

**CONFIDENTIAL INFORMATION – 20 CSR 4240-2.135(2)(A)1**

**File No. ET-2018-0132**

**Ameren Missouri Charge Ahead Quarterly Report  
Electric Vehicle Charging – Corridors and Local Incentives  
Report for June 2021**

This report comprises the fifth quarterly report on the subject case and topics. The report includes this narrative document as well as two associated Excel spreadsheet files, a table of EV registration data, and an update on the WattTime pilot. Note the due dates for the quarterly reports for each portion of Charge Ahead are as follows:

Corridors	Initial report due 30 days after the anniversary date of the tariff effective date, or June 26, 2020. Subsequent reports will be provided on a quarterly basis.
Local	Within 90 days of the end of each program quarter. Given the program began on January 13, 2020, the due date is roughly the end of June.

Ameren Missouri has combined these reports since the subject matter is related and for ease of production and review by interested stakeholders.

**Corridor Charging Program (background)**

Ameren Missouri pursued a competitive bid "reverse auction" approach to procuring one or more vendors to work with Ameren Missouri business customers to set up the corridor charging per the approved program tariff. The pricing component requested how much incentive from Ameren Missouri would be needed to accomplish the proposed projects to set up the specified charging in designated communities throughout the Ameren Missouri territory. In-person interviews were held with the two top proposals. After interviews, LilyPad EV was unanimously confirmed as the best choice for the Charge Ahead Corridors project. LilyPad EV, along with partners ChargePoint and Sachs Electric have been working with customers in the designated communities outlined in the case. A total of 11 companies and/or partnerships were solicited for 2020 and the \$4 million incentive budget will accommodate three more sites (planned for Eureka, Ironton and Sikeston) in 2021, which will result in a total of up to 14 corridor locations. Note that the tariff allowed for 8-15 sites.

Ameren Missouri's assessment that incentives of up to \$360,000 per site may be necessary was relatively accurate. While the costs for each site will vary based on unique site conditions and line extension requirements, the rough average is about \$290,000 per site. LilyPad EV, in their bid, provided an estimate per site that was based on certain reasonable assumptions. As the design for each site is finalized with the business customer and the line extension costs are determined in detail, a final cost for each site is developed.

Each site has the same configuration of charging equipment. Two ChargePoint CPE-250s, each having the capability to provide up to 62.5kW of power and that paired can provide up to 125kW, and two CP-4001 Level 2 chargers providing 6.6kW each. Any modern EV can charge at these stations.

### Education and Outreach

We're actively raising awareness of the Corridor Charging Program with education and outreach efforts. To-date, our marketing activities have included the following efforts:

- Earned media (TV news, print publications, radio interviews) and social media (Twitter, Facebook, etc.)
- Outreach to municipalities, business and professional associations through newsletters and speaking opportunities
- Outreach through Key and Regional Account Executives
- Developed a Corridor Charging Program brochure provided with third quarterly report in December 2020 and available at the Ameren Missouri EV Website page:

<https://www.ameren.com/missouri/residential/electric-vehicles/resources>

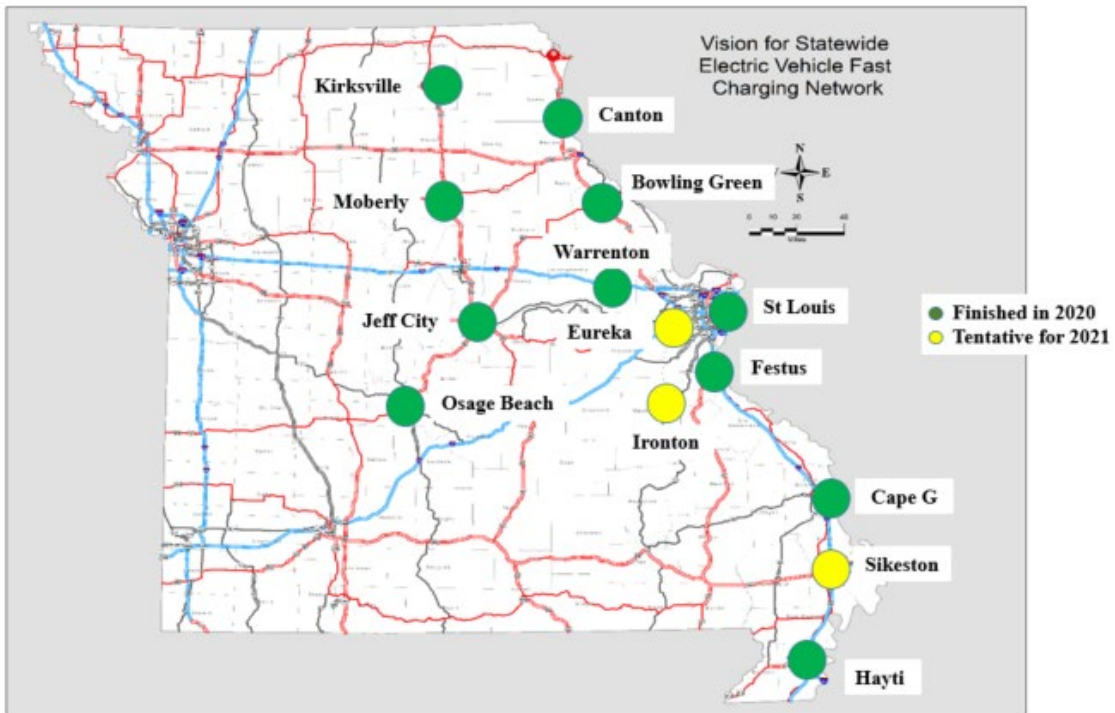
### Costs

The table below contains basic project information, including site status and costs. Program costs have been on-target with assumptions made in development of the program. The total number of sites (14) that will be developed through 2021 will be just under the total \$4,000,000 budget allocated for this program.

### Charge Ahead Corridors – Sites Status and Costs Table

**\*\*Table Confidential**  
**in its Entirety\*\***

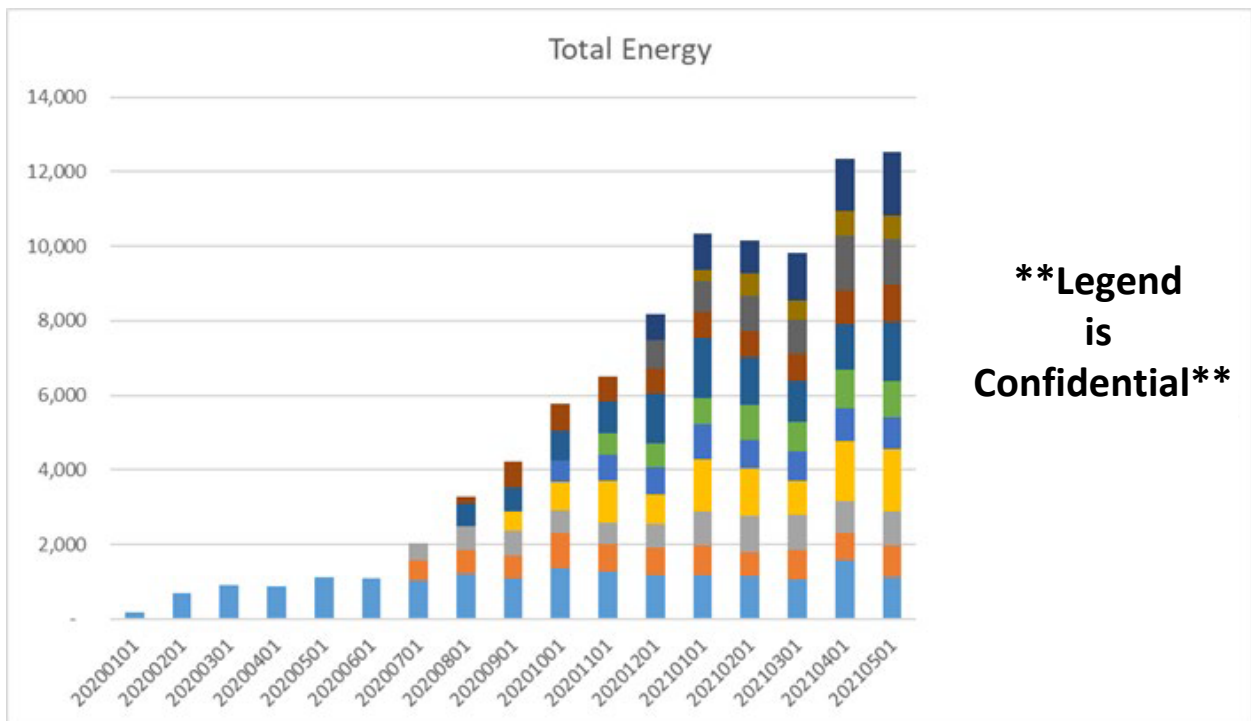
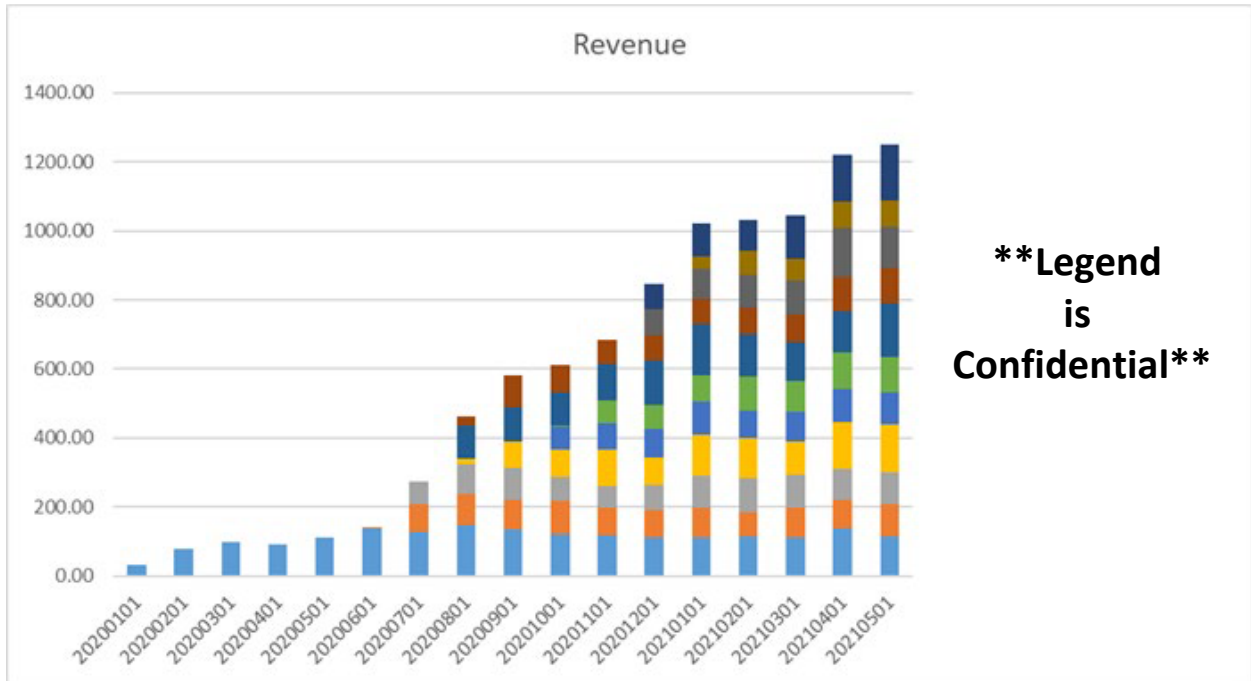
### Charge Ahead Corridors – Progress Map



The charts below show the **revenue, energy, and number of sessions** by month for the following locations:

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More usage reporting will be developed for the additional sites in subsequent quarterly reports.





The charts below represent the "Uptime" in 2021 Q2 for the following locations:

\*\* \_\_\_\_\_ \*\*

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	265	24	\$ 59.63	33	111	8	8	100.00%
	267	16	\$ 60.11	34	112	7	8	100.00%
	62	20	\$ 0.00	8	26	13	13	100.00%
	452	23	\$ 101.63	57	190	11	12	100.00%
	867	42	\$ 195.05	109	364	25	26	100.00%
**	343	31	\$ 67.73	43	144	59	67	100.00%

\*\* \_\_\_\_\_ \*\*

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	138	12	\$ 37.28	17	58	3	4	100.00%
	369	24	\$ 99.71	46	155	10	10	100.00%
**	123	17	\$ 24.35	15	52	21	24	100.00%

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Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	417	20	\$ 93.88	52	175	13	16	100.00%
	182	17	\$ 40.86	23	76	6	7	100.00%
**	48	17	\$ 9.42	6	20	19	23	100.00%

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Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	410	26	\$ 92.28	51	172	8	9	100.00%
	332	23	\$ 74.61	42	139	6	6	54.69%
**	164	21	\$ 29.39	21	69	30	41	100.00%

\*\* \_\_\_\_\_ \*\*

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
** [REDACTED]	11	2	\$ 0.00	1	5	4	4	100.00%
	267	64	\$ 0.00	34	112	50	51	99.98%
	636	41	\$ 143.23	80	267	16	20	100.00%
	700	40	\$ 157.51	88	294	16	17	94.25%
	220	26	\$ 49.55	28	92	7	8	83.01%
	1,315	77	\$ 295.81	165	552	38	40	100.00%
	172	73	\$ 0.00	22	72	32	34	100.00%
	321	36	\$ 72.30	40	135	8	9	96.99%
	541	41	\$ 121.72	68	227	17	18	100.00%
	** 163	22	\$ 0.00	20	68	28	29	100.00%

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Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
** [REDACTED]	147	10	\$ 33.13	18	62	4	4	93.50%
	101	12	\$ 22.80	13	43	3	3	100.00%
	** 85	12	\$ 17.42	11	36	14	14	100.00%

Direct Revenues from Corridors

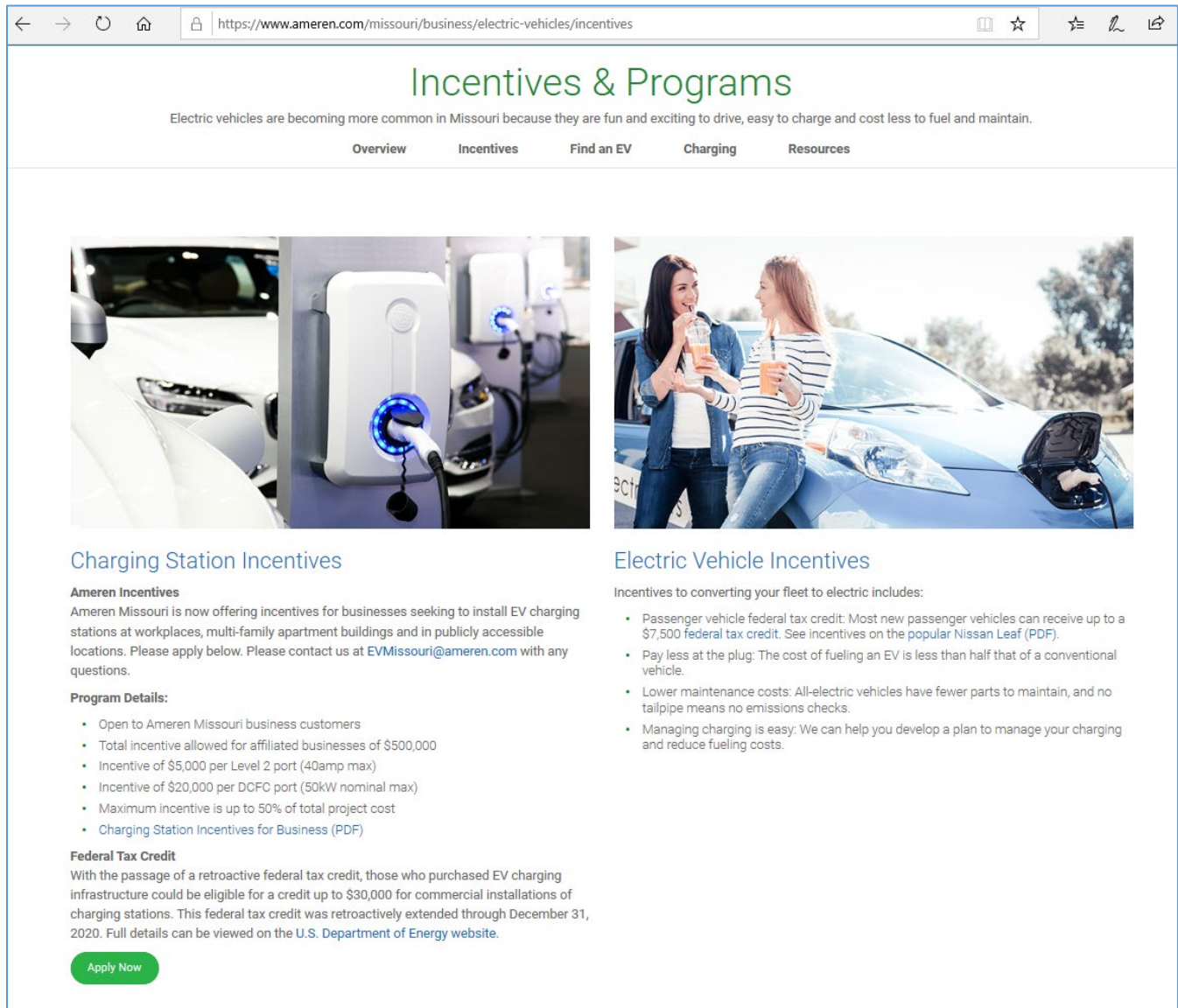
This chart represents the monthly direct revenue data for the corridor sites listed below.

Revenue													
	**											**	
20200101	32.55												
20200201	78.14												
20200301	96.32												
20200401	92.05												
20200501	110.40												
20200601	137.63	3.39											
20200701	128.85	79.05	64.35										
20200801	147.79	89.27	87.46	15.32				96.04	27.05				
20200901	135.35	86.17	90.85	75.43				101.77	92.24				
20201001	120.37	96.11	68.64	80.69	65.54	2.67		96.86	78.79				
20201101	116.57	79.09	65.85	106.08	76.34	65.55		104.22	71.47				
20201201	112.7	77.33	73.25	81.19	79.74	70.52		128.25	73.71	77.53			71.56
20210101	111.79	84.23	94.33	119.1	94.97	75.55		149.9	75.08	85.43	35.2		97.78
20210201	113.4	70.86	99.13	115.34	81.19	97.24		122.11	77.51	96.44	69.31		90.59
20210301	109.77	86.89	97.08	97.23	85.89	88.81		111.79	81.24	96.9	63.03		126.52
20210401	138.05	81.24	89.66	136.4	94.96	105.98		121.55	98.32	141.22	78.05		136.27
20210501	114.67	91.67	94.71	138.6	91.77	103.54		153.61	103.8	121.04	74.69		163.78



## Local Charging Incentive Program

The Ameren Missouri Local Charging Station Incentives Program opened on January 13, 2020, and business customers can apply through the program application portal linked to the green "Apply Now" button on the Ameren Missouri EV business incentives Web page:





https://www.ameren.com/missouri/business/electric-vehicles/incentives

## Incentives & Programs

Electric vehicles are becoming more common in Missouri because they are fun and exciting to drive, easy to charge and cost less to fuel and maintain.

[Overview](#) [Incentives](#) [Find an EV](#) [Charging](#) [Resources](#)





### Charging Station Incentives

**Ameren Incentives**  
Ameren Missouri is now offering incentives for businesses seeking to install EV charging stations at workplaces, multi-family apartment buildings and in publicly accessible locations. Please apply below. Please contact us at [EVMissouri@ameren.com](mailto:EVMissouri@ameren.com) with any questions.

**Program Details:**

- Open to Ameren Missouri business customers
- Total incentive allowed for affiliated businesses of \$500,000
- Incentive of \$5,000 per Level 2 port (40amp max)
- Incentive of \$20,000 per DCFC port (50kW nominal max)
- Maximum incentive is up to 50% of total project cost
- [Charging Station Incentives for Business \(PDF\)](#)

**Federal Tax Credit**  
With the passage of a retroactive federal tax credit, those who purchased EV charging infrastructure could be eligible for a credit up to \$30,000 for commercial installations of charging stations. This federal tax credit was retroactively extended through December 31, 2020. Full details can be viewed on the [U.S. Department of Energy website](#).

[Apply Now](#)

### Electric Vehicle Incentives

Incentives to converting your fleet to electric includes:

- Passenger vehicle federal tax credit: Most new passenger vehicles can receive up to a \$7,500 federal tax credit. See [incentives on the popular Nissan Leaf \(PDF\)](#).
- Pay less at the plug: The cost of fueling an EV is less than half that of a conventional vehicle.
- Lower maintenance costs: All-electric vehicles have fewer parts to maintain, and no tailpipe means no emissions checks.
- Managing charging is easy: We can help you develop a plan to manage your charging and reduce fueling costs.

Thank you for your interest in this program.

To complete the application process, you will need to enter details regarding the following items:

**Your Contact and Business Information**

- Business Name
- Address, Phone/Email
- Ameren Missouri Electric account number
- Contact Name
- Contact Address/Phone/Email
- W9
- Payment preference (check or bill credit). Download the [Payment Release Authorization Form](#) if re-assigning incentive payment to the installer.

**Contractor Information (if not self-install)**

- Contractor Name
- Contractor Address
- Contact Name
- Contact Address/Phone/Email

**Project Information**

- Number of ports and charging rate of each
- Equipment Make
- Equipment Model
- Site Plan including electrical diagram and pictures
- Electrical supply details-panel has sufficient capacity/is capacity review needed/additional service on site requested

**Estimated Costs**

- Equipment (charger, pedestals, cord management etc.)
- Labor
- Site Preparation (trenching/boring, conduit/wiring, concrete/asphalt)
- Battery Storage

**Note: Ameren Missouri must pre-approve project prior to construction**

Are you ready to begin your application?

[Begin Application](#)

### **Administrative and Education Costs**

The administrative costs associated with the Local Charging Incentive Program include development of the application portal and workflow management system developed by Applied Energy Group (AEG). The education costs include the Auto Show and Watt Time Pilot program. We partnered with Reach Strategies to implement a marketing plan to educate customers and bring awareness to the Local Charging Incentive Program. The cost to-date through May 2021 for total administrative and educational costs is approximately \$256,444 and includes the following costs:

- AEG administrative costs \$130,215
- Auto Show (event facilitated by Reach) \$64,835
- Auto Show (charging station exhibits) \$9,064
- Reach Strategies marketing costs \$38,910
- Contractor Support Role for Portal Management \$6,300
- WattTime Pilot \$7,120

### **Education and Outreach Activities**

We're actively raising awareness of the Local Charging Incentive Program with education and outreach efforts. Currently, our marketing activities include the following:

- Virtual Community Events – EV 101: An Introduction to Electric Vehicles
- Electric Vehicle Partners (EVP) Network – monthly training sessions offered to EVPs
- Outreach to municipalities, business and professional associations
- Outreach through Key and Regional Account executives
- Direct email marketing to large and mid-size business customers
- Traditional and earned media (TV, print publications, radio) and social media (Twitter, Facebook, etc.)

The Ameren MO Electrification Team partnered with our Economic Development Team hosted the long drive hole at the Missouri Growth Association spring golf outing. Every golfing group was able to see Ameren's presence and learn about EVs, our charging station incentives and interact with our team of EV experts (tent hosted by Reach Strategies).



The Ameren MO Electrification Team hosted a virtual roundtable event with our Electric Vehicle Partners (EVPs). The purpose of the roundtable is to engage and educate EVPs about available training/resources and also provide a platform for EVPs to share best practices for installing EV charging equipment.

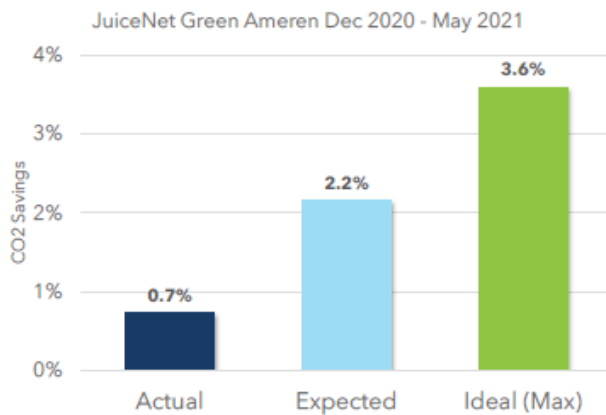


**WattTime Pilot**

WattTime is underway with the Phase 2 evaluation of Automated Emissions Reduction for EVs done by Enel X with their JuiceNet Green product. JuiceNet software was updated to version 3 in April, which brought some features to improve performance but some that may decrease performance of AER. The overall opportunity for savings from December 2020 through May 2021 was lower, due to lower daily variation in the marginal emissions rates. Carbon savings per session has been slightly lower than phase 1, partly because of the lower opportunity for savings, and partly due to a conservative approach in JuiceNet v3 where mobility is prioritized over carbon savings if a user does not engage with the app to enter their charging needs. In the next 1-2 months, WattTime and Enel X plan to expand the pilot project to Missouri EV drivers that already have Enel X JuiceBoxes.

## Preliminary Results: Dec 2020 - May 2021

### Performance Overview

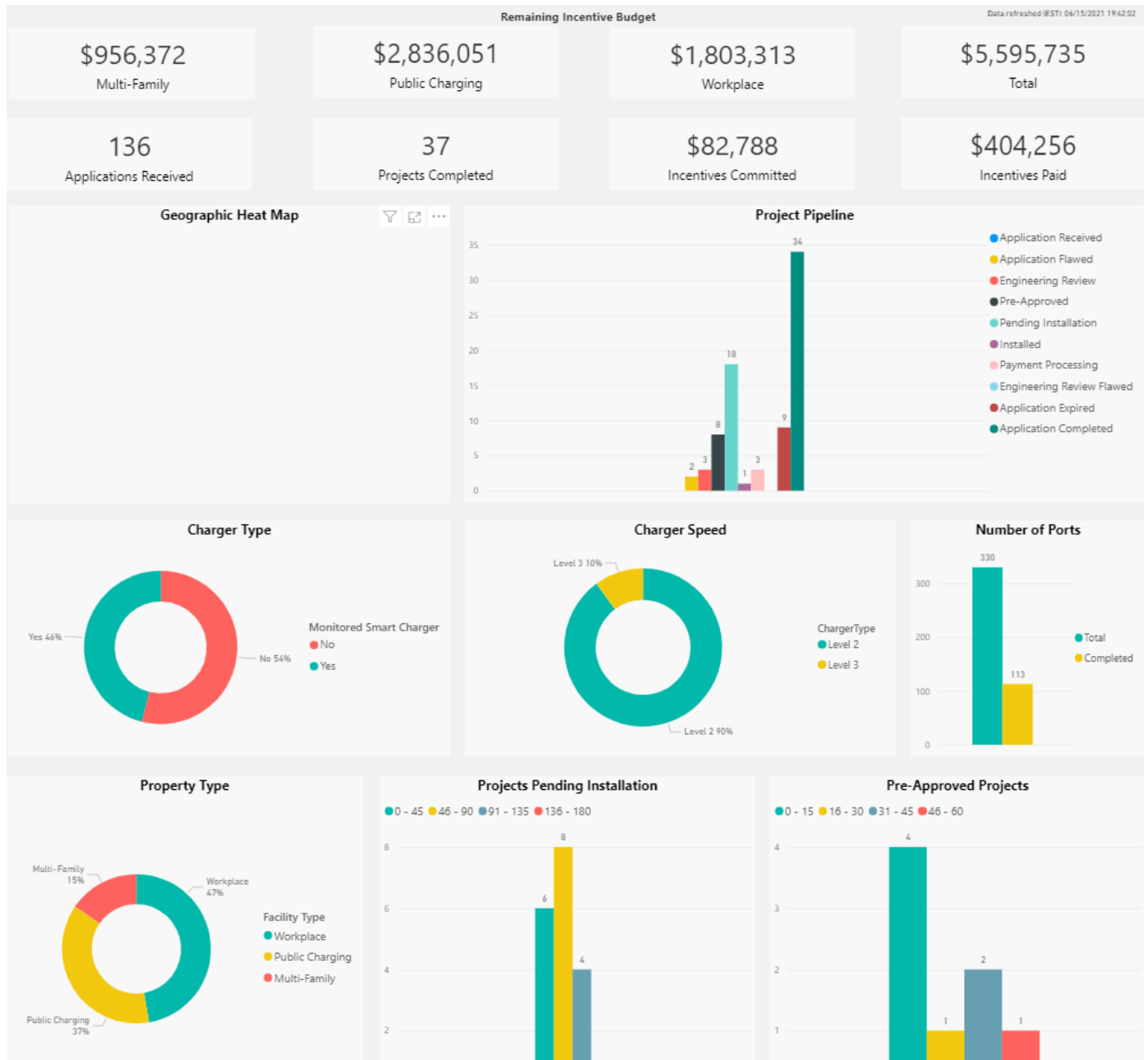


### Charging Activity Summary

Population	10
# of Sessions	777
Plug-IN Time (most frequent)	5:00 PM to 6:00 PM
Plug-OUT Time (most frequent)	7:00 AM to 8:00 AM
Avg Session Length	13.9 Hours
Avg Charge Duration	2.5 Hours
Avg Flexibility	82%
Avg Charge Rate	4.1 kW
Avg Energy Added	10.2 kWh
Avg Miles Added	32 Miles

*The JNG 3.0 version update was released in April 2021.*

Charge Ahead – Local Incentives Dashboard Statistics – Snapshot 6-15-2021



**Smart Charging vs. Basic Charging**

For each of the completed projects listed below, the customers have identified their charging equipment as being a "smart charger." We are currently reaching out to these customers to acquire any utilization data if they are actually collecting data.

Completed Projects	Smart Charging Equipment
** [Redacted]	Siemens/VCSG30GCPUW
[Redacted]	LilyPad/EV CT4000
[Redacted]	Charge Point/CT4021-GW1
[Redacted]	Leviton/EVR-GREEN 4000
[Redacted]	Charge Point/ CT4021 & CT4025
[Redacted]	Charge Point/CT4023-GW1
[Redacted]	Siemens/VCSG30GCPUW
[Redacted]	Enel x/pro 40 c
[Redacted]	Chargepoint 40amps ChargePoint Home Flex, NEMA 14-50 Plug
[Redacted]	Leviton EVR40-B2C
[Redacted]	Charge Point CPF25
[Redacted] **	Charge Point CPF50

**Direct Revenues from Local Charging Stations** *(see workbook for calculations)*

There have been no Local Charging Incentive Program projects with a dedicated meter. Based on the 107 installed chargers (at 32 locations) through 5-28-21, Ameren Missouri estimates a total annual direct load/revenue of \$64,408 to \$79,319 and a total annual direct energy consumed of approximately 951,662 kWh. Please refer to included work papers for information by location. Please note that the variability relates to an estimate of billing demand. The high end of the range assumes that, for all customers on rates which include a demand charge, the charging demand coincided with customer billing demand in all months. The low end of the range assumes that the charging demand never coincided with the customer billing demand in any month.

**Indirect Revenues** *(see workbook for calculations)*

Ameren Missouri receives a snapshot of Missouri registrations from IHS MarkIT on a quarterly basis, approximately seven weeks after the end of the calendar quarter. This report includes baseline and current data through Q1-2021 that reflects numbers for Ameren Missouri territory. See Power BI visual depiction shown at end of this report.

Attachment "AMO Charge Ahead – Revenue Workbook

6-1-21" to this report contains the EV counts by county and type of EV. Note these counts have been proportioned for the percentage of households served by Ameren Missouri in each county.

Ameren Missouri estimates indirect energy load of 28,863,130 kWh and indirect revenue in a range of \$2,235,704 to \$2,380,732. The variability in revenue range relates to a variable estimate of where charging is occurring (Multifamily, Workplace, or Public).



EV Registration Data as Power BI Visuals (includes snapshot from end of May 2021)

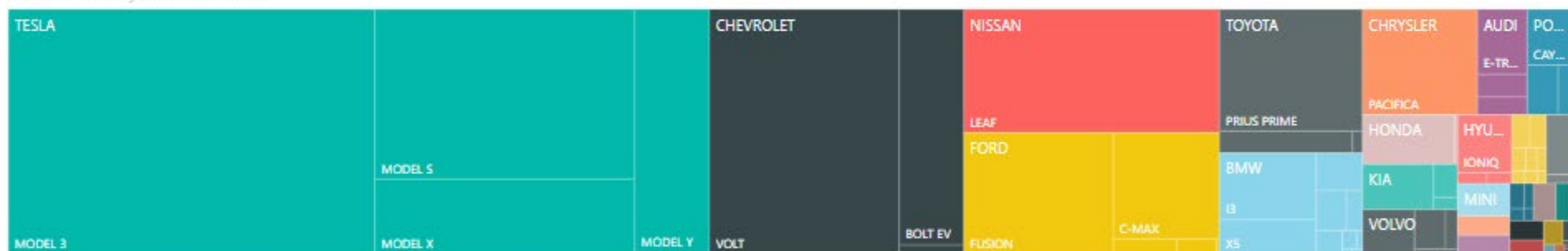
7,057  
AMO EV Total

Year	Quarter	Ameren EV Total	Quarterly Change
2021	Qtr 1	7,057	412
2020	Qtr 4	6,645	361
2020	Qtr 3	6,284	238
2020	Qtr 2	6,046	222
2020	Qtr 1	5,824	357
2019	Qtr 4	5,467	247
2019	Qtr 3	5,220	515
2019	Qtr 2	4,705	341
2019	Qtr 1	4,364	323

Ameren EV Total, Ameren PHEV Total and Ameren BEV Total by DATE and STATE

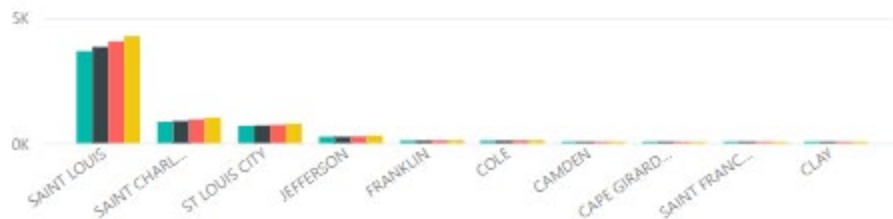


Ameren EV Total by MAKE and MODEL



Ameren EV Total by COUNTY and DATE

DATE ● 2020Q2 ● 2020Q3 ● 2020Q4 ● 2021Q1



● Ameren PHEV Total ● Ameren BEV Total

