Activity

Navigating the Green Transition

Learning Objectives

Students will synthesize information and predict possible outcomes of electrification and the green transition in the United States.

Length

One class period

Materials

How Electrification Can Reduce Emissions

Why Energy Storage is Essential for a Green Transition

Why Electric Grids Need to Be More Resilient

How Energy Conservation Can Help Fight Climate Change

Navigating the Green Transition Slides

Navigating the Green Transition Worksheet

Instructional Plan

1. (10 min) - Begin class with a review game designed to encourage student reflection and analysis of the assigned homework readings (linked above).
    1. Review game: Divide students into four groups based on the following topics: electrification and renewable energy sources, energy storage, grid resiliency, and conservation. Using a timer, provide groups with five minutes to write as many key words and ideas about their topic on the chalkboard. Keywords for electrification, for example, might include “solar power” or “hydropower.”
    2. Instructors might encourage students’ engagement in the review game with an element of friendly competition, perhaps by promising an “Energy Star” to the group that lists the most—and most relevant—keywords.
2. (5 min) - Have students share their group’s responses with the full class, paying particular attention to each group’s recommended takeaways about their topic.
3. (5 min) - Provide students five minutes to ask and discuss any remaining or clarifying questions about energy and the green transition.
4. (40 min - activity) - The remainder of class is a work session for a creative student assignment that blends content knowledge with practical application.
    1. Assignment: Working individually or in pairs, students will write a fictional policy brief about energy

use and electrification in the United States in the year 2100.

1. As noted in the slides (attached), completely policy briefs should:
    1. Summarize country's past relationship with climate change
    2. Summarize transition away from fossil fuels
    3. Identify energy sources used to power everyday life
    4. Identify areas of concern - ethical and practical - with U.S.'s use of renewable energy (steps forward, as climate change will likely not have been resolved)

Notes:

- Students may benefit from ideating their brief with the help of the "Navigating the Green Transition Worksheet" (attached above). This worksheet includes prompts that are intended to encourage students' analysis of electrification in their own moment, as well as students' predictions of what steps might be taken in future decades to encourage a green transition in the United States.
- When encouraging students to take this activity seriously, instructors might announce that the activity requires a blend factual analysis with imaginative prediction. Instructors might also incorporate rules or rubrics of their own design to keep the submitted assignments grounded in reality.
- Instructors might consider offering students the option of refining their in-class work at home and submitting a polished policy brief as homework (due by the start of the next class session).