



# Energy and Sustainability Fundamentals Recommended Lesson

## Description

As part of clean energy basics, the Energy and Sustainability Fundamentals lesson introduces energy and forms of energy, clean energy, and sustainability. You may use this plan or develop your own based on the topics presented below.

## Objectives

Upon completion of the sustainability portion of the clean energy training, students will be able to:

1. Discuss states of energy and forms of energy
2. Define clean energy
3. Define sustainability
4. Discuss threats to, and efforts of, sustainability practice
5. Identify renewable energy sources
6. Describe sustainable development
7. Describe how sustainability can be practiced in construction
8. Discuss sustainable transportation
9. Explain how different clean energy careers can help Illinois state reach its climate goals

## Learning environment & format

**Recommended:** May be offered in-person, as classroom-based training with discussions and student responses based on lesson concepts; or as online learning, with support from trainers and access to a facility with a computer.

## Tools and equipment

**Required:** This program requires:

- Laptops and/or computer lab
- Course materials/books

## Content overview

**Required:** Training programs will be required to cover the following basic energy and sustainability content:

1. [Sources of energy](#)
2. [Clean energy](#)
3. Sustainability fundamentals
  - a. Threats to, and efforts of, sustainability practice
  - b. [Renewable energy sources](#)
  - c. [Sustainable development](#)
  - d. [Sustainability in construction](#)
  - e. [Sustainable transportation](#)

## Evaluation methods

**Required:** Must have measurable learning outcomes and be able to assess whether those outcomes are met, using a variety of formative (continuous assessment module by module or providing multiple quizzes when appropriate) and summative assessments (final evaluation after compilation of all the modules).

**Recommended:** We recommend administering a quiz at the end of each lesson and demonstrations where it is appropriate.

## References

Climate change and CEJA related

- [CEJA and Climate Action](#)
- [Gov. Pritzker Signs Transformative Legislation Establishing Illinois as a National Leader on Climate Action](#)
- [The Clean Energy Jobs Act \(CEJA\)](#)
- [Illinois Passes Nation-Leading, Equitable Climate Bill](#)

Sustainability related

- [What is clean energy? How does it work? Why is it so important?](#)
- [Renewable Energy](#)
  - <https://www.energy.gov/eere/renewable-energy>
- [Sustainability – What Is It? Definition, Principles and Examples](#)
  - <https://youmatter.world/en/definition/definitions-sustainability-definition-examples-principles/>
- [What is Sustainability?](#)
- [Seven principles of green building](#)
- [The Methods and Benefits of Sustainable Construction](#)
- [The Construction Industry Is Getting Greener: Why, How, And What's Changing?](#)
- [The 7 principles of sustainable construction](#)
- [Green Vehicle Guide](#)
  - <https://www.epa.gov/greenvehicles>
- [Sustainable Transportation](#)