

- Student worksheet for case study - Clean energy vehicles at the Beijing Winter Olympics



Generic green skills

Cognitive competencies:

- Systems and risk analysis, skills to assess, interpret and understand both the need for change and the measures required
- Ability to make judgments based on both evidence and sustainability values

Interpersonal competencies:

- Strategic and leadership skills to enable policymakers and business executives to set the right incentives and create conditions conducive to cleaner production, cleaner transportation, etc.



Learning objective

You will be able to:

1. Understand the concept and mechanisms in relation to how clean energy vehicles (CEVs) work.
2. Investigate how much carbon emission could be reduced with clean energy vehicles.
3. Explore the environment and economic potential of clean energy vehicles in your country/local community.



Format

Small class with working groups of up to 6 people per group



Resources needed

Laptop, whiteboard, A4 paper, pens, case study



Time required

Up to 180 mins (divided into 2 classes)



Assessment

You will be assessed based on:

1. The quality of your report on clean energy vehicle development.
2. Final presentation: Clear, logical, and realistic point of view about the potential of clean energy vehicles and suggestions as to how to overcome challenges related to the use of CEVs in the country or local community.

Before the class:

Read the case study “Clean energy vehicles at the Beijing Winter Olympics” and answer the following questions:

1. What are clean energy vehicles and how many types of clean energy vehicles can you identify?
2. What are the environmental issues caused by carbon emissions?
3. How do clean energy vehicles work to combat carbon emissions?



During the class:

1. Group sharing (40 mins)

- a. Go through the case study and discuss the pre-class questions with your group.
- b. Summarize your group discussions on A4 paper. It is suggested you use different graphical forms to present your findings (e.g. graphs, a mind map and a tree map).
- c. Share your group work with the whole class.

2. Online research and group discussion (40 mins)

- a. Find out how clean energy vehicles have developed in your country/region. You can focus on the questions listed below but you are not limited to them.
 - i. How many clean energy vehicles have been sold in the market in China/in your country? Has there been an increase in sales over the last three years?
 - ii. Is there a developed infrastructure (recharging/maintenance) in your country?
 - iii. Is it worthwhile, economically and environmentally, to develop clean energy vehicles in your country?
 - iv. What incentives are required to stimulate consumer demand?

Each group member should focus on one question do some online research and then discuss the findings with the group.

- b. Discuss how to organize the group findings as a brief report. Consider the marking criteria for the report. You can develop a report outline and specify who will be working on different parts of it.

After the class:

1. Write up the group report.
2. Prepare to present your report in class 2.



Class 2

Before the class:

1. Upload your group report to the online learning platform.
2. Read the other groups' reports and provide comments.

During the class: Group presentation with Q&A session (60 mins)

1. Present your group report. During each presentation other groups should formulate at least 2 questions based on individual comments that you formulated before the class. Have a discussion about this with your group.
2. Discuss, collectively in class, what should be done to meet government targets for CEV production and consumption? What incentives should be in place?
3. After each group's presentation, identify any further questions you might have and provide suggestions.

After the class:

1. Improve your group report based on the comments and discussions.
2. Submit your group report as required.

Reference:

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