



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Louise Qu	Project Number J1132
Project Title Save Electricity and the Environment	
Abstract Objectives/Goals The objective of my project was to find out how much electricity could be saved by switching from a 60-watt light bulb to a 13-watt energy-saving bulb with a similar light output and what would be the environmental benefit of this. I think that the savings in my household may not be significant but if I were to extend my results to Ventura County, California, or the U.S., the results would be much more significant. Methods/Materials 8 Soft White light bulbs, 60-watt incandescent and 8 Eco-bulb Electronic Energy Saving bulbs, 13-watt fluorescent were used in the experiment. The 60-watt bulbs were placed into eight sockets and turned on for 2 hours. The same was done for the 13-watt bulbs. The reading on the electrical meter was recorded before and after each test. On the second and third tests, the lights were turned on for 3 hours and 4 hours. Results The results showed consistently that the fluorescent bulb saved about 75% of electricity used by an equivalent incandescent bulb. On average, the fluorescent bulb saved about 0.05 kilowatt-hours, per hour per bulb. The environmental benefit and electricity savings are very significant when the results are extended to Ventura County, California, and the United States. Conclusions/Discussion My conclusion is that I may not save a whole lot of electricity on a micro-scale (single household) but if I were to extend my results, the amount saved would be a lot more significant on a macro-scale.(county, state, and country wide)	
Summary Statement My project is about how much electricity can be saved by switching to fluorescent (energy saving) bulbs and what the environmental benefit can be resulted from this.	
Help Received My dad took pictures with his digital camera.	