

# Digging into Renewables

Name \_\_\_\_\_

## Problem:

Electricity use affects schools, communities, and states. As a widely used energy source, the cost of producing and transmitting electricity affects all users. How can advances in electricity contribute to positive cost and environmental impacts?

Choose an alternative energy source to research like: solar, wind, hydropower, geothermal, and biomass are all well-known sources. All these sources produce electricity.

My energy source: \_\_\_\_\_

Visit the following link. Find the pages that relate to the energy source you have chosen.

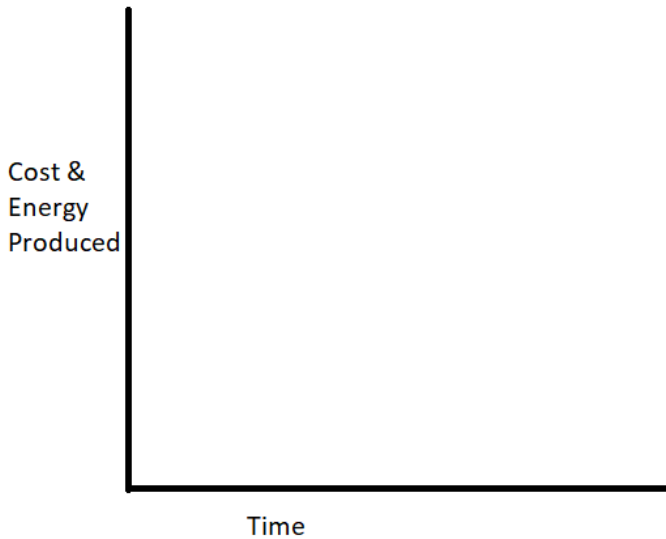
<https://ugspub.nr.utah.gov/publications/circular/c-127.pdf>

Use a search engine or links your teacher provides to do additional research.

## Research Questions

1. Where in Utah is this energy resource available? Give a specific location as well as a general area.
2. How did they decide where in Utah to produce this type of energy?
3. How does your energy source create electricity?
4. What is the environmental impact of this energy source? How can it be kept to a minimum?
5. How much does it cost to start using this as an energy source? What equipment/ generators/ power plant is needed?
6. What is the cost to use this type of energy once the initial setup is done? Try to find this in kilowatt-hours (kWh).

**Create a poster** or electronic presentation with your group that explains the information you researched above. On your poster, draw a graph of Cost and Energy produced over time. This graph does not need specific numbers but shows the overall shape. Draw one line for cost and one line for the amount of energy produced. Try to think of the entire lifespan of the energy generation.



**Walk and Talk**

Move around the classroom and look at the posters/presentations created by other groups. Some energy sources will be presented more than once. Be sure to visit each energy source at least once. Based on the information provided, evaluate the different alternative energy sources. Use a point scale of 1-5, with 5 being the best and 1 being the worst. Each column should have numbers 1-5. Add the points in the score column.

Source	Is this low cost?	Is this a Utah resource?	Impact on the environment	Score	Something new/interesting I learned
Wind					
Geothermal					
Solar					
Biomass					
Hydropower					

## Summary

Make a **claim** stating a power source that is beneficial to Utah.

What **evidence** supports your claim? (at least 3 ideas)

What is your **reasoning**? (be complete as you describe your thinking)