## Harvey Widman

ZEV, or zero emissions personal transportation vehicles specifically (automobiles) are a valid and useful transportation, however limited or impractical for many types of travel.

Liabilities; 1 the environmental cost of extraction of materials to construct the batteries. For each battery manufactured, there are tons of material mined out of huge strip and pit mines to obtain the materials.

- 2. The battery is merely an energy storage device. An electrical plant has to produce the energy to charge the battery. Here in the NW, we have hydro power, but we also have coal fired electrical plants, and those produce carbon emissions from the burning of fossil fuels.
- 3 every time the battery is charged, it loses a small increment of the amount of electricity it can deliver. Over time, the battery will become less and less chargable.
- 4. When used up, no longer to effectively be charges, the battery itself becomes a hazardous waste.
- 5. The regeneration of 110 volt charge time for most electric vehicles is glossed over, and the high cost of installing 220 volt charging systems into the average home are not brought to the public attention.
- 6. Lithium based batterys have shown such a high potential of fire generation, that they are not recommended to be placed in garages
- 5. THE BIGGEST LIABILITY for electric vehicles is that they are promoted as a political platform, with those proclaiming their desibability, apparently having very little actual knowledge about the characteristics of the different types of electric vehicles. Politically, they are ZEVs, zero emissions vehicles, which anyone with a working knowledge of the vehicle type knows is false.

Banning the sale of gasoline fueled vehicles

So, are they then necessarily bad? No, not at all.

In limited distance usage, such as campus areas, manufacturing plants, government jurisdictions where the average trip distance is short, the electric vehicle works very well. I volunteer in a large campus museum, where we use them very effectively, to move visitors around and avoid noise. We use the lead acid battery type vehicles which can be effectively charged on 110 v overnight. ( the average electric car takes 96 hours to get a full charge on 110v. – 4 days )

In order to properly access the viability of electric vehicles, perhaps the best way proceed is to mandate that every Washington State department, including WASHDOT, switch over to electric vehicles, and let the state employees determine their usefulness over a 5 year period. I would suggest that all police departments be exempt from this exercise.

Meanwhile, the Washington State government should not restrict the process of free personal choice and free commerce relative to vehicle sales. A great percentage of folks actually think and analyze what their realistic needs in transportation are, and many are willing to try new methods ( specifically electric vehicles ) without government mandates. In the local area, there seems to be a significant uptic in electric vehicles sales without government interference. An outright ban on the sale of internal combustion engine cars will backfire on you folks, because it will be another example of perceived elitists inflicting their political agendas on the average working citizen.