

# Energy Use

#### Summary

Your energy use was based on name plate electricity use, and estimated use of each major appliance, heating, and cooling (HVAC). In a given month, your HVAC (heating and cooling) on average uses 45%, laundry uses 9%, kitchen appliances use 19%, hot water heating uses 17%, electronics 2%, and lighting uses 8% of the electricity in your home.

### By Area

HVAC Electricity Use: 1167.10 kWh/month Cost: \$108.19/month

### Laundry

Electricity Use: 236.64 kWh/month Cost: \$21.21/month

### Kitchen

Electricity Use: 485.55 kWh/month Cost: \$43.52/month

### Hot Water Heater

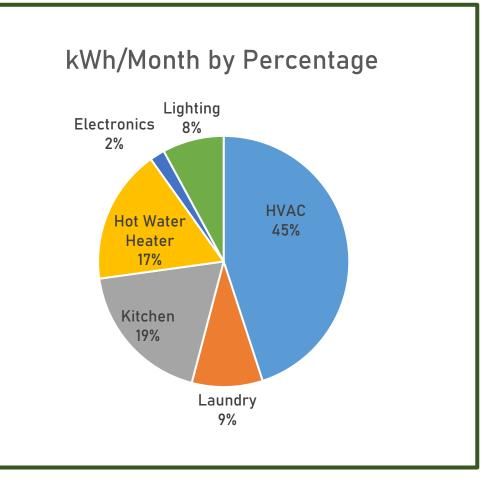
Electricity Use: 450.00 kWh/month Cost: \$38.90/month

### Electronics

Electricity Use: 50.00 kWh/month Cost: \$4.32/month

### Lighting

Electricity Use: 205.50 kWh/month Cost: \$17.76/month



HVAC: \$1298.28/YEAR, \$12,982.80 IN 10 YEARS. Sealing ducts, encapsulating crawlspace and roof area could save 50% of costs, making this the focus area. 50% savings = \$6491.40 in 10 years. Start with duct sealing to see quick savings at a low cost.



Customer – Summary of Building Evaluation Findings

# Recommendations

# HVAC: 45% of costs – Focus Area

- **Ducting**: Seal the gaps in your HVAC ducting.
- Thermostat: When the outside temperature is within 10°F and will stay at that temp for the day, set your thermostat to "OFF" position to save a lot of money on your HVAC part of your energy bill.
- Crawlspace: Encapsulate your crawlspace to help prevent moisture build-up and lower energy loss to the outdoors.
- □ <u>Roof area:</u> Encapsulate your roof area to lower energy loss to the outdoors
- Maintenance: Get your air conditioning and heating units cleaned and checked for any component wear/tear to extend life and lower excessive use.

### Laundry: 9% of costs

Shorter run time: Using a shorter cycle for lighter loads lowers run time and costs

# Kitchen: 19% of costs

- Refrigerator: Keep the refrigerator full, but don't over pack it this acts as a thermal storage with the items that have the heat removed from them and allows the air inside to circulate as the refrigerator removes the heat.
- Freezer: Keep the freezer full and insulate to keep the surrounding warmer air from increasing the freezer temp less cold loss means less compressor run time in the freezer.

# Hot Water Heater: 17% of costs

- **Cold water**: Using cold water with washing clothes lessens hot water use (laundry)
- Low flow: Using low flow faucets and shower heads lowers the amount of hot water used, decreasing the run time of the hot water heater in heating the water
- Insulate: Insulating the hot water heater decreases heat loss from the hot water heater to the surrounding air, decreasing hot water heater run time to keep the water at the heating set-point.

# Electronics: 2% of costs

- Timer: Use timers on televisions to shut them off when not used for a period of time.
- Power down: Standby on laptops lowers power use, but shutting them down completely lowers electricity use.

# Lighting: 8% of costs

LED: Upgrading to LED bulbs for all lights can lower your lighting costs up to 90%.

General:

- □ <u>Home Energy Monitor</u>: Monitor real-time electricity use with the VUE system. See information on the following pages about the VUE system (features, pricing).
- Solar PV: As discussed, solar is a good option if the system cost is \$20,000. With the federal tax credit, this would pay for itself over the 20 year life of the system. We are working on getting a solar system in place at this price point.

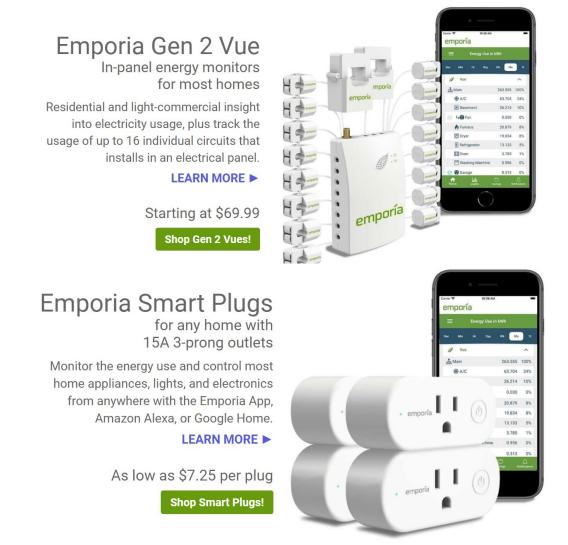


Retcon Energy, LLC: Building Evaluation Report

Customer – Summary of Building Evaluation Findings

# **Energy Monitor**

- <u>Company</u>: Emporia
- <u>Product</u>: Home energy monitor and management system (electricity)
- Website: <u>https://www.emporiaenergy.com/</u>
- Offer: Subscribe via email to get 10% off your first purchase (see website)
- <u>Why use</u>: While this building evaluation is a good starting point, this product can show you real-time electricity use of your major appliances, HVAC, and more, allowing you deeper insights on the best cost-benefit areas. High energy use of an appliance can indicate that it needs to be fixed, which would save you from having to purchase a new appliance.
- As a distributor partner, Retcon Energy, LLC gets a volume purchase discount. Let us know if you want to purchase this product, and we will check to see if we have enough purchases in place to offer this discount for you.



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