



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> <b>Corina Galvan</b>	<b>Project Number</b>  31274
<b>Project Title</b> <b>A Brighter Future Starts Here!</b>	
<b>Objectives/Goals</b> The objective is to determine if the PSI of steam affects the volts transferred into a 1.5 volt light bulb. I believe that the higher amount of steam stored in the pressure vessel will increase the voltage in the light bulb. <b>Methods/Materials</b> I conducted 120 trials, with varying levels of PSI from one to seven, and was able to determine the volts of electricity transferred into the light bulb using a voltmeter. To obtain the results needed, the following materials were connected: a pressure cooker with water stored inside, placed over a fifth burner, connected to a die-grinder, connected to a generator, connected to the light bulb and finally the voltmeter. <b>Results</b> The higher the PSI of steam, the more volts the light bulb has. Eventually the power was so strong, it blew out the light bulb, making seven PSI the maximum limit. The average volt with one PSI was .428, then .52 for two PSI, continuing on through six PSI and finally 1.494 for seven PSI. The volts produced continued to increase as the PSI of steam did. <b>Conclusions/Discussion</b> After comparing my hypothesis and results, I determined they were quite similar. The only significant difference was how the volts transferred did not stay a constant difference between each PSI level and how at eight PSI, the light bulb would become overwhelmed. I am able to conclude that the PSI of steam does affect the volt transferred into a 1.5 volt light bulb by increasing, up to the point of failure.	
<b>Summary Statement</b> Using household items to create a geothermal power plant model that utilizes wet steam to create energy needed to power a 1.5 volt light bulb.	
<b>Help Received</b> Father supervised the dangerous parts of building and testing.	