

ELECTRIC VEHICLES: CLEANER AND READY TO HIT THE ROAD

Global oil and food systems are both operating near full capacity, and demand is on the rise. As a result, rising prices are hurting Americans today, and the United States is at risk of food and fuel shortages in the future. To help head off an impending food and fuel crisis, it is necessary to lower the demand for oil.

The U.S. uses a lot of oil and imports most of it—almost 6 million barrels a day. Fully 70% of this oil is used for ground transportation, so Sustainable America has chosen to focus on decreasing the amount of oil Americans for transportation by 50% by 2030. Expanding the use of electric vehicles is one readily available solution that will help achieve that goal.

The Benefits of Electric Vehicles:

- **Readily available technology:** Electric vehicle technology is already developed, in use, and being improved upon, making it the closest substitute for fossil fuel usage in transportation.
- **No tailpipe emissions:** they do not have tailpipes! This makes them much healthier for the environment and people than gasoline-powered vehicles.
- **Energy security:** Electric vehicles help reduce the nation’s dependency on foreign oil, which boosts our energy security, helps reduce military commitments and budgetary strain, and has a positive effect on the U.S. trade balance.
- **Consumer interest:** Sixty-eight percent of Americans say fuel economy is very important to them, and more than a third are interested in buying an electric vehicle.¹ If gas prices continue to trend upward, this interest and demand will grow even more.

The Challenges of Electric Vehicles:

- **Cost:** Despite a long-term savings in fuel costs for electric vehicles compared to traditional vehicles, the initial high cost of electric vehicles (a product of battery costs) is a barrier to widespread adoption, but increased demand for these vehicles could bring battery costs down on a per-unit basis over time.
- **Range issues:** With current battery technologies and an immature network of electric charging stations, potential electric vehicles buyers suffer from “range anxiety,” or the fear that they won’t be able to charge their car when and where they need it. But battery technology and charging infrastructure is rapidly improving, so it’s important to educate consumers about the range capabilities of electric vehicles as it improves.

ELECTRIC VEHICLE RANGE AWARENESS

52 %

Fifty-two percent of consumers do not know where the closest charging station is located.



SUSTAINABLE
— A M E R I C A —



**SUSTAINABLE
AMERICA
SUPPORTS**

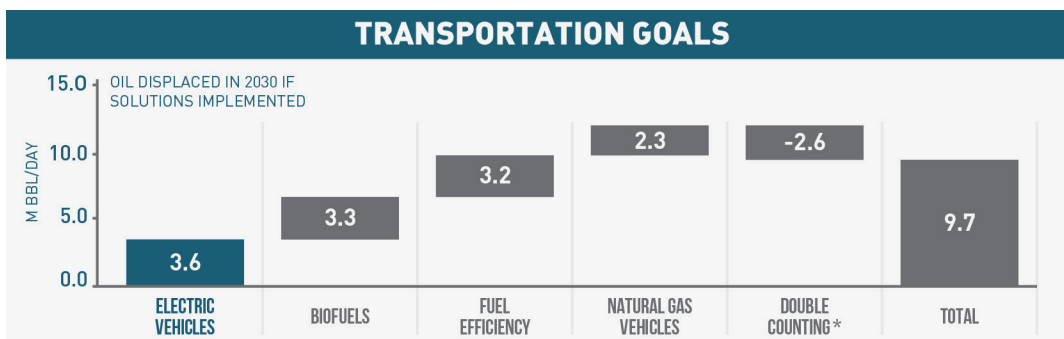
Food Waste Solutions
Alternative Farming
Precision Agriculture
Natural Gas Vehicles
Electric Vehicles
Fuel Efficiency
Advanced Biofuels

¹ Sustainable American Food/
Fuel Public Poll, 2013

- **Carbon footprint:** Despite the clear appeal of using electricity over oil to drive our cars, even electric vehicles, as currently constructed, have a carbon footprint to consider. This is due to our electricity grid's dependence on fossil fuels for power generation. A recent study by the Union of Concerned Scientists found that the carbon footprint of an electric vehicle depends largely on where it is located, as different regions of the country generate electricity with different ratios of fossil fuel, nuclear, and renewable energy. On average, an electric vehicle has 40% lower emissions than its gasoline-powered equivalent. Those owners who have solar panels installed on their homes, or at their charging stations, are able to indirectly offset some of the carbon footprint associated with charging an electric vehicle.

Our Proposed Solutions include.

- **Supporting entrepreneurs and organizations** working to lower barriers to use of electric vehicles.
- **Educating consumers** about the benefits of electric vehicle ownership and advances in electric vehicle technology.
- **Developing strategies** that will incentivize and persuade companies and organizations to use and support electric vehicles.



Sustainable America has set out an ambitious goal for the reduction of oil usage in the American economy and targets a 50% reduction from today's levels by 2035. Our organization strongly believes in the power of change through action. We aim to help Americans achieve this reduction through both education and the funding of entrepreneurs who seek to solve some of the problems enumerated in this paper. We believe that market-based solutions, when combined with motivated citizens, work best to bring about change, and that together we can make a difference.