Eco-Driving by Walter Weiss
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To access the recording, click here:
https://drive.google.com/file/d/1qJNYHD2_H-pplcGaqH-X7cU6nRc9MEQ3/view?usp=share_link

By 2050 most cars will be electric. however unless electric generation is not using fossil fuel, cars will still be causing ghg emissions. Now in MD 60% of our electricity is from coal or gas. In 2050 all our electricity may be renewable.

However, In 2050 I will be 100

Alternatives to cars, such as Walking , public transit, and cycling have limited use living in the suburbs

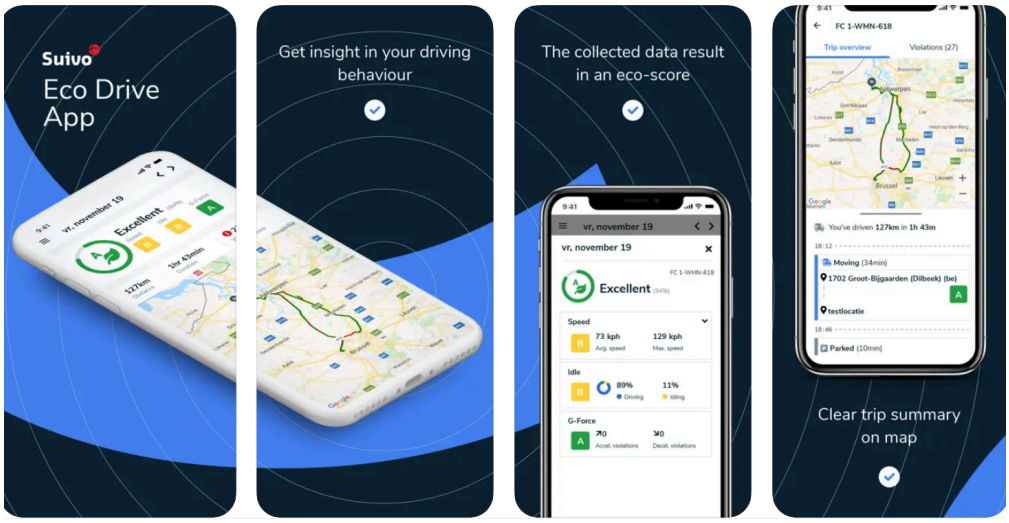
Most of us will not buy an electric car until our gas car needs replacing

So what can we do in the next 25 years to boost driving efficiency?

- If you have 2 cars, use the one with the best mileage for most trips
- When possible reduce trips by combining errands
- drive no more than 55mph. at 75mph wind resistance is four times as great compared to when a car is going 55 mph. this reduces the mpg by about a third.
- Understand how the engine burns gas. Each time the crankshaft turns a small amount of gas goes into the cylinder to be burned. RPMs are revolutions of the crankshaft per minute. So to use the least gas on a trip, the goal is to have the engine turning the fewest number of rpms.
- When you step on the accelerator, the number of rpms goes up and you hear the engine making more noise. So how to drive with the least use of the accelerator?
- The perfect trip would have you start by pushing down on the accelerator pedal very gently and letting the car come to speed over 30 sec to a min. then you hold the speed constant for the whole trip. using cruise control on the highway is a good way to do this.
- Then when you are reaching your destination, start breaking slowly so that your hybrid engine will capture the energy and charge the battery.
- Things that get in the way of the perfect trip
    a. You might need to accelerate faster than you want to merge with traffic
    b. If there are stop signs, reduce your speed slowly as you approach, then accelerate again as slowly as possible
    c. If you see a red light ahead, try slow down far ahead so the light changes to green by the time you arrive and you can carry your speed.
- What happens if you drive this way?
    a. If you drive 55 on the highway other people will be passing you. set your cruise control, and sit in the slow lane. This is very relaxing.
    b. I drive 20 miles from Bethesda to Germantown on 270. At 55mph this takes me 22 min. if I drove at 75 mph it would take me 16 min. so by leaving 6 min early I save about a third of the energy. This is true for both gas and electric cars.

c. It takes a lot of attention to accelerate and decelerate optimally. Accelerator pedals increase rpm fast, and you have to develop a light touch. Break pedals are easier to depress slowly.
d. It takes a lot of attention to look far ahead for stop signs and stop lights and begin slowing. You might not be able to listen to the radio or have a conversation.
e. If you are at a stoplight, it does not bother other cars if you accelerate slowly. This might be because people who are turning always need to accelerate slowly, so drivers are used to this happening. However, it really bothers other drivers if you slow down well before a stop sign or red light. Most drivers go full speed up the red light and they get annoyed if they are behind you.

- Feedback
  a. For changes in behavior it is very useful to have immediate feedback and rewards.
  b. My Prius gives me an efficiency rating from 0 to 100 after each trip which appears on my dashboard. Very soon after getting this car I changed my driving style so that I usually can get in the 80-95 range.
  c. There are driving efficiency apps for iphones which do the same thing using gps.
  d. Every time I do two or more errands on one trip, I give myself a red sticker on our calendar. No matter how many advanced degrees you have, you always want that sticker and think of ways to get more.




SCORE 82/100
Try more Moderate Temperatur
Setting to Improve Score