

#GREEN FOR ALL

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Good morning, and thank you Chair Castor, and members of the Committee for this hearing to discuss Solving the Climate Crisis: Cleaning up Heavy Duty Vehicles, Protecting Communities.

My name is Michelle Romero. I am the National Director of Green For All, a program of the Dream Corps, where we work to build an inclusive green economy strong enough to lift people out of poverty.

We are here today because bold leaders like you are looking for solutions that can accelerate our path toward a pollution-free, zero-emission future.

We need to start building this future, and we need to do so immediately.

In 2018, the Intergovernmental Panel on Climate Change released a report¹ indicating that we now have less than eleven years to significantly reduce our emissions to avoid catastrophic global consequences.

We need solutions that tackle our biggest threats to climate change and pollution.

Transportation is now the number one source of carbon emissions in the United States.

Fossil-fueled passenger vehicles, heavy duty trucks, and buses are some of the major sources of this pollution² with an estimated 150 million Americans living in neighborhoods that don't meet federal air quality standards³.

I'm sure we've all, at some point in our lives, driven behind a truck or bus as it belches out huge clouds of black smoke. These vehicles represent the oldest, dirtiest, and most harmful buses still on our roads today. These puffs painted a vivid picture of transportation pollution, but whether we now see black puffs or not, we know that tailpipe emissions pump particulate

¹ <https://www.ipcc.ch/sr15/>

² <https://www.ucsusa.org/clean-vehicles/fuel-efficiency/heavy-duty-truck-fuel-efficiency>

³ <https://www.epa.gov/environmental-topics/air-topics#air-pollution>

matter, or PM2.5, into the air we breath. Participate matter is a toxic substance so small we can't see it, but so tiny it easily travels into our bodies as we breathe and gets deeply embedded into our lungs. It can never be removed. It simply accumulates until it's so much it affects our lung function and respiratory system. It is known to cause premature death, heart disease and lung damage,⁴ with children and the elderly being the most vulnerable.

I share this to emphasize that **tailpipe emissions are both a climate problem and a public health problem.** According to the EPA, "Air pollution emitted from transportation contributes to smog and poor air quality, which has negative impacts on the health and welfare of U.S. citizens."⁵

Growing evidence links emissions from diesel and gasoline-powered vehicles to low birth weight, asthma, cardiovascular illness, and even cognitive issues like autism and Alzheimer's. In fact, there are now more premature deaths from traffic-related pollution than traffic-related accidents⁶.

If we don't change our patterns of pollution, our world will continue to change in front of our eyes -- from the wildlife we see to the air we breathe, our children will be unable to experience a healthy, safe, or livable environment. And frankly, many children today already do not have a healthy, safe environment.

While pollution impacts all populations, low-income communities and people of color are at the highest risk for transportation-related health conditions.⁷ After decades of unfair housing, lending, highway planning, and facility siting practices, these communities find themselves living near busy highways, diesel truck and bus routes, ports and distribution centers—all major sources of transportation pollution.

Research tells us that African-Americans in the United States are 3-4 times likelier to be hospitalized and die from asthma compared to Whites.⁸

Similarly, Latinos are twice as likely to be hospitalized from asthma.

One mother we met with in Las Vegas, Nevada, Ivon Meneses, shared with us about her sleepless nights wondering whether this will be the night her 14-year old son Jacob will be taken from her, every time she hears him struggling to breathe. They've already been through multiple

⁴ <https://www.epa.gov/transportation-air-pollution-and-climate-change/smog-soot-and-local-air-pollution>

⁵ <https://www.epa.gov/transportation-air-pollution-and-climate-change/smog-soot-and-local-air-pollution>

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<https://ktla.com/2019/04/08/air-pollution-linked-to-more-than-107000-premature-deaths-in-u-s-in-2011-study/>

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https://www.niehs.nih.gov/research/programs/geh/geh_newsletter/2016/4/spotlight/poor_communities_exposed_to_elevated_air_pollution_levels.cfm

⁸ <https://www.reimaginerpe.org/node/306>

hospitalizations and at least one near-death experience before when doctors told her he might not make it after having a severe asthma attack.

Earlier this year, Green For All put out a call to aspiring artists around the country, to submit lyrics about how transportation pollution is affecting them or their community. We selected four young people to feature in our #FuelChange song and music video.

One of the selected artists is Nehemiah Vaughn. Nehemiah is an 18-year-old African American male who grew up in West Oakland, CA, where diesel trucks idle through neighborhoods on their way to the port and is surrounded on all sides by busy freeways and highways to the point where the neighborhood reeks of the stench of gasoline all day long. In school, Nehemiah was the captain of his highschool basketball team but he ended up having to limit his sports activity because of his asthma. His only other dream was to rap, something he's natural gifted in. Yet, even the breathe control needed to rap is a constant challenge and something you can actually hear as he raps:

*♪♪ Let me tell you about my story
about how I used to have my dream
but for some reason, I can't speak
and I can't even breathe. ♪♪*

Like Nehemiah, students across the United States face a similar struggle. Childhood asthma is a serious issue that affects millions⁹ of children nationwide and is the top reason for missed school days. In 2013, about 13.8 million missed school days were reported due to asthma¹⁰. And when an asthma attack strikes, it is not just students who are affected; caregivers miss work¹¹ and families may spend hundreds of dollars in health care costs¹².

We must tackle each of these -- cars, trucks, and buses -- to build a more sustainable future. This includes major investments including in transit-oriented development, improving public transportation, and creating bikeable, walkable communities. However, today I will focus my remarks and recommendations primarily on school buses.

SCHOOL BUSES

More than two-thirds of the nation's bus fleet are school buses. There are close to half a million school buses in operation¹³ in the United States, and 90% of those are run on diesel.

⁹ <https://www.aafa.org/asthma-facts/>

¹⁰ https://www.cdc.gov/asthma/asthma_stats/missing_days.htm

¹¹ <https://www.ncbi.nlm.nih.gov/pubmed/28453370>

¹² <https://www.aafa.org/cost-of-asthma-on-society/>

¹³ <https://education.stateuniversity.com/pages/2512/Transportation-School-Busing.html>

With over 55% of K-12 students riding school buses everyday¹⁴, children are especially vulnerable to tailpipe pollution -- that's over 25 million kids gaining exposure to known toxins and carcinogens that increase their risk of not only asthma, but cancer and other serious disease.

Dirty diesel school buses are basically refineries on wheels. As kids line up alongside the buses waiting to board, the buses spew out soot and particulate matter, seeping into both the air and our children's bodies. As soon as our children are on board, the tiny particles continue to invade their lungs through the windows, potentially harming the immediate and long-term health of our students.

Kids should not have to grow up this way. Pollution is completely preventable. New technology exists that does not cause these problems.

That's why Green For All, with its partners Clean Energy Works, the Chispa League of Conservation Voters, and Mothers Out Front, launched the [#FuelChange campaign](#), an effort to accelerate the transition to a clean, zero-emission transportation future, starting in underserved and pollution-burdened communities.

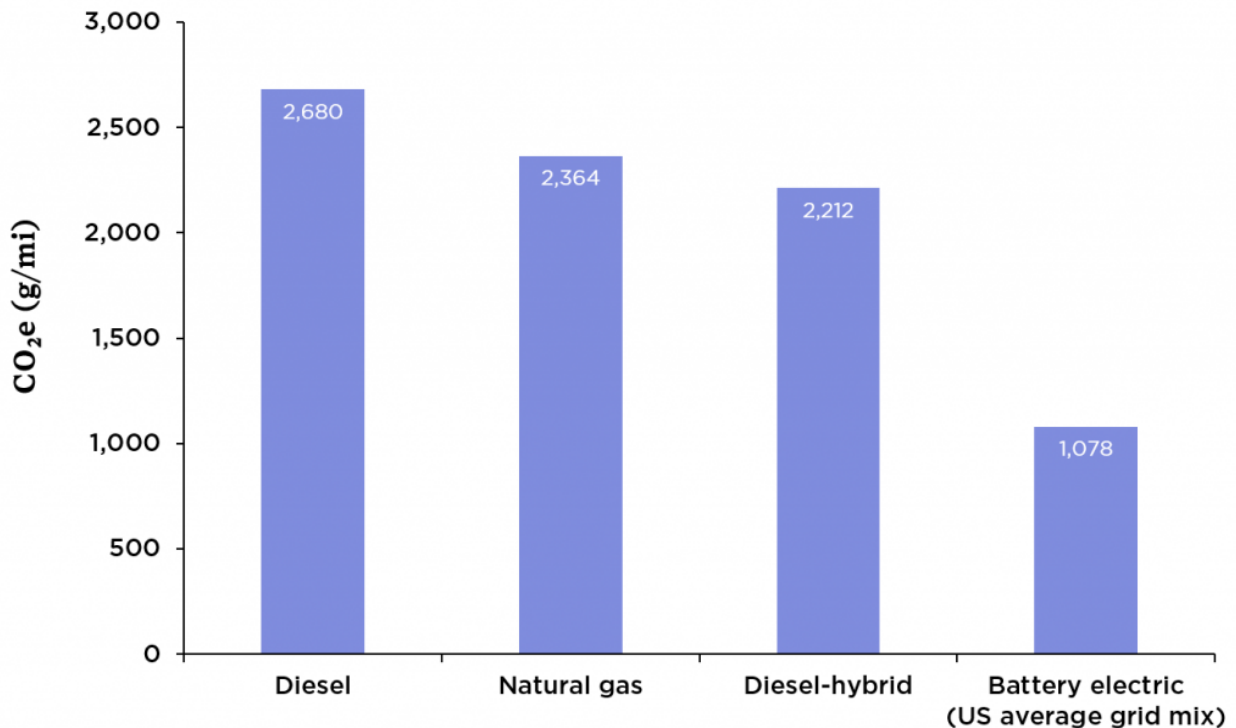
Let's put our kids on zero-emissions, electric buses that don't rob them of educational opportunities and the chance to live a healthy, whole life. Electric buses have zero tailpipe emissions and are cheaper to fuel and maintain, so school districts would save money by leaving their diesel buses behind. And the technology has come so far that today's electric buses can travel a good distance on a single charge. Blue Bird offers electric school buses that get up to 120 miles, and Lion has school buses that get up to 155 miles on a single charge.

According to a Union of Concerned Scientists' analysis, electric buses have fewer carbon emissions than diesel, natural gas, and diesel hybrid buses no matter where in the country the bus charges from the electricity grid.¹⁵ They found that each of these alternative buses (diesel, natural gas and hybrid diesel) generates more than twice as many carbon emissions as an electric bus making an all electric zero-emission bus preferable for addressing both the climate crisis and the health impacts tailpipe emissions are having on our children and communities.

¹⁴ <https://www.atu.org/work/school>

¹⁵ <https://blog.ucsusa.org/jimmy-odea/electric-vs-diesel-vs-natural-gas-which-bus-is-best-for-the-climate>

Life cycle global warming emissions from different types of transit buses



Source: Union of Concerned Scientists.

<https://blog.ucsusa.org/jimmy-odea/electric-vs-diesel-vs-natural-gas-which-bus-is-best-for-the-climate>

Electric school buses can also provide additional benefits through grid-connected storage. School buses are parked and unused most of the day and during peak months like Summer, when they can offer a solution to the problem utilities face now of generating more renewable power than the grid can capture and store for later use.

With so many positive impacts, several school districts are already implementing this cutting-edge solution.

Twin Rivers Unified School District in Sacramento, California was the first school district to buy an electric bus, and now has the largest electric school bus fleet in the country with 25 electric buses¹⁶. The District's own website lists the benefits of these buses as being:

- Healthier – Clean air for our children, teachers, parents and neighbors.
- Safe – Built and tested with high back seats and seat-belts.
- Cleaner – Zero engine emissions.
- Great Performance – Proven in all types of terrain and weather.
- Cost Savings – Electric buses can reduce fueling costs of a vehicle by over 40%.

¹⁶ <http://www.twinriversusd.org/Students--Families/Transportation-Services/Electric-Vehicles-/index.html>

- Quieter – Electric school buses are much quieter, allowing drivers better communication with and oversight of students.

Twin Rivers USD has seen a cost savings of between \$8,000 and \$15,000 on energy and maintenance costs.¹⁷ In these difficult times for underfunded schools around the country, that is money that can be put toward the education of our children and retaining high quality teachers. According to their transportation director Tim Shannon, Twin Rivers USD has set a goal to transition at least 30% of their fleet in the next 3 years.

Twin Rivers is joined by school districts in Chicago, Massachusetts, New York, and Minnesota all with electric buses. In 2017, Lakeville, Minnesota became the first Midwest school district to have an electric bus. Community members say that the bus makes its rounds so quietly that it plays music when it travels under 15mph so that children can hear it, one of many state-of-the-art safety features on the new fleets¹⁸.

We need school districts across the United States to adopt this mission and we need your help to make that happen.

For most school districts, the biggest challenge to implementation is cost. While many schools and transit agencies have the will and the desire to transition their fleets, the upfront cost is a major impediment to the transition.

Buying electric is still at least double or triple the price of a comparable diesel bus, approximately \$120,000 more. If we can help schools overcome the upfront cost, we can accelerate the transition and reap immediate benefits.

An electric bus is cheaper to fuel and maintain with operating costs for an electric bus at approximately 19 cents per gallon compared to 82 cents per gallon for a diesel bus.¹⁹ Furthermore, as battery technology improves and the market grows to scale, we'll see much more competitive pricing in the near future.

To reach the scale our planet needs, and as quickly as we need it, we will need a combination of funding and financing.

That's why Green For All supports The Clean School Bus Act, introduced by U.S. Senator Kamala Harris, along with Senators Dianne Feinstein (CA), Jeff Merkley (OR); Cory Booker (NJ); Tina Smith, (MN); Bernie Sanders (VT); and Catherine Cortez Masto (NV).

¹⁷

<https://sacramento.cbslocal.com/2018/11/04/electric-school-bus-fleet-leaving-green-footprint-on-twin-river-s-school-district/>

¹⁸ <https://www.betterenergy.org/blog/first-electric-school-bus-comes-minnesota/>

¹⁹ Government Technology "Electric Buses Are Not Only Clean but Less Costly to Run"
<https://www.govtech.com/workforce/Electric-Buses-Are-Not-Only-Clean-but-Less-Costly-to-Run.html>

This legislation would help schools serving low-income neighborhoods make the down payment to go from dirty diesel to zero-emission electric buses and give kids a clean, safe ride to school.

If passed, The Clean School Bus Act would:

- Provide grants of up to \$2 million to replace diesel school buses with electric school buses, invest in charging infrastructure, and support workforce development
- Give priority to applications that serve low-income students, replace the most polluting buses, and leverage the funding to further decrease pollution and emission including through partnerships with local utilities
- Authorize \$1 billion over five years at the Department of Energy to fund a Clean School Bus Grant Program to spur increased adoption of this clean technology.

We encourage the House to introduce similar legislation to the Clean School Bus Act and support an even larger funding commitment.

A federal program like the one proposed by the Clean School Bus Act would be a huge help. **And by prioritizing public and private funds to electrify the neighborhoods most in need, we can ensure a just transition that gives every child has a clean, safe ride to school.**

By Clean Energy Works estimates, it would take at least \$6 billion to cover the upfront cost barrier to electrify just 10% of the nation's school bus fleet over the next 5 years. That's where additional funds and financing are needed.

We have seen successful green financing programs before. In more than half a dozen states, inclusive financing programs help low-income energy customers afford the upfront cost of building energy efficiency upgrades. If we apply a similar model to public school transportation, utility investments could help school districts electrify their fleets more quickly.

In Lakeville, Minnesota, for example, the cost of their electric bus was provided through a financing partnership between Green River Energy and Dakota Electric Association-- a model we can replicate in other cities and school districts.

It is time to prioritize the health of our communities and the health of our planet. School bus electrification will allow for cleaner air to breathe, and a cleaner world to live in.

The only way forward for our country, and for our children, is a speedy transition toward a zero-emission future. Thank you.