

# THE CASE OF RARE EARTH ELEMENTS



## **Stewards Group: You are an Environmental Engineer**

### **Your Background and Biography**

As a young child growing up in the American South, you were fascinated by a pop-up book about the Eiffel Tower. Maybe that's why you studied engineering and French as an undergraduate. Your junior year abroad let you see the real Paris and also introduced you to a series of professors who were studying critical materials—substances that are subject to supply risk and for which there are no easy substitutes, such as rare earths. The European Union began funding research into rare earth metals after 2010 in an effort to make the continent less dependent on Chinese supplies.

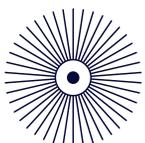
After finishing your undergraduate degree you returned to Europe to get a PhD in engineering at a top university. You were part of a project studying the use and recycling of rare earth elements in electric car motors. Your research specialty is life-cycle assessment. You tell your parents that you measure the environmental impact of each stage in the life of a metal, from mining, to refining, to manufacturing, to consumer use, to disposal or recycling. In your dissertation you compared the life-cycle impacts of rare earths mined and refined at Baotou in China with those mined in Australia and refined in Malaysia. Now you hold a postdoctoral fellowship to continue your research at a different university.

You also work with a recently formed organization that advocates for the global rare earth industry. You hope the new association will foster international partnerships and cooperation while working to reduce the negative social and environmental impacts of rare earth production.

Since you have just started your career, it is an honor to be asked to be a Steward in these negotiations. Your job in the negotiations is to maintain a broad view of the rare earth elements and to avoid favoring the interests of any one group of stakeholders in the rare earth industry. You want to make sure that the Sustainability Seal benefits everyone and creates a more truly global supply of rare earth elements.

### **Your Role**

Your goal is to write a statement of guiding values that will set the standards for sustainable practices within the rare earth elements industry. Learn as much as possible



from the experts to ensure you make the right decision. During this hearing you should do the following:

- Keep an open mind. Allow yourself to be persuaded by well-reasoned arguments and convincing evidence.
- Find out as much as possible about the issues so you can carefully evaluate the arguments presented. Consider what is in the best interest of the environment and our future.
- Facilitate discussion and cooperation within and among the groups. Your goal is to implement the best, most effective set of Sustainability Seal guiding values possible, which will require compromise between groups.

## Your Assignment

You will become the expert on the Manufacturers or Consumers Group and report back to your fellow Stewards with an evaluation of the group's position and arguments. Engage in the following activities as you conduct your research:

- Attend the meetings of the group to learn more about its arguments and to plan for the hearing. Remember that you are an observer, so you should not participate in discussion.
- Write two questions you would like to ask the group during the hearing.
- Write a one-page analysis of the group's main arguments and positions. What are its main concerns? Which of its arguments do you find convincing? Which are unconvincing? Why?

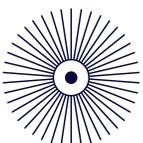
## SOURCES

### Group Sources

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