

# THE SOLUTION IS HERE: CLEAN ENERGY

## Clean Energy is:

- Natural - from wind, water and sun, from heat in the ground and carbohydrates in plants
- Renewable - constantly replenishing itself in supply and strength
- Locally produced, so it can promote energy security and local job growth
- Energy that does not cause the buildup of global warming gases or toxins in the atmosphere
- Powerful, with tremendous potential. There is already enough clean energy to power every home in New England!

### Which technologies are considered "clean"?

**Wind** energy converts the mechanical energy of air in motion into electricity through the use of turbines.

**Solar** power captures the light and heat of the sun to generate electricity and to store thermal energy.

**Small or low-impact hydroelectric** power stations harness the energy of falling water. To minimize environmental impact, stations should be 30MW or less in size or meet standards set by the Low Impact Hydropower Institute.

**Biomass facilities** are "clean" if plant matter (biomass) is harvested and decomposed in a way that does not deplete resources or cause a net increase of CO<sub>2</sub> in the atmosphere. Breaking down biomass releases energy the plant stored from the sun.

**Fuel Cells** produce electricity directly from the electrochemical reaction between hydrogen and oxygen, producing water and heat as byproducts. This technology is only "clean" if the process used to produce the hydrogen gas is powered by a clean source of energy. Connecticut is a leader in fuel cell technology!

**Landfill Gas** can be collected from decomposing organic material in landfills and combusted to produce energy. Trapping landfill gas prevents methane and other greenhouse gases from contributing to global warming.

**Geothermal** energy uses steam and hot water from inside the earth to generate electricity.

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