# 2010
# MASSACHUSETTS CLEAN TECHNOLOGY AWARDS

*A Program from The Foresight Project Inc; www.theforesightproject.org*

## Region VI: Boston

## Erin Kelly: Mary Lyon Middle School, Brighton

## Clean Tech: *Saving the World One Can at a Time*

**About me:**

My name is Erin Kelly. I am fourteen years old and I am an eighth grader at the Mary Lyon K-12 Boston Public School in Brighton. I live in Lower Allston with my parents, who are from Ireland and England, and my 10-year old brother JoJo and our eight pets. My brother and I were both born in London, England. I share the same birthday as Elvis Presley.

My favorite subjects at school are math and ELA, I am class president and am looking forward to being a judge at my school's annual talent competition in June. I enjoy playing sports, I am on three difference baseball/softball teams, and I help my dad coach a youth Gaelic football team. I also Irish dance and I play the flute in my school's band. My favorite books are fantasy, especially the Sister Grimm series.

**My Project:**

I became interested in Green Energy when I saw a news segment on using aluminum cans to create a solar panel to heat your home. I decided, with the help of my father, to construct such a passive solar can heater for my science project; an inexpensive panel that would successfully supply green heat to a residential home without relying on harmful fossil fuels. My project's goal was to see whether a twenty degree Fahrenheit difference in temperature could be achieved within such a panel by recording the difference in temperature of the air entering and the air exiting the panel.

The panel consisted of 143 re-used aluminum cans that acted as conduits for the air. I built a 6ft by 3ft wooden frame to house the cans, with an input and outlet hole facing inside the house. At the bottom of the panel, the cold air from the house would enter the inlet hole and travel through the cans that had been painted black and were facing outwards towards the sun. The heated air would then be released into the room via the upper output hole in the panel.

The data, when compiled, supported my hypotheses by showing that a twenty-degree difference in temperature was achievable, in fact my panel ended up producing temperatures far greater than twenty degrees Fahrenheit. This I clearly demonstrated how you could use everyday recycled objects like soda cans to use the sun and create a heat source in your home. As a bonus, your heating bills should decrease, saving you money while contributing to a cleaner friendlier environment.