



# Texas 4-H Energy Project

## Project Description

The Texas 4-H Energy project sparks the interest of youth in the dynamic field of energy, exploring renewable and non-renewable sources, energy conservation, and innovative technologies, fostering a sustainable mindset.

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What will you learn in the project?

### Basic

- Introduction to the basic concepts of energy and its forms.
- Understanding renewable and non-renewable energy sources.
- Basics of energy conservation and efficiency in homes and schools.
- Simple experiments demonstrating energy principles.
- Exploration of the local energy infrastructure and its impact.

### Intermediate

- Delving into the science of renewable energy sources like solar, wind, and hydro.
- Projects focused on improving energy efficiency.
- Exploration of the impacts of energy use on the environment.

### Advanced

- Study of energy storage technologies, such as batteries.
- Introduction to the concept of the smart grid and how it operates.
- Exploration of emerging fields like hydrogen energy or wave power.

# TAKE ENERGY FURTHER

## *Project Learning Opportunities:*

- Workshops: Educational sessions on energy topics, from basic principles to advanced technologies.
- Energy Audits: Activities where members evaluate energy use in buildings and propose improvements.
- Tours: Visits to power plants, renewable energy installations, or energy research facilities.
- Project Meetings: Regular gatherings to discuss energy topics, share projects, and collaborate.
- Energy Challenges: Competitions to create the most efficient or innovative energy solutions.
- Guest Speakers: Talks by energy professionals, scientists, or policymakers.
- Field Trips: Excursions to sites of energy significance, like wind farms or solar arrays.
- Research Projects: Opportunities to conduct in-depth studies or experiments in energy.
- Networking Events: Engagements with energy industry professionals and like-minded peers.
- Exhibitions: Showcasing energy projects at fairs or community events.
- Community Outreach: Initiatives to educate others about energy conservation and renewable energy.
- Sustainability Campaigns: Projects promoting sustainable energy practices in local communities.

## *Resources:*

- National 4-H Renewable Energy Curriculum
- National 4-H STEM Challenge

## *Did you know?*

4-H is a club for kids and teens to develop life skills and make friends. Youth can join 4-H in all 254 counties. Everybody ages 8-18 and in 3rd-12th grades can join 4-H. Kids in Kindergarten to 2nd grades can join as Clover Kids. There are 43 different project areas in five project categories: Agriculture & Livestock, Family & Community Health, Leadership & Citizenship, Natural Resources, and STEM.

## *Want to get started?*

First...Contact your County Extension Agent!

- Contact information can be found at [texas4-h.tamu.edu](http://texas4-h.tamu.edu) > contacts information at the bottom of the page > county offices

**Explore more at [texas4-h.tamu.edu](http://texas4-h.tamu.edu)**