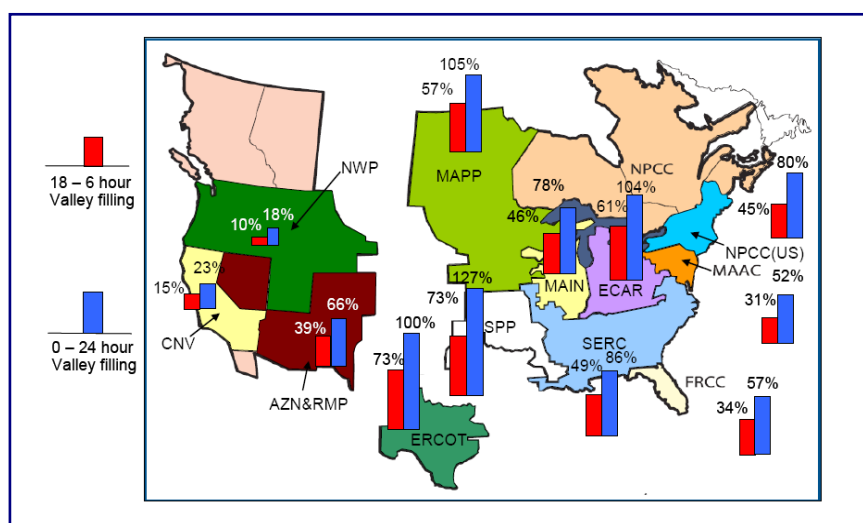


## Study Released on the Potential of Plug-In Hybrid Electric Vehicles

A new study released on Plug-in Hybrid Electric Vehicles (PHEVs) found there is enough electric capacity to power plug-in vehicles across much of the nation. The Office of Electricity Delivery and Energy Reliability supported researchers at the Pacific Northwest National Laboratory to develop this study that found "off-peak" electricity production and transmission capacity could fuel 84 percent of the 198 million cars, pickup trucks, and sport utility vehicles (SUVs) in the nation if they were plug-in hybrid electrics. This is the first review of what the impacts would be of very high market penetrations of PHEVs.

Researchers also found that in the Midwest and East there is sufficient off-peak generation, transmission and distribution capacity to provide for all of today's vehicles if they ran on batteries. However, in the West, and specifically the Pacific Northwest, there is limited extra electricity because of the large amount of hydroelectric generation that is already heavily utilized.

The study also looked at the economic impact on consumers. Because PHEVs are expected to cost about \$6,000 to \$10,000 more than existing vehicles - mostly due to the cost of batteries researchers evaluated how long it might take owners to break even on fuel costs. Depending on the price of gas and the cost of electricity, estimates range from five to eight years, about the current lifespan of a battery. If utilities could offer a lower price per kilowatt hour on off-peak power, PHEVs may be even more attractive to consumers.



The graphic depicts the technical potential for fueling the regional light duty vehicle fleet (cars, pickup trucks, SUVs, and vans) with available electric capacity. "18 - 6 hour Valley filling" refers to night charging period where vehicles are "plugged-in" from 6pm to 6am. The "0 - 24 hour Valley filling" is for an entire day of charging.