

Shorepower Truck Electrification Project (STEP) – Cumulative

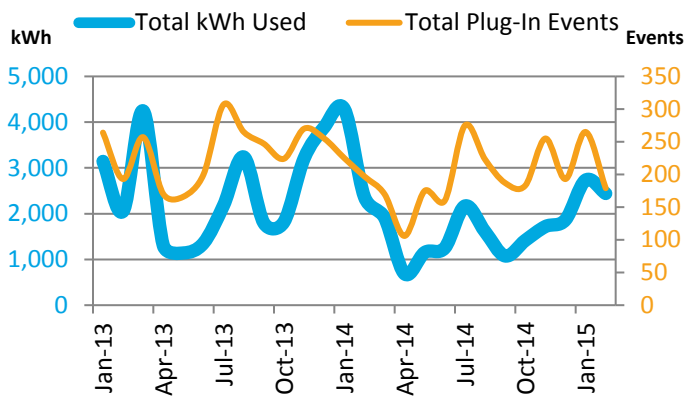
The Fleet Test and Evaluation Team at the U.S. Department of Energy's National Renewable Energy Laboratory is evaluating and documenting the use of shorepower at 50 planned American Recovery and Reinvestment Act (ARRA)-funded truck stop electrification (TSE) sites across the nation. Trucks participating 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	1/1/2013 – 2/28/2015	Number of TSE sites completed	50
Input Power	208/240/480 V (min 50 A) 4 wire circuit	Number of pedestals installed	314
Output Power	120/208/240/480 V, 20/30 A outlets	Total vehicle capacity	1,256

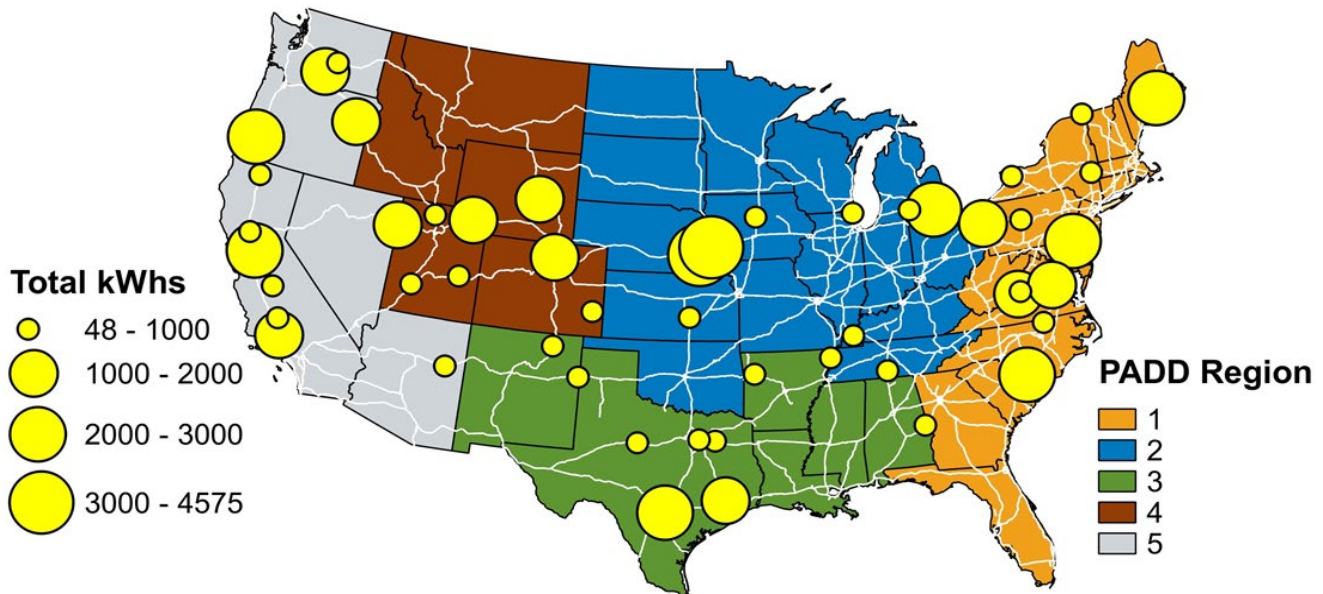
Utilization Summary

Idle-reduction rebate approvals	4,686
Completed equipment installations	4,353
Number of TSE sites with >90% uptime	50
Number of plug-in events	5,611
Total hours booked	77,273
Total kWh used	56,073
Average kWh/event	10.0
Estimated gallons of diesel fuel saved ¹	61,818
Metric tons of CO ₂ avoided ²	629



TSE Site Location/Usage Map

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



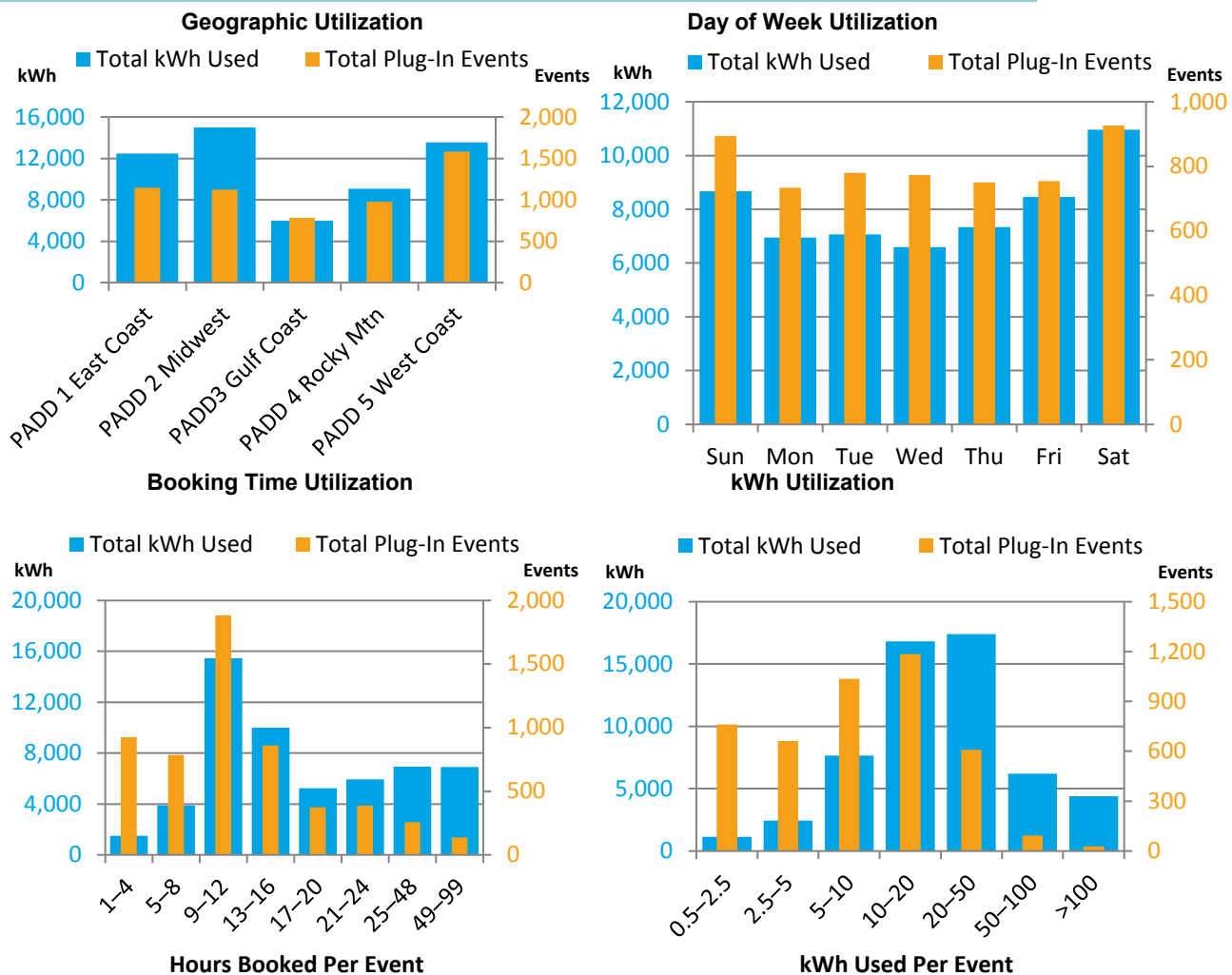
1. Diesel fuel saved calculated using booking time x 0.8 gal/hr (EPA-420-F09-038) to estimate offset engine idle fuel use.

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

	Q1 2013	Q2 2013	Q3 2013	Q4 2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Jan Feb 2015
Number of plug-in events	714	536	819	749	592	441	685	631	444
Number of plug-in events using STEP IDs	46	39	62	34	NA	NA	NA	NA	NA
Total hours booked	14,254	6,679	12,116	10,439	8,212	4,861	7,641	7,351	5,720
Total kWh used	9,442	3,804	7,222	8,913	8,573	3,091	4,851	5,002	5,175
Average energy used per event (kWh)	13.2	7.1	8.8	11.9	14.5	7.0	7.1	7.9	11.7
Average power per event (kW) ³	0.662	0.570	0.596	0.854	1.044	0.636	0.635	0.680	0.905

Utilization Data



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For more information, visit:

vehicles.energy.gov

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