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Home Energy Audit Findings

In my home energy audit I found that my family uses about 41.6KWh per day.

Our top five energy uses are

From greatest to least

1. Frigidaire Refrigerator (29.3917808217 kWh / day)

2. Kenmore Washer (1.2328767123 kWh / day)

3. Kenmore Dryer (1.2328767123 kWh / day)

4. Nintendo Switch (1.17 kWh / day)  
 5. T.V (0.785 kWh / day)

In order to meet the City’s goal of 30% reduction in use me family needs to cut approximately 12.5KWh / day

To meet my the 30% goal my family has agreed to: minimize the time that a device is charged like watch the device until it is to 100%(3 hours). Once a device has been charged (we used to leave it charged all night we will not do that anymore) we will disconnect the cable because it is not needed. I will minimize the time I use to play my nintendo switch(I will use it 1 hour per day) and my brothers will also with the Ps4. We will turn off the lights that are not needed on like the front porch light and the backyard lights. The T.V time will also be minimized to 2 hours per day. We have a floor lamp that is always on we will minimize the time it is on(2 hours).

Figure 1 itemized list of savings to

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Current Use  (kWh) | Proposed use  (kWh) | Savings  (kWh) |
| Ps4 | 0.75 | 0.00625 | 0.74375 |
| Nintendo switch | 1.17 | 0.01625 | 1.15375 |
| T.V | 0.785 | 0.0130834 | 0.7719167 |
| Floor Lamp | 0.75 | 0.0125 | 0.7375 |
| My phone charger | 0.04736 | 0.00074 | 0.04662 |
| My Moms phone charger | 0.04736 | 0.00074 | 0.04662 |
| My brothers phone charger | 0.04736 | 0.00074 | 0.04662 |
| My IPad charger | 0.8 | 0.00125 | 0.79875 |
| Total savings |  |  | 4.3455267kWh |

Our family’s total reduction will be 4.3455267 kWh/ day. This is a 9.57% reduction, which is 27.80% of our goal.

Obstacles that I faced during the home energy audit included figuring out certain formulas in order to get the answer of specific data. Other obstacles that I faced were figuring out what I needed to do in order to get close to my reduction goal which was 30%. At the end I got 27.80% of my goal which is good.

Potential errors in my data would be that i was not home 24 hours a day so much of of the time that devices were being used and charged would be accurate estimates. Some other errors would be I might of messed up my calculations which would damage a lot of my data.

The most important thing that i learned during this process was how much we really waste our energy on pointless stuff, we take advantage of our energy. I never knew that i had used this much energy it is good that we did this project because it is very important to understand how we use our energy.