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Poster Title: Plug-in Electric Vehicle Customer Preferences

Abstract: While electric vehicle sales are continuing to increase in the United States, they are doing so in a clustered fashion. What motivates a buyer in one region to purchase an electric vehicle but not in another region? The research outlined here aims to determine what are the most effective factors that influence a customer to purchase an electric vehicle on a regional basis. To answer this question, discrete choice estimation (DCE) will be used through surveys to elicit customer preferences for electric vehicles. A total of 3200 surveys were sent out in 8 utility service territories to be able to understand nationwide what motivates a potential EV buyer as well as the regional differences in buyer preferences. Influencing factors on a vehicle purchase such as model type, price point, federal/state/local incentives, carpool lane access, electric vehicle charging density and cost as well as customer demographics such as income level, education and number of people in the household were taken into account. The results of the survey work will be combined with a vehicle modeling tool developed by ORNL - MA3T to be able to simulate how incentives change EV adoption over time. The results of this work will provide utilities valuable insight as to how actions or changes will influence EV adoption over the next 10 years.