costs now while ensuring a greener tomorrow. These buses amplify resilience, justice, and progress, amplifying our impact globally. Let's unite for a thriving, equitable, and sustainable city as we demonstrate our dedication to a brighter future.¹

Inspiring Talking Points:

"Breathing Easy Together:" Zero-emission buses mean cleaner air for all, fostering equity, health, and justice in our diverse community.

"Green Transit, Fair Transit:" Equitable access to sustainable transport promotes justice and reduces disparities, connecting every neighborhood to opportunity.

"Leadership in Sustainability:" By choosing zero-emission buses, we lead with innovation and set the standard for a greener, brighter future.

"Savings for Tomorrow, Today:" Investing in zero-emission buses saves money, trimming operating costs while preserving our planet for generations ahead.

"Climate Justice in Motion:" Choose zero-emission buses to combat climate change and prioritize justice for communities disproportionately affected by pollution, especially Black, Brown, and immigrant communities.

"Healthy Choices, Healthy Lives:" Zero-emission buses improve air quality, protecting public health and fostering resilient, vibrant communities.

"Legacy of Sustainability:" Pave the way for future generations by adopting zero-emission buses, securing a sustainable legacy that reflects our values.

"Transit for Everyone:" Zero-emission buses enhance both riders' and drivers' experience of public transportation, making it reliable, efficient, and accessible for all residents.

"Equity on Wheels:" Zero-emission buses ensure fairness, bringing cleaner air and greener options to neighborhoods that need it most.

"Smart Investments, Brighter Future:" Choose zero-emission buses for long-term savings, demonstrating wise stewardship of public resources and a commitment to our city's future.

"Global Impact Starts Local:" By advocating for zero-emission buses, we join a worldwide movement toward cleaner transport, inspiring change beyond our city limits.

Connect with us to share your ideas!



theclimatecollaborative.org



policy@theclimatecollaborative.org



COMMUNITY CLIMATE
COLLABORATIVE

"Resilience on the Road:" Zero-emission buses contribute to urban resilience, helping us weather challenges while reducing our carbon footprint.

"Act Locally, Influence Globally:" Our choice for cleaner transportation amplifies our impact, influencing a broader shift towards sustainable urban mobility.

"Unleashing Our Communities' Potential:" Embrace zero-emission buses to unlock our communities' potential, creating a healthier, thriving urban environment for all."

Technical Talking Points:

Battery Electric Buses (BEB) Are The Most Environmental Responsible Choice:

- BEBs emit 1.29 pounds of greenhouse gases (GHG) per mile, while Compressed Natural Gas (CNG) buses emit a significantly higher 5.77 pounds of GHG per mile.
- Hydrogen fuel-cell electric buses (FCEBs) hold onto a mere 18–46% of the generated electricity required to propel them, losing a significant amount of energy. Contrasting this, BEBs preserve an impressive 95% of energy. The implication is striking – the pursuit of carbon neutrality with hydrogen fuel-cell electric vehicles would necessitate a power demand surge 2 to 5 times greater than that required for battery-electric vehicles.
- Hydrogen production requires significant water resources, using 10–11 liters of water to produce 1 kg of hydrogen. Powering a hydrogen bus for a day consumes between 224–510 local gallons of water, equivalent to the daily usage of 2–5 single-family households. When considering a fleet of 60 buses, that equals the water consumption of 120–300 single-family households. This potential extra stress on our local water supply can lead to service disruptions during ever more common hot years with severe droughts.

Cost-Effective Sustainability:

- BEBs would cost only \$0.43 per mile, and differently than CNG, would present strong environmental and health benefits. Hydrogen, in contrast, is the most expensive fuel and would cost 2x to 10x more per mile for charging.

Health and Community Impact

- BEBs and FCEBs are both zero-emission buses that do not release harmful air pollutants like carbon monoxide, NO_x, particulate matter, VOCs, and SO_x. As such, they help prevent respiratory, cardiovascular, and pregnancy issues linked to inhaling pollutants from diesel and CNG/RNG buses.

Social Justice Considerations:

- The construction of natural gas pipelines using eminent domain raises social justice issues and can result in environmental disturbances, pollution, and explosions. Furthermore, the disproportionate impact of fracking on communities of color results in health issues and water contamination. These challenges currently impact Virginia and their issues could escalate if investments in new fossil fuel infrastructure continue.

¹As we continue to learn more from our engagement with partners, City staff, and consultants, this list will continue to be updated.

Connect with us to share your ideas!



theclimatecollaborative.org



policy@theclimatecollaborative.org



**COMMUNITY CLIMATE
COLLABORATIVE**