

Agenda Date: April 24, 2014
Item Numbers: A1 and A2

Dockets: UE-131585 and UE-140626
Company: Puget Sound Energy

Staff: Juliana Williams, Regulatory Analyst
Jeremy Twitchell, Regulatory Analyst

Recommendation

1. Take no action in Docket UE-131585, thereby allowing the tariff revision to go into effect by operation of law.
2. Issue an order in Docket UE-140626:
 - a. Denying that part of the petition for a waiver of WAC 480-100-223(1) as unnecessary; and
 - b. Granting that part of the petition for accounting treatment subject to the following conditions:
 - The rebate will be limited to \$500 per Level 2 vehicle charger;
 - The company will study the end-use characteristics of electric vehicle load for a period of up to 32 months, to end no later than December 31, 2016;
 - The number of participants in the study will be limited to 5,000, at least half of which will have interval metering data activated and collected at a minimum of one-hour intervals;
 - During the study period, the company will regularly coordinate with its Conservation Resources Advisory Group and include the study's progress and findings in its regular reports of conservation accomplishments;
 - At the end of the study, the company will consider, in consultation with the Conservation Resources Advisory Group, programs that will manage electric vehicle load in the most cost-effective manner, including but not limited to time-of-use rates, demand response, and direct load control.

Background

On August 28 and October 21, 2013, Puget Sound Energy (PSE or company) filed with the Washington Utilities and Transportation Commission (commission) revisions to its electric tariff. The proposed tariff Schedule 195 is an incentive for eligible residential customers, funded through the Electricity Conservation Service Rider, Schedule 120. Under the originally proposed tariff changes, for five years PSE would have provided a one-time \$600 incentive to residential customers who install a "Level 2" fast electric vehicle charger at their residence. At the request of commission staff (staff), PSE filed replacement pages on November 12, 2013, extending the effective date to March 28, 2014.

On March 17, 2014, at staff's request, PSE filed replacement pages in Docket UE-131585 which specified that Schedule 195 would also fund data collection and analysis on the charging patterns and impact electric vehicles have on PSE's system. That filing included an accounting petition

and rule waiver request. The commission discussed policy issues surrounding the filing at its April 10, 2014, open meeting, but made no decision at that time. Following that open meeting, the commission assigned the accounting petition and rule waiver request to Docket UE-140626. On April 16, 2014, PSE filed replacement pages in Docket UE-131585 to end the program at the end of 2016, lower the amount of the incentive to \$500, and cap the total number of participants to 5,000 over the duration of the program.

Discussion

The number of customers in PSE's service territory with electric vehicles is growing, and is expected to continue to grow as more electric vehicle models enter the market. Washington State has the highest level of electric vehicle sales per capita in the country. In July, 2013, there were 5,341 electric vehicles registered in Washington State, and PSE estimates that there are now approximately 5,000 electric vehicles in its service territory. Electric vehicles are a large additional residential load, and have the potential to contribute to peak load, depending on customer charging behavior. Staff is concerned that on-peak electric vehicle charging may ultimately drive the need for new generation resources and distribution infrastructure. Identifying residential electric vehicle charging patterns will allow PSE to determine whether charging occurs on-peak, and if mechanisms to shift electric vehicle charging off-peak are appropriate. Collection of this data is an essential first step to evaluate whether there is a need for load-shifting programs, and if so, inform the design of those programs.

Data Collection and Analysis

The most significant revision to the proposed electric vehicle charger incentive is the addition of a data collection and analysis plan to assess the impact of electric vehicle charging on PSE's system. Customers do not need to notify PSE when they purchase an electric vehicle, so by offering an electric vehicle charger incentive, PSE is able to identify customers with electric vehicles and track charging patterns. PSE plans to test multiple approaches to data collection: the installation of a limited number of "smart" chargers, collection of 15-minute interval meter data, and pre- and post-installation billing analysis. PSE has indicated that it will re-evaluate the study design after the first program year. Staff believes that this study will generate data that will benefit PSE's system planning efforts.

Funding through Schedule 120

PSE proposes to fund the electric vehicle charging incentive through the Electric Conservation Service Rider, Schedule 120, and filed an accounting petition under Docket UE-140626 that requests approval of this approach. Staff considers it unlikely that a \$500 charger incentive will be a driver of additional vehicle sales in PSE's service territory, and therefore it is unlikely that the program would directly increase electricity consumption. By redesigning this proposal into a

study on EV load, staff believes it is allowable for cost-recovery through Schedule 120, similar to other customer end-use load research funded by the rider.¹

Funding the program through Schedule 120 also provides advantages for reporting and annual review. PSE is required to file annual reports on Schedule 120 activities and make an annual cost recovery filing. Funding the electric vehicle charger incentive in this way subjects the program to the same annual review as energy efficiency programs. This gives the commission an opportunity to receive annual programmatic updates and consider whether changes to the program or funding levels are appropriate.

An additional benefit in funding the pilot through Schedule 120 is that it will allow the Conservation Resource Advisory Group (CRAG) to review the program on an ongoing basis. Staff expects that PSE will proactively manage the study and adjust it as needed during the study period, and believes that the CRAG will be an additional resource to the company in this process.

In recommending approval of this tariff, staff also expects that PSE will thoroughly review the study's findings with the CRAG and, if the study suggests that a load-shifting intervention is needed, consult with the CRAG in the design and implementation of that intervention.

Advertising and Promotion

WAC 480-100-223(1) prohibits regulated utilities from spending money on promotional advertising, which is defined as:

“...advertising to encourage any person or business to select or use the service or additional services of an electric utility, to select or install any appliance or equipment designed to use the electric utility's service, or to influence consumers' opinion of the electric utility.”

Although PSE believes that the communication necessary to educate customers about the incentive are exempt from this restriction under WAC 480-100-223(2)(f), as a precaution, PSE's accounting petition requests a waiver of WAC 480-100-223. Staff agrees that PSE may announce and explain the proposed Electric Vehicle Charger Incentive tariff under the existing rule, and believes that the commission's approval of the tariff and this accounting petition activate that provision of the rule. Therefore the requested waiver is unnecessary, and the commission should deny the company's request for such waiver.

Ratepayer Impacts

In the first year of the program, the average residential customer's monthly bill would increase by \$0.14 or 0.14 percent. PSE expects that the bill increase will be offset by a credit through the decoupling adjustment.

¹ PSE's biennial conservation budget includes funding for market research which assesses the penetration of certain appliances in residential, commercial and industrial buildings. Examples include determining the proportion of efficient lighting, refrigerator vintages, and number of computers per household.

Customer Comments

Staff received seven customer comments regarding PSE's proposal, all supportive of the filing. Customers were notified that they may access relevant documents about this case on the commission's website, and that they may contact Roger Kouchi at 1-888-333-9882 or rkouchi@utc.wa.gov with questions or concerns.

The commenters justified their support by stating that the proposal would: improve energy efficiency; further the State of Washington's progress toward its greenhouse gas reduction goals; help PSE customers save money on transportation costs; save other ratepayers money; and benefit the system because charging would mostly happen overnight when electricity supply is both cheap and plentiful, and other demand is low.

Conclusion

Take no action in Docket UE-131585, thereby allowing the tariff revision to go into effect by operation of law and issue an order in Docket UE-140626 as described above.