Emily S.

The move to all-electric vehicles is a proposal that should not be considered for several reasons:
1) Even this week California has asked residents to refrain from charging the limited number of cars in their state due to power grid issues. Until there are ample charging stations and stable power grids across the country available to all, at a reasonable cost, the entire move to electric cars will not only be a disaster for transportation but can impact people's ability to live to lack of access to stable power sources or goods/services.
2) Secondly, how do you propose to create charging stations for those in rural or recreation areas? People would be unable to enjoy what Washington has to often instead of taking a 3 hour trip over the mountain pass to experience Leavenworth, see Mount Rainer, or even enjoy the Washington coast would take longer because the battery would be drained to the vehicle and you would need to stop to charge. The infrastructure is not there to support this outside the Puget Sound or I-5 corridor region. I seriously think the Washington State Department of Ecology and Governor Inslee do not think about rural Washington when coming up with these policies. The cost of charging station installation even in my home alone does not make this feasible I can see some disadvantages in counties like Grays Harbor or Jefferson being able to install this throughout their towns and cities.
3) The environmental impacts that are not fully considered for the implementation could be counterproductive for example Electric vehicles do generate emissions in a different way, however. The power plants supplying energy to the grid we use to charge those vehicles can produce harmful greenhouse gas emissions if they're powered by burning fossil fuels. Areas on the West Coast have a more renewable-heavy mix, drawing on sources such as wind and solar to power more of the grid, but they still rely on fossil fuels to some extent. Extreme heat and cold have negative effects on the efficiency of electric vehicles. EVs in more extreme climate areas in the U.S. can use up to 15%(Opens in a new window) more energy on average, according to Carnegie Mellon University's Department of Engineering and Technology. In the very coldest areas, it can be as much as 40%(Opens in a new window) more energy use. Cold weather slows down the chemical reactions that take place inside the lithium-ion batteries that power all-electric cars, and it requires more power for auxiliary electrical systems such as heating. That extra energy use could translate to higher emissions if that power is drawn from fossil-fuel-burning power plants.
4) Battery manufacturing alone was not considered in this policy: Battery and vehicle manufacturing are the most emissions-heavy processes involved with an EV. Around half(Opens in a new window) of the lifetime emissions from an EV's battery come from the electricity used in its manufacturing and assembly, according to the Swedish Environmental Institute. There's also the matter of the metals that go into those batteries, such as cobalt and lithium. These metals have to be mined out of the earth through processes that are anything but green(Opens in a new window). In fact, mining the materials for an EV battery and assembling it produces more emissions(Opens in a new window) than the production of a gasoline car. The processes involved in mining rare earth metals are water-intensive(Opens in a new window) and can be harmful to the surrounding environment, wildlife, and people. EV battery recycling is another area of environmental concern. It's currently very difficult to extract the metals from a battery at the end of its life and use them in the construction of new ones, and the process is energy-intensive. That could be why a 2019 Chemical and Engineering News report puts the number of lithium-ion batteries currently being recycled at under 5%.
6) Driving Patterns need to be considered: Whether an EV is used mostly for city or highway driving is another determining factor in their environmental cost. Studies have

found that in city driving conditions, EVs and other electrified vehicles like hybrids have the potential to drastically cut emissions(Opens in a new window) and save drivers money over their lifetime compared with conventional cars—especially in stop-and-go traffic. On the highway, though, EVs did only marginally better than gas cars at reducing emissions while costing more.

In conclusion, EVs already have less of an environmental impact over their lifespan than gas cars. That impact can only go down. A grid increasingly powered by renewable energy sources, when coupled with an efficient battery recycling program as well as improvements in battery technology, will go a long way toward making EVs the green machines we all picture in our heads. Progress has already been made toward those ends, but we have a ways to go before Washington State should even consider implementing a policy such as this. WE ARE NOT CALIFORNIA due better for all your citizen Washington.