Electric Cars

Alan Baker
SIR Branch 69
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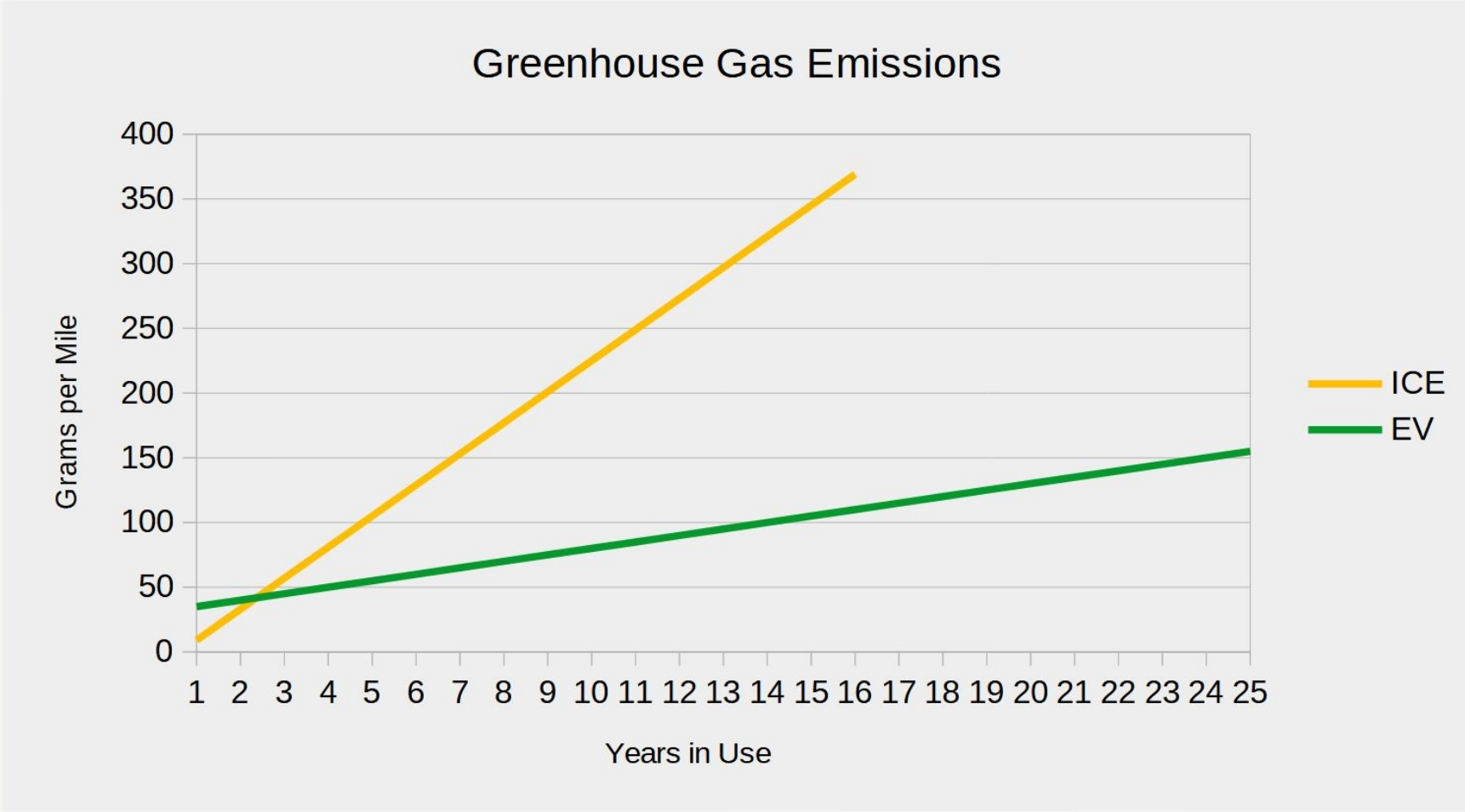
https://alanbaker.net/
presentations/ev2024.pdf

Let’s Discuss...

- Driving
- Environmental impact
- Charging
- Maintenance and costs

Driving

Efficiency and the Environment



"Before I can sell you an electric car, I'm required to disclose the fact that everyone will ask you how many miles it gets before you have to recharge it."

Battery Charging

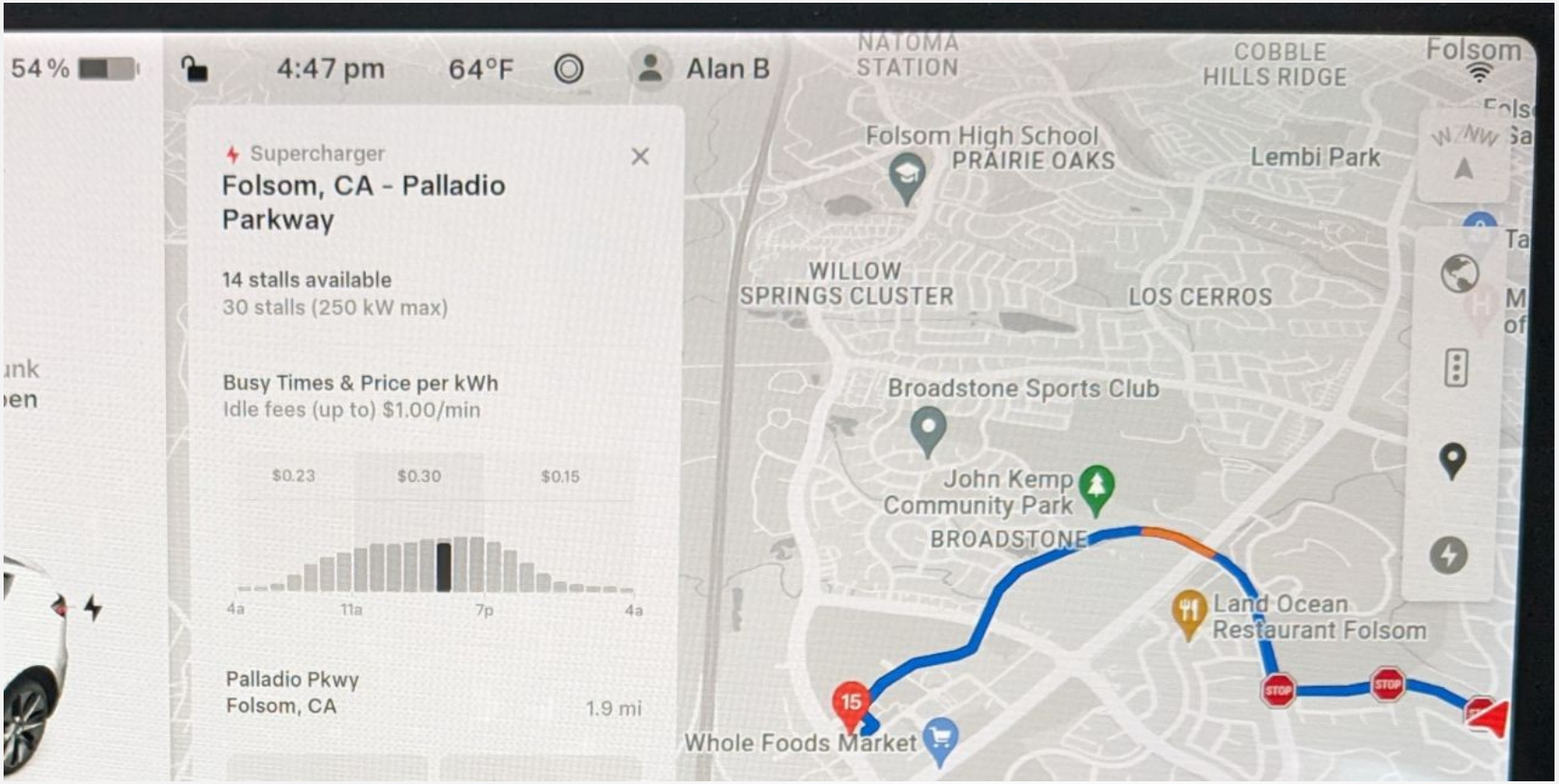
Level 2: 240V AC

- At home or a hotel (80-90% of the time)
- Charge overnight
- SMUD off-peak fill-up costs under $7

Level 3: 480V DC

- At a commercial charging station (10-20% of the time)
- Charge in 20 - 30 minutes.
- Costs vary widely but usually less than gasoline

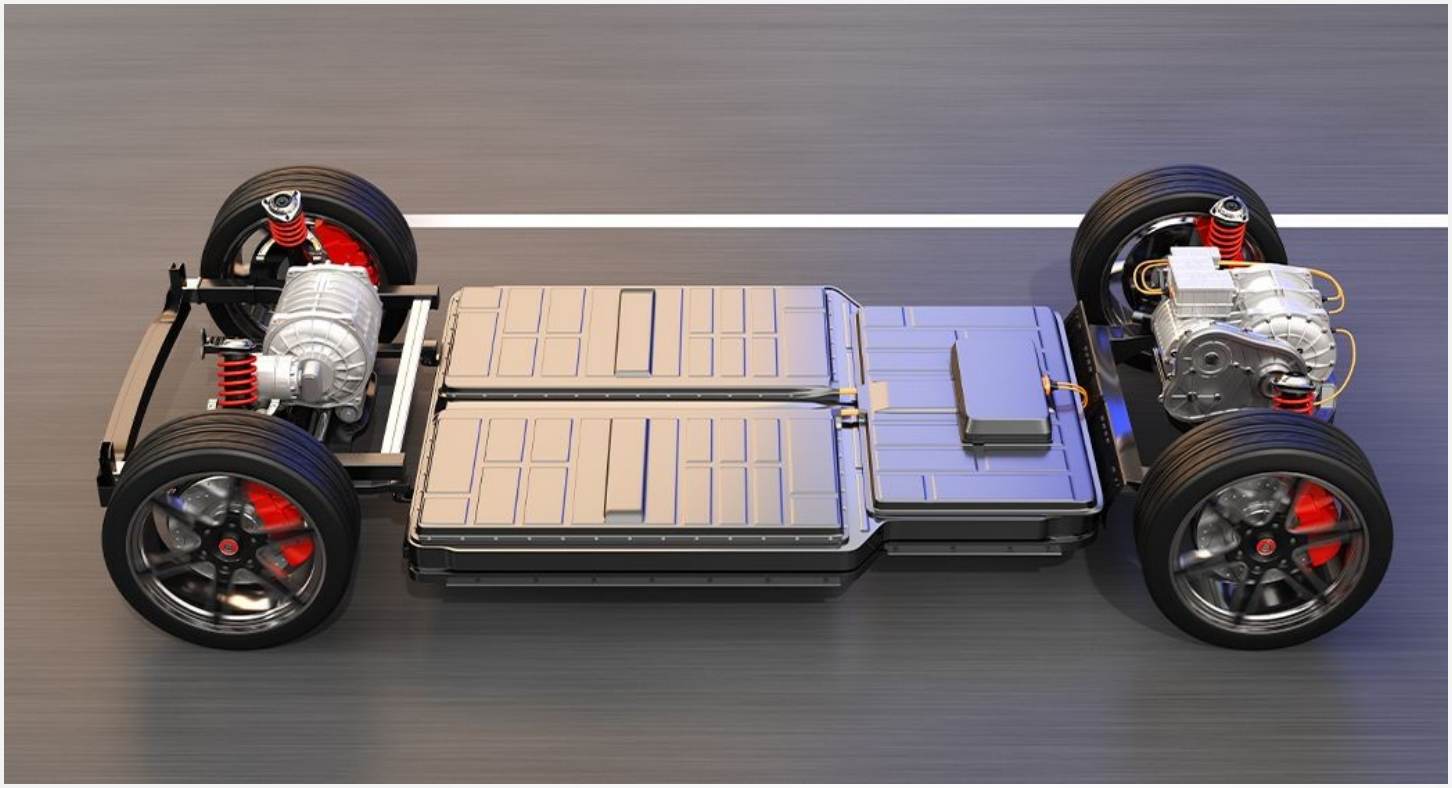
Fast DC Charging Stations



Reliability and Maintenance

NO Pistons, Cams, Crankshaft, Timing belt, Water pump, Oil pump, Oil filter, Air filter, Fuel pump, Fuel injectors, Transmission, Differential, Gas tank, Radiator, PCV, valve, EGR valve, Spark plugs, Exhaust manifold, Muffler, Catalytic converter

How long will that battery last?



Most electric car batteries will retain 70% of charge for 300,000 miles. This is longer than the entire lifetime of an average gas-engine car (180,000 miles).

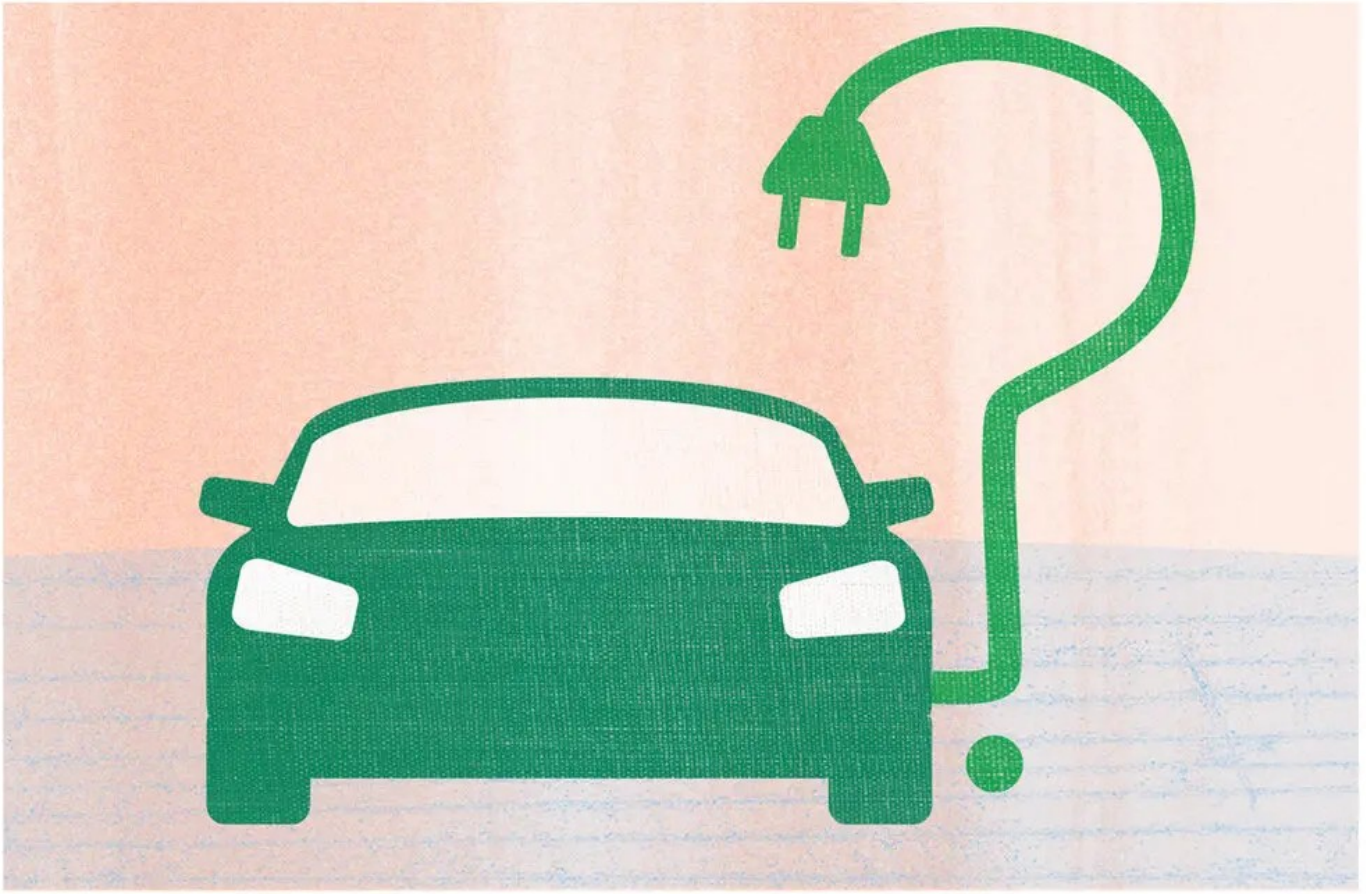
Costs

- Average **new electric vehicle** price: $51,000 excluding tax incentives
  - Down 22% from a year ago
- Average **new car** price: $49,000
  - Same as a year ago

In Summary...

- Driving
- Environmental impact
- Charging
- Maintenance and costs

Questions?



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