
Electric Cars Revisited

Videos:

“Why the EV Revolution May Finally Be Here”

<https://www.youtube.com/watch?v=GonE8Iv92C0>

(4:20 minutes)

“Electric Cars: Inconvenient Facts, Part 2”

<https://www.youtube.com/watch?v=by0LCaj22Sg>

(5:37 minutes)

Guide:

The questions below will help students achieve a better understanding of the arguments made on either side of a contentious topic. Because these questions often touch upon statements made briefly in the videos, we recommend reading the questions before watching each video.

Students are encouraged to take notes during the videos, and it may be helpful for students to break into groups, each taking responsibility for only a few questions, before coming together for discussion.

Analysis Questions:

1. What are the opposing ideas in these two videos?
2. In the Stossel video, Mark Mills said: “Engineers are really good at making things better, but they can’t make them better than the laws of physics permit.” What did he mean by this?
3. In the Bloomberg video, Kal Penn said internal combustion engines are basically “little campfires under our [car] hoods.” Do you think gas-powered engines are due for replacement? Have we outgrown their usefulness? Why/Why not?
4. Mark Mills said that the U.S. would need to double its electric grid in order to stop using gasoline, and that there’s no plan to do that, which will lead to rationing. What is “rationing”? Does this impact your opinion on electric cars? Why/Why not?
5. Kal Penn said transportation accounts for 27% of U.S. greenhouse gas emissions. Is this number higher or lower than you expected? Does it change the way you view transportation? Why/Why not?
6. Mark Mills described the rhetoric around clean energy as “propaganda.” What did he mean by this? Do you agree with this description? Why/Why not?
7. Kal Penn said that while sales of electric vehicles have multiplied worldwide, they’ve been slow to catch on in the United States. Why do you think Americans have been slower to adopt electric vehicles?
8. Mark Mills said that even if we switched entirely to renewable energy sources like wind turbines and solar panels, “it’s [still] just big machines to make lots of energy for humanity.”

What did he mean by this? Does it change the way you think of renewable energy?

Why/Why not?

9. Kal Penn said that the 2021 Infrastructure Bill set aside \$5 billion to build more charging stations for electric vehicles. Do you think this is a good use of money? Why/Why not?
10. Mark Mills said we've "had our energy systems designed by bureaucrats instead of by engineers, and what we're getting is worse energy, more expensive energy, at higher environmental impacts." What role do you think the government should have in energy? Does the government do more harm than good in this area? Why/Why not?
11. Kal Penn described V2G technology, a system in which electric vehicles can feed their stored energy back into the grid. What are the benefits of this? Does it solve the fact that we don't have enough electricity to support a total switch to electric vehicles? Why/Why not?
12. Mark Mills said electric vehicles are good, because they reduce demand for oil. Should we accept electric vehicles as a valuable option alongside gas-powered vehicles, rather than a total replacement? Why/Why not?
13. Did these two videos share any common ground? Were there any points on which they agreed? If so, what were they?
14. Should one of the arguments we heard carry more weight than the other? If so, which one? Why?
15. Do you have any firsthand experience with electric vehicles? Would you want to own an electric vehicle? Why/Why not?
16. How concerned are you about climate change? Have these videos affected your concerns? If so, how?
17. Did you have an opinion on this topic before watching these videos? If so, what was it? Has your opinion changed? If so, how? What did you learn from these videos that affects your views on this topic?
18. For more on this topic, see our first entry on Electric Cars:
<https://stosselintheclassroom.org/both-sides-electric-cars/>
19. What else would you like to learn about this topic?