

## *Sustainability Group*

You are an **Executive from a Major Manufacturer of Corn-Based Bioplastic**

### **Your Background and Biography**

You are a high-level executive from an international company that manufactures corn-based bioplastic. As a child growing up in Iowa, you lived and worked on your family's farm, and so the experience of the American farmer is close to your heart. You have seen firsthand the uncertainties of farming, and you learned at a young age the important roles science and technology play in maximizing crop yield. You also learned the value of hard work and never hesitate to roll up your sleeves and get your hands dirty.

When you were in high school, you planned to go to college to study agricultural technology and eventually take over the family farm, but during your first semester a chemistry class caught your attention. You realized that you had a real talent for scientific thinking and that the potential for discovery that the field offered inspired you. Your career goals shifted, and you changed your major to chemistry. After graduation you started advanced study in chemical engineering at a prestigious polytechnical university, gaining valuable experience working in the lab of a prominent polymer chemist. After finishing your Ph.D. you became a research scientist for one of the world's largest polymer manufacturers. As part of your job you became involved in the business end of science: business development, commercial application of technology, and marketing.

While your work was financially rewarding, you found yourself frustrated that most of your time was spent doing marketing and networking rather than scientific investigation. You wanted to tackle scientific problems and overcome challenges. You also worried that no one at your company seemed concerned about the impact your newly developed plastic products would have on the health of the planet and the safety of its inhabitants.

So you decided to make a change. You and a colleague started your own company to investigate an increasingly visible part of polymer chemistry: bioplastics. Your years on a farm inspired you to explore corn-based bioplastics, and over the course of the last 20 years your company has slowly grown to be an international leader in bioplastic manufacture. As a leader in the field, you have also become a vocal advocate for bioplastics. You are a longtime member of the Society for the Plastics Industry's Bioplastics Council, where you encourage lawmakers to support the continued development of these polymers. You believe that the challenges we face today from waste and toxicity issues created by the manufacture of plastics are best taken on by science, and you do not advocate for extensive regulation that will stand in the way of new product development. Chemistry may have created some of the problems we face today, but chemistry will also provide the solutions.

## Your Mission

Your goal at this hearing is to convince the Regulators to include the Sustainability Group's recommendations in their final regulation. To make this argument effectively, you must

- Complete the assigned readings listed at the bottom of this page;
- Work closely with the other members of your group to develop clear answers to the Regulators' questions;
- Make use of as much specific information as possible to develop strong arguments for your position that creative problem solving and innovation are the best solutions to the pressing environmental problems caused by plastic waste and fossil fuel-based production;
- Read as much as you can about your position and the positions of the other groups; and
- Complete written reflections on your character, interest group, and readings as assigned.

## Your Victory Objectives

- **You will receive 10 points** if the Regulators select your group's proposal as the final regulation.
- The Regulators will rank the interest groups by how well their goals are represented in the final regulation. **You will receive between 1 and 5 points** based on how the Sustainability Group is ranked and how well the regulation reflects your goals.

## Sources

### Sustainability Group Sources

- Case Study: The Future of Plastics
- "Interview with Paul Anastas," video, [vimeo.com/channels/465871](https://vimeo.com/channels/465871)

### Your Individual Sources

- "I Have Just One Word for You: Bioplastics," by Mara Der Hovanesian, *Businessweek*, August 13, 2008
- Select **one article** from the bibliography on *The Case of Plastics* website recommended for the Sustainability Group. Read the article and write two paragraphs summarizing the article and how it will be useful to you in the upcoming debate.