EV Update - 2025

Kurt Hauser – Missouri River Energy Services

October 21, 2025

Definitions

- BEV – Battery Electric Vehicle
- PHEV – Plug In Hybrid Electric Vehicle
- PEV – Combination of BEV and PHEV

Top Q3 2025 Takeaways

1. Federal $7,500 (new) and $4,000 (used) EV incentives end Sept 30, 2025
2. EV sales up ~12% in August YOY
3. Tesla sales down; most other OEMs sales up
4. Clear finite demand for current gen BEV pickups
5. Supply improving (market gaps in EV product offering being filled)
6. AC and DC charging power increasing
7. U.S. vehicle industry facing a rapidly advancing global market

Photo credit: Dan Bowermaster, EPRI, September 2025 (San Francisco)

Supply Challenges Remain – A Qualitative Assessment

ELECTRIC TRANSPORTATION

Do the top 25 best-selling vehicles offer a plug-in option at an affordable price across the U.S.?

2024 Best-Selling Vehicles (1-13)	Plug-in Option	Widely Available	Price vs. ICE
Ford F-Series			
Chevrolet Silverado			
Toyota RAV4			
Tesla Model Y			
Honda CR-V			
Ram Pickup	Coming in 2025 → 2026	Coming in 2025 → 2026	Coming in 2025 → 2026
GMC Sierra			
Toyota Camry			
Nissan Rogue			
Honda Civic			
Toyota Corolla			
Jeep Grand Cherokee			
Chevrolet Equinox			

2024 Best-Selling Vehicles (14-25)	Plug-in Option	Widely Available	Price vs. ICE
Hyundai Tucson			
Chevrolet Trax	Bolt II coming in 2025 → 2026	Bolt II coming in 2025 → 2026	Coming in 2025 → 2026
Ford Explorer			
Toyota Tacoma			
Subaru Crosstrek			
Subaru Forester			
Toyota Highlander			
Subaru Outback			
Honda Accord			
Kia Sportage			
Toyota Tundra			
Nissan Sentra	Coming in 2026		

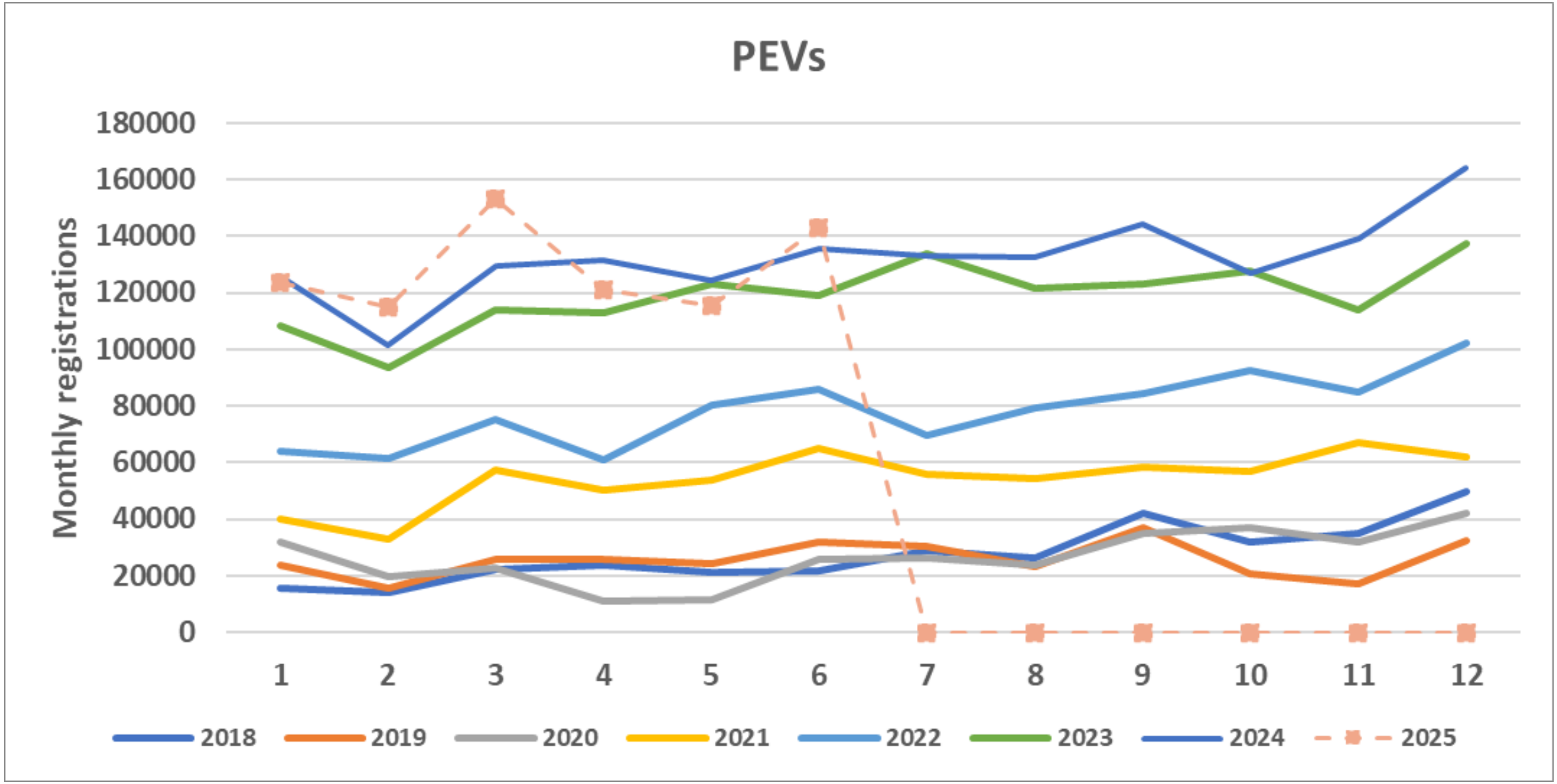
2025 YTD highlights - EVs

Expect varied reactions by OEMs to changing federal policy and global competition

- HITS
  1. Affordable upcoming EVs
  2. Significant EV sales increase in Q3
     - Hyundai +153% for September[1]
     - GM +107%[2]
     - Ford +30%[3]
     - Kia EV6 +31%; EV9 +48%[4]
     - Honda Prologue +151%[5]
     - Rivian +38% for Q3[6]
  3. Ford and GM capture $7,500 for 2025 leases
  4. Hyundai, Lucid offer $7,500 off for 2025
  5. Hyundai drops prices $10K for 2026
  6. 15 states continue to offer EV rebates

1. Source: Road & Track.com, accessed October 1, 2025
2. Source: InsideEVs.com, accessed October 1, 2025
3. Source: InsideEVs.com, accessed October 1, 2025
4. Source: InsideEVs.com, accessed October 1, 2025
5. Source: AutoNews.com, accessed October 2, 2025
6. Source: AutoNews.com, accessed October 2, 2025

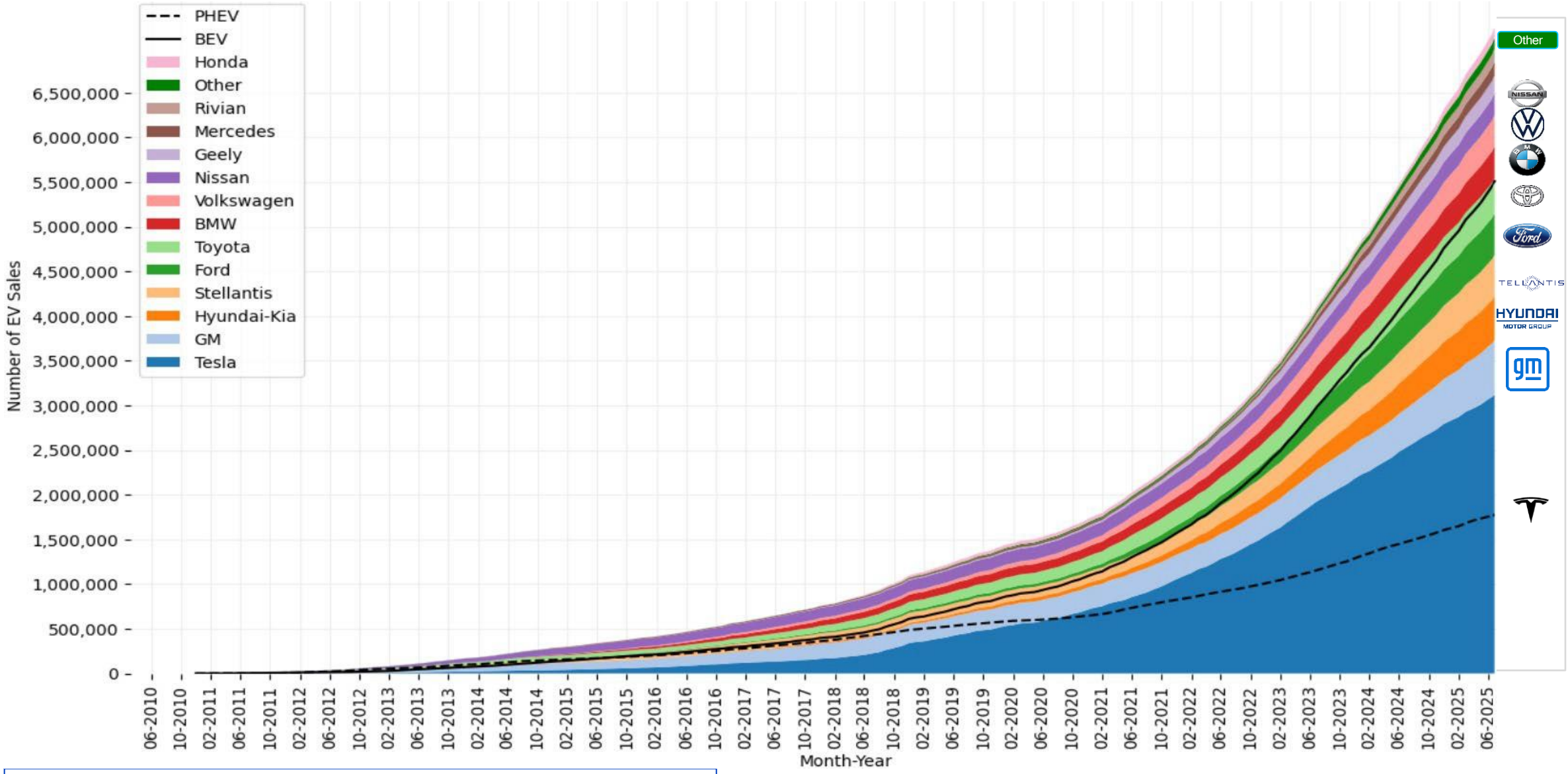
Photo credit: Dan Bowermaster, EPRI, September 2025 (San Francisco, California)


PEVs
Monthly registrations
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
2
3
4
5
6
7
8
9
10
11
12
2018
2019
2020
2021
2022
2023
2024
2025

Over ~7M EVs Have Been Sold Since December 2010

ELECTRIC TRANSPORTATION

U.S. EV Sales Through 8/1/2025 =~24 TWh in New Load | 2025 U.S. EV Sales =~922.8K



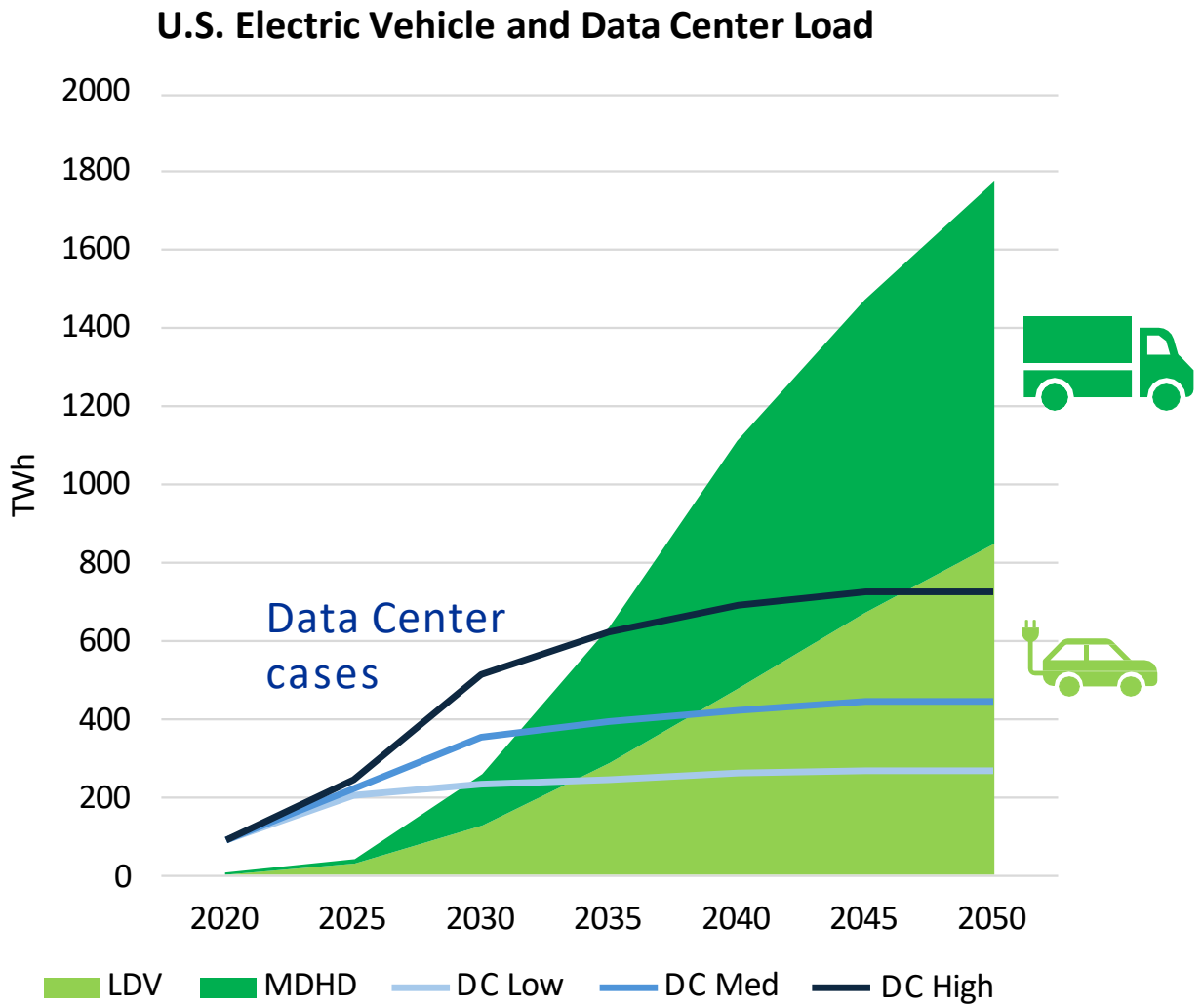
Other includes: Mazda, Mitsubishi, Lucid, Jaguar Land Rover, Fisker, VinFast, Ferrari, McLaren, Karma, etc.

Data Courtesy of Experian, 2025

EPRI

Emerging loads: Data Centers & Electric Transportation

- DC is larger now and growing faster than EV load in U.S.
- Ceiling is (likely) higher for EV load in the long-run
- Significant uncertainty around projections – current research is exploring a broader range of scenarios
- Some overlap on grid impact, but ET largely affects distribution, service planning, service transformers (data centers impact substations, transmission, generation)



Data center scenarios based on Powering Data Centers report

Vehicle load based on current US-REGEN Reference scenario

PEV Sales

Percentage of All New Vehicle Sales - 1st Quarter 2025

- Nationwide
  - 7.5% (7% of all new vehicle sales in 2024)
- Minnesota – 6.2 %
- Iowa – 3.6%
- South Dakota – 3.1%
- North Dakota – 0.8%

Jeep Wrangler 4xe

EV Registrations by State – In Member Zip Codes

Light-Duty Vehicles in MRES Member Zip Codes

Iowa – 250 PEVs
EVs make up 0.33% of all registered vehicles in Iowa MRES member zip codes.

Minnesota – 962 PEVs
Minnesota zip codes show the highest EV concentration at 0.43%.

North Dakota – 31 PEVs
ND zip codes within MRES member territory show 0.19% EV penetration.

South Dakota – 353 PEVs
SD MRES member zip codes have 0.36% of their vehicle registrations as electric.

All Member Zip Codes

- 2025 = 0.385% of registered vehicles
- 2025
  - 57% - BEV
  - 43% - PHV
- Total increase of 3.5 times over 2021

Class	2021	2025
BEV	202	907
PHEV	254	689
TOTAL	456	1596

Iowa Member Zip Codes – Vehicles On The Road

- 2025 = 0.324% of registered vehicles
- Highest percentage in Pella (0.686%), Kimballton (0.579) and Sioux Center (0.517)
- Total increase of 2.34 times

Class	2021	2025
BEV	47	132
PHEV	60	118
TOTAL	107	250

Tesla Model S

			Iowa - 2025 - March			
Town	**zip**	**BEV Count**	**PHEV Count**	**BEV + PHEV**	**Total Vehicles**	**% BEV + PHEV**
Alton	51003	1	2	3	1918	0.156
Atlantic	50022	14	7	21	8462	0.248
Denison	51442	7	12	19	9556	0.199
Hartley	51346	1	0	1	2732	0.037
Hawarden	51023	1	1	2	3834	0.052
Kimballton	51543	2	1	3	518	0.579
Lake Park	51347	0	1	1	1829	0.055
Manilla	51454	0	3	3	1522	0.197
Orange City	51041	15	8	23	6675	0.345
Paullina	51046	3	1	4	2018	0.198
Pella Municipal	50219	46	49	95	13856	0.686
Primghar	51245	5	2	7	1586	0.441
Remsen	51050	0	3	3	2955	0.102
Rock Rapids	51246	2	8	10	4281	0.234
Sanborn	51248	0	0	0	2053	0.000
Shelby	51570	1	1	2	1274	0.157
Sioux Center	51250	31	16	47	9091	0.517
Woodbine	51579	3	3	6	2881	0.208
Total	Total	132	118	250	77041	0.325

North Dakota Member Zip Codes

- 2025 = 0.188% of registered vehicles
- Highest percentage in Riverdale (0.321%) and Hillsboro (0.254)
- Total increase of 3.9 times

Class	2021	2025
BEV	3	19
PHEV	5	12
TOTAL	8	31

Hyundai IONIQ 5

			North Dakota - 2025 - March			
Town	**zip**	**BEV Count**	**PHEV Count**	**BEV + PHEV**	**Total Vehicles**	**% BEV + PHEV**
Cavalier	58220	1	1	2	2638	0.076
Hillsboro	58045	3	4	7	2758	0.254
Lakota	58344	0	0	0	1138	0.000
Northwood	58267	2	1	3	1733	0.173
Riverdale	58565	1	0	1	312	0.321
Valley City	58072	12	6	18	7896	0.228
Total	Total	19	12	31	16475	0.188

South Dakota Member Zip Codes

- 2025 = 0.356% of registered vehicles
- Highest percentage in Vermillion (0.662%) and Brookings (0.631)
- Total increase of 3.29 times

Chevrolet Equinox EV

Class	2021	2025
BEV	47	181
PHEV	60	172
TOTAL	107	353

			South Dakota - 2025 - March			
Town	**zip**	**BEV Count**	**PHEV Count**	**BEV + PHEV**	**Total Vehicles**	**% BEV + PHEV**
Beresford	57004	7	4	11	4408	0.250
Big Stone City	57216	1	3	4	1412	0.283
Brookings	57006	61	71	132	20931	0.631
Burke	57523	0	0	0	1597	0.000
Faith	57626	0	1	1	1508	0.066
Flandreau	57028	1	5	6	3694	0.162
Fort Pierre	57532	5	5	10	3889	0.257
Pickstown	57367	0	0	0	263	0.000
Pierre	57501	15	12	27	19709	0.137
Vermillion	57069	35	22	57	8608	0.662
Watertown	57201	53	45	98	28035	0.350
Winner	57580	3	4	7	5144	0.136
Total	Total	181	172	353	99224	0.356

Minnesota Member Zip Codes

- 2025 = 0.434% of registered vehicles
- Highest percentage in Staples (1.125%) and Alexandria (0.779)
- Total increase of 3.67 times

Ford F-150 Lightning

Class	2021	2025
BEV	126	575
PHEV	136	387
TOTAL	262	962

			Minnesota - 2025 - March			
Town	**zip**	**BEV Count**	**PHEV Count**	**BEV + PHEV**	**Total Vehicles**	**% BEV + PHEV**
Adrian	56110	3	2	5	2120	0.236
Alexandria	56308	152	56	208	26715	0.779
Barnesville	56514	14	5	19	4251	0.447
Benson	56215	3	8	11	4692	0.234
Breckenridge	56520	4	1	5	3909	0.128
Detroit Lakes	56501	42	24	66	17850	0.370
Elbow Lake	56531	4	5	9	2314	0.389
Henning	56551	2	1	3	2673	0.112
Hutchinson	55350	74	32	106	17934	0.591
Jackson	56143	11	6	17	4698	0.362
Lake Park	56554	8	1	9	3330	0.270
Lakefield	56150	0	1	1	3138	0.032
Luverne	56156	11	8	19	6290	0.302
Madison	56256	1	2	3	2798	0.107
Marshall	56258	22	26	48	13207	0.363
Melrose	56352	9	6	15	6112	0.245
Moorhead	56560	100	57	157	32320	0.486
Ortonville	56278	1	2	3	2757	0.109
Sauk Centre	56378	14	9	23	8577	0.268
St. James	56081	9	8	17	6285	0.270
Staples	56479	6	62	68	6044	1.125
Wadena	56482	9	4	13	6517	0.199
Westbrook	56183	0	1	1	1383	0.072
Willmar	56201	61	48	109	21861	0.499
Worthington	56187	15	12	27	13511	0.200
Total	Total	575	387	962	221706	0.434

MRES EV Charger Rebate Program

Supporting Home Charging Infrastructure

133 ChargePoint Rebates
MRES provided 133 rebates specifically for ChargePoint connected EV chargers.

64 Other Charger Rebates
An additional 64 rebates were issued for EV chargers from other brands.

197 Total Rebates Issued
Combined, MRES supported 197 EV charger installations across its member service area.

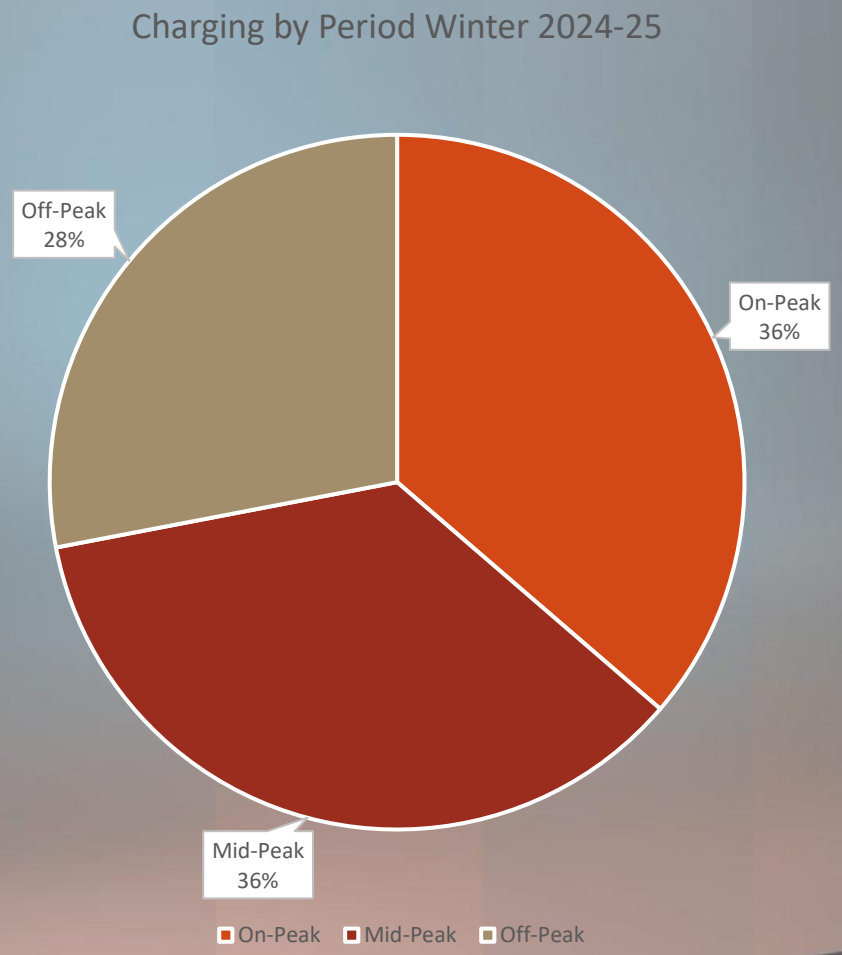
119 ChargePoint Chargers Online
Of the 133 ChargePoint chargers rebated, 119 are still connected and being monitored for charging patterns.

Time of Use Rates

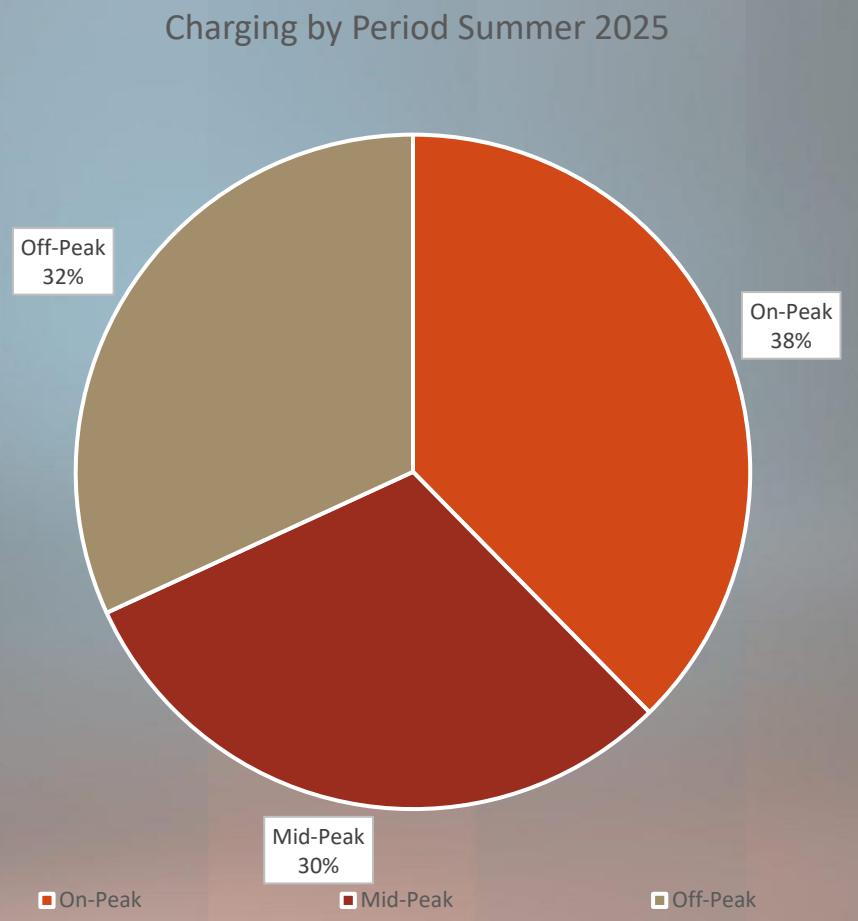
TOU Energy Blocks

	Summer:	Winter:	Spring/Fall:
	June-August	December-February	March-May, September-November
Weekday			
On Peak	12PM – 8PM	6AM-10AM, 4PM-8PM	None
Mid Peak	6AM-12PM	10AM-4PM	6AM-8PM
Off Peak	8PM-6AM	8PM-6AM	8PM-6AM
Weekend/Holiday			
Mid Peak	6AM-8PM	6AM-8PM	6AM-8PM
Off Peak	8PM-6AM	8PM-6AM	8PM-6AM
Holidays are the 6 standard NERC holidays. New Years, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas			

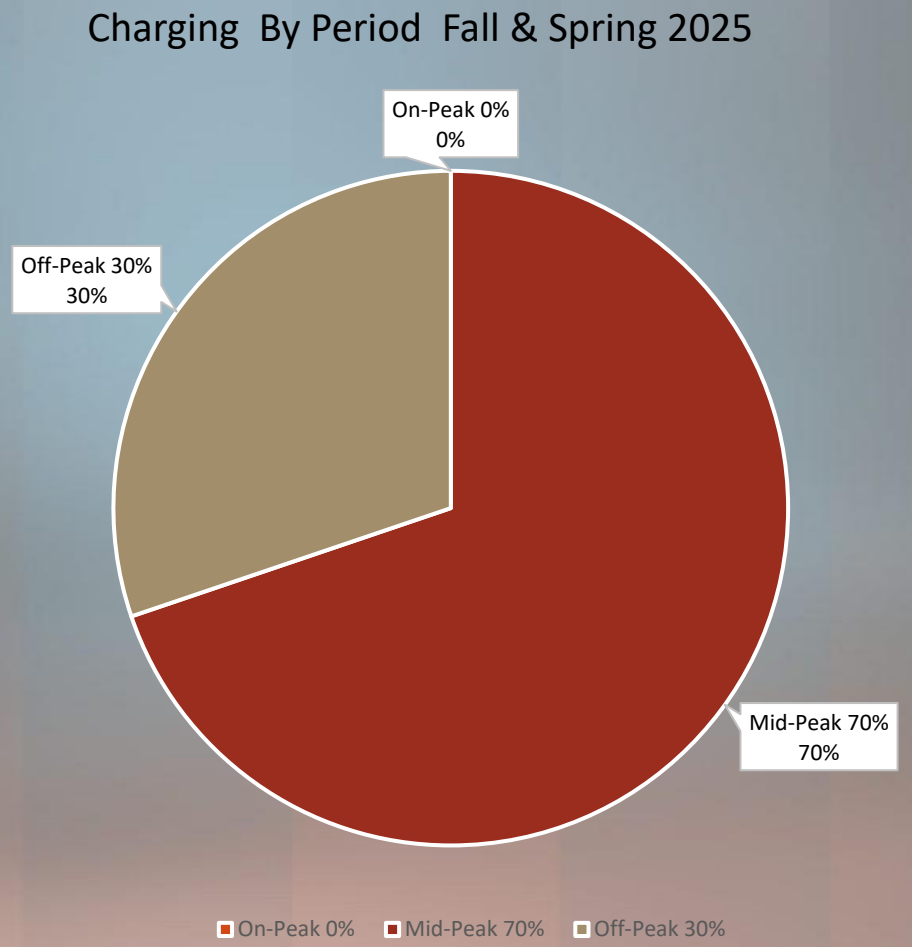
Winter Charging



Summer Charging



Fall and Spring



iONNA™

Interconnection Request & Load Management

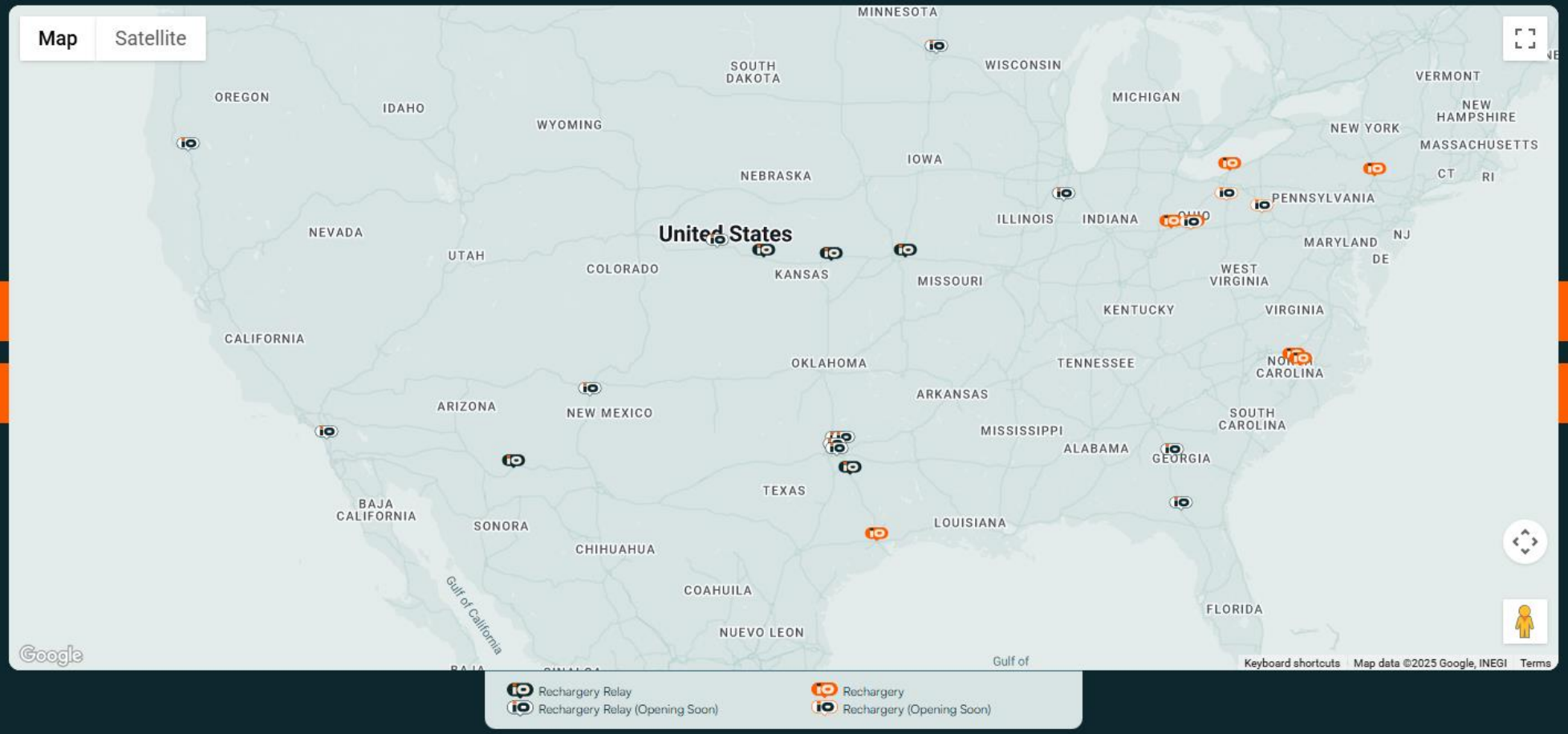
Rechargery

- Full experience & amenities, branded or partnered with 10-16 Charging Bays
- IONNA controlled **Outdoor / Indoor customer experience** with as many pull through bays as possible
- IONNA-Standard features **Plus IONNA Amenities** like Retail/Restrooms/ Wi-Fi/Vending/Lounge/Co-Working/Other

Rechargery Relay

- 8 to 14 400kW+ Charging Bays
- **Branded dispenser & canopies** (adapted to AHJ /partner/ location requirements
- Trash-cans/window cleaning /air pressure/pet features by IONNA and/or partner
- **Retail & Restroom through retail partner, or accessible nearby**

Network Today



Public EV Charging Load

Electric Vehicles are the load.

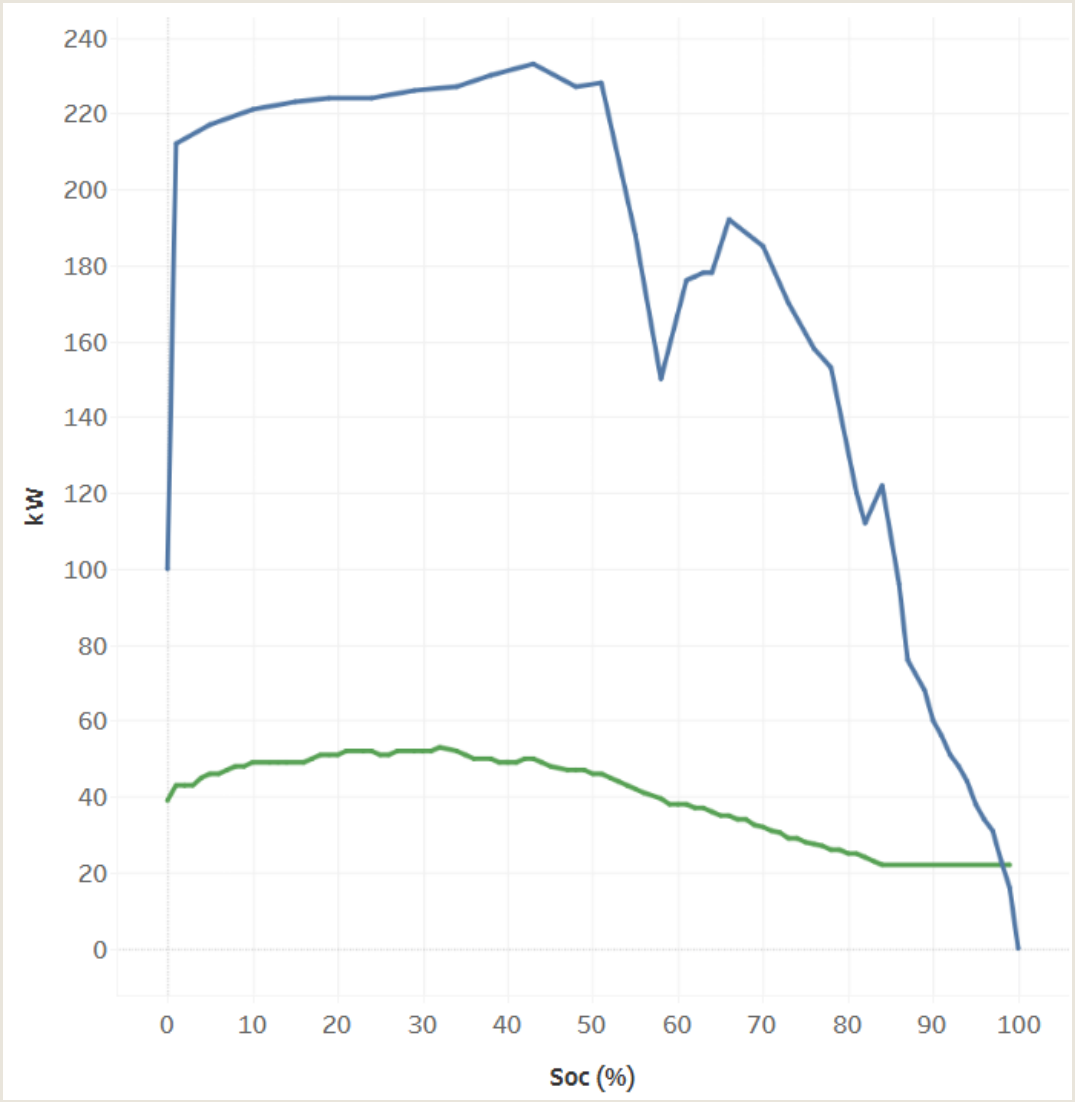
EV chargers are the device that serves the load.

Power demand at a station will vary based on:

- # vehicles charging
- Model of EV: vehicle's maximum charge rate is dependent on battery
- State of Charge when vehicle pulls up

Chevy Bolt

Kia EV6



Charging curve based on:

- fully precondition battery
- plug in at 0% state of charge.

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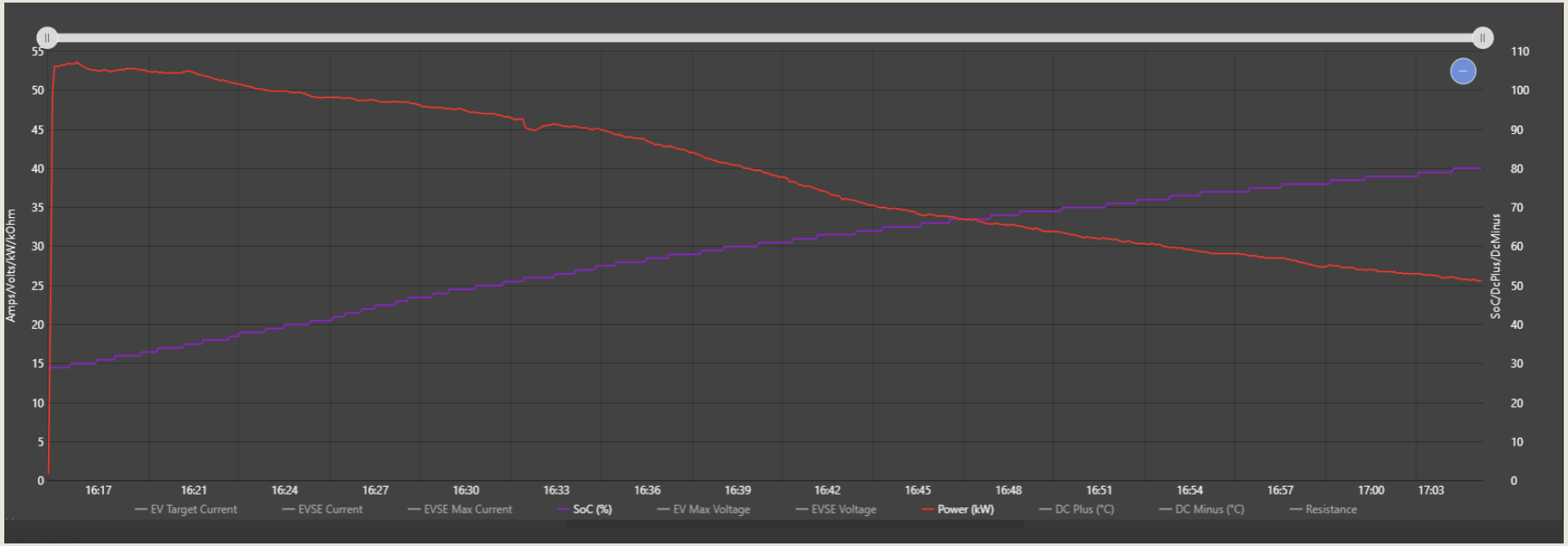
Real Data at IONNA Chargers

State of Charge | kW

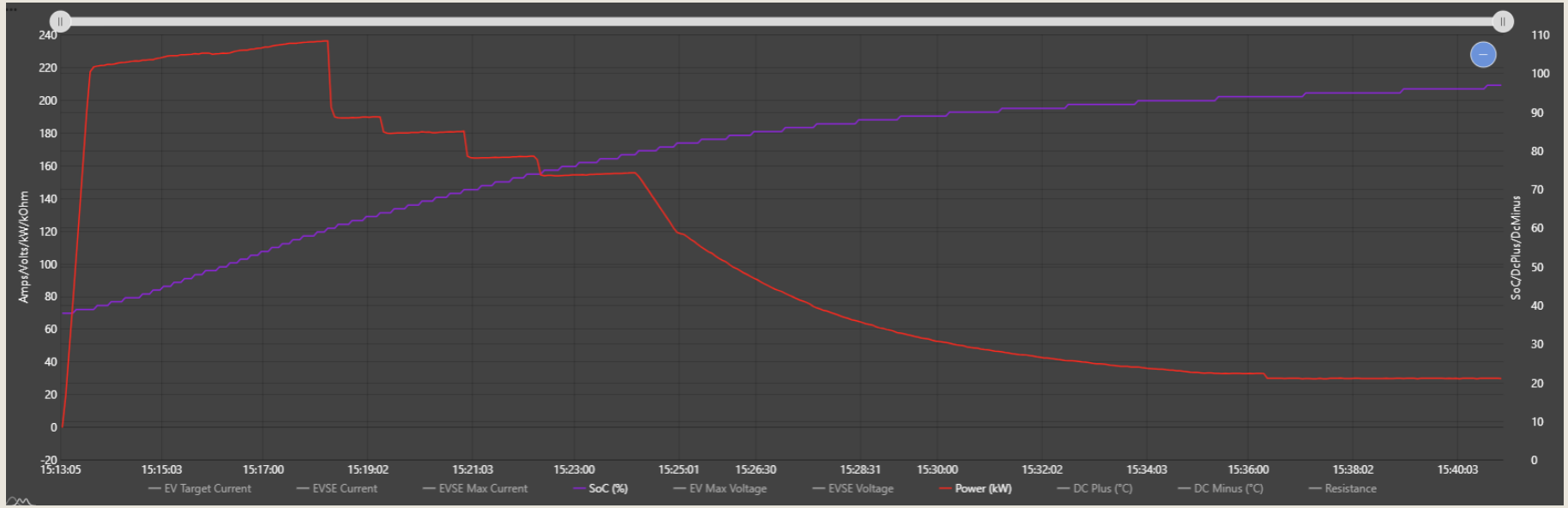
Chevy Bolt

SoC: 29% - 80%
Peak: 53 kW
Average: 39 kW



Kia EV6

SoC: 38% - 97%
Peak: 236 kW
Average: 108 kW



Our Target Interconnect Request

		6 chargers (12 bays)	5 chargers (10 bays)	4 chargers (8 bays)	3 chargers (6 bays)
Nominal Nameplate Capacity	Power Request 100% Load Factor	2.4 MW	2 MW	1.6 MW	1.2 MW
	Transformer kVA	2500	2000	1500	1000
	Input Amps per Charger	480 FLA			
	Main Circuit Breaker Rating	3000A	2500A	2000A	1600A
Target Interconnection Using 60% Diversity Factor	Power Request 60% Load Factor	1.44 MW	1.2 MW	960 kW	720 kW
	Transformer kVA	1500	1500	1000	1000
	Input Amps per Charger	480 FLA			
	Main Circuit Breaker Rating	2000A	2000A	1600A	1600A

IONNA™

Orange EV – Jackson, MN

Proprietary Motor Vehicle Data – Internal Utility Use Only

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Remember – EV's Rock!

Contact Info:

Kurt Hauser
Missouri River Energy Services
kurt.hauser@mrenergy.com
Cell: 605-660-9029