2.3: Supplemental - Improve the efficiency of the state fleet by increasing the miles per gallon by 8% from 17 mpg in 2014 to 18.4 mpg in 2018

GOAL 5: 2.3 INCREASE MPG & INCREASE THE NUMBER OF ELECTRIC AND HYBRID VEHICLES

Department of Enterprise Services
George Carter III

6/5/2017
Why is measuring the fuel efficiency important?

- Improved air quality
- Reduction in fleet operating costs
- Reduces emissions

Current Status: On Track to exceed the MPG target

- 2016 Calendar Year Results
  - Master Contract rebid to include a wide variety of fuel efficient vehicles
  - Available Hybrid SUV replacements
  - Manufacturers continue to focus on fuel efficient vehicle technology

18.1 mpg
Opportunity: Expanded alternative fueled vehicle classes

Opportunities:
- Hybrid Mini-Vans
- Plug-In Hybrid trucks
- Advancements in battery technology and reduction in cost
- Fleet Consolidation

Strategies: Active engagement & stakeholder work

- Developed standardized vehicle replacements
  - Start with the most fuel efficient vehicles
  - Shift to fuel efficient vehicles when available
- Annual Fleet Efficiency Reporting
  - Recaps FY metrics - cost per mile, miles traveled, fleet mix, and POV usage
  - Recommend strategies for future efficiency improvements (more EV’s)
  - Clearing understanding of agency vehicle needs
- Revising the Enterprise Transportation Policy
Current Status: On pace to meet our goal

- Currently 2,650 vehicles in service
- "EV Readiness"

The game has changed

Shift to... Long Range Electric Vehicles

Current Status: On Track

Success Factors:
- Private sector support improving
- The notion of hybrids and EVs is not new anymore
- Procurement collaborative and decreasing costs
- DC Fast charging

Problems:
- Same problems, different group (Trucks & SUVs)
- Public Charging Infrastructure
  - www.plugshare.com
- Agency leases are coming to term
**Opportunity:** Hybrid and battery electric trucks and SUV’s

<table>
<thead>
<tr>
<th>Problem</th>
<th>Next Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Truck alternatives</td>
<td>Hybrid Trucks coming in 2018</td>
</tr>
<tr>
<td>No SUV alternatives</td>
<td>Hybrids now available on contract</td>
</tr>
<tr>
<td>Training and readiness</td>
<td>Adapt electric vehicle training template</td>
</tr>
<tr>
<td>Identifying EV/Hybrid users</td>
<td>Stakeholder group and format created for long-range EV’s</td>
</tr>
<tr>
<td>Vehicle Master Contract</td>
<td>Allows for alternative fueled vehicles to be added when available</td>
</tr>
</tbody>
</table>

**Strategy:** DES will be the leader in alternative fuel vehicles

- Takes continual focus: Quarterly meetings with agency contacts
- Partnership to understand how vehicles are used: Open discussion
- Standardize vehicle types: Policy work
- Procurement choices: Master contract & Joint Procurement Opportunities
Current Status: On track

Washington State Electric Fleet Initiative

Progress:
- 190 vehicles in service
  ✓ Largest government order in the nation!!
- Took delivery of the first Bolt in April
- Developed a plan to install Level 2 chargers at agency locations statewide
- Comprehensive site evaluation and installation process
- Installed 39 new charging stations
- EV charge cards

Opportunity: Long range vehicles

<table>
<thead>
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<tr>
<td>Lack of Charging Infrastructure</td>
<td>Charger Install Project</td>
</tr>
<tr>
<td>Multiple Charge Cards</td>
<td>Vendor integration</td>
</tr>
<tr>
<td>Interoperability</td>
<td>Pilot and Test Case</td>
</tr>
</tbody>
</table>

GAP
Strategy: Proactive Engagement and Executive Support

DES EV & EVSE Showcase

Governor Inslee's first drive

With the help of the Governor and Chris Liu, DES delivers the first Bolt to Ecology

Recognition: Western Washington Clean Cities

DES has been nominated for three awards

- Best Performance by a Public Fleet
- Best Achievement in Electricity
- Sustainable Commitment Award
Conclusion: How do we keep the momentum?

- Showcase the benefits of EV’s
- Stay up to date on new technologies
- Continue to build State agency charging infrastructure
- Vehicles available in daily rental fleet
- Encourage agency leadership to serve as champions of EV adoption.

Thank you for your ongoing support…

“Driving Change for Washington’s Future”
Electric Fleets Initiative

Ecology’s Electric Fleet:
• 10 new Chevy Bolts
• Fleet and employee charging available now in Lacey, Spokane, Union Gap, and Vancouver
• EVSE installations in-progress in Bellevue and Bellingham

Keys to Success:
• Collaboration between fleet & facilities staff (and between ECY and DES!)
• Support from executive leadership
• Change management

Action Plan:

Measure 2.3: Improve mpg 8% from 2014 levels by 2018

<table>
<thead>
<tr>
<th>Task</th>
<th>Task Lead</th>
<th>Expected Results</th>
<th>Status</th>
<th>Due Date</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 20% of passenger vehicles purchased to be electric vehicles.</td>
<td>George Carter</td>
<td>Estimated 4% gain</td>
<td>On Track</td>
<td>12/1/2018</td>
<td>All state agencies with state vehicles</td>
</tr>
<tr>
<td>2) Replace other vehicles with the most fuel efficient vehicle available.</td>
<td>George Carter</td>
<td>Estimated 3% gain</td>
<td>On Track</td>
<td>12/1/2018</td>
<td>All state agencies with state vehicles</td>
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<tr>
<td>3) Downsize vehicles when replacing.</td>
<td>George Carter</td>
<td>Estimated 2% gain</td>
<td>On Track</td>
<td>12/1/2018</td>
<td>All state agencies with state vehicles</td>
</tr>
</tbody>
</table>

Measures 2.3.a & 2.3.b: Increase the number of Electric and Hybrid Vehicles

<table>
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<th>Partner</th>
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<tr>
<td>1) 20% of passenger vehicles purchased to be electric vehicles.</td>
<td>George Carter</td>
<td>Estimated 900 vehicles</td>
<td>On Track</td>
<td>12/1/2018</td>
<td>All state agencies with state vehicles</td>
</tr>
<tr>
<td>2) Replace other vehicles with hybrid vehicles when available.</td>
<td>George Carter</td>
<td>Estimated 650 vehicles</td>
<td>On Track</td>
<td>12/1/2018</td>
<td>All state agencies with state vehicles</td>
</tr>
<tr>
<td>3) Replace larger vehicles with bio-diesel capable vehicles.</td>
<td>George Carter</td>
<td>Estimated 600 vehicles</td>
<td>On Track</td>
<td>12/1/2018</td>
<td>All state agencies with state vehicles</td>
</tr>
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