

Natural Resources Line of Inquiry

Lesson 3

Challenges of Hydrogen - CCRS Level C

Hydrogen fuel cells can power vehicles like buses and trucks and even some smaller cars; however, making the hydrogen gas we need to fuel these cells often uses energy from burning fossil fuels, so even though using hydrogen might make the vehicles less polluting, making the fuel itself can create a lot of pollution.

Right now, there are not enough places where we can get hydrogen fuel easily. To switch a large country like the United States over to hydrogen fuel would take a lot of money and work to build new places to make, store, and move the fuel. Some people think it might be better to spend that money on making our current energy sources, like coal, cleaner instead.

There's also concern that hydrogen leaking out during its production and use could harm the ozone layer, which protects us from the sun's harmful rays. Scientists are still studying this, but it is something we need to be careful about.

Overall, hydrogen fuel is still being looked at, but right now, there are a lot of problems with it, so it might not be the best choice for our future energy needs.

Adapted from:

Using Natural Resources for Energy: Reader (2019). Core Knowledge Foundation.

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Zehnder, Caralyn; Manoylov, Kalina; Mutiti, Samuel; Mutiti, Christine; VandeVoort, Allison; and Bennett, Donna. (2018). *Introduction to Environmental Science: 2nd Edition*. Biological Sciences Open Textbooks.

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