



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

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Project Title Power Is Money: Investigating the Cost to Run Extra Electrical Devices in the House	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Because I was getting in trouble for leaving my lights on, I wanted to find the cost of different electrical devices in a normal household. I wanted to find out who in my family wastes the most money using extra electrical devices; my mother, my father, or me. Because my dad watches TV all of the time, my hypothesis was that he wastes a lot more money on electricity than my mother and me.</p> <p>Methods/Materials I used two EnPower power usage meters to test a lamp, portable DVD player, a laptop, 2 televisions, 2 humidifiers, a toaster, hand-tool battery chargers, a hair dryer, hair curlers, and a Keurig coffee maker. I used the monthly Edison bill to find our average cost per kilowatt hour. I put the cost per kilowatt hour into the power usage meter. I used the average of the highest two tiers on my electric bill because that's how much we would save if we didn't use the extra devices. I tested each device twice for one hour using two different meters.</p> <p>Results I found the cost for each electrical device per year, day, and hour. I adjusted the cost using fractions based on the time we actually use the devices. I used the average of both tests to find the calculated cost of extra electricity per day for my father, my mother, and me.</p> <p>Conclusions/Discussion My father wastes more money than my mother or me combined. My hypothesis was correct. I learned many things from this project. One of the things I learned was the real price of using electricity. Realizing all of this makes me wonder how much money a family can save if they don't use the extra electrical devices. Now when I turn on an electrical device, I think of having to put money in the device like a vending machine. All electrical devices have a cost, some more than others. If we didn't use the devices tested, we would save over \$100 a month. I wonder if people would use less electricity if they could see the cost as they use the electrical devices. I'd like to do research on that in the future. I also want to research if electric cars really save money since you have to charge them.</p>	
Summary Statement I tested the cost of many extra electrical devices used in a common household and found who in my family wastes the most energy and money.	
Help Received My mother helped me gather all of the materials, learn definitions, and helped edit my display.	