

Computer game taps creativity of scientists to solve energy problems

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The American Chemical Society's (ACS) 238th National Meeting will be the site of a rare "thought experiment" intended to focus the creative genius of hundreds of scientists on solutions to one of the 21st Century's most daunting problems: Finding sustainable new sources of energy. The exercise will use a computer game format in the Walter E. Washington Convention Center, where more than 12,000 chemists and others will gather this week.

"This is a whole new trend in tackling problem solving," says April Orr, Assistant Director of Member Research and Technology for the ACS — the world's largest scientific society — and the experiment's manager. "It is a 'collaborative think' project," Orr added. "It leverages the intellectual power of chemists for the greater good. The idea is to get chemists to engage and think about how to solve future [energy](#) challenges. It is a computer game, but one with serious goals."

Players use their own computers to register on a Web site using an alias or an avatar. The computer asks players to consider a fictitious yet plausible scenario in which there is a rich abundance of cheap, efficient, and "green" energy sources in the year 2026, which happens to be the 150th anniversary of the Society. The game asks players to imagine the implications of this scenario of abundant, sustainable energy, including its benefits and challenges. Key questions include:

- What are the implications of massive [energy storage](#)?

- What inventions are possible?
- Risks associated with expanded use of metal ion batteries?
- Implications for mining and municipal solid waste disposal?
- What if the entire network of wires becomes obsolete?

Players will submit their ideas in response to questions related to that scenario. A moderator will review their answers. Players can also submit so-called "imagination" cards that express how they feel toward certain ideas. Players choose "positive" imagination cards to rate a best case scenario and "dark" imagination cards to rate a worst-case scenario. Players and moderators then pick their favorite ideas.

The moderator then will rate players on the overall quality of their ideas, assigning points. The players with the most points win the game. Ideas from the [game](#) will be made available to the scientific community, policy makers, and others, and some could possibly be applied in real life to help the world respond to future energy challenges.

Denise Creech, ACS Director of Membership and Scientific Advancement, acknowledged the project is an opportunity to engage members in a discussion: "Our mission as a leading scientific Society is to engage our members in discussions and perhaps even solutions, about pressing global challenges. Chemists, after all, will be part of the solution to emerging challenges, like energy, whether it is one of abundance or scarcity."

Source: American Chemical Society ([news](#) : [web](#))

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