

Project Title: Clean Rural Shared Electric Mobility: The CRuSE Project

Applicant: Forth, Principal Investigator: Zach Henkin, PMP, Deputy Director, Forth

Objective:

The Clean Rural Shared Electric Mobility (CRuSE) Project seeks to demonstrate that round trip plug-in electric vehicle (PEV) car sharing can serve rural communities in a financially sustainable way, while benefitting low-income residents, government and local businesses, the town at large, and tourists. Round trip car sharing, provided by firms like ZipCar, has been well established in many urban centers for years. Rural and low-income communities could benefit most from car sharing services, due to lack of density to support traditional transit, biking, or other options, but car sharing is virtually unknown outside of major urban centers. Hood River, Oregon, will be the initial test site, a town with an estimated population of 8,000. Situated in a rural area of the Columbia Gorge, Hood River boasts strong tourism appeal as a nationally-recognized venue for wind surfing and kiteboarding, along with other attractions. With a combination of typical small-town living, nearby agricultural work and tourism, Hood River presents an ideal opportunity to test, assess, and hone how best to offer an attractive PEV car sharing service, in a rural setting, to benefit drivers from multiple sectors.

Project Description: Methods and Project Partners:

The CRuSE Project envisions a three-year demonstration program, with five PEVs stationed throughout Hood River, at affordable housing sites, the city center, and tourist destinations. American Honda is loaning five post-lease Clarity EVs to the project. Envoy Technologies will provide the car sharing platform, enabling users to reserve and access vehicles via a smart phone, paying by the minute or hour, and returning the PEV to its home base. As part of this Project, Envoy will provide a Spanish translation of its app to appeal to diverse community members, alternate payment mechanisms to meet the needs of those without access to credit cards or bank accounts, and tiered pricing structures, enabling different prices to be charged to different user groups, enabling the potential for subsidies to be offered to qualified user groups.

Forth will work with the City of Hood River, Hood River Columbia Area Transit, the Port of Hood River and Ride Connection, along with several community organizations such as Columbia Cascade Housing Corporation (an affordable housing provider) and Mid-Columbia Economic Development District to assess transportation needs and establish Envoy car sharing at optimal parking locations. Several of these organizations have indicated a willingness to provide a parking space for car sharing services throughout the three-year project period. PEV Charging installations will be facilitated by the local utility, Pacific Power, and OpConnect.

Pacific Northwest National Laboratory will perform data collection and analysis, to help the Project develop a model of financially sustainable car sharing, which will be refined and improved throughout the project. Forth and Columbia Willamette Clean Cities will disseminate the findings via webinars, conferences, regional workshops, to publicize results and entice other Clean Cities Coalitions to pursue initiating PEV car sharing in rural communities, nationwide.

Potential Impact: If successful, the CRuSE Project could bring PEV car sharing services to underserved rural communities nationwide, providing rural America with improved transportation access, energy efficiency benefits, environmental benefits, at lower costs to users.