



SWITCH
INTERNATIONAL ENERGY
CASE COMPETITION
2023 Faculty Guide



www.switchon.org/case-competition



Over the past three years, the *Switch* International Energy Case Competition (SIECC) has attracted over **2,500** university students from **43** countries.

Overview

University students from all over the world compete virtually for a distributed \$25,000 USD in prize money as they identify solutions to today's most pressing issue - global energy poverty.

Teams have three weeks to research, create a PowerPoint, and film a 10-minute video explaining their solution.

Executive Summary	
Problem Overview	<ul style="list-style-type: none"> ◆ Ghana at a glance ◆ Energy Poverty in Ghana - Cooking fuel crisis - Unreliable & unaffordable electricity
Clean cooking fuel	<ul style="list-style-type: none"> ◆ LPG and Biogas ◆ Technical & feasibility analysis ◆ Implementation approach & Timeline
Electricity: Affordable, accessible & reliable	<ul style="list-style-type: none"> ◆ Solar PV + Battery storage ◆ Technical & feasibility analysis ◆ Implementation approach & Timeline
Finance	<ul style="list-style-type: none"> ◆ Invest-Recoup-Reinvest model ◆ PPP model for electricity ◆ Cash-flow chart for investment
Environmental & social impact	<ul style="list-style-type: none"> ◆ Reduction in carbon emission ◆ Carbon credit market exploration ◆ SDG analysis ◆ Policy recommendations

Slide from SIECC 2022 winning team (Nimbus 2.0, Bombay, India)



Teams

Teams must be comprised of 3-4 students, 2 of which are undergraduates; remaining team members may be graduate students. Team members do not have to be from the same school or country.

Mentors

All teams are eligible to receive a mentor during the competition. Mentors are volunteers from the energy industry. Mentors meet with their team regularly to advise and guide students through their project.

Judges

The competition includes 3 rounds of judging:

- Preliminary Round (all teams)
- Semifinalist Round (top 15 teams)
- Finalist Round (top 5 teams)

Judges are experts in the energy industry and use a scoring guide to select advancing teams.

Faculty Benefits

- Increase student engagement in classroom topics, discussions
- Compliment course curriculum with expert-driven, trusted SEA content
- Enhance student understanding of complex scenarios
- Use SIECC student participation as a class assignment or opportunity to earn extra credit

Student Benefits

- Hone your leadership skills and engage with a global energy non-profit
- Network with energy professionals
- Compete for cash prizes while developing research and communication skills
- Gain experience virtually working and communicating with a remote team
- Obtain a deep understanding of a critical global energy issue
- Receive broad recognition by competing in an international competition

Video Resources

The Dual Challenge: Energy and the Environment

- Foundation of Modern Life Primer
- Energy Choices Primer
- Modern Cooking Fuels Primer
- Energy Poverty and Energy Access Primer
- Energy and Economic Poverty
- Energy Poverty Trends and Impacts
- Four Pillars of Energy Security
- Energy Transition

Additional resources are available on the SEA [Videos](#) and [Presentations](#) web pages.

How to Get Involved

- Promote SIECC with your students, encourage them to form a team
- Volunteer to be a Mentor or Judge
- Share this guide with your colleagues

For more information or to volunteer, please email SIECC Project Manager Carl Steffensen at Carl.Steffensen@switchon.org

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