



US Army Corps
of Engineers.

OCT 2023 EV/EVSE NEWSLETTER

**BUILDING
STRONG®**

Shoutout to Nashville (LRN) for being the first District to use the General Services Administration (GSA) Blanket Purchase Agreement (BPA) to install Electric Vehicle Supply Equipment (EVSE), which will result in 9 ports at 4 sites! HQUSACE is proud of LRN for paving the way to use this EVSE installation method. Read on for an unusual use of Zero Emission Vehicles (ZEVs) and a retrospective from Galveston!

CONSIDERING A SOLAR CHARGER?

As reported in an October edition of the Logistician, Travis Byrd, the Logistics Manager at Galveston District (SWG), reflected on the experience of self-funding and installing a BEAM solar charger in November 2022. We have highlighted some of the article's pros, cons, and lessons learned at SWG!

PROS

- Charger can be used almost anywhere
- Good for remote locations
- No hardwiring or electrical grid connection required
- Contributes to Carbon Pollution Free Electricity (CFE) targets for renewable energy (RE)
- Capable of charging vehicles during power outages and emergencies
- Can charge at night and in the rain

CONS

- No battery storage capacity
- Slower charging rate (takes two days to charge an electric truck)
- Charging capacity further reduced during bad weather
- Slow customer service response time from the manufacturer
- Requires a forklift to move
- Typically more expensive than other EVSE



Questions for MSCs to ask before buying solar chargers:

- 1) Are you hoping to charge trucks or sedans? Sedans are better suited for solar chargers.
- 2) How often are you using this ZEV? Limited use or trips <200 mi are better suited for solar chargers.

ENVIRONMENTAL JUSTICE WITH EVSE

The Department of Energy (DOE) is highlighting a tool USACE developed to incorporate environmental justice considerations into EVSE siting! The **Site Prioritization Tool**, available to all agencies, tool enables users to consider multiple metrics such as cancer risk, minority and low-income populations, and air pollution when planning where to implement EVSE next. MSCs can use this tool to ensure not just a cost-effective and mission-aware EV transition, but a just one as well.

[Click here to contact the Federal Energy Management Program for access to the USACE Site Prioritization Tool.](#)

The tool helps to prioritize project locations that will have the highest impact on the communities where our facilities reside. USACE is pleased to share this tool with other federal agencies, enabling them to make their charging station deployments more impactful as well."

--Jay Plucker, Geospatial Program Manager

CRAFT ID	EV-Charging Station Priority Rank	Real Property Name	District / Division	City	STATE	Global Environmental Indicators	EV Stations in 10-Mile Radius	Percetration Factor 0.5	Ozone	Cancer Risk	Respiratory Hazard	Traffic Density	Minority %	Low Income %
253	3	HQ Building	NWY NWD	Walla Walla	WA	4.12	16	8.80	49.60	28.67	0.38	3030.73	74.3%	40%
273	2	District Reservation	LRR LRD	Buffalo	NY	3.70	337	8.38	42.05	33.78	0.29	3605.37	52.7%	11%
304	3	33 NATURAL RESOURCES	WLN WLD	Burbank	WA	4.29	9	11.71	48.16	29.80	0.41	38.75	38.0%	17%
307	4	NEW ORLEANS - District HQ Complex	MWN MWD	Wickliffe	WA	4.05	10	8.48	49.44	30.00	0.37	3150.80	61.3%	30%
720	5	SPL PSA COE BASE YARD	SPL SPD	South El Monte	CA	5.27	270	52.73	53.51	43.76	0.60	7053.50	81.5%	20%
424	9	REFPAIR AND SUPPLY BASE	MVR MVD	Vicksburg	MS	4.68	1	8.85	35.29	29.95	0.49	47.97	11.0%	28%
145	8	Washington Aqueduct	NAU NAU	Washington	DC	4.15	167	8.80	44.14	17.03	0.34	2008.81	18.7%	1%
793	10	Jessieville Mill	TWW TWD	Dalhart	TX	4.70	19	8.04	36.51	23.89	0.27	6421.33	38.0%	28%
250	11	Montgomery CH	TEA TEA	Arlington	VA	4.18	223	6.62	44.42	30.67	0.47	3150.80	61.3%	30%
840	11	PAANO FIELD OFFICE	SPN SPD	Corona	CA	5.30	80	10.76	63.33	26.89	0.53	3150.80	84.0%	1%
593	12	PORT MOULTRIE PROJECT OFFICE/Warehouse	NAP NAD	Philadelphia	PA	4.02	198	8.84	44.02	37.80	0.53	5080.13	31.0%	1%
644	13	The Dallas Dam	NWP NWD	The Dallas	OR	4.22	5	8.35	41.58	23.12	0.35	20.38	12.0%	40%
435	14	Endley Engineer Yard	MVM MVD	Memphis	TN	4.46	11	8.90	42.83	34.00	0.50	5050.00	0.0%	0%
645	15	District Warehouse Depot	NAU NAU	Jacksonville	FL	4.71	12	8.49	35.47	21.19	0.62	46.43	38.8%	67%
588	16	NAO NORFOLK - District HQ Complex	NAD NAD	Norfolk	VA	4.52	42	8.70	42.12	31.12	0.42	3150.80	51.3%	1%
589	17	NAO NORFOLK - District HQ Complex	NAD NAD	Norfolk	VA	4.52	42	29.41	42.07	29.41	0.29	3619.76	35.5%	1%
709	18	SPN SPD	SPN SPD	Sacramento	CA	5.04	303	9.53	48.82	45.64	0.73	28.32	64.2%	7%
400	19	Delaney Lake	MVR MVD	Ardenoholm	PA	4.38	8	8.33	38.71	43.94	0.66	1677.39	26.5%	42%
505	20	Career Point Marine Terminal	NAN NAN	Jersey City	NJ	3.09	246	8.84	39.79	27.27	0.45	27.39	44.0%	1%
20607	21	Sam Perales River - Delta Park Structure	NWP NWD	Monrovia	CA	4.67	441	8.85	42.87	32.87	0.47	3150.80	61.3%	30%
20607	22	California Reservoir Office	NWP NWD	Vancouver	WA	3.05	201	8.09	35.95	38.36	0.52	3150.52	11.7%	1%
20607	23	California Reservoir Office	NWP NWD	Monrovia	CA	4.53	4	8.81	35.80	38.03	0.53	3150.52	34.0%	1%

By Vehicle By Facility By State/Program By City/Program

"Electric Vehicles (EVs) can now power your home for three days," reported in the Washington Post:

When civilian Nate Graham of New Mexico lost power, the woodburning fireplace could not keep his family warm and they had to find shelter elsewhere for multiple days. Using a power strip and an inverter, he connected his EV, a Chevy Volt, to his appliances. **For over 30 hours**, he powered his fridge, lights, and other important devices using only his EV. Described as "an enormous home battery on wheels," EV batteries are unexpectedly able to do much more than just powering vehicles that contribute to lowering emissions. Mr. Graham already powers his home primarily through rooftop solar panels, and now when the power goes out, he can use his EV to help!



While the idea of powering a home through an EV battery may seem enticing, it is not a long-term solution. But maybe this EV has proven that it could one day play a substantial role in our energy system... Read below for potential benefits of using EVs for energy!

How is this story relevant to USACE and clean energy?

According to the Wall Street Journal, across the U.S. power outages have risen from fewer than 25/year to more than 180/year since 2000. Solar chargers, like the one installed at Galveston, and the ZEVs themselves, offer sources of energy during such outages. When coupled with a bidirectional charger, ZEVs can effectively replace the grid during emergency situations. Interestingly, owners can now opt into vehicle-to-grid services that would allow utilities to pay for the use of energy from EV batteries during peak demand. By 2030, "virtual power plants," or the bundling of energy sources such as ZEV batteries and solar panels, may reduce the peak electricity loads in the U.S. by 60 gigawatts (equivalent to the energy consumed by 50 million households).

Answering Key Questions from the Field

Since the last Newsletter, we heard questions related to...charging Teslas!

Can USACE access the Tesla charging network? How?

Yes! Shoutout to Eric Haskell at SAD for tracking this solution down. Access to Tesla Superchargers is included with all GSA-leased Teslas. Even better, you don't need a ChargePoint or WEX card thanks to GSA's Plug and Charge service. Just pull up and start charging, it's that easy! GSA has released a Tesla Quick Guide found [here](#) with more information regarding charger types and operating features. GSA has also updated their [public charging guide](#) to feature Tesla. Be aware of idle fees when charging at a Tesla Supercharger, though – if you finish charging but stay parked at a station for more than five minutes, Tesla may charge you up to \$1.00 per minute, depending on how busy the station is. Overall, this charging option has major logistical benefits for USACE travelers, as Tesla has one of the largest EVSE networks in the country!

If you have any questions on EVs, EVSEs, or related subject areas, please reach to one of the names listed below. For questions related to CW sites, contact Mr. Scot Dahms. For questions related to RF sites, contact Ms. Marti Sedgwick.

Acting National Sustainability, Environmental Compliance, and Energy Program Manager Mr. Scot Dahms Scot.H.Dahms@usace.army.mil, (765) 327-1531 Civil Works Operations	Logistics/Directorate of Logistics/G4, DRU Engineer Ms. Marti Sedgwick margaret.w.sedgwick@usace.army.mil (910) 232-9600 USACE Logistics (ULA)	Geospatial Program Manager, Installations Support Mr. Jay Plucker julius.plucker2@usace.army.mil +49 (0) 611 9744 2736 CENAU, Europe District
AMP/CUP Program Manager Mr. Murty Dinivahi murty.v.dinivahi@usace.army.mil (972) 302-7792 Military Programs	National Sustainability Program Manager Mr. Lester Facey Lester.Facey@usace.army.mil (202) 761-8884 Military Programs, Environmental Division	Huntsville Program Manager Mr. Jason Bray Jason.a.bray@usace.army.mil (256) 895-1514 Huntsville Engineering Center

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