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Section: 3

Assignment: Simulating Climate Futures in En-ROADS

Working with the *En-ROADS Climate Solutions Simulator*, create a scenario that can mitigate global warming to the internationally agreed target of **below 2°C by 2100**.

For more details, visit: climateinteractive.org/tools/guided-assignment-welcome/

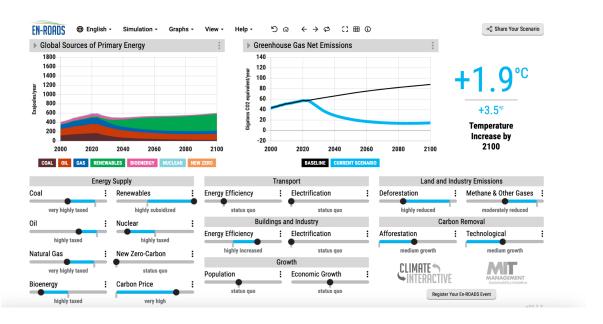
Steps

- 1. **Open En-ROADS** at <u>en-roads.climateinteractive.org/</u>. If you are new to En-ROADS, review the <u>Guide to the En-ROADS Control Panel</u> and watch the <u>introductory video to En-ROADS</u>.
- 2. **Develop a scenario.** Use En-ROADS to develop your vision of limiting global warming to less than 2°C (3.6°F). Save your scenario link: Click on "Share Your Scenario" in the upper right-hand corner of En-ROADS, then choose "Copy Scenario Link."
- 3. **Answer the questions.** After developing your preferred scenario, write a concise response to the questions below.

Questions

1. **Your Plan**: What are the top 3-5 most important policies in your strategy? (For example, the most important sliders that you moved). Paste your scenario link and a screenshot of your final En-ROADS dashboard.

https://en-roads.climateinteractive.org/scenario.html?v=23.2.2&p1=46&p7=27&p10=2. 1&p16=-0.03&p23=21&p30=0.05&p39=193&p47=3.1&p57=-6.6&p59=-45&p65=45&p67=47&q0=2&q1=62



Most Important Strategies:

- Lowering carbon usage and, therefore, carbon emissions by increasing the carbon price and coal taxes
- Lowering the usage of fossil fuels like oil, coal natural gas and turning to renewables
- 3. Increasing the carbon removal by afforestation and technological carbon removal and by lowering the deforestation and methane & other gases' release to the atmosphere
- Lowering the usage of Bioenergy and Nuclear energy while increasing the energy efficiency



- 2. **Political Feasibility:** To implement your proposals, what actions and priorities are needed over the next two years in businesses, civil society, government, and the public?
- Creating political consensus through campaigns and new tax reforms by pricing carbon and coal, and other fossil fuels more to reduce carbon emissions
- Encouraging investments in the renewable energy infrastructure while discouraging usage of bioenergy and nuclear energy
- Creating laws and penalties (if there are already, make them harsher) to discourage deforestation
- Creating laws and tax discounts for the people or companies that are investing in technological carbon removal and afforestation
- Governments give tax discounts to individuals and companies that lower their usage of energy/use energy more efficiently by month
- 3. **Winners/ Losers:** Who would be the biggest winners and losers globally in your proposed future? Create a table with two columns for winners and losers.

Winners	Losers
efficient energy user citizens/companies, investors in technological carbon removal, investors in afforestation, renewable energy companies, most/all of the living creatures on earth (as the global warming will slow down)	Fossil fuel companies/investors, paper companies/investors, bioenergy and nuclear energy investors/companies

4. **Surprises:** What surprised you about the behavior of the energy and climate system as captured in En-ROADS? For example, what actions had a bigger or smaller effect than you thought?

Except for the carbon price, the elements under the energy supply did not change much in global warming. I thought the renewables and reducing the fossil fuels lower the global warming much more. New Carbon Zero changed nearly nothing. And energy efficiency hardly changed 0.1-celsius degrees.



- 5. **Hope:** What trends in the world give you hope that your proposals are possible?
- Campaigns for global warming awareness.
- Increase in renewable energy technologies and usage
- Increasing support in reducing greenhouse gas emissions
- 6. **Personal Action:** What can you personally do to help create the necessary changes?
- Start using the energy in my house more efficiently
- Supporting initiatives and organizations to reduce greenhouse gas emissions and renewable energy

