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VIA: UTC Web Portal

May 1, 2018

Mark L. Johnson
Executive Director and Secretary
Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive S. W.
P.O. Box 47250
Olympia, Washington 98504-7250

Re: Docket No. UE-160082 – Avista Utilities Semi-Annual Report on Electric Vehicle Supply Equipment Pilot Program

Dear Mr. Johnson,

Attached for filing with the Commission is an electric copy of Avista Corporation's dba Avista Utilities ("Avista" or "the Company") Semi-Annual Report on Electric Vehicle Supply Equipment (EVSE) Pilot Program. On April 28, 2016 the Commission issued Order 01 in Docket UE-160882 approving Avista's tariff Schedule 77 for its EVSE Pilot Program (program). Within the Order the Commission required Avista to submit quarterly reports on the status of the program beginning on August 1, 2016 and ending on August 1, 2018. As described in Order 01, the effective date of tariff Schedule 77 was May 2, 2016. The term of the program began with the first residential EVSE installation on July 20, 2016. On February 8, 2018 the Commission issued Order 02 in Docket UE-160882 approving Avista's proposed revisions to tariff Schedule 77. This included extending the installation period of the Program with additional port installations through June 30, 2019, and a revised reporting schedule of semi-annual (full-length) reports, with interim (short-length) quarterly updates.

The semi-annual reports must include the following:

1. For DC Fast Charging stations, Avista shall report the locations and utilization of stations, review and revise the DC fast charging rate, and assess the amount of overall fixed and variable costs recovered through user payments.

2. For all other services offered under the EVSE Pilot Program, Avista shall report participation levels, expenditures, and revenues for each service offered for the duration of the program on a semi-annual basis. Avista will also provide informal quarterly updates to Staff and other interested parties. A final report must be provided no later than December 31, 2019, with enough information to accurately evaluate the program's success.

This is a semi-annual report, with the next interim update scheduled for August 1, 2018.

Report Topics and Highlights:

1. Residential AC Level 2 EVSE – participation, cost targets and customer needs continue to be met; communications reliability has greatly improved; average total cost of $2,404 per port connection;
2. Commercial AC Level 2 EVSE – participation levels are increasing, cost targets and customer needs continue to be met, average total cost of $5,937 per port connection
3. DC Fast Charger (DCFC) EVSE – four of seven targeted installations complete, final site acquisitions and construction scheduling in progress for remaining three locations; very reliable performance; low but growing utilization; average total costs of $150,000 per DCFC complete site installation;
4. Customer Surveys – generally positive and constructive comments/insights from post-install and regular followup surveys; suggestions include requests for utility education and outreach to the public and more EVSE availability; 96% of residential customers satisfied or highly satisfied with their EVSE installation, compared to 89% for commercial customers;

5. Data Analysis – data set growing satisfactorily, uninfluenced load profiles for four driver categories well established; success with commercial demand response testing; vehicle telematics information providing additional insights on vehicle efficiency;
6. Demand Response (Load Management) – residential EVSE validation testing satisfactorily completed, field testing commencing with full deployment to follow;
7. Low Income Programs – initial proposal solicitations and evaluations complete, implementation of top proposals in progress; and
8. Revenues and Expenditures – program total revenues of $19,434 and expenditures of $2,045,949 to date, details provided in Attachment A.

Overall the program's operations, analytics, customer participation and feedback remain positive. As of April 24, 2018, the number of installations for the various EVSE categories are as follows:

Table 1

	3-Year Allowed Port Installations	# Ports Installed	# Ports Scheduled for Installation	# Ports Remaining
Residential SFH[1]	240	121	12	107
Workplace\Fleet\MUD[2]	175	68	10	97
Public	60	25	6	29
DC Fast Chargers (DCFC)	7	4	1	2

Other general statistics are shown in Table No. 2 below.

Table 2

Daily Avg. No. of Charge Sessions	81
Daily Avg. kWh Consumed	585
Sessions Charged to Date	23,213
kWh Consumed to Date	186,875
Lbs. of CO_2 Saved to Date	411,125
Gallons of Gasoline Saved to Date	23,719

[1] Single Family Home
[2] Multi-Unit Dwelling

Residential AC Level 2 EVSE

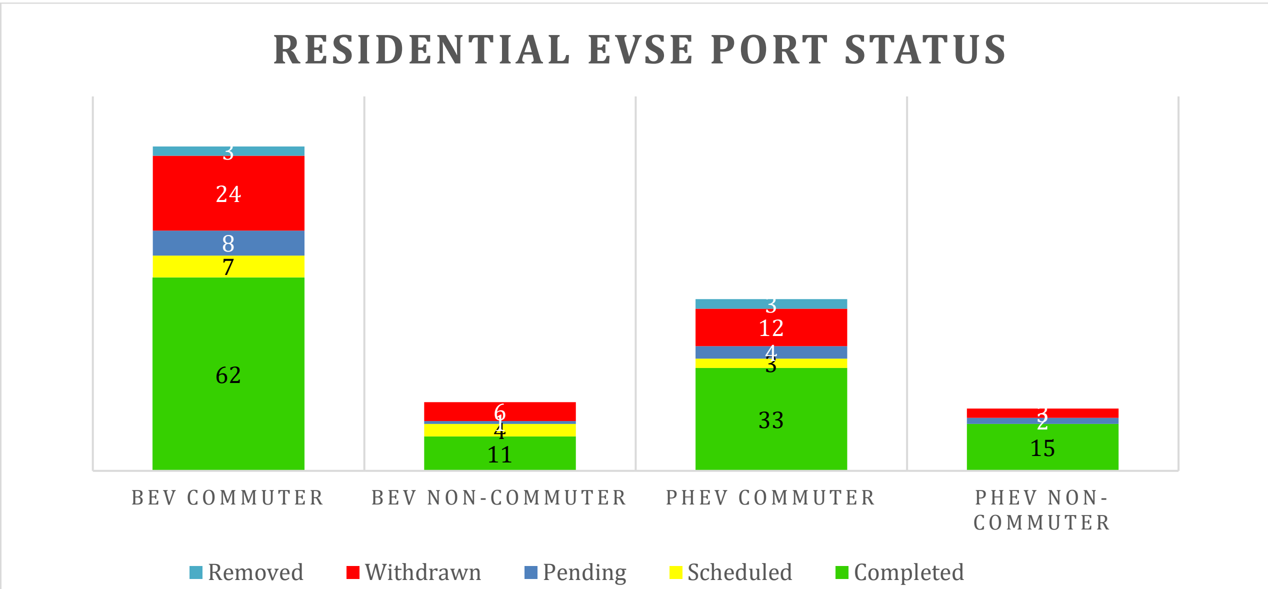
EVSE from two different manufacturers have been utilized to date for AC Level 2 residential installations. These EVSE have demonstrated varying degrees of cost and communications reliability. This experience has reinforced the importance of utilizing open communications protocols such as the Open Charge Point Protocol (OCPP) 1.6 industry standard, to avoid reliance on proprietary systems and encourage competition in the marketplace. It has also reinforced the need to conduct extensive verification testing. Recently, a new EVSE with communications capability and reduced cost has become available in the market, and is in the process of testing verification prior to deployment at customer locations.

Residential EVSE installations continue to meet customer needs and cost expectations, with all EVSE reliably providing power for electric vehicle ("EV") charging on demand. Some communications reliability issues persist, however recent software updates from the EVSE manufacturer and on-site technician visits have resulted in greatly improved communications uptime and stability over the network. In addition to assisting with EVSE commissioning, Greenlots is providing lab testing verification services, network monitoring, issue notifications, and assisting with corrective action to any connectivity issues as the program's EVSE Network Service Provider (EVSP).

The following chart shows the status of residential applications and installations by categories of Battery Electric Vehicle (BEV) Commuter, BEV Non-Commuter, Plug-In Hybrid Electric Vehicle (PHEV) Commuter, and PHEV Non-Commuter. [3]

[3] Completed – EVSE has been installed. Scheduled – EVSE is scheduled to be installed. Pending – customer application is pending full approval. Withdrawn – customer has withdrawn application from program. On Hold – customer application is on hold due to location of requested EVSE.

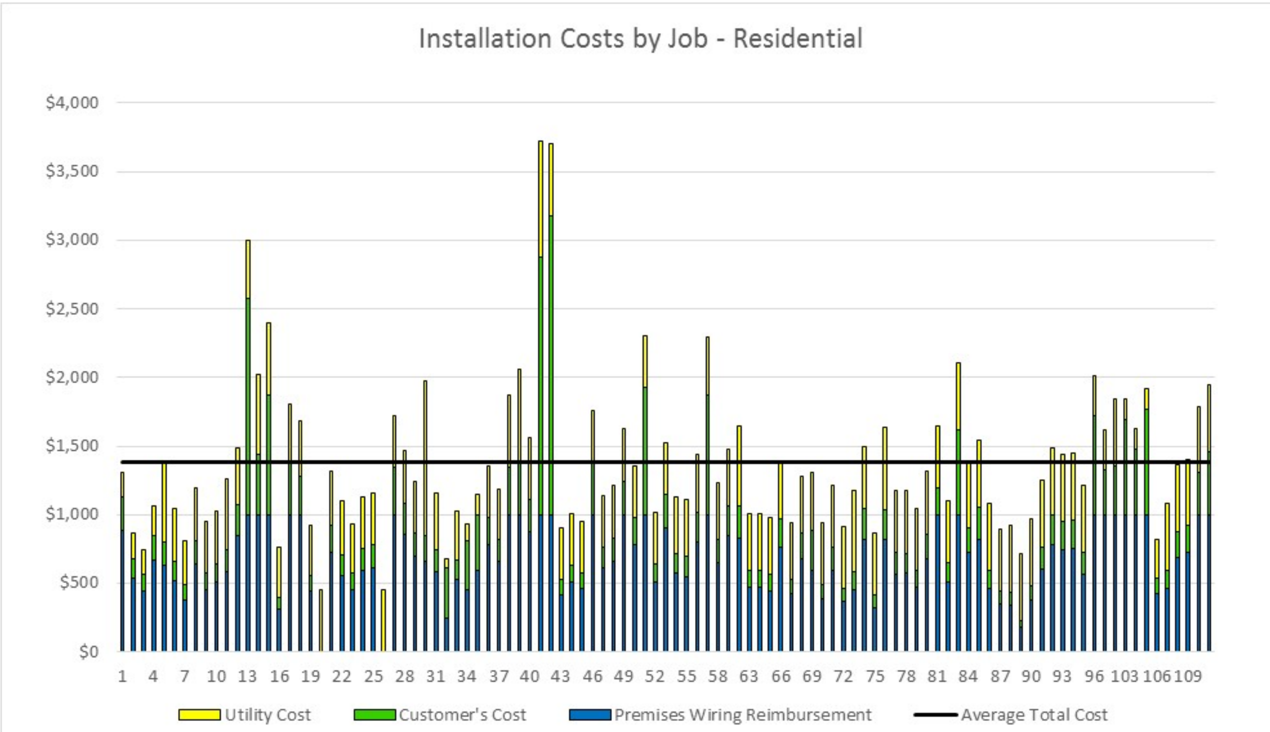
Chart 1



As the pilot progresses, larger data sets in each of these categories will enhance the experience with new EVSE's on the market, improve system impact modeling, and continue to support EV adoption in the Company's service territory.

The chart below shows the residential installation cost components by job, ranging from a total of $452 to $3,721. Low costs correspond to installations where an adequate 240V AC circuit is already installed, with higher costs generally corresponding to a greater number of wall and floor penetrations, total circuit distance, and/or service upgrades.

Chart 2



Residential installation cost breakdowns continue to meet expectations as shown by the average costs in the table below. These costs compare favorably with other pilot programs and studies as detailed in previous reports.

Table 3

Premises Wiring Reimbursement	Customer's Cost	Utility Hardware & Installation Cost	Total Installation Cost	EVSE Cost	Total Costs Installation + EVSE
$665	$275	$416	$1,356	$1,048	$2,404

One in six residential installations (17%) require a service panel upgrade, which nearly doubles the average installation cost from $1,152 to $2,289.

Length of conduit, the need for a subpanel, and the number of wall and floor penetrations also cause increased costs, however less substantially than the need for a service panel upgrade. Outdoor earth trenching occurs occasionally and adds costs, but concrete trench work is rare for residential installations. To date, no transformers or secondary wire from the transformer to the residential customer have required replacement as a result of an EVSE installation.

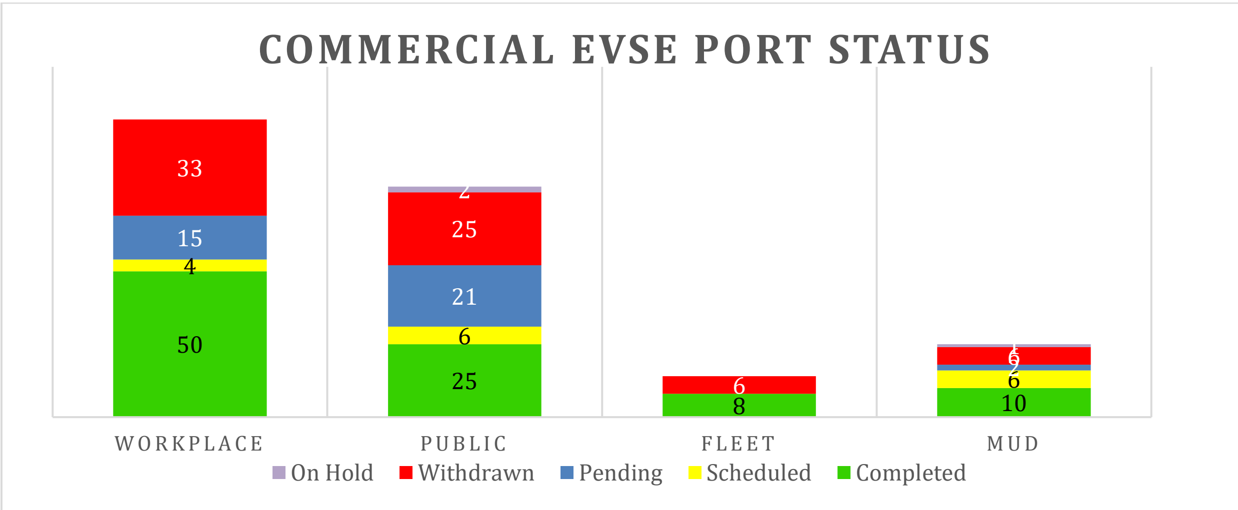
The use of networked EVSE in residential locations is necessary to provide data for analysis and modeling, and in the future may provide net system benefits with remote demand response capability that shifts load from peak to off-peak times, thereby reducing system strains and better utilizing grid infrastructure. Networked EVSE also add substantial upfront and ongoing costs in terms of installation work, hardware, communications and network services. The Company is in the process of modeling costs and benefits for both networked and non-networked EVSE, as more cost data of both types are analyzed in detail. The Company will also explore how Advanced Metering Infrastructure (AMI) may be used for EVSE communications, potentially providing more cost-effective and reliable methods for demand response (load management) at scale.

Commercial AC Level 2 Charging EVSE

EVSE from five different manufacturers have been utilized to date for commercial AC Level 2 installations. These EVSE have demonstrated varying degrees of cost, reliability, and user satisfaction over time. Similar to residential EVSE installations, this experience has reinforced the importance of utilizing open communications protocols such as the OCPP 1.6 industry standard, to avoid reliance on proprietary systems and encourage competition in the marketplace.

The following chart shows the status of commercial applications and installations by category.

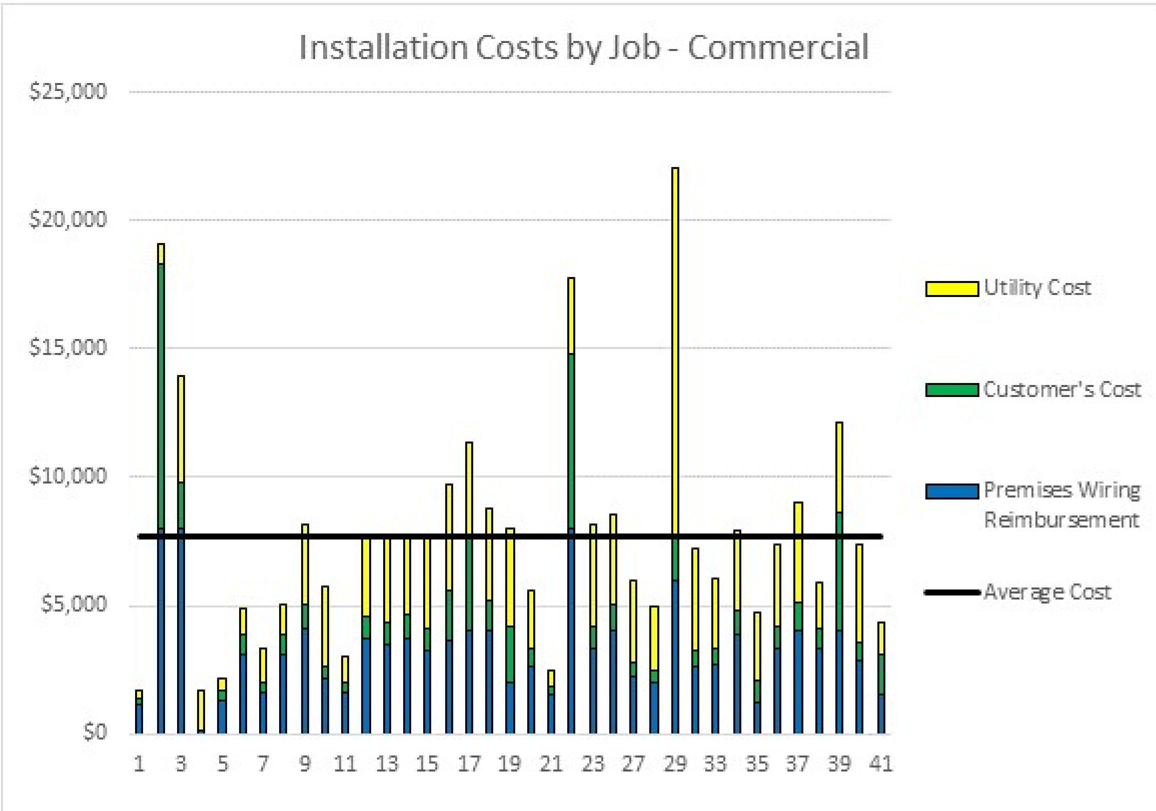
Chart 3



Commercial applications have recently increased in the public category, as outreach efforts and program awareness with local governments and commercial customers have gained some traction. Typically, significant outreach and consulting work is required to inform and assist commercial customers to install an AC Level 2 EVSE on their property, particularly for more public locations. Some of the concerns include the projected cost of electricity, liability risks, and potentially adverse impacts on parking areas with limited capacity. Efforts will continue to be made in terms of outreach and providing helpful information to customers, in order to make informed decisions that mutually benefit the customer and the program.

Costs for commercial installations are meeting expectations, with an understanding that larger variations in cost are expected depending on site conditions, compared to residential installations. A greater number of withdrawals occur for commercial installations compared to residential, for a variety of reasons. This includes a larger customer cost share for premises wiring, as well as other common concerns previously mentioned. The cost components of commercial installations documented to date are shown below. The majority of these EVSE locations are used as workplace charging for employees.

Chart 4



Lower costs correspond to simpler installations avoiding service upgrades and trench work, lower cost EVSE, and/or a smaller number of port connections. Conversely, higher costs are associated with multiple installed EVSE ports, required upgrades to transformers, supply panels, and/or trench work, especially concrete and asphalt trenching. Average cost breakdowns for commercial EVSE sites are listed in the table below. These costs compare favorably with other pilot programs and studies as detailed in previous reports.

Table 4

Premises Wiring Reimburse-ment	Customer Cost	Utility Hardware & Install Cost	Total Install Cost	EVSE Cost	Total Cost EVSE + Installation	Avg. # Ports	Total Cost per Port

$3,272	$1,468	$2,959	$7,698	$5,140	$12,838	2.2	$5,937

Wall mounted EVSE typically require no trench work and reduce the length of both above-ground and underground conduit, while pedestal mounted EVSE typically require trench work and relatively longer conduit lengths.

In order to minimize costs, where practical the Company will continue to encourage wall mounted EVSE and to minimize trenching and conduit lengths by locating the EVSE as close as possible to the nearest power source. Other factors such as desired location, accessibility, communication signal strength, and safety concerns also are of high importance when consulting with commercial customers on EVSE siting and configuration determinations.

DC Fast Charger (DCFC) EVSE

Standardized DCFC site design has an operational 50kW DCFC with both CCS and CHAdeMO connectors, and a dual-port AC Level 2 EVSE as a backup. The installations include adequate property easements and/or site agreements for future expansion, with transformer capacity and conduit installed to allow for low-cost expansion of an additional 150kW DCFC, and where practicable downstream units from the 150kW DCFC.

The first DCFC station in Rosalia, Washington was commissioned for public use on January 18, 2017. Another three DCFC stations have been installed since that time, utilizing EVSE from two different manufacturers. A fifth DCFC commissioning west of Spokane on the I-90 corridor is expected by July 2018. Site acquisition is in process for the final two sites, with expected installations in the fall of 2018 and/or spring of 2019.

Remote monitoring and customer feedback have consistently demonstrated very satisfactory status and availability of all DCFC in the network. Total labor, material and overhead costs have averaged $150,000 for the four DCFC stations installed to date. More information on DCFC as well as public AC Level 2 is posted online at www.plugshare.com. Overall, utilization is low but growing over time, as expected. Charging session characteristics are as indicated in the table below:

Table 5

Avg. Charging Time	23 minutes
Avg. Power Delivery	31.8 kW
Avg. Consumption	12.5 kWh

The following are the number of charging sessions by month for each of the DCFC stations commissioned:

Table 6

Month	Rosalia	Kendall Yards	Pullman	Liberty Lake
Commissioned	01/18/2017	09/14/2017	12/15/2017	01/12/2018
Jan-2017	2	-	-	-
Feb-2017	3	-	-	-
Mar-2017	2	-	-	-
Apr-2017	0	-	-	-
May-2017	4	-	-	-
Jun-2017	5	-	-	-
Jul-2017	8	-	-	-
Aug-2017	8	-	-	-
Sep-2017	15	6	-	-
Oct-2017	5	6	-	-
Nov-2017	9	16	-	-
Dec-2017	2	8	0	-
Jan-2018	2	5	1	0
Feb-2018	5	7	3	3
Mar-2018	6	11	10	10
Total	**76**	**59**	**14**	**13**

In its proposal to extend the pilot program, the Company requested to change the rate structure for its DCFC stations from a time based rate ($0.30 per minute), to an energy based rate ($0.35 per kWh).[4] As more data is gathered, future reports will assess projections for the amount of overall fixed and variable costs recovered through DCFC user payments.

[4] Docket No. UE-160082

Customer Surveys

Web based customer surveys are carried out post-installation and semi-annually thereafter for both residential and commercial customers. These surveys began on July 21, 2016 and will continue through the course of the pilot program. Given the number of responses to date, the margin of error at the 95% statistical confidence level is 6% for residential customers, and 29% for commercial customers. Completion rates as of March 15, 2018 are as follows:

Table 7

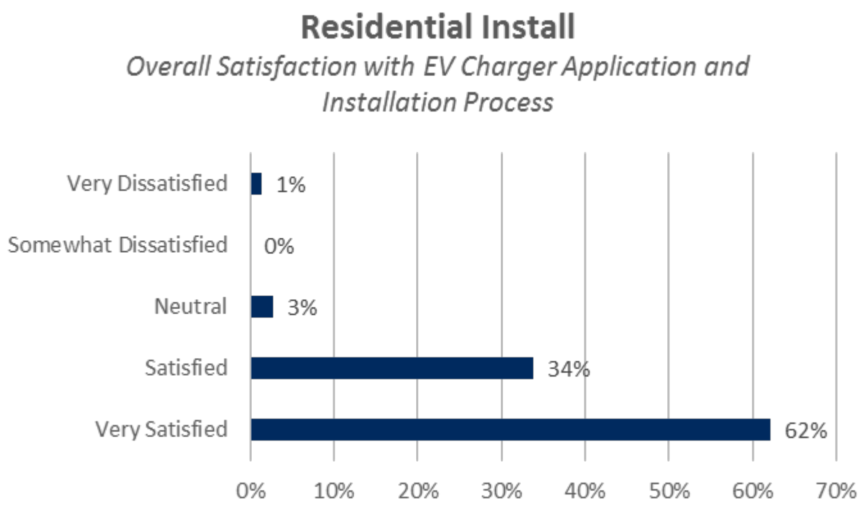
Customer	Post-installation	Semi-Annual
Residential	65% (81 of 124)	51% (155 of 303)
Commercial	24% (9 of 38)	31% (17 of 55)

Several comments suggested the Company should provide more outreach efforts to educate the public about the benefits of electric vehicles as well as information about the EVSE pilot program, and to install more public EVSE in the region. The Company intends to utilize customer feedback to make adjustments that improve the pilot and help develop more effective long-term programs.

The following charts represent survey response data collected to date from pilot participants.

Overall satisfaction with the residential installations remains high with 96% of the 81 respondents reporting satisfied or very satisfied:

Chart 5



According to the survey, 77% of residential customers indicated that they commute to work in their EV, with 28% of those customers indicating that their employer offers an EVSE at work.

The chart below shows the different EVs driven by customers in the program, dominated by the Nissan LEAF at 36% and the Chevy Volt at 23%. Also shown is the distribution by model year, with a relatively high percentage from 2013 and more recently growing adoption of 2016 and 2017 models.

Chart 6

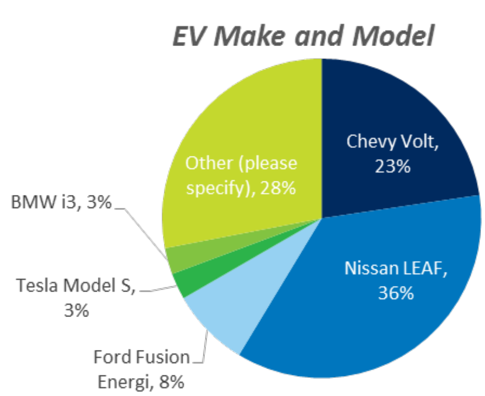
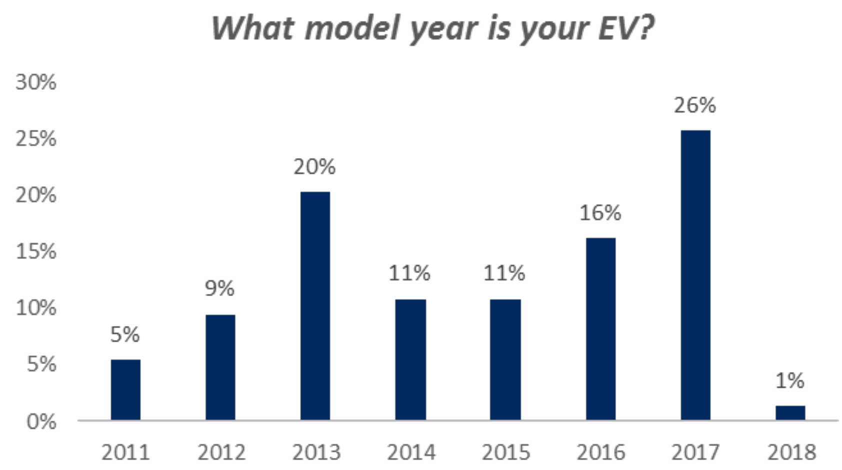
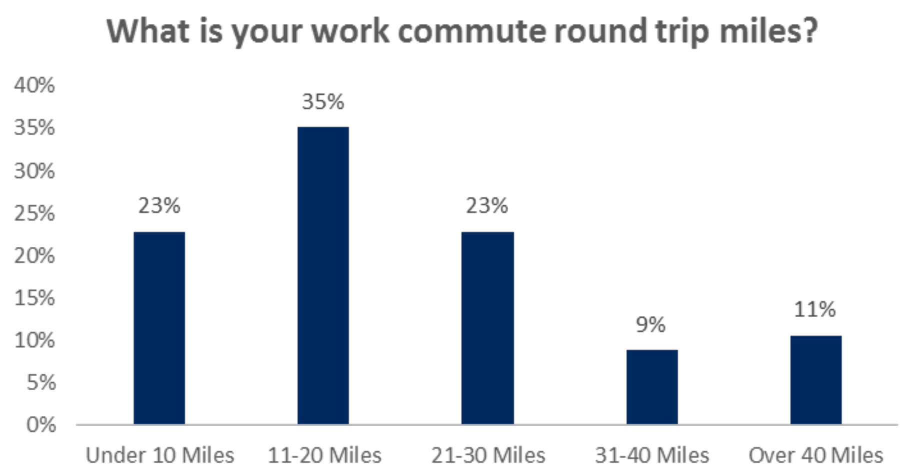


Chart 7



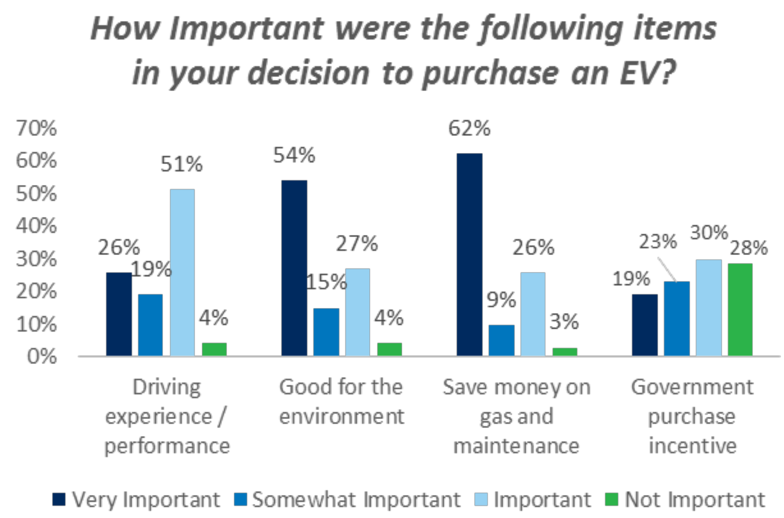
Work commute round trip miles are indicated below. This shows that only 20% of customers have a work commute greater than 30 miles.

Chart 8



Important factors in the decision to purchase an EV are shown in the chart below. Notably, 71% of respondents stated that "saving money on gas and maintenance" was very important or important, compared to 69% that stated the same for "good for the environment."

Chart 9



Customers indicate a moderate to high level of importance for both AC Level 2 and DCFC public charging availability, and a low level of satisfaction for both types of charging availability as shown in the four charts below.

Chart 10

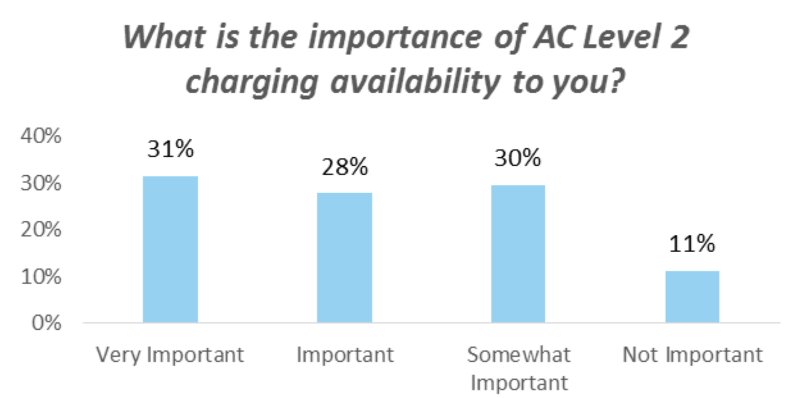


Chart 11

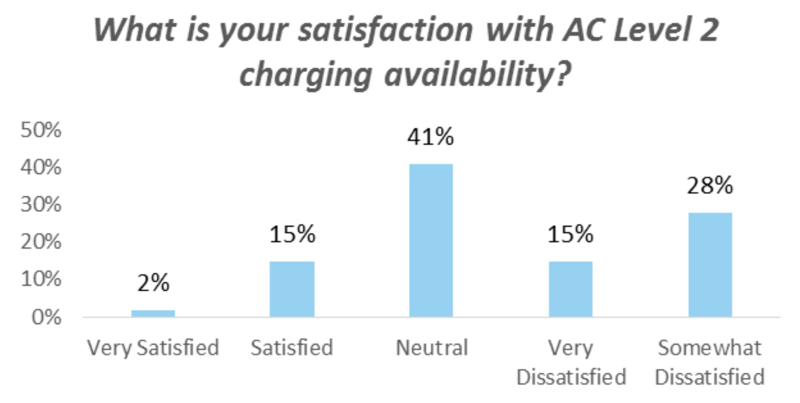


Chart 12

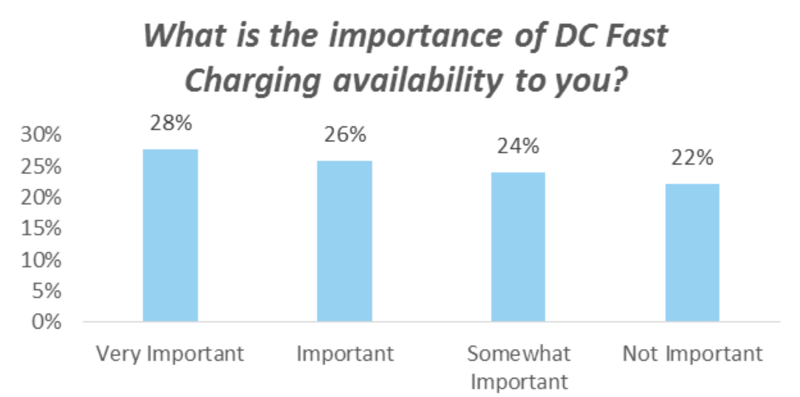
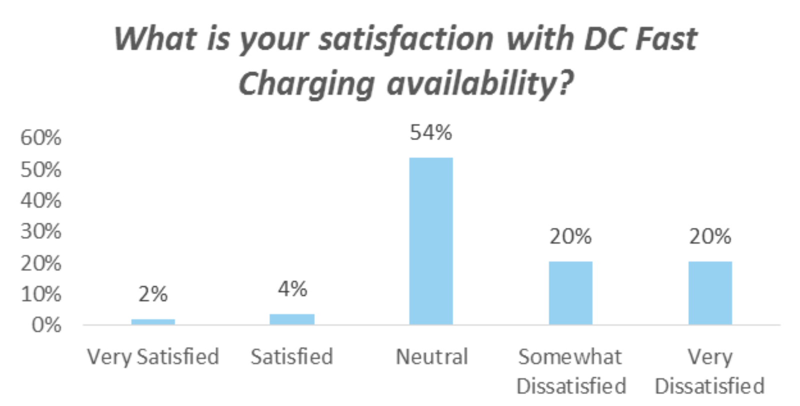
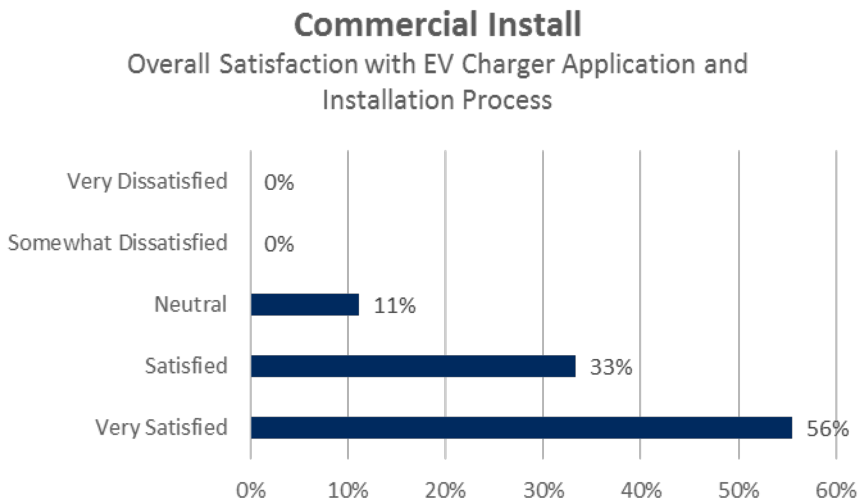


Chart 13



Overall customer satisfaction with commercial installations is also relatively high with 89% of the nine respondents reporting satisfied or very satisfied:

<u>Chart 14</u>

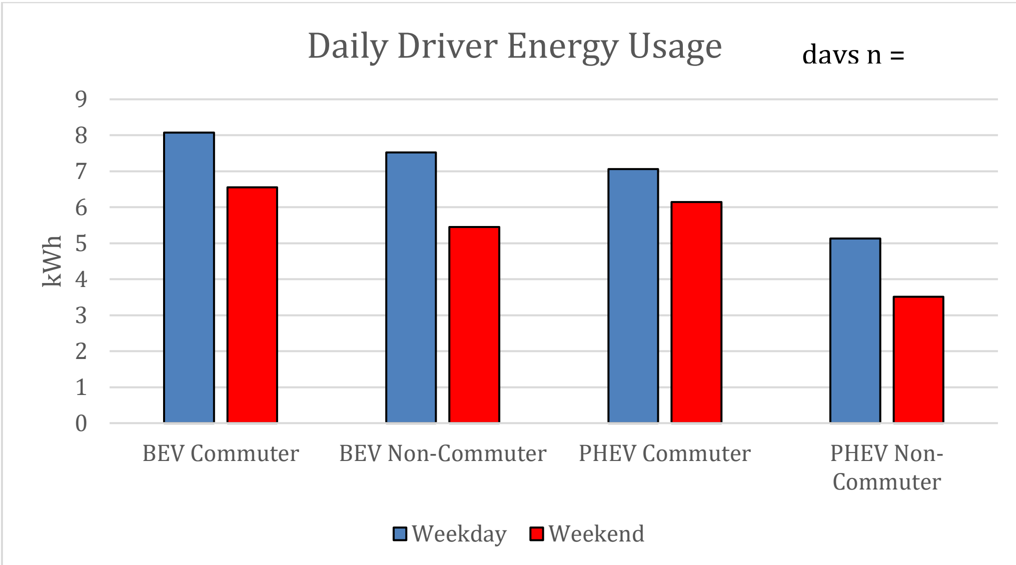


Given the relatively lower number of commercial survey responses, the Company is in the process of gaining more feedback with follow-up phone and in-person interviews. Additional insights from customer surveys will be reported as a greater number of responses are received.

Data Analysis

Average weekday energy demand is highest for BEV commuters at over 8.1 kWh, followed by BEV non-commuters and PHEV commuters at 7.5 kWh and 7.1 kWh, respectively. PHEV non-commuters have a significantly lower average weekday demand at 5.1 kWh. Daily energy demand in all categories is lower on the weekend compared to the weekdays as seen in the chart below.

Chart 15



As in previous updates, BEV commuters have the highest peak weekday demand of 0.96 kW, occurring at 6 pm. With BEV commuters, weekend demand is lower and steadily increases throughout the day, peaking at 0.53 kW at 8 pm. Other profiles have lower weekend peaks and "flatter" profiles in the afternoon. Notably, PHEV non-commuters have sharp increases in both weekday and weekend power demand occurring earlier in the afternoon than other groups. PHEV non-commuter weekday power demand is also the lowest peak demand of the different driver types, at 0.46 kW. Within each category, the weekday and weekend load profiles tend to be similar during off-peak hours, and then diverge during peak times in the afternoons and evenings. Note that these load profiles are aggregated over many dispersed, individual charging sessions. Each individual charging session typically draws power at 3.3 or 6.6 kW for the bulk of EVs currently used by customers, mostly dependent on the rectifier capacity in each vehicle. These aggregated load profiles are useful for modeling system-wide power demands that drive capacity investments, while individual and coincident power demand analysis is required at the local distribution level modeling. Preliminary modeling indicates that grid capacity investments far outweigh distribution upgrade investments given large adoption levels of EVs. All driver category load profiles continue to demonstrate the potential for peak shaving in the afternoon and evening using EVSE-controlled demand response technology.

Chart 16

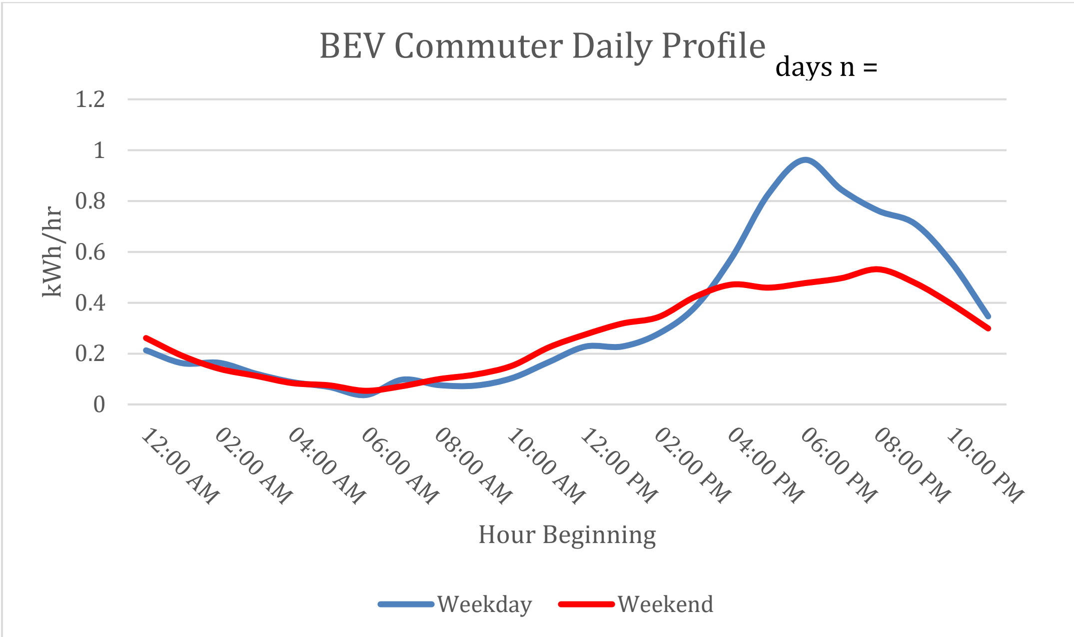


Chart 17

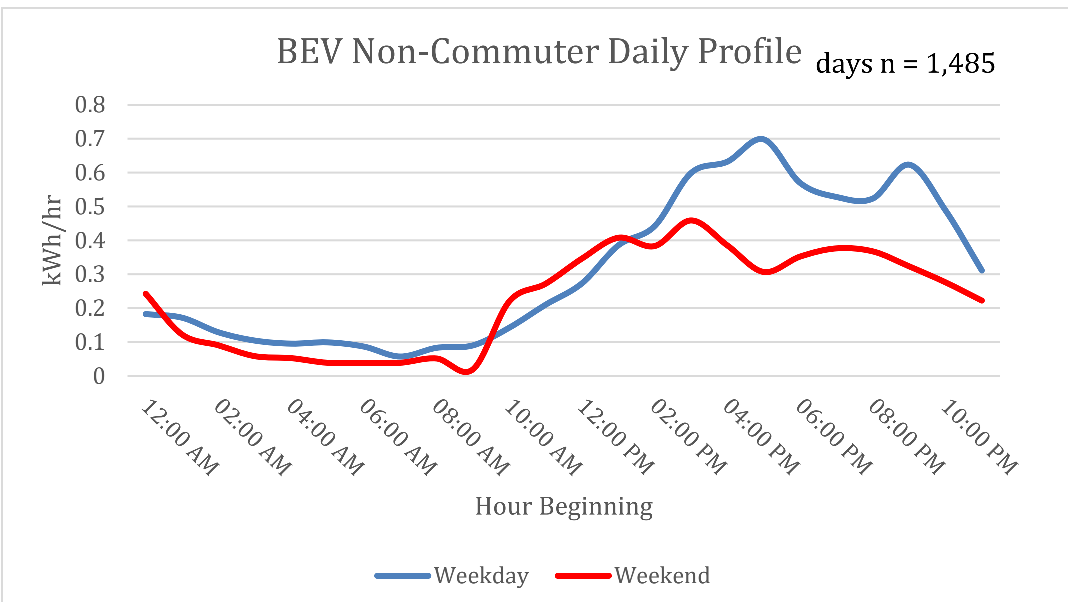


Chart 18

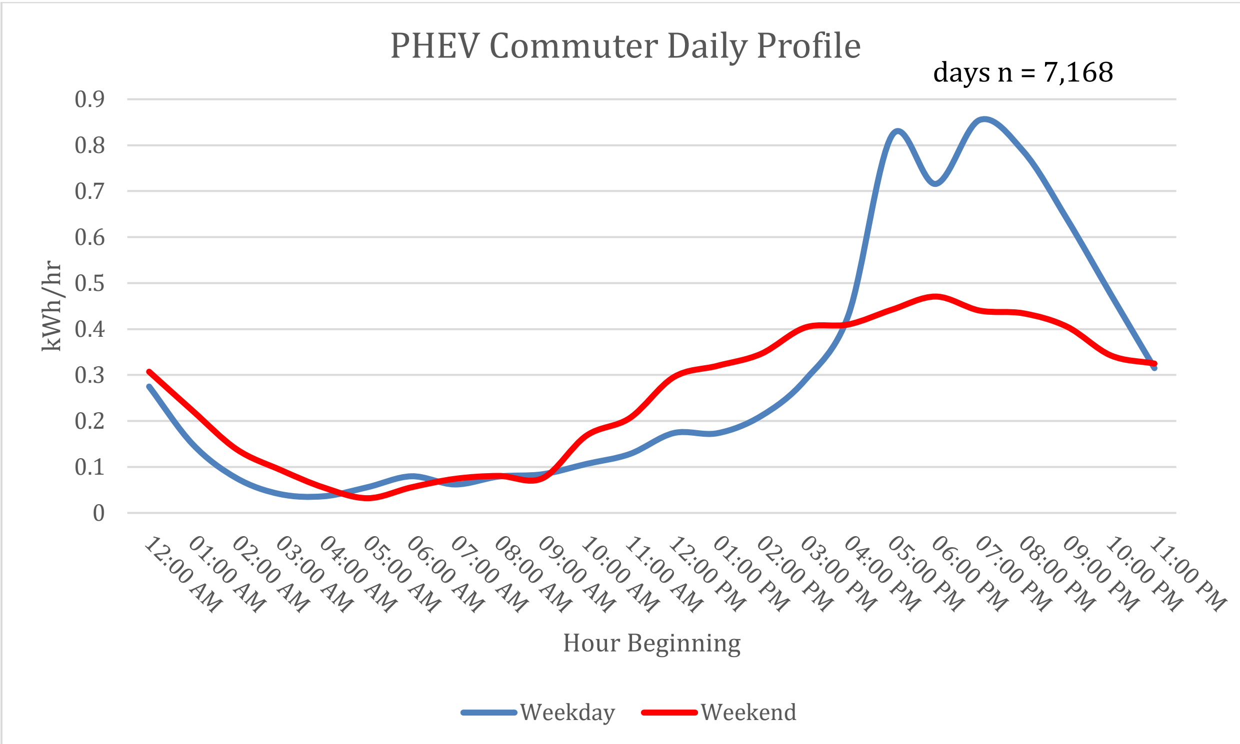
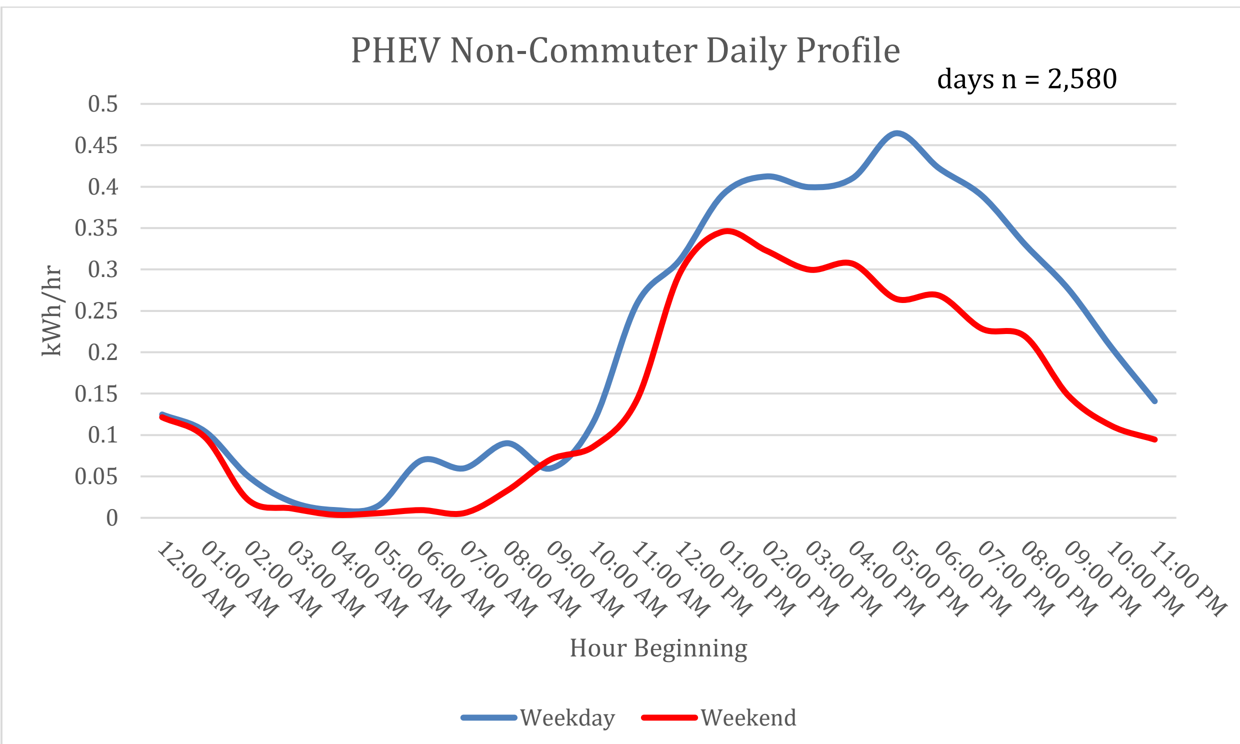


Chart 19



The charts below show the diversity of scenarios in combined workplace and home charging participants. The BEV driver profile had average workday home energy usage of 5.2 kWh and workplace energy usage of 8.8 kWh. Workplace charging accounts for 63% of daily workplace energy in this profile. The PHEV driver profile had workday home and workplace energy usage of 7.6 kWh and 2.3 kWh, respectively. In this profile, workplace charging accounts for 23% of average workday energy usage. The reasons for these differences could be based on a variety of factors including commuting distance, battery capacity, and different charging speeds. Understanding the factors underlying these differences is important as the Company provides an advisory role for commercial customers in planning workplace charging infrastructure.

Chart 20

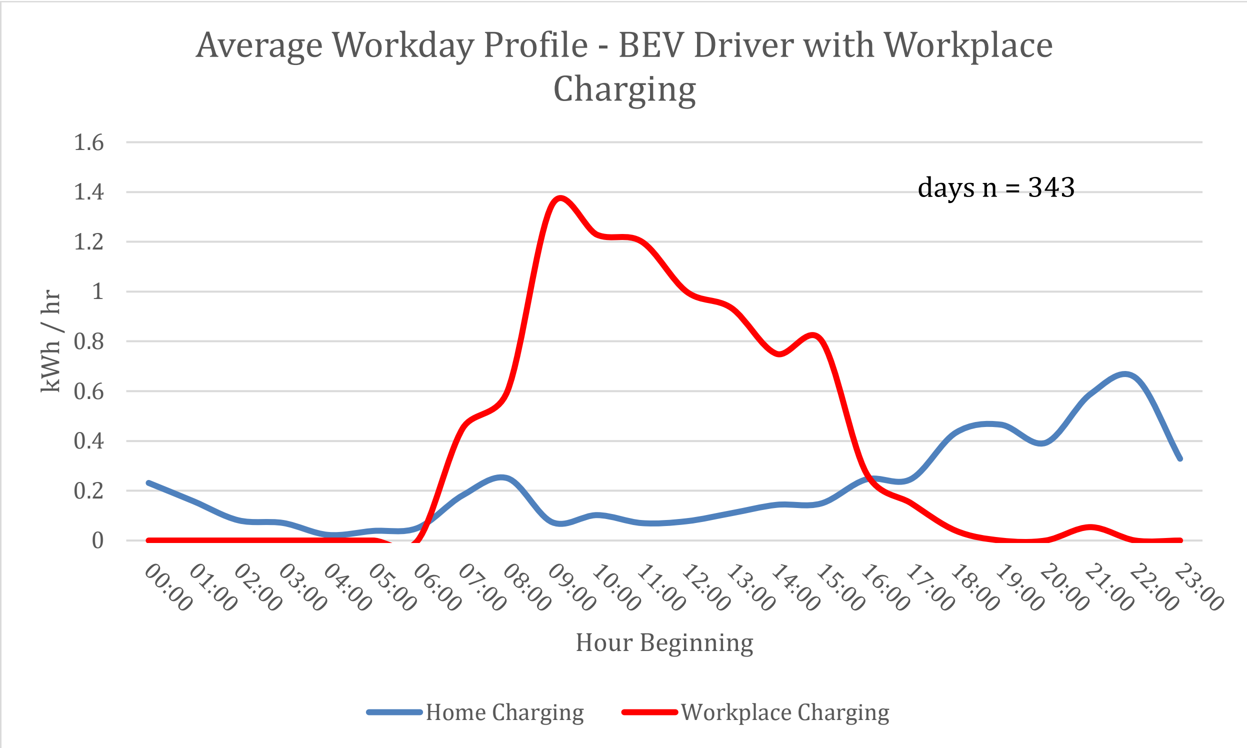
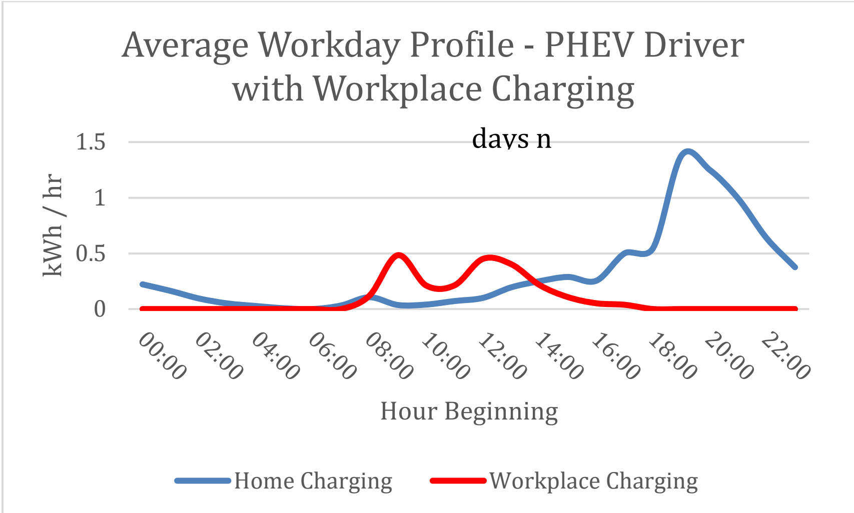
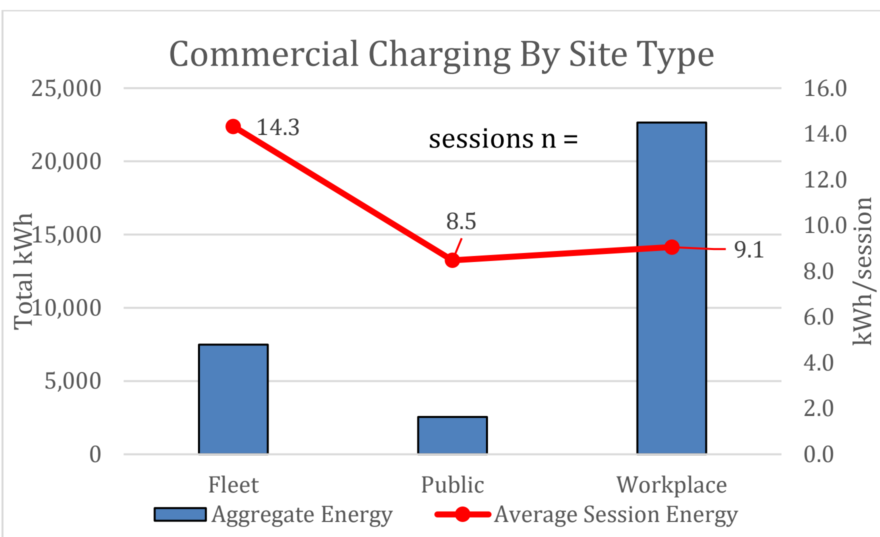


Chart 21



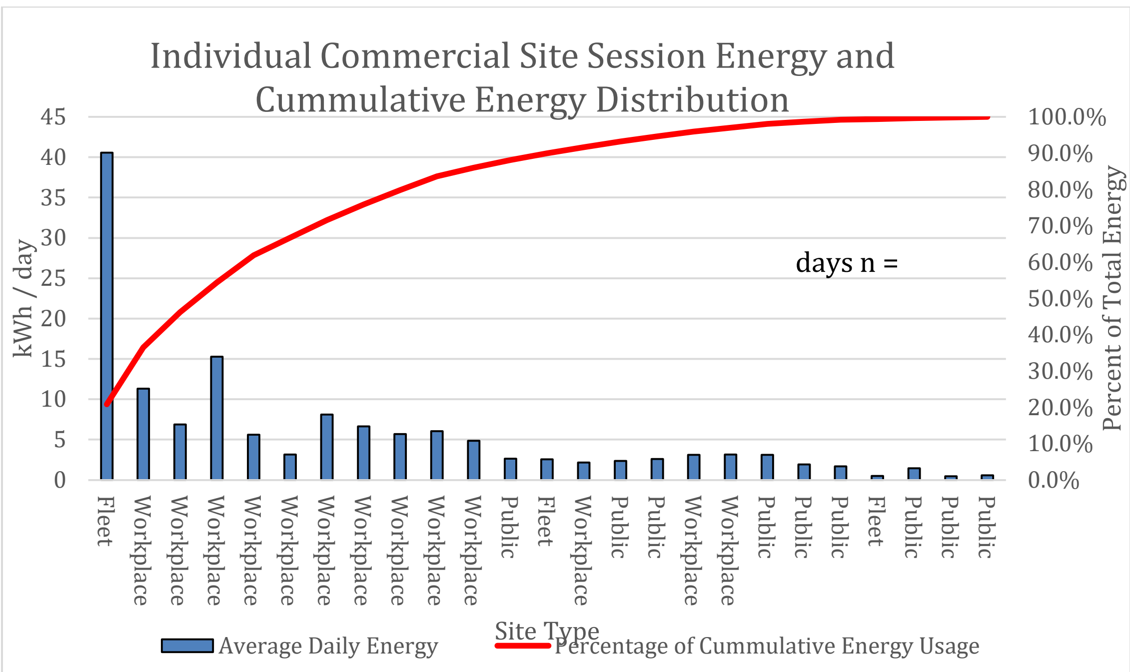
The chart below shows aggregate and per session data for commercial locations, used only for fleet, public, and workplace charging. Mixed-use charging locations were excluded from this analysis. When aggregating commercial site data, workplace charging locations combine for the largest amount of energy used at over 22,652 kWh and 9.1 kWh per session. Public energy usage was the lowest at 2,559 kWh and average session consumption of 8.5 kWh. Fleet session usage was the highest at 14.3 kWh on average. This amount was driven largely by one early adopter of fleet electrification.

Chart 22



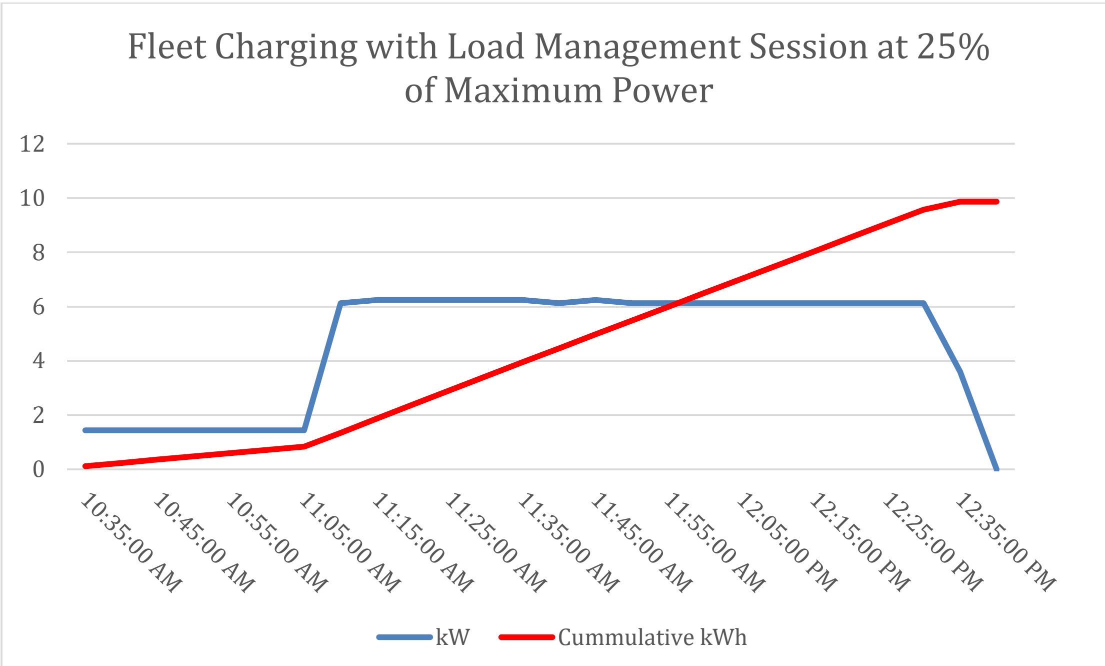
The analysis below shows a Pareto chart of total energy usage for specific commercial charging locations. Total energy data included has been collected since the start of the project. As a result, the amount of time-based data varied with each site. To provide a baseline comparison of energy usage between sites, the average energy usage per day was used. One fleet location had significantly higher daily usage than other locations, at 40.5 kWh. Additionally, the energy usage from this fleet location makes up for 21% of total specific charging location energy. The ten highest energy usage locations below make up over 83% of the total energy used in the 25 total locations and, aside from the first fleet location, were all workplace-charging locations.

Chart 23



Successful EVSE-controlled demand response sessions continue to be carried out consistently at a limited number of workplace and fleet locations during morning and afternoon/evening peak periods. Throttling of charging occurs at both 50% and 25% of max charge rate, or 3.3 kW and 1.44 kW, respectively, from the modeled system peak periods of 9am to 11am, and from 3:30pm to 10:30pm. The chart below shows an example fleet charging session where the power level is throttled down to 25% of rated power delivery from 9am until 11am, followed by 100% rated power delivery until the completion of the charging session at 12:40pm.

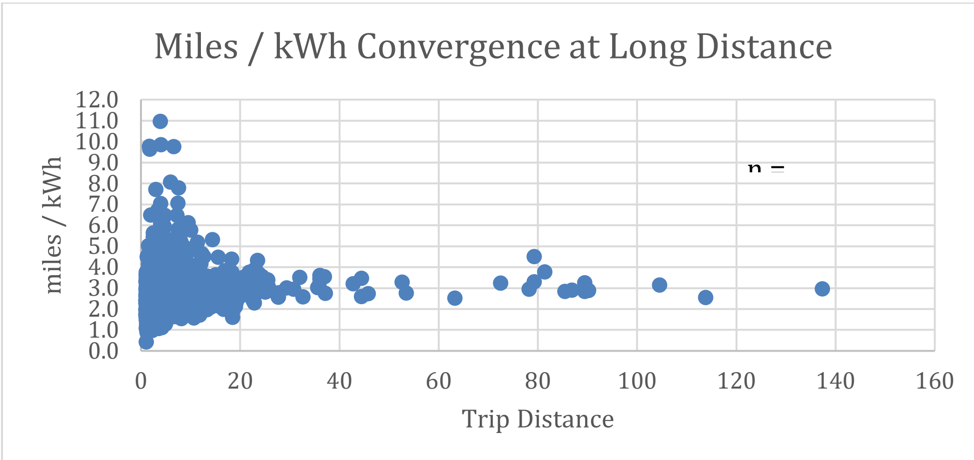
Chart 24



As testing and deployment of different DR-enabled EVSE models occurs, the Company expects to demonstrate how much of the peak load can be shifted to off-peak, while satisfying the customer's need to charge the vehicle over a given time frame, and without the need for time-of-use (TOU) rate incentives. These empirical load profiles will be compared against uninfluenced load profiles in modeling analysis to determine estimates for relative costs and benefits. This in turn should help inform long-term program direction.

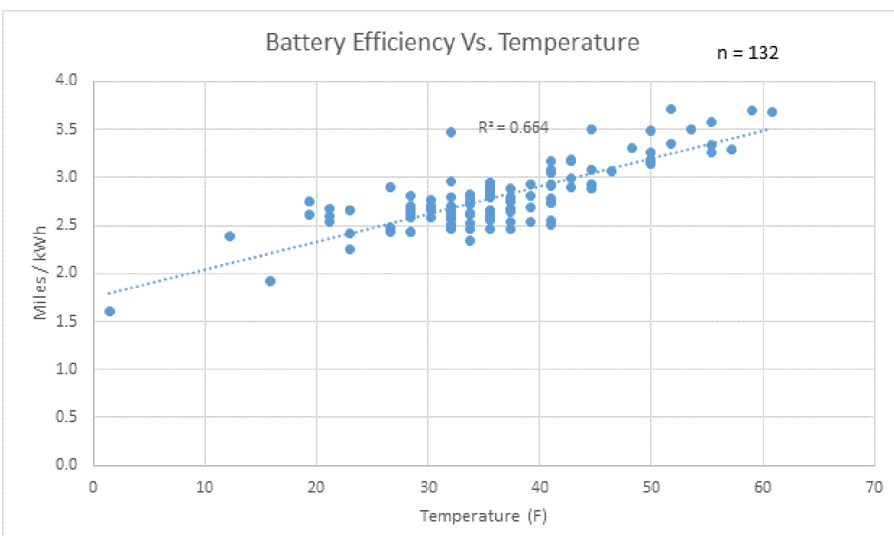
To improve understanding of driving behavior, telematics devices were installed in the EVs of eight selected participants. Device installations began in November 2017 with the final device installed in February 2018. This enables the acquisition of key information such as battery efficiency at different trip distances and outdoor temperatures, as well as differences between vehicle models and uses. As an example, the chart below shows the convergence of mileage per kWh as trip distances begin to exceed 20 miles. While the data is still limited across all PEVs in the study, early indications are that energy efficiency achieves roughly 3.0 miles per kWh at trips exceeding this distance.

Chart 25



In another set of driving data from a long-distance BEV, the correlation between temperature and battery efficiency was explored for trip distances of over ten miles. Initial data indicates a strong direct relationship between outdoor temperature and vehicle efficiency. This relationship will be further analyzed throughout the year among different vehicle types.

Chart 26



Demand Response (Load Management)

A key goal of the pilot is to test EV charging with demand response, using several types of EVSE from different manufacturers. The desired approach to meet that goal is to test a scalable, standards-based implementation. Using OCPP version 1.6 enables support for different EVSE and is scalable beyond the pilot program.

Thus far, the Company has worked closely with Greenlots and three EVSE manufacturers to develop, test and deploy OCPP 1.6 with demand response functionality. As these are new implementations of OCPP 1.6, Greenlots must perform extensive validation testing with each manufacturer to ensure reliability before deployment to customers.

Additionally, before demand response can be properly implemented, several supporting features must be verified such as clock-aligned metering, proper charging behavior across different power levels of the charging station, as well as error recovery in certain infrequent situations such as lost connectivity to the network. The time needed for each manufacturer to develop, test, iterate and validate this implementation has taken longer than expected, resulting in delayed demand response experiments with various customer groups.

However, at this time two of the three EVSE manufacturers have passed validation testing. Barring additional unexpected delays, the Company expects to test demand response with a limited pool of participants in the near future, followed by network-wide deployment.

Low-Income Programs

Consistent with the pilot extension proposal, the Company has begun to implement programs in order to benefit low-income customers. In order to initiate proposals, the Company held a meeting on December 4, 2017, with representatives from 15 agencies serving low-income customers in attendance. Discussions included basic information about electric vehicles and charging, as well as ideas and opportunities to serve disadvantaged customers. Six written proposals were received and competitively evaluated based on estimated benefit and cost criteria, with the top two proposals selected for implementation. In both cases, the Company will provide the agency with an EV and an EVSE for agency staff to operate for the benefit of customers, including transport to critical medical services, job skills training, and food deliveries. In addition, the programs will benefit the agencies themselves in terms of leveraging staff resources and the reduced operational costs resulting from electric transportation. As these programs progress, information and lessons learned will be collected and shared with the larger group of area advisory agencies, with the intent to help develop and expand low-income programs beyond the pilot.

Revenues and Expenditures

Expenditures through April 15, 2018 totaled $2,045,949. A more detailed breakdown is provided in Attachment A.

Revenues to date are as follows, based on data from the Greenlots network:

Table No. 8

Type	**No. of Charging Sessions**	**kWh Consumed**	**Avg. kWh Consumed per Session**	**Rate**	**Revenue**
Residential AC Level 2	17,774	126,533	7.1	$0.09134/kWh	$11,558
Commercial AC Level 2	5,277	58,109	11.0	$0.1162/kWh	$6,752
DC Fast Charging	162	2,233	12.9	$0.35/kWh (previously $0.30/min)	$1,124
Total	23,213	186,875	-	-	$19,434

Please direct any questions regarding this report to Rendall Farley at 509-495-2823, rendall.farley@avistacorp.com, or Karen Schuh at 509-495-2293, karen.schuh@avistacorp.com.

Sincerely,

/s/Linda Gervais

Sr. Manager, Regulatory Policy
Avista Utilities

Attachment A
Avista EVSE Pilot Program Expenditures through April 15, 2018

Expenditures include all costs for both completed EVSE installations and installations in progress, as well as program administrative costs.

Expenditure Category / Type		CAP	OPER	Total
Residential Level 2 EVSE	Design & Installation	$151,897	-	$151,897
	Hardware	$193,554	-	$193,554
	Maintenance & Repairs	-	$2,502	$2,502
	Premises Wiring Reimbursements	-	$81,717	$81,717
	Total	$345,451	$84,219	$429,670
Workplace-Fleet-MUD Level 2 EVSE	Design & Installation	$154,040	-	$154,040
	Hardware	$322,359	-	$322,359
	Maintenance & Repairs	-	$704	$704
	Premises Wiring Reimbursements	-	$80,195	$80,195
	Total	$476,399	$80,898	$557,297
Public Level 2 EVSE	Design & Installation	$108,373	-	$108,373
	Hardware	$145,315	-	$145,315
	Maintenance & Repairs	-	$77	$77
	Premises Wiring Reimbursements	-	$36,690	$36,690
	Total	$253,688	$36,767	$290,454
DC Fast Charging Stations	Design & Installation	$284,700	-	$284,700
	Hardware	$212,405	-	$212,405
	Maintenance & Repairs	-	$43	$43
	Meter Billing	-	$2,412	$2,412
	Total	$497,105	$2,455	$499,560
Other Project Expenses	Communications	-	$20,514	$20,514
	EVSE Network & Data Management	$182,298	-	$182,298
	Misc General Expenses/Incentives	-	$17,836	$17,836
	Project Management/A&G Salaries	-	$48,320	$48,320
	Total	$182,298	$86,669	$268,967
Total		$1,754,941	$291,008	$2,045,949