

**Ameren Missouri Charge Ahead Quarterly Report - ET-2018-0132
Electric Vehicle Charging – Corridors and Local Incentives
Report for December 2020**

This report comprises the third 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, an update on the WattTime pilot, and a new Corridor Charging brochure. 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 December for the third quarter.

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 2-3 more sites (tentatively 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.

Currently, our marketing activities include 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 (see attachment)
- Open House event promoting the grand opening of the Cape Girardeau and Jefferson City corridor sites (see pictures below)

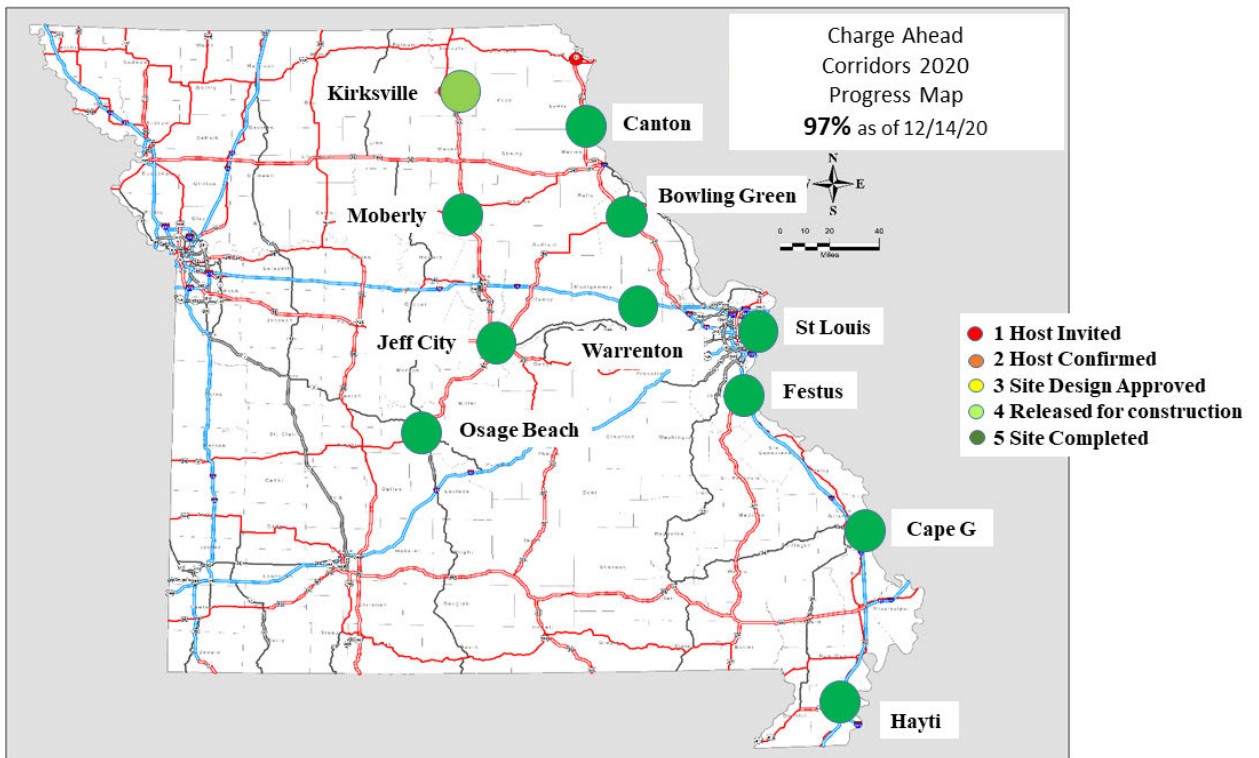
**** Pictures and description CONFIDENTIAL****

Costs

The following table contains basic project information, including site status and costs:

Charge Ahead Corridors – Sites Status and Costs Table

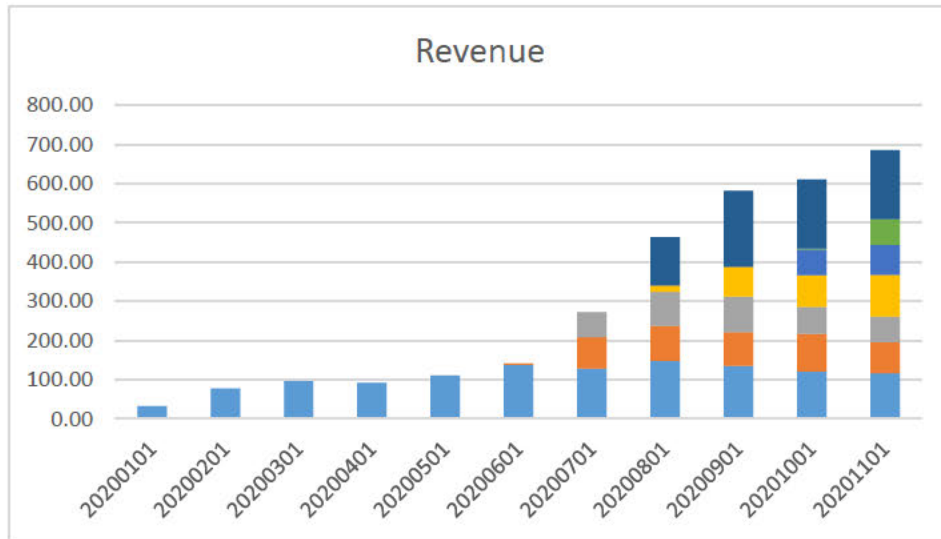
**** Table CONFIDENTIAL in its entirety****



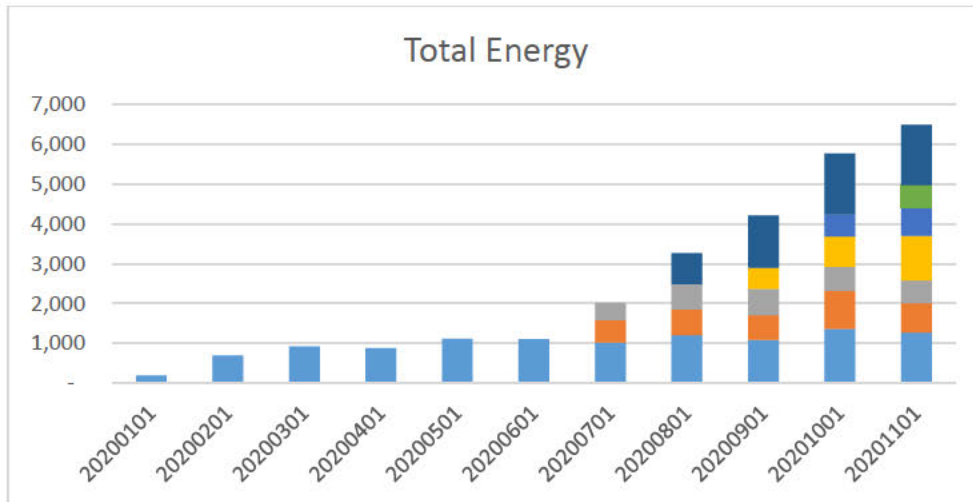
The charts below show the revenue, energy, and number of sessions by month for the following locations:

- ** _____ ** (Light Blue)
- ** _____ ** (Orange)
- ** _____ ** (Grey)
- ** _____ ** (Yellow)
- ** _____ ** (Royal Blue)
- ** _____ ** (Green)
- ** _____ ** (Dark Blue)

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



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The charts below represent the "Uptime" for the following locations:

** _____ ** uptime 2020 Q3

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	31	3	\$ 6.90	4	13	1	1	100.00%
	187	6	\$ 0.00	23	79	5	6	100.00%
	35	4	\$ 0.00	4	15	6	6	100.00%
	64	3	\$ 14.40	8	27	2	2	100.00%
	289	13	\$ 65.10	36	122	7	8	100.00%
	11	7	\$ 2.23	1	5	2	2	100.00%

** _____ **uptime 2020 Q3

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	57	1	\$ 15.37	7	24	1	1	100.00%
	46	2	\$ 12.29	6	19	1	1	100.00%
	2	1	\$ 0.49	0	1	0	0	100.00%

** _____ ** 2020 Q3

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	19	7	\$ 4.19	2	8	1	2	100.00%
	102	8	\$ 22.64	13	43	2	2	-80.05%
	38	13	\$ 6.86	5	16	11	12	100.00%

** _____ ** 2020 Q3

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	101	14	\$ 0.00	13	42	29	37	100.00%
	34	4	\$ 2.48	4	14	1	1	100.00%
	84	11	\$ 15.18	11	35	2	2	100.00%
	51	20	\$ 0.00	6	21	9	10	100.00%
	436	28	\$ 98.09	55	183	12	12	100.00%
	539	33	\$ 121.25	68	226	14	15	100.00%
	130	38	\$ 0.00	16	55	32	33	100.00%

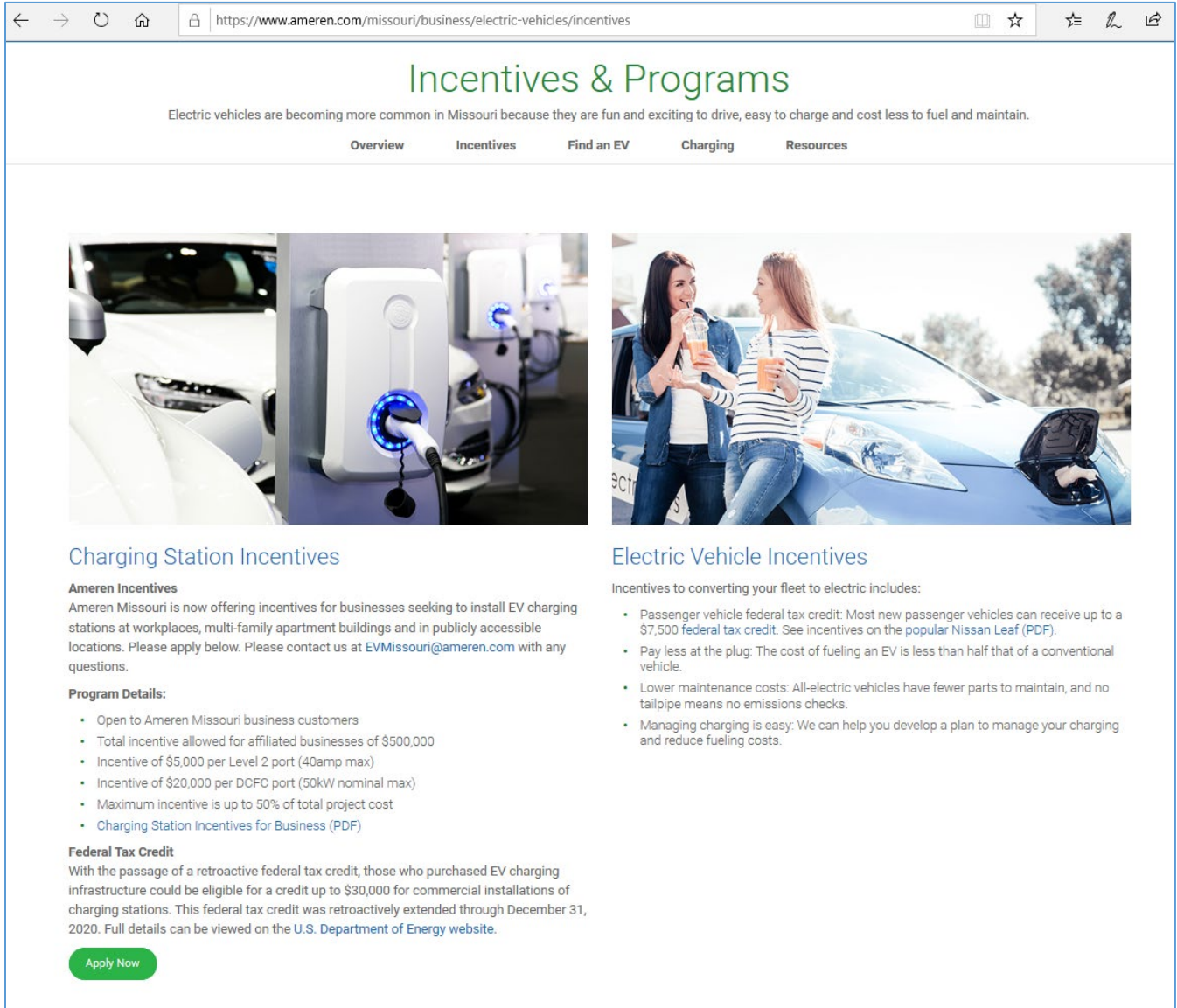
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** _____ ** 2020 Q3

Station Name	Total Energy (kWh)	Total Sessions	Total Fees (\$)	Gasoline Saved (Gal)	GHG Savings (kg)	Charging Hours	Occupied Hours	Uptime (%)
	311	18	\$ 69.98	39	131	7	7	93.52%
	97	6	\$ 21.75	12	41	2	2	100.00%
	66	7	\$ 13.58	8	28	11	11	100.00%

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 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

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; see pictures of the Auto Show below. The cost to-date through December for total administrative and educational costs is approximately \$157,753 and includes the following costs:

- AEG administrative costs \$80,337
- Auto Show (event facilitated by Reach) \$60,835
- Auto Show (charging station exhibits) \$9,461
- WattTime Pilot \$7,120 (Project is still in progress; see accompanying WattTime progress report)

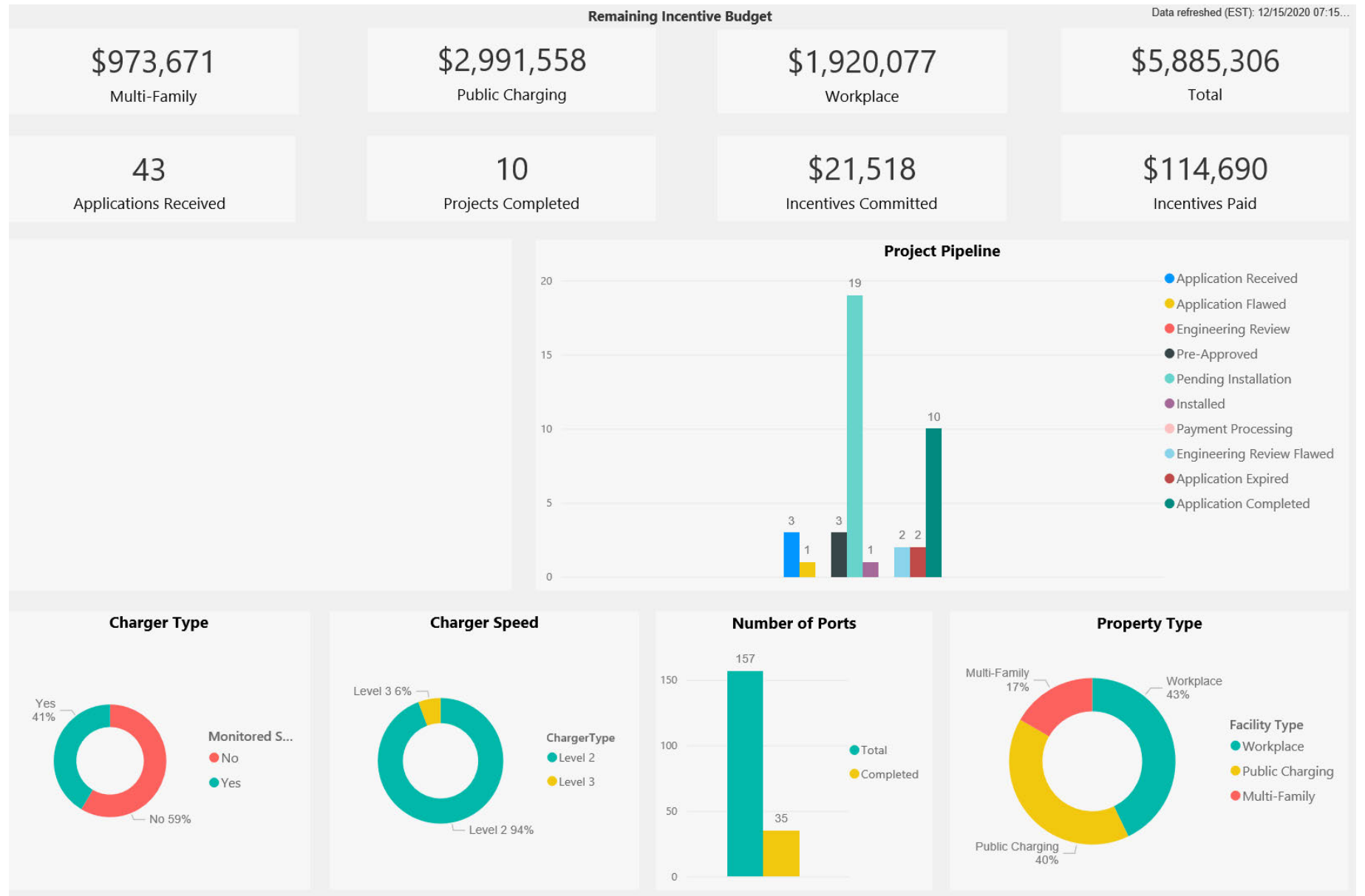
Education and Outreach Activities

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

- Electric Vehicle Partners (EVP) Network – these are trade allies for EV support
- 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.)



Charge Ahead – Local Incentives Dashboard Statistics – Snapshot 12-15-2020



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]	ChargePoint/CT4023-GW1
[REDACTED]	Siemens/VCSG30GCPUW
[REDACTED]	Enel x/pro 40 c

Ameren Missouri Revenues

Revenues related to EV charging can be categorized as "Direct" or "Indirect." Direct EV revenues are those that arise from incremental electricity sold by the Company which flowed through chargers that were incented by the program. Indirect revenues are those for revenues estimated to arise from all EVs in the service territory, which may be served in part through chargers that exist due to the program. These revenues are estimated based on vehicle registrations and various assumptions about their charging behaviors.

Direct Revenues from Corridors

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

Revenue	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
20200101	32.55						
20200201	78.14						
20200301	96.32						
20200401	92.05						
20200501	110.40						
20200601	137.69	3.99					
20200701	128.85	79.05	64.35				
20200801	147.79	89.27	87.46	15.32			123.09
20200901	135.35	86.17	90.85	75.43	0		194.01
20201001	120.97	96.11	68.64	80.69	65.54		2.67
20201101	116.57	79.09	65.85	106.08	76.34		65.55
							175.65
							175.69

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 35 installed chargers (at 10 locations) at current date, Ameren Missouri estimates a total annual direct load/revenue of \$20,776 to \$24,705 and a total annual direct energy consumed of approximately 322,673 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 **September 2020** that reflects numbers for Ameren Missouri territory. See Power BI visual depiction shown at end of this report.

An attachment to this report is the Excel spreadsheet, "AMO Charge Ahead – Revenue Workbook 12-11-20," which 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 25,701,560 kWh and indirect revenue in a range of \$1,990,812 to \$2,119,954. 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 at end of September 2020)

6,284
AMO EV Total

Year	Quarter	Ameren EV Total	Quarterly Change
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
2018	Qtr 4	4,040	538
2018	Qtr 3	3,503	297

