

Testimony of Quinta Warren, Ph.D. Associate Director, Sustainability Policy Consumer Reports

Before the United States House of Representatives Select Committee on the Climate Crisis

Hearing On "A Big Climate Deal: Lowering Costs, Creating Jobs, and Reducing Pollution with the Inflation Reduction Act"

September 29, 2022

Thank you Chair Castor, Ranking Member Graves and members of the Select Committee on the Climate Crisis for inviting Consumer Reports (CR) to testify on the benefits that the Inflation Reduction Act (IRA) will bring to consumers across the country.

The IRA is a landmark piece of climate legislation that will bring cleaner, cost-saving technologies to all consumers. This legislation has the potential to give more Americans access to clean vehicles and more energy efficient homes.

This transition to cleaner technologies is a win-win: it will help consumers save money on fuel and electricity costs while also reducing consumer and public spending on healthcare tied to air pollution, particularly in overburdened communities.

### Introduction

CR is an independent, nonprofit and nonpartisan organization that works with consumers to create a fair and just marketplace. Known for its rigorous product testing and ratings, CR also advocates for laws and corporate practices that are beneficial for consumers. We survey millions of Americans every year, report extensively on the challenges and opportunities facing today's consumers, and provide ad-free content and tools to 6 million members across the United States. CR is dedicated to amplifying the voices of consumers to promote safety, digital rights, financial fairness, and sustainability.

Surveys and analyses conducted by CR show that consumers care about the environment and want access to cleaner and less polluting technology, but there are barriers such as cost preventing them from purchasing and owning these technologies.

Air pollution and greenhouse gas (GHG) emissions have adverse impacts on the health of consumers, the environment, and climate. These impacts can show up in various ways that will increase costs for consumers, not only for fuel and energy use, but for other consumer costs, such as healthcare and insurance. Providing consumers with cleaner and more energy efficient technologies can dramatically lower these costs, and presents them with the ability to make purchasing decisions that save them money. GHG emissions are contributing to extreme weather events such as extreme heat, flooding, and drought. Criteria pollutants such as ozone and particulate matter cause health issues such as respiratory diseases, lung cancer, pre-term births, and

neurological damage.<sup>1,2</sup> Introducing EVs and other low carbon fuel vehicles into California's market has saved the state \$1.84 million in public health impacts, and helped to avoid more than 200 premature deaths due to reduced toxic air pollution from vehicles.<sup>3</sup> These issues affect overburdened communities such as communities of color most due to redlining and other discriminatory policies.

In order to reduce emissions, we must bring clean technologies, such as electric vehicles (EV) and energy efficient appliances, to market at a scale that can help establish their widespread adoption. By increasing the scale at which these technologies are available in the marketplace, we will see greater options for consumers, driving competition, reducing costs, and increasing consumer savings. By giving consumers incentives to adopt newer, cleaner, cost-saving technologies, we empower them to make decisions that will benefit their wallets and support a lifestyle with fewer emissions.

# 1. Consumers and the Environment

Consumers are making an active shift to support and adopt clean technologies.<sup>4</sup> According to a 2022 nationally representative CR survey on consumer attitudes regarding the transportation industry's impact on the environment and consumers' willingness to make environmentally-friendly decisions, over 70% of consumers in the United States find the issue of climate change to be an "important" or "very important" issue, and 61% of Americans say impact on the environment is important when considering buying or leasing a vehicle.<sup>5</sup>

<sup>3</sup>California's Low Carbon Fuel Standard, California Delivers, 2018,

(https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer\_Reports\_Breakthrough \_Energy\_18\_February\_2022) and full report here

<sup>&</sup>lt;sup>1</sup> Air Pollution: Everything You Need to Know, NRDC, 2021, <u>https://www.nrdc.org/stories/air-pollution-everything-you-need-know</u>

<sup>&</sup>lt;sup>2</sup> Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects, Health Effects Institute, 2010,

https://www.healtheffects.org/publication/traffic-related-air-pollution-critical-review-literature-emissions-exp osure-and-health

http://www.cadelivers.org/low-carbon-fuel-standard/#:~:text=California%27s%20Low%20Carbon%20Fuel%20Standard&text=In%202018%2C%20the%20California%20Air.groundbreaking%20climate%20policy%2C%20SB%2032

<sup>&</sup>lt;sup>4</sup> Shifting sands: How consumer behaviour is embracing sustainability, Deloitte <u>https://www2.deloitte.com/ch/en/pages/consumer-business/articles/shifting-sands-sustainable-consumer.</u> <u>html</u>

<sup>&</sup>lt;sup>5</sup> January/February 2022 Consumer Reports nationally representative Battery Electric Vehicle and Low Carbon Fuels Survey of 8,027 US adults. View topline results <u>here</u>

<sup>(</sup>https://article.images.consumerreports.org/image/upload/v1657127210/prod/content/dam/CRO-Images-2 022/Cars/07July/2022\_Consumer\_Reports\_BEV\_and\_LCF\_Survey\_Report.pdf).

Similarly, a 2022 nationally representative CR survey of more than two thousand Americans shows that 55% of Americans who purchased large appliances in the last five years say that environmental concerns were "extremely" or "very" important to them when they purchased those appliances.<sup>6</sup>

The incentives in the IRA will help to ensure that all consumers gain the cost-saving benefits of EVs and energy efficient appliances, especially low-income and overburdened communities, which have historically borne the brunt of air pollution and GHG emissions.

# Provisions for Low and Zero-Emission Vehicles

Transportation accounts for 27% of total U.S. GHG emissions, the largest of any sector.<sup>7</sup> Transitioning to EVs and other Zero-Emission Vehicles (ZEV) is an obvious strategy to achieve significant emissions reductions in this high-emitting sector.

1. Battery Electric Vehicles

In January and February 2022, CR conducted a nationally representative survey on consumer perceptions and awareness of battery electric vehicles (BEV) and low carbon fuels.<sup>8</sup> The survey found that 71% of Americans express some level of interest in buying or leasing an electric-only vehicle. Within that 71%, we found that 14% of American drivers would "definitely" buy or lease an EV today. That is up from just 4% who said the same thing in a 2020 CR nationally representative survey of 3,392

(https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer\_Reports\_Home\_Sustai nability\_March\_2022 ).

<sup>7</sup>Sources of Greenhouse Gas Emissions, EPA

https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

(https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer\_Reports\_Breakthrough \_Energy\_18\_February\_2022) and full report <u>here</u>

https://article.images.consumerreports.org/image/upload/v1657127210/prod/content/dam/CRO-Images-2 022/Cars/07July/2022\_Consumer\_Reports\_BEV\_and\_LCF\_Survey\_Report.pdf).

<sup>&</sup>lt;sup>6</sup> March 2022 Consumer Reports nationally representative Home Sustainability Survey of 2,240 US adults. View topline results <u>here</u>

<sup>&</sup>lt;sup>8</sup> January/February 2022 Consumer Reports nationally representative Battery Electric Vehicle and Low Carbon Fuels Survey of 8,027 US adults. View topline results <u>here</u>

licensed drivers.<sup>9</sup> The 2022 survey also showed that other racial and ethnic groups showed a similar level of interest in EVs as whites.<sup>10</sup>

When we asked consumers why they would consider purchasing an EV, the most common answers were saving money on fuel, lower lifetime costs, and lower maintenance costs. When we asked consumers who did not say they would "definitely" buy an EV what would prevent them from getting an EV, among the top 3 barriers was the cost associated with buying, owning and maintaining an EV.<sup>11</sup> Our vehicle Total Cost of Ownership analysis shows that owning and maintaining an EV is cheaper than owning and maintaining a comparable gasoline-powered vehicle, as EV owners save \$6,000 to \$10,000 over the life of the vehicle.<sup>12</sup>

The purchase incentives in the Inflation Reduction Act can help offset the cost of purchasing EVs. The removal of the 200,000-unit lifetime EV production cap will give more consumers the ability to access EV incentives for the next decade, and encourages manufacturers to offer more EV models without being locked out of the incentives. The inclusion of income caps and MSRP caps for vehicles will ensure that these investments are going to the hands of consumers who will benefit from them the most.

The used EV tax credit will help to ensure a robust secondary EV market as 70% of consumers buy their cars on the used car market. This credit will be especially helpful for low income communities, which traditionally rely on the secondary market for their vehicle purchases. The tax credits and investments into commercial EVs will help

(https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer\_Reports\_Electric\_Vehicl es\_Fuel\_Economy\_National\_August\_2020) and full report here

<sup>&</sup>lt;sup>9</sup> July/August 2020 Consumer Reports nationally representative Fuel Economy and Electric Vehicles Survey; Electric Vehicles section showed to 3,392 US adults with valid driver's licenses. View topline results <u>here</u>

<sup>(</sup>https://advocacy.consumerreports.org/wp-content/uploads/2020/12/CR-National-EV-Survey-December-2 020-2.pdf).

<sup>&</sup>lt;sup>10</sup> Across Racial Demographics, Interest in Purchasing Electric Vehicles is Considerable, but Systemic Barriers Persist, Consumer Reports, EVNoire, GreenLatinos, and the Union of Concerned Scientists, 2022,

https://advocacy.consumerreports.org/press\_release/across-racial-demographics-interest-in-purchasing-e lectric-vehicles-is-considerable-but-systemic-barriers-persist/

<sup>&</sup>lt;sup>11</sup> January/February 2022 Consumer Reports nationally representative Battery Electric Vehicle and Low Carbon Fuels Survey of 8,027 US adults. View topline results <u>here</u>

<sup>(</sup>https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer\_Reports\_Breakthrough \_Energy\_18\_February\_2022) and full report here

https://article.images.consumerreports.org/image/upload/v1657127210/prod/content/dam/CRO-Images-2 022/Cars/07July/2022\_Consumer\_Reports\_BEV\_and\_LCF\_Survey\_Report.pdf).

<sup>&</sup>lt;sup>12</sup> New analysis from CR finds that the most popular electric vehicles cost less to own than the best-selling gas-powered vehicles in their class, Consumer Reports, 2020,

https://advocacy.consumerreports.org/press\_release/new-analysis-from-cr-finds-that-the-most-popular-ele ctric-vehicles-cost-less-to-own-than-the-best-selling-gas-powered-vehicles-in-their-class/

improve air quality in these communities. Provisions in the IRA which allow EV tax credits to go directly to dealerships will ensure greater benefit from the tax credit for low-income consumers who do not have the tax liability to benefit from the entirety of the tax credit. Historically, since these tax credits are non-refundable, consumers who do not have a tax liability of \$7,500 or above would only receive the tax credit to match their liability. This shift will enable consumers to see immediate savings from the incentive up to the maximum tax credit for their vehicle of choice.

Low-income and disadvantaged communities bear the brunt of the emissions associated with e-commerce. A recent CR investigation showed the extent of that impact in underserved communities who live near ports, last mile shipping facilities, and highly utilized transportation corridors, highlighting the need for investments to reduce emissions in all facets of the transportation sector. The IRA proposes to do this, including through investments in zero-emission heavy duty vehicles.<sup>13</sup>

# 2. Low Carbon Fuels

Low carbon fuels (LCFs) are transportation fuels that produce lower GHG emissions than traditional fossil fuels. Our BEV/LCF survey found that 67% of American consumers would use drop-in LCFs in their vehicle if the cost per gallon was the same as the cost for traditional fuels. Sixty-two percent (62%) say they are "very likely" or "somewhat likely" to choose a flight on a plane that uses Sustainable Aviation Fuels, if the cost of the ticket was the same as flying on a plane that uses traditional jet fuel.<sup>14</sup>

The vehicle purchase incentives in the IRA for fuel cell vehicles, the clean hydrogen credit, tax credits for SAF, and research funds for SAF and other biofuels will help increase consumer options for low carbon fuel vehicles beyond EVs.

### 3. Reducing Emissions Beyond Passenger Vehicles

The emphasis that the IRA places on adopting electric technology is commendable and critical to decarbonizing our country's overall footprint. We support these investments to ensure that the United States is on a path to zero-emissions, and

<sup>&</sup>lt;sup>13</sup> When Amazon Expands, These Communities Pay the Price, Consumer Reports, 2021, <u>https://www.consumerreports.org/corporate-accountability/when-amazon-expands-these-communities-pay-the-price-a2554249208/</u>

<sup>&</sup>lt;sup>14</sup> January/February 2022 Consumer Reports nationally representative Battery Electric Vehicle and Low Carbon Fuels Survey of 8,027 US adults. View topline results here

<sup>(</sup>https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer\_Reports\_Breakthrough \_Energy\_18\_February\_2022) and full report here

https://article.images.consumerreports.org/image/upload/v1657127210/prod/content/dam/CRO-Images-2 022/Cars/07July/2022\_Consumer\_Reports\_BEV\_and\_LCF\_Survey\_Report.pdf).

also acknowledge the IRA's investments in other LCFs that will support the decarbonization of other transportation sub-sectors that are harder to electrify. The emissions associated with the shipment of goods from warehouses to doorsteps, from aviation industries, and from maritime industries, among others, can be reduced with investments in LCFs.

The IRA investments into the development of clean hydrogen are especially important to shifting to the production of cleaner fuels, and will support the development of a market for more fuel-cell technology vehicle and infrastructure options. The investments made into Sustainable Aviation Fuels (SAF) will support critical transformation in one of the more difficult transportation sub-sectors to decarbonize, and consumers are prepared to support this technology.

CR appreciates the IRA funding allocation that will fund research into the impacts of biofuels on the environment and on public health. These findings will better serve advancements in understanding the impacts of different fuel technologies on consumers and the impacts on overburdened communities.

# Provisions for Home Energy Efficiency and Electrification Upgrades

The incentives provided by the IRA will reduce purchasing costs for cleaner technology, making buying decisions easier for the consumer who is looking to transition but is concerned with upfront costs. One of our nationally representative surveys showed that cost still proved to be the top factor that people who purchased a large appliance in the past five years considered in their decision to purchase: when asked what the top three most important factors were to them when they made the purchase, 73% selected price–almost three times as many as selected impact on the environment (24%).<sup>15</sup>

The IRA takes a holistic approach to providing consumers with resources to bring cleaner, cost-saving technology throughout their homes. From solar tax credits to incentives for the installation of electric appliances, this legislation can transform the American household as we know it, saving consumers money on energy costs, and improving indoor air quality. More energy efficient appliances reduce energy use, bringing cost benefits to consumers that can also be helpful in easing energy burdens.

<sup>&</sup>lt;sup>15</sup> March 2022 Consumer Reports nationally representative Home Sustainability Survey of 2,240 US adults. View topline results <u>here</u>

<sup>(</sup>https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer\_Reports\_Home\_Sustai nability\_March\_2022 ).

This is especially critical for low-income and other disadvantaged households which spend a disproportionate amount of their income on energy bills.<sup>16</sup>

Electric appliances such as heat pumps and electric ranges bring considerable benefits to households in both cost savings and a reduction in both indoor pollution and GHG emissions. For instance, studies show that gas ranges not only release significant amounts of unburned methane and NOx while in use, more than 75% of leakage of unburned methane occurs when a gas-fueled stove is turned off.<sup>17</sup> For a consumer concerned with these emissions in their home and looking to make the switch away from the gas-fueled stove, the IRA can provide considerable incentives to reduce the upfront cost of a new electric range.

As consumers consider transitions to cleaner technology in their home to reduce their energy use, there are considerable challenges preventing them from making the switch. For consumers living in older homes, they may need to undergo a process of retrofitting their homes and electrical panels to better accommodate new electric appliances, heat pump systems, or even solar panels.<sup>18</sup> For those looking to make changes to their home to improve their energy efficiency and save on energy costs, they will likely need to consider weatherizing upgrades as well. For these reasons, we applaud the IRA language that will allow for a portion of these incentives to be used to support installation costs, weatherization upgrades, and electrical panel upgrades.

These critical provisions will assist in breaking down cost barriers for consumers looking to save money, make their homes more energy efficient, and reduce emissions tied to home energy use.

# **Conclusion**

Cleaner technologies save consumers money on fuel and electricity, and maintenance costs. However, upfront purchase costs prevent many consumers from buying and owning these technologies.

<sup>&</sup>lt;sup>16</sup> Low-Income Households, Communities of Color Face High "Energy Burden" Entering Recession, ACEEE, 2020,

https://www.aceee.org/press-release/2020/09/report-low-income-households-communities-color-face-high -energy-burden

<sup>&</sup>lt;sup>17</sup> Methane and NOx Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes, Lebel et al., Environ. Sci. Technol. 2022, 56, 4, 2529–2539, https://pubs.acs.org/doi/10.1021/acs.est.1c04707

<sup>&</sup>lt;sup>18</sup> Hot, Cold and Clean: Policy Solutions to Promote Equitable and Affordable Adoption of Heat Pump Retrofits in Existing Buildings, Berkeley Law, UCLA Law, 2022

https://law.ucla.edu/sites/default/files/PDFs/Publications/Emmett%20Institute/Hot-Cold-Clean-Heat-Pump-Retrofit-Report-1.pdf

The incentives in the Inflation Reduction Act will go a long way towards helping consumers save money on fuel and electricity costs while also reducing consumer and public spending on healthcare tied to air pollution, particularly in overburdened communities. In order to support the expansion of the clean energy market in a way that reduces costs and increases consumer savings, we must continue to support investments like the IRA in addition to strong GHG and smog standards that encourage manufacturers to increase the supply of cleaner technologies. Strong standards and complementary incentives to adopt clean technologies are particularly important for low income consumers who would otherwise not be able to participate in the transition to cleaner technologies.