

## MAINE SCIENCE AND ENGINEERING STANDARDS

### 4-ESS3 Earth and Human Activity

**4-ESS3-1 Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.**

Further Explanation: Examples of renewable energy resources could include wind energy, water behind dams, and sunlight; nonrenewable energy resources are fossil fuels and fissile materials. Examples of environmental effects could include loss of habitat due to dams, loss of habitat due to surface mining, and air pollution from burning of fossil fuels. Investigate the pros and cons of heating homes with wood, fossil fuels, and solar energy. Investigate what a wind or solar farm is and why they are controversial in Maine.

Obtaining, Evaluating, and Communicating Information, Natural Resources, Cause and Effect

**4-ESS3-2 Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.**

Further Explanation: Examples of solutions could include designing an earthquake resistant building and improving monitoring of volcanic activity. Design a microburst resistant building or design a telephone/electric pole that could sustain less damage in an ice storm.

Constructing Explanations and Designing Solutions, Natural Hazards, Designing Solutions to Engineering Problems, Cause and Effect