

Shorepower Truck Electrification Project (STEP) Q1 – Q2 2013

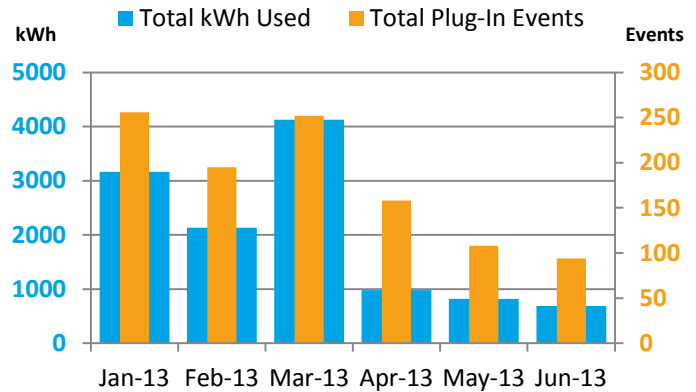
The Fleet Test and Evaluation Team at the U.S. Department of Energy's National Renewable Energy Laboratory is evaluating and documenting the use of shorepower at 50 planned American Recovery and Reinvestment Act (ARRA)-funded truck stop electrification (TSE) sites across the nation. Trucks participating in the study have idle-reduction equipment installed that was purchased with rebates through the ARRA. A total of 5,000 rebates will be approved.

Plug-In Infrastructure

Reporting period	01/01/2013 to 06/30/2013	Number of TSE sites completed	48
Input power	208/240/480 V (min 50 A) 4-wire circuit	Number of pedestals installed	253
Output power	120/208/240/480 V, 20/30 A outlets	Total vehicle capacity	1,012

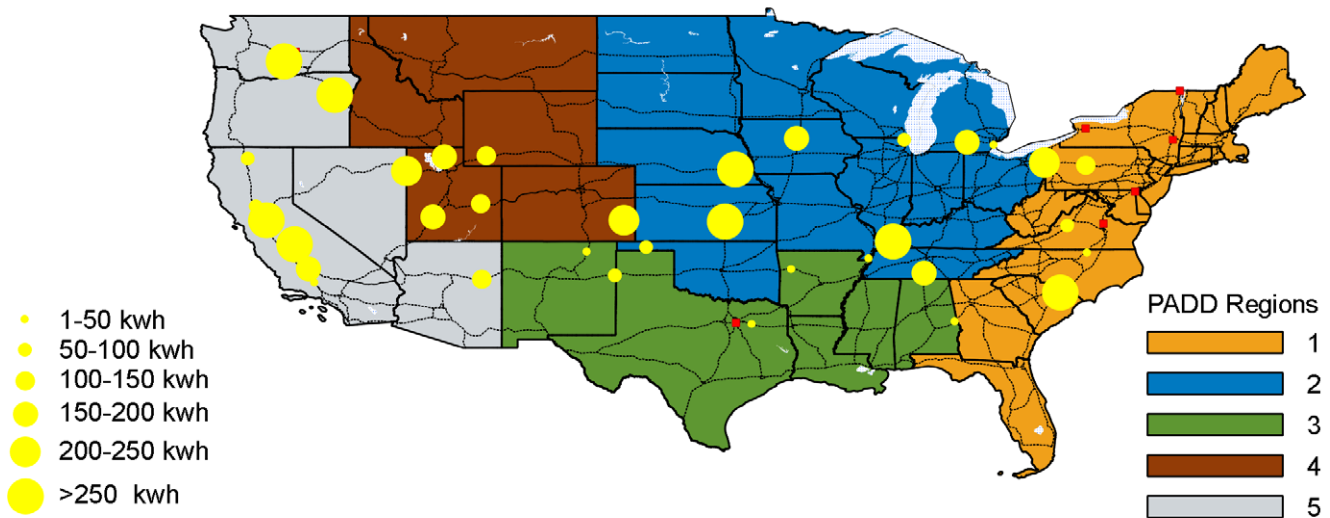
Utilization Summary

Idle-reduction rebate approvals	4,367
Completed equipment installations	4,334
Number of TSE sites with >90% uptime	48
Number of plug-in events	1,063
Total hours booked	17,674
Total kWh used	11,914
Average kWh/event	11.2
Gallons of diesel fuel saved ¹	14,139
Metric tons of CO ₂ avoided ²	144



TSE Site Location/Usage Map

This chart shows the locations of all installed TSE sites (yellow indicator) as well as planned sites (red indicator). The size of each site indicator is relative to the amount of total kWh utilized there daily. Visit <http://www.afdc.energy.gov/afdc/locator/tse/> for additional site information.



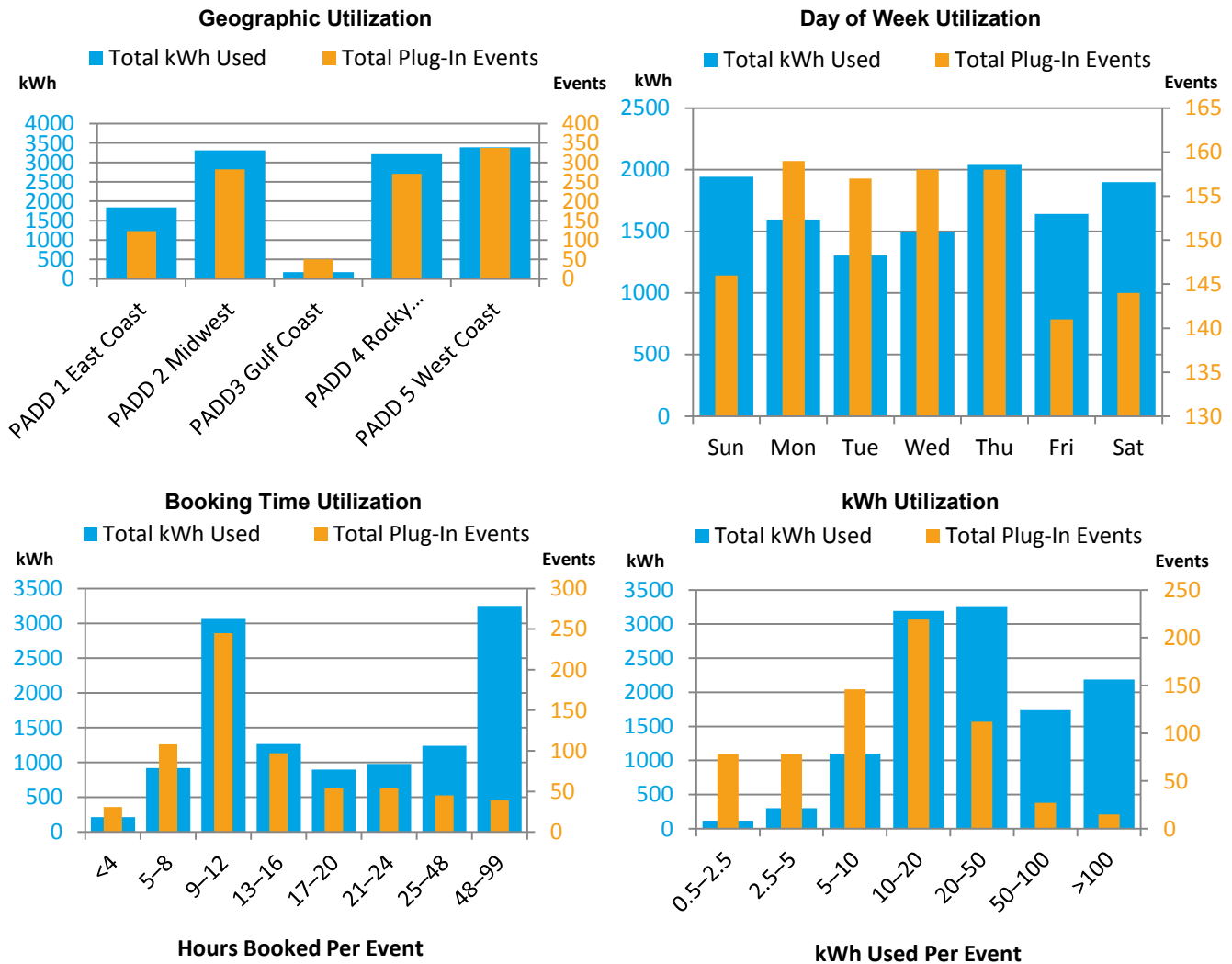
1. Gallons of diesel saved calculated from booking time, assuming 0.8 gallon / hour (EPA-420-F09-038).

2. Metric tons of carbon dioxide calculated using U.S. EPA greenhouse gas guidelines of 10,180 g CO₂ / gallon of diesel.

Monthly Utilization Data

	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
Number of plug-in events	256	195	252	158	108	94
Number of plug-in events using STEP IDs	1	1	11	33	1	5
Total hours booked	4,239	4,014	5,156	1,801	1,344	1,120
Total kWh used	3,167	2,135	4,129	978	816	689
Average energy used per event (kWh)	12.4	10.9	16.4	6.2	7.6	7.3
Average power per event (kW) ³	0.747	0.532	0.801	0.543	0.607	0.615

Utilization Data



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For more information, visit: vehicles.energy.gov

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Prepared by the National Renewable Energy Laboratory (NREL), a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy; NREL is operated by the Alliance for Sustainable Energy, LLC.

3. Calculated based on booking time and total energy consumption.