

R&D GREET 2 Quiz

Feb 6, 2025

Answer these questions using R&D GREET 1, R&D GREET 2, a calculator, and your notes from the session.



GREAT PLAINS
INSTITUTE

Argonne
NATIONAL LABORATORY

U.S. Department of
ENERGY

* Required

1. Name *

2. Email *

3. How do you sync the results between R&D GREET 1 and R&D GREET 2? *

[Press "Reactivate GREET 2 Link" on the Inputs tab of R&D GREET 1](#)

4. Do you need to have R&D GREET 1 open for R&D GREET 2 to accurately run full featured simulations?

Yes

No

It depends

Also accepted It depends

5. Does an SUV BEV or an SUV ICEV emit more GHG emissions from producing the vehicle by default? *

SUV BEV

SUV ICEV

Neither

6. What is the default weight share (wt. %) of rubber in a tire? *

66.7%

7. What is the default battery type for a fuel cell vehicle? *

Ni-MH

Also accepted NMC111

8. In your own words, describe how R&D GREET 2 transforms the greenhouse gas emissions of vehicle production results into units of g/mile? (1-3 sentences)

Answers will vary* see slide 44 of the R&D GREET 2 Demo slide deck

9. Describe the challenges of replacing steel with aluminum for use in vehicles.

Answers will vary* see slide 77 of the R&D GREET 2 Demo slide deck

10. What is the default electricity generation mix used in aluminum smelting? (Hint: search for the answer in R&D GREET 2) *

NA smelter mix

11. Model a **2022** SUV BEV using an **NMC111** battery with 100% recycled steel and virgin aluminum. Assume the aluminum is produced with 100% hydropower electricity. How many grams of greenhouse gases are emitted from the production of the vehicle per mile? *

56 g CO₂e/mile - same scenario as indicated on slides 75-93 of the

R&D GREET 2 Demo slide deck

12. Model a BEV **car** using an **NMC622** battery in 2022 with **50% recycled steel, 50% virgin steel**, and virgin aluminum. Assume the aluminum is produced with 100% hydropower electricity. How many grams of greenhouse gases are emitted from the production of the vehicle per mile? *

59 g CO₂e/mile

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