Benefits of Driving Electric

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About Us

The Southern Alliance for Clean Energy (SACE) is a regional membership organization that promotes responsible energy choices to ensure clean, safe, and healthy communities throughout the Southeast.
Join Us: Electrify the South

Website: ElectrifyTheSouth.org

Facebook: @ElectrifyTheSouth
Presenter

Dory Larsen
Electric Vehicle Program Coordinator
Southern Alliance for Clean Energy
Email: dory@cleanenergy.org
Cell: 727-410-4804
Panelists

Charlie Behrens
Email: Charlie.Behrens@gmail.com
Cell: 781-325-1594

Simon Rose
Email: svlakota@att.net
Cell: 305-794-7959
Why Electric Vehicles?

The transportation sector is now the largest source of greenhouse-gas pollution in the United States.
What is an EV?

- **INTERNAL COMBUSTION ENGINE**
- **HYBRID**
- **PLUG-IN HYBRID ELECTRIC VEHICLE**
- **ELECTRIC VEHICLE**

ElectrifyTheSouth.org
Benefits of Electric Vehicles (EVs)

- **EVs save money** – low fuel and maintenance costs
- **EVs save time** – no more gas stations or oil changes
- **EVs protect public health & the environment**
Lower Fuel Costs

- It costs about 3.5 cents per mile to drive electric and 1 cent per mile if charging with rooftop solar.

- It costs about 10 cents per mile to drive a gas-powered car if your car gets 23 mpg and gas is $2.25.

<table>
<thead>
<tr>
<th>Model</th>
<th>Cost per mile (cents)</th>
<th>200 miles cost (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>10</td>
<td>$20</td>
</tr>
<tr>
<td>Electric</td>
<td>3.5</td>
<td>$7</td>
</tr>
<tr>
<td>Solar PV</td>
<td>1</td>
<td>$2</td>
</tr>
</tbody>
</table>

Assuming $2.25 cost per gallon of gasoline and 23mpg
Assuming 33.7kW/h= 1 gallon and $.12/kWh and 115mpge
• With an EV and co-op PV*, the charging is on the house. Really.

One penny per mile is equivalent to $.27/gallon for gas.

TRIVIA: Know when the last time anyone saw gas at that price?

*Cost determined by FSEC
Answer:

- 1949

Source: Life Magazine
Office of Energy Efficiency and Renewable Energy
energy.gov
Lower Maintenance Costs

- EVs require less maintenance than traditional Internal Combustible Engine (ICE vehicles).
- Additionally, time spent on maintenance is reduced.
- **20 moving parts vs 2,000**
Driving Electric Protects Public Heath

- No polluting tail pipe emissions mean cleaner air.
- Even when powered from coal generated electricity, EVs are cleaner.

Union of Concerned Scientists
2018 Report

US Average (EV sales-weighted): 80 MPG
# Electric Vehicles Are the Future

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Plans and Investments</th>
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</thead>
<tbody>
<tr>
<td><strong>BMW</strong></td>
<td>12 all-electric cars and 13 hybrids will be on the market by 2025</td>
</tr>
<tr>
<td><strong>Daimler/Mercedes Benz</strong></td>
<td>$11 billion investment in electric range of vehicles; Mercedes-Benz – all vehicles will have an electric model by 2022</td>
</tr>
<tr>
<td><strong>Ford</strong></td>
<td>Ford will invest a total of $11 billion in electrification programs and launch 40 new electrified vehicles globally by 2022; Ford will launch 16 electrified vehicles over the next five years.</td>
</tr>
<tr>
<td><strong>GM</strong></td>
<td>At least 20 new EVs by 2023</td>
</tr>
<tr>
<td><strong>Hyundai/Kia/Genesis</strong></td>
<td>Hyundai plans 23 kinds of electric vehicles by 2025 and is investing $35 billion in autonomous and electric vehicles by 2025.</td>
</tr>
<tr>
<td><strong>Renault, Nissan, Mitsubishi</strong></td>
<td>$11.7 billion investment to bring twelve new electric vehicles by 2022</td>
</tr>
<tr>
<td><strong>Volkswagen</strong></td>
<td>VW Group promises to spend up to $84 billion USD in order to bring 300 electric vehicle models to market by 2030.</td>
</tr>
<tr>
<td><strong>Volvo</strong></td>
<td>All the models it introduces starting in 2019 will be either hybrids or powered solely by batteries</td>
</tr>
</tbody>
</table>
Electric Vehicles Can Replace Offshore Drilling
Energy Security

- Transportation accounts for nearly three-fourths of total U.S. petroleum consumption
Utility and Grid Enhancement

V2Grid Technology
New Campaign: Protect Our Coast – Drive Electric

- **Goal:** local governments accelerate the transition to electric vehicles by adopting targeted policies
- **Outcomes:** reduce need for offshore oil and gas drilling, cleaner environment, better public health, and equitable access to benefits of EVs
Policy Guide or ‘Toolkit’

https://www.electrifythesouth.org/coast
Driving on Sunshine
Evacuating in an EV

• Bolting From Hurricane Irma: Maximizing the benefits of solar and an electric vehicle

• https://cleanenergy.org/blog/bolting-out-of-town-and-back/
How to use an Electric Vehicle for Emergency Power

Let’s Connect

Dory Larsen  
Email: dory@cleanenergy.org  
Cell: 727-410-4804

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Email: Charlie.Behrens@gmail.com  
Cell: 781-325-1594

Simon Rose  
Email: svlakota@att.net  
Cell: 305-794-7959