



## Eugene Water & Electric Board

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# Bill Self-Assessment

There are many reasons for high utility bills. Some of the causes are simple to resolve, while others take a little more effort and time to understand. While high energy consumption can often be a major cause of a high bill, it is not always the major culprit.

The intent of the following Bill Self-Assessment is to help you better understand and resolve your high bill concerns. We hope that you also learn a few actions you can take to reduce energy and water that may help you save money on future bills.

The following four steps will help you determine what could be contributing to your high bill. Please follow these steps and complete the included forms. If you still have concerns about your bill upon completion, please complete and submit the Site Visit Application, so an EWEB Customer Solutions Specialist can follow up with you.

In this packet you will find the following:

### **Step 1: Understanding your EWEB Bill (should take about 5-10 minutes)**

Take a look at your bill to understand the various components and charges. The amount due can be composed of different charges, one of them being the cost of energy consumption.

### **Step 2: Diagnosing your High Bill (should take about 5 minutes)**

This section will walk you through the most common causes of a higher than typical bill. Read through each item to determine if it may have occurred during the billing period of your high bill. By ruling out these items, you can significantly narrow down the factors contributing to your higher bill.

### **Step 3: Data Collection & Self-Testing (should take about 10-30 minutes)**

There are a number of tools that can help you measure your energy and water consumption and better understand your use of energy and water.

### **Step 4: High Bill Site Visit Application (should take about 5 minutes)**

If you have already completed steps one through three, but still have concerns about your bill, please complete the High Bill Site Visit Application presented in the last step of the bill self-assessment.

## STEP 1: Understanding Your EWEB Bill

Take a look at your bill to better understand the various components and charges. The amount due can be composed of different charges, one of them being the cost of your energy consumption. Consider the following while referring to the EWEB bill sample provided on the following pages:

### ❑ Are you carrying a balance?

The "Amount Due" on your bill is composed of the "Balance Forward" and "Current Charges". If you have a balance forward, your bill may include charges from more than your current billing period.

### ❑ Are you looking at all the charges?

Your bill can carry charges for electricity, water, City of Eugene Wastewater and City of Eugene Stormwater. Reviewing the charges individually can help you better understand your usage and overall bill.

### ❑ Is it a longer than usual billing period?

Under the "Electric Detail" on your bill, it shows the current billing period. Billing cycles can vary in the number of days in the cycle.

### ❑ Have there been changes in the weather?

You will also find the average temperature for the month under "Electric Detail." Changes in average temperature can affect your usage and bill.

### ❑ Are there additional charges on your bill?

A loan charge, late fee, deposit or other charge may also be present on your bill.

### ❑ Was your electric or water consumption estimated?

Due to severe weather or other unsafe conditions, occasionally meter readers are unable to safely complete their assigned routes. When meter readers are not able to obtain an actual reading, EWEB uses historical usage patterns to estimate your usage for billing purposes.

Estimated readings can be higher or lower than actual usage. If your electric or water usage seems unusually high, check your current bill and the bill from the previous month to see if either were estimated. Bills will self-correct in the billing cycle when the meter is read, ensuring you pay for the water and/or energy that you used, however it can result in a higher than typical bill.

For example, if the estimated read is lower than actual usage the following month's bill may be higher than typical to account for the "true-up" process that occurs when your meter is read. On the other hand, if the estimated read is higher than actual usage the current bill may be higher than typical, but will correct the following month when your meter is read.

# Understanding your bill



|                |                  |               |                 |                 |            |              |
|----------------|------------------|---------------|-----------------|-----------------|------------|--------------|
| Account Number | Previous Balance | Payments Made | Balance Forward | Current Charges | Amount Due | Payment Due  |
| 12340-67890    | \$346.19         | \$200.00      | \$146.19        | \$192.62        | \$338.81   | Upon Receipt |

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- Amount Due is the summation of Balance Forward and Current Charges. If "Upon Receipt" appears in the Payment Due box, you have an existing past-due balance. In this case, your bill is due immediately.
- Number of Days in the billing cycle and Average Temperature can affect your usage and total bill.
- Usage in kWh tells you how much electricity you used in the billing period. The average single family Eugene residence uses around 1,600 kWh per month.
- Basic Service: Covers the fixed cost of services for things such as metering and billing.
- Delivery Charge: Covers the costs to operate and maintain the wires, transformers, poles and other equipment it takes to send you power.
- Energy Charge: Covers the costs of producing the electricity and sending it long distance to our distribution system.
- Paying attention to your water usage could alert you to a water leak.
- Water Consumption Charge: Covers the costs of filtering the water and sending it to your home.
- Additional Services could include a loan charge, late fee, deposit or other charge.
- EWEB acts as the billing agent for the City of Eugene. For questions about wastewater or stormwater, contact the City of Eugene.

## Current Charge Summary

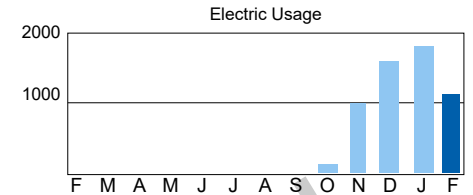
|                           |                 |
|---------------------------|-----------------|
| Electric                  | \$126.16        |
| Water                     | \$23.20         |
| Additional Services       | \$5.00          |
| City of Eugene Wastewater | \$23.26         |
| City of Eugene Stormwater | \$15.00         |
| <b>Current Charges</b>    | <b>\$192.62</b> |

## Timely tips & info



### Electric Detail

|            | Avg Days | Avg Temp | Usage in kWh | Avg kWh/day | Avg Cost \$/day |
|------------|----------|----------|--------------|-------------|-----------------|
| This Month | 29       | 42       | 1155         | 40          | \$4.35          |
| Last Month | 30       | 35       | 1722         | 57          | \$6.06          |
| Last Year  | 29       | 43       | 1379         | 48          | \$5.07          |

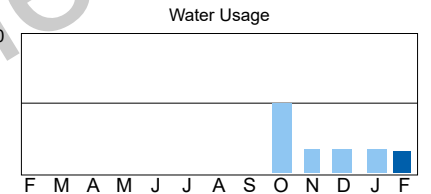


Meter #89980 01/26/2019 to 02/24/2019 Read 68371

|                       | Usage | x | Rate    | = | Charge          |
|-----------------------|-------|---|---------|---|-----------------|
| Cost of Basic Service |       |   |         |   | \$20.50         |
| Delivery Charge       | 1155  |   | 0.02624 |   | \$23.20         |
| Energy Charge         | 1155  |   | 0.06524 |   | \$5.00          |
| <b>Total</b>          |       |   |         |   | <b>\$126.16</b> |

### Water Detail

|            | Days | Usage in KGal | Avg Cost \$/day |
|------------|------|---------------|-----------------|
| This Month | 29   | 2             | \$0.80          |
| Last Month | 30   | 2             | \$0.78          |
| Last Year  | 29   | 2             | \$0.80          |



Meter #89980 01/26/2019 to 02/24/2019 Read 68371 Estimated

|                               | Usage | x | Rate    | = | Charge         |
|-------------------------------|-------|---|---------|---|----------------|
| Cost of Basic Service         |       |   |         |   | \$20.37        |
| Water-Residential-Inside City | 2.00  |   | 1.41600 |   | \$2.83         |
| <b>Total</b>                  |       |   |         |   | <b>\$23.20</b> |

### Additional Services

|          |        |
|----------|--------|
| Late Fee | \$5.00 |
|----------|--------|



## City of Eugene Charges

### Wastewater Detail

|                       |                |
|-----------------------|----------------|
| Cost of Basic Service | \$13.28        |
| 2.000 KGal @ \$4.992  | \$9.98         |
| <b>Total</b>          | <b>\$23.26</b> |

### Stormwater Detail

|                                   |         |
|-----------------------------------|---------|
| City of Eugene Stormwater Service | \$15.00 |
|-----------------------------------|---------|

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## STEP 2: Diagnosing Your High Bill

Think about the following to determine if one or more of these may apply to your bill:

### HEATING

Space heating systems are typically the largest energy users in your home and can account for approximately 40% of your winter electric bills, if you heat with electricity.

#### Were there colder than normal outdoor temperatures? Before you say no...

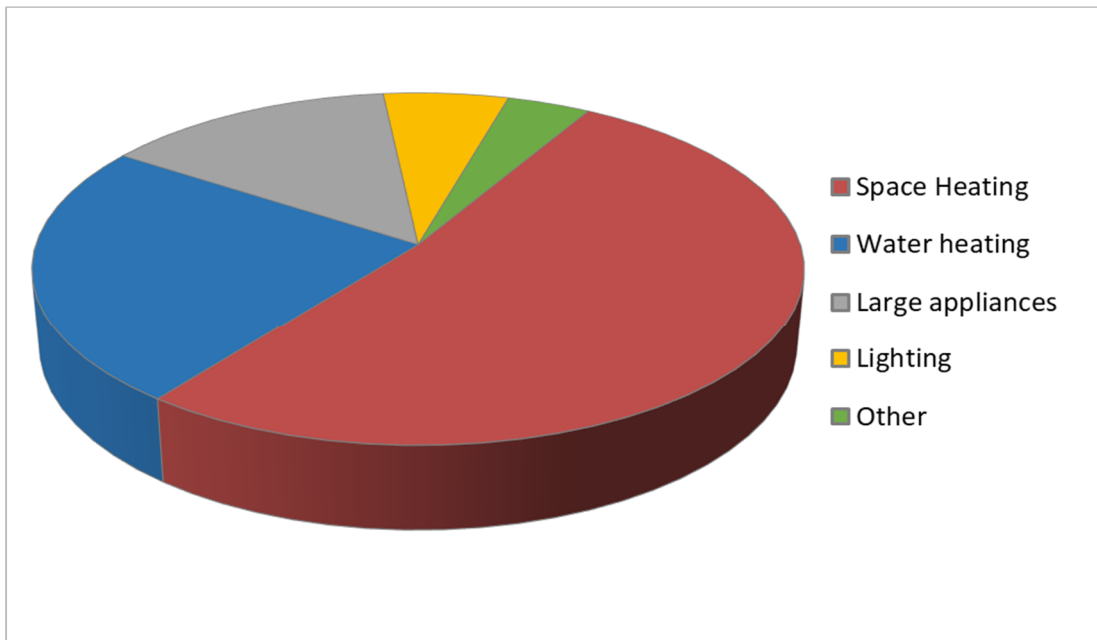
Look at the average temperature under the "Electric Detail" section of your bill (see bill sample above). Compare the average temperature for this bill to previous bills and the previous year.

You can also visit <http://www.wunderground.com/> to view local temperatures and see the mean average temperature for a given month. If you experienced a high bill in a month with colder outdoor temperatures, it is likely your heating system had increased energy consumption which could account for your high bill.

If you have a ducted heat pump and the outside temp was below 35 degrees, it's possible your heat pump switched to a back-up furnace (also referred to as auxiliary, emergency, or e-heat), which can be costly if you have an electric furnace as your back-up heat. One way to avoid the fluctuations is to have a "smart" thermostat, which brings up the heat slowly and prevents the back-up heat from turning on.

#### Did you use additional heaters? Did anyone in the household spend more time at home which could have led to longer periods of heating?

Electric space heating is the top energy user in a home. This type of heating system includes ceiling heat, baseboards, wall heaters, portable space heaters and electric furnaces. Portable space heaters, in addition to your primary source of heating, can also really increase your energy consumption. The graph below shows the approximate impact of electric space heating in the winter in an all-electric residence.



#### At what temperature was your thermostat set? Is your thermostat accurate?

It is possible you may be keeping your home warmer than you realize which could account for your high bill. Set your thermostat to 68 degrees or lower. Each degree that you reduce your thermostat can reduce your heating costs by three percent. Placing a thermometer near the thermostat can help determine the accuracy of the thermostat temperature setting.

## **ANY HOUSEHOLD CHANGES?**

There are many things that can make your electric or water consumption look like a high bill but are really reflections of something new or different at the household level. Review the following items to see if any of these may apply during the period of your high bill:

### **☐ Are you living in a different home?**

It's natural to want to compare electric bills to previous places you've lived but it's important to consider that energy consumption can vary widely across different homes. For example, a previous residence may have been smaller, had a different primary source of heating, may have had different insulation levels, could be a very different shape, or might be facing a different direction.

### **☐ Did the number of occupants in your home change?**

Were there any additional occupants? Did anyone from the household spend more time at home than usual? It's important to explore whether occupancy could have contributed to increased household activity, resulting in increased space heating, hot water consumption or water usage.

### **☐ Did you add anything to your home?**

Have you added a new hot tub, an RV that wasn't plugged in previously or a landscaping feature with a pump? Consider whether you plugged in additional appliances such as heaters, a second refrigerator or freezer, or large aquarium.

### **☐ Have you checked to see if anything is malfunctioning or damaged?**

Common malfunctions or failures include heat pumps that are operating in electric furnace mode, hot water leaks or malfunctioning electric water heaters, or damaged heating system duct work. Heat pump systems should receive regular maintenance at least every three to five years. Consider contacting a contractor to address your specific situation.

## STEP 3: Data Collection & Self-Testing

### □ Read Your Meter

Reading your meter at the same time each day can help you determine how many kilowatt hours (kWh) of electricity your home uses in a 24 hour period. Knowing how much energy you use on an average day can help you determine if there are ways you can reduce your usage.

**See the “How to Read Your Meter” worksheet at the end of this packet.**

### □ Know Your Water Budget

How much water are you using? If you aren't sure how much is the "right" amount based on your household size, creating a water budget can be helpful. The goal of the budget is to estimate an average of how much water would be used per-person and for each 1,000 square feet of your landscape. Then you can compare your water bill to this calculation of the average for both indoor and outdoor needs.

**See the “Know Your Water Budget” worksheet at the end of this packet.**

### □ Determine the Use and Cost of Electricity Consuming Devices

Knowing the daily average cost of typical appliances and taking an inventory of what is in your home can help you identify what is contributing to your bill.

**See the “Residential Light and Appliance Daily Electric Cost” inventory and worksheet at the end of this packet.**

### □ Conduct a Simple On/Off or Circuit Breaker Test (Optional)\*

If you have an older analog meter with five numbered dials, look for the spinning metal disk in the center of the meter. If you have a newer digital meter, look for the black dashes or boxes on the screen. The speed of movement of either the metal disk or black dashes/boxes indicates the rate of electricity being consumed. By turning things on or off at the appliance or circuit breaker, you can see if your meter speeds up or down, or if there is minimal impact.

Here are two examples of possible situations that could lead to a high bill and could be identified through this test:

**Example 1:** The occupant of a home with ceiling heat is not aware of how much electricity their heating system consumes. The occupant looks at his meter and sees the dial spinning slowly and then goes inside and turns on the ceiling heat in three rooms. Upon returning to the meter, he can now see the meter is spinning quite fast. This helps him realize the electric ceiling heat is a large source of energy consumption and he decides to better manage how he uses the heat.

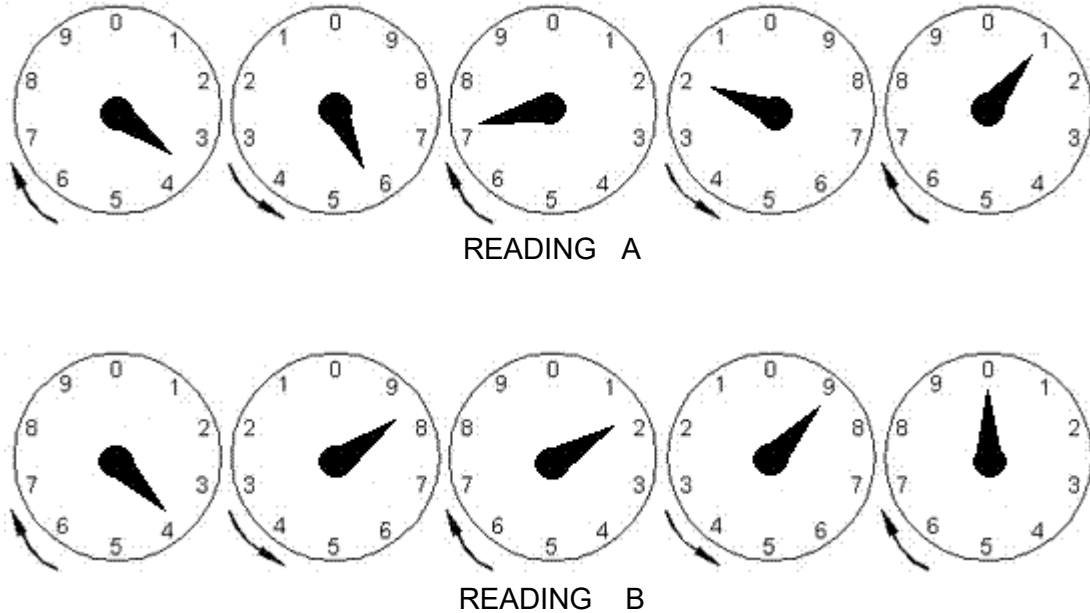
**Example 2:** A homeowner has consistently high bills year round. One day she decides to turn off different circuits to see if she can identify what might be using so much electricity. Several circuits are shut off and there's no noticeable difference in the speed of the metal disk in the meter. Finally the outdoor lighting circuit is shut off and the meter slows down drastically, which is odd because this is the middle of the day and no lights are on. Then it occurs to the homeowner that the fountain in her landscaping has stopped flowing. At this point the homeowner was able to determine that the constantly running pump for the water feature was consuming a lot of electricity.

\*Unplug sensitive equipment before performing a breaker test, but consider their consumption.

## How to Read Your Meter

Keep track of your energy conservation efforts by frequently reading your electric meter. It's easy, and by comparing daily or weekly readings you can identify habits that result in reducing energy waste and saving money.

Electric meters give the total, or cumulative, energy consumption. They operate much like the odometer on a car. You must compare beginning and ending readings to find out your energy use over a given period of time (one day, one week, one month).



Using the meters above as examples, read the dials from left to right. (Note that every other dial turns in reverse.) On Reading "A", start with the dial on the left. When the hand points between two numbers, read the lower number. Although the third (middle) dial on Reading "B" looks close to "2", it is read as "1" because the next dial has not passed "0." The difference between the two readings is the electric consumption. See the bottom of this sheet to check your readings.

**Note: If you have a digital meter, simply record the number you see displayed (disregard the flashing screen of 8's that alternates with your actual meter reading).**

**Reading A:** 3 5 7 2 1;      **Reading B:** 3 8 1 9 0;

**Energy Consumption:** 2,469 kWh (Reading B minus Reading A)

## Energy Use Record

To tell if you are conserving electricity, read your electric meter.

1. Read the meter at regular intervals, such as every day. Try to read it at the same time each day. Record your readings below.
2. Subtract the first or prior day's reading from the current reading. This shows you how much energy your household used between meter readings.
3. Note any activities that took place or temperature changes that may explain high or low energy use.

| Day 1 _____                                  | <b>Comments:</b> |
|--|------------------|
| Day 2 _____ – Day 1 _____ = kWh used _____   |                  |
| Day 3 _____ – Day 2 _____ = kWh used _____   |                  |
| Day 4 _____ – Day 3 _____ = kWh used _____   |                  |
| Day 5 _____ – Day 4 _____ = kWh used _____   |                  |
| Day 6 _____ – Day 5 _____ = kWh used _____   |                  |
| Day 7 _____ – Day 6 _____ = kWh used _____   |                  |
| Day 8 _____ – Day 7 _____ = kWh used _____   |                  |
| Day 9 _____ – Day 8 _____ = kWh used _____   |                  |
| Day 10 _____ – Day 9 _____ = kWh used _____  |                  |
| Day 11 _____ – Day 10 _____ = kWh used _____ |                  |
| Day 12 _____ – Day 11 _____ = kWh used _____ |                  |
| Day 13 _____ – Day 12 _____ = kWh used _____ |                  |
| Day 14 _____ – Day 13 _____ = kWh used _____ |                  |
| Day 15 _____ – Day 14 _____ = kWh used _____ |                  |



# Know your water budget



## INDOOR WATER BUDGET

The typical household in Eugene uses just under 3,000 gallons (kgals) per person each month.

**For example:**

Family of 2 – 5 to 6 kgal/month

Family of 4 – 8 – 12 kgal/month

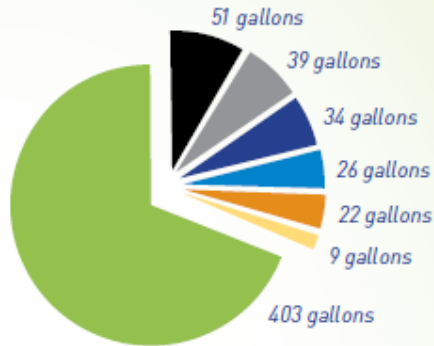
**Calculate your indoor water budget:**

$$\underline{\hspace{2cm}} \times 3 \text{ kgals} = \underline{\hspace{2cm}}$$

number of people                      indoor water budget  
in household

*If your bill indicates higher usage you may have a hidden leak.*

**Average Residential Water Use**  
(gallons per day)



- Toilet - 51 gallons
- Clothes Washer - 39 gallons
- Shower - 34 gallons
- Faucet - 26 gallons
- Leaks - 22 gallons
- Other Indoor Uses - 9 gallons
- Yard Watering - 403 gallons

## OUTDOOR WATER BUDGET

Yard watering is the highest water use in the home. How much water is enough? Since 1996 EWEB has tracked weather in Eugene. In the hottest month of summer the average lawn needs about 4,000 gallons (or 4 kgals) per 1,000 square feet of lawn. *Shrubs will need half this amount.*



**Calculate your July/August water budget:**

$$\underline{\hspace{2cm}} \times 4 \text{ kgals} = \underline{\hspace{2cm}}$$

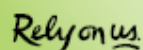
1,000 square feet                      water budget lawn  
of lawn

$$\underline{\hspace{2cm}} \times 2 \text{ kgals} = \underline{\hspace{2cm}}$$

1,000 square feet                      water budget shrubs  
of shrubs

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

water budget                      water budget                      total water budget  
lawn                      shrubs



For more information, visit [www.eweb.org](http://www.eweb.org) or call EWEB Water Management Services at 541-685-7000



## Typical Residential Electricity Use and Cost



**How to determine the cost of running appliances:**

**Wattage x hours used ÷ 1,000 = kilowatt hours (kWh)**

**Kilowatt hours x cost per kilowatt hour = cost to operate (\$)**

**(note: there are 720 hours in a 30 day month)**

| Appliance by Type  | Typical Wattage | Monthly Hours of Use | Monthly kWh | Approximate Cost to Operate per Month*** |
|--|-----------------|----------------------|-------------|--|
| Air conditioner - Room**   | 1000 - 1400     | 60 - 180             | 60 - 252    | \$5.49 - \$23.05                         |
| Air purifier   | 30 - 100        | 240 - 480            | 7 - 48      | \$0.66 - \$4.39                          |
| Blue-Ray disc player (ENERGY STAR)*  | 13              | 30 - 150             | 1 - 2       | \$0.06 - \$0.18                          |
| Compact Disc (CD) player*  | 13              | 30 - 150             | 1 - 2       | \$0.06 - \$0.18                          |
| Clothes dryer, standard  | 3400 - 5000     | 8 - 16               | 27 - 80     | \$2.49 - \$7.32                          |
| Clothes dryer, standard - SINGLE LOAD  | 3400 - 5000     | 0.3 - 0.5            | 1 - 3       | \$0.10 - \$0.23                          |
| Clothes washer, excluding water heating energy use & cost of water (ENERGY STAR) | 250             | 8 - 16               | 2 - 4       | \$0.18 - \$0.37                          |
| Clothes washer, including water heating energy use                               | 425 - 1000      | 8 - 16               | 3 - 16      | \$0.31 - \$1.46                          |
| Clothes washer, including water heating energy use & cost of water - SINGLE LOAD | 425 - 1000      | 0.3 - 0.5            | 0 - 1       | \$0.35 - \$0.38                          |
| Coffee maker   | 1100 - 1500     | 9 - 60               | 10 - 90     | \$0.91 - \$8.23                          |
| Computer monitor *   | 20 - 150        | 30 - 240             | 1 - 36      | \$0.05 - \$3.29                          |
| Computer, desktop *  | 40 - 120        | 30 - 480             | 1 - 58      | \$0.11 - \$5.27                          |
| Computer, laptop *   | 12 - 50         | 30 - 480             | 1 - 24      | \$0.08 - \$2.20                          |
| Copier (small)*  | 300 - 500       | 1 - 10               | 1 - 5       | \$0.08 - \$0.46                          |
| Copier (large)*  | 1400 - 1600     | 1 - 10               | 2 - 16      | \$0.18 - \$1.46                          |
| Dehumidifier (30 - 70 pint capacity)**   | 350 - 720       | 30 - 120             | 11 - 86     | \$0.96 - \$7.90                          |
| Dehumidifier (100 -180 pint capacity)**  | 1000 - 1350     | 30 - 120             | 30 - 162    | \$2.74 - \$14.82                         |
| Digital Video Disc (DVD) player (ENERGY STAR)*                                   | 17 - 25         | 30 - 150             | 1 - 4       | \$0.05 - \$0.34                          |
| Dishwasher (ENERGY STAR)*  | 633             | 30 - 60              | 19 - 38     | \$1.74 - \$3.47                          |
| Dishwasher (non ENERGY STAR)*  | 822 - 1800      | 30 - 60              | 25 - 108    | \$2.26 - \$9.88                          |
| Electric blanket   | 100             | 12 - 120             | 1 - 12      | \$0.11 - \$1.10                          |
| Fan - Ceiling-mounted  | 65 - 175        | 30 - 330             | 2 - 58      | \$0.18 - \$5.28                          |
| Fan - Furnace fan, efficient variable speed motor (intermittent)**               | 100 - 300       | 150 - 200            | 15 - 60     | \$1.37 - \$5.49                          |
| Fan - Furnace fan, standard motor (continuous)                                   | 500             | 720                  | 360         | \$32.93                                  |
| Fan - Furnace fan, standard motor (intermittent)**                               | 500             | 150 - 200            | 75 - 100    | \$6.86 - \$9.15                          |
| Fan - Exhaust fan (such as a bathroom fan)                                       | 150             | 15 - 150             | 2 - 23      | \$0.21 - \$2.06                          |
| Fan - Capture hood fan, for ventilation, 435 cubic feet per minute               | 116             | 540 - 720            | 63 - 84     | \$5.73 - \$7.64                          |
| Fan - Capture hood fan, for ventilation, 745 cubic feet per minute               | 198             | 540 - 720            | 107 - 143   | \$9.78 - \$13.04                         |
| Fan - Oscillating 16", 300 cubic feet per minute                                 | 90 - 100        | 30 - 720             | 3 - 72      | \$0.25 - \$6.59                          |
| Freezer - Compact, chest (ENERGY STAR)**   | 160 - 200       | 180 - 260            | 29 - 52     | \$2.63 - \$4.76                          |
| Freezer - Upright w/auto defrost (ENERGY STAR)**                                 | 200 - 240       | 190 - 270            | 38 - 65     | \$3.48 - \$5.93                          |
| Freezer - non-ENERGY STAR **   | 240 - 273       | 200 - 280            | 48 - 76     | \$4.39 - \$6.99                          |
| Hairdryer  | 1200 - 1875     | 3 - 9                | 4 - 17      | \$0.33 - \$1.54                          |
| Hot tub (pump and electric heater) - meeting California efficiency code**        | 3200 - 4500     | 35 - 45              | 112 - 203   | \$10.25 - \$18.52                        |
| Hot tub (pump and electric heater) - typical**                                   | 4700 - 5800     | 40 - 55              | 188 - 319   | \$17.20 - \$29.18                        |
| Humidifier   | 75              | 30 - 120             | 2 - 9       | \$0.21 - \$0.82                          |
| Light - Incandescent lamp - 60 Watt  | 60              | 17 - 200             | 1 - 12      | \$0.09 - \$1.10                          |
| Light - Light emitting diode (LED) - 60 Watt equivalent                          | 9               | 17 - 200             | 1 - 2       | \$0.08 - \$0.16                          |
| Light - Compact fluorescent lamp (CFL) - 60 Watt equivalent                      | 13 - 18         | 17 - 200             | 1 - 4       | \$0.08 - \$0.33                          |
| Light - Metal halide or high-pressure sodium - 400 Watt                          | 432             | 360 - 540            | 156 - 233   | \$14.23 - \$21.34                        |
| Light - Metal halide or high-pressure sodium - 600 Watt                          | 680             | 360 - 540            | 245 - 367   | \$22.39 - \$33.59                        |
| Light - Metal halide or high-pressure sodium - 1000 Watt                         | 1080            | 360 - 540            | 389 - 583   | \$35.57 - \$53.35                        |
| Light - Fluorescent T5 fixture with 4 lamps                                      | 216             | 17 - 540             | 4 - 117     | \$0.34 - \$10.67                         |
| Light - Fluorescent T5 fixture with 6 lamps                                      | 324             | 17 - 540             | 6 - 175     | \$0.50 - \$16.01                         |
| Microsoft Xbox 360® - always on*   | 119             | 720                  | 86          | \$7.82 - \$7.82                          |
| Microsoft Xbox 360® - turned "off" when not in use                               | 88              | 90 - 180             | 8 - 16      | \$0.72 - \$1.45                          |

*(continued below)*

## Typical Residential Electricity Use and Cost



How to determine the cost of running appliances:

**Wattage x hours used ÷ 1,000 = kilowatt hours (kWh)**

**Kilowatt hours x cost per kilowatt hour = cost to operate (\$)**

**(note: there are 720 hours in a 30 day month)**

| Appliance by Type  | Typical Wattage | Monthly Hours of Use | Monthly kWh | Approximate Cost to Operate per Month*** |
|--|-----------------|----------------------|-------------|--|
| <i>(continued from above)</i>  |                 |                      |             |  |
| Modem - Cable or digital subscriber line (DSL) - always on*                      | 6               | 720                  | 4           | \$0.40                                   |
| Nintendo Wii™ - always on*   | 14              | 720                  | 10          | \$0.90                                   |
| Oven & cooktop combination unit  | 1250 - 2500     | 10 - 30              | 13 - 75     | \$1.14 - \$6.86                          |
| Oven - Microwave 1.25 cu.ft.   | 1500            | 6 - 12               | 9 - 18      | \$0.82 - \$1.65                          |
| Oven - Self-cleaning   | 5000 - 7200     | 3 - 12               | 15 - 86     | \$1.37 - \$7.90                          |
| Oven - Toaster   | 1200            | 4 - 8                | 5 - 10      | \$0.44 - \$0.88                          |
| Popcorn maker  | 1400            | 1 - 5                | 1 - 7       | \$0.13 - \$0.64                          |
| Printer - Inkjet*  | 45 - 120        | 1 - 12               | 1 - 2       | \$0.05 - \$0.21                          |
| Printer - Laser*   | 150 - 1500      | 1 - 12               | 1 - 18      | \$0.05 - \$1.65                          |
| Pump - 1/8 HP (typical for a small pond) - always on                             | 93              | 720                  | 67          | \$6.13                                   |
| Pump - 250 Watt (typical for a 50-gallon aquarium) - always on                   | 250             | 720                  | 180         | \$16.47                                  |
| Pump - 1/2 HP (typical for a pond or small swimming pool) - always on            | 373             | 720                  | 269         | \$24.57                                  |
| Refrigerator - ENERGY STAR **  | 150 - 170       | 200 - 260            | 30 - 44     | \$2.74 - \$4.04                          |
| Refrigerator - top-mount freezer, without icemaker **                            | 170 - 220       | 215 - 280            | 37 - 62     | \$3.34 - \$5.64                          |
| Refrigerator - side-mount freezer, with icemaker **                              | 210 - 250       | 215 - 280            | 45 - 70     | \$4.13 - \$6.40                          |
| Satellite dish   | 15              | 80 - 120             | 1 - 2       | \$0.11 - \$0.16                          |
| Sony PlayStation 3® (2007) - always on   | 150             | 720                  | 108         | \$9.88                                   |
| Sony PlayStation 3® (2007) - Active & Standby modes*                             | 150             | 60 - 180             | 9 - 27      | \$0.82 - \$2.47                          |
| Space heater **  | 1000 - 1500     | 30 - 120             | 30 - 180    | \$2.74 - \$16.47                         |
| Stereo component system  | 60              | 30 - 60              | 2 - 4       | \$0.16 - \$0.33                          |
| Stereo - portable  | 7               | 30 - 60              | 1 - 2       | \$0.06 - \$0.14                          |
| Swimming pool cleaner - booster pump powered                                     | 1500            | 70 - 120             | 105 - 180   | \$9.61 - \$16.47                         |
| Swimming pool cleaner - robotic  | 180             | 70 - 120             | 13 - 22     | \$1.15 - \$1.98                          |
| Television - Cathode ray tube (CRT) 45-inch*                                     | 298             | 60 - 180             | 18 - 54     | \$1.64 - \$4.91                          |
| Television - Liquid crystal display (LCD) or Light emitting diode (LED) 45-inch* | 110 - 213       | 60 - 180             | 7 - 38      | \$0.60 - \$3.51                          |
| Television - Plasma 45-inch*   | 110 - 339       | 60 - 180             | 7 - 61      | \$0.60 - \$5.58                          |
| Vacuum cleaner (central or portable)   | 650 - 1600      | 2 - 6                | 1 - 10      | \$0.12 - \$0.88                          |
| Water heater - submersible aquarium heater                                       | 200 - 400       | 80 - 120             | 16 - 32     | \$1.46 - \$2.93                          |
| Water heater - 50-gallon standard-efficiency**                                   | 4500 - 5500     | 80 - 90              | 360 - 495   | \$32.93 - \$45.28                        |
| Water heater - Heat pump 60-gallon and 80-gallon**                               | 500 - 4500      | 85 - 105             | 43 - 193    | \$3.89 - \$17.61                         |
| Wireless Internet Router - always on*  | 6 - 7           | 720                  | 4 - 5       | \$0.40 - \$0.42                          |

The typical Wattages, hours of use, and kWh above are based on EWEB research using a variety of industry sources. Research sources include independent and robust sources such as E Source, US DOE, EPRI, ACEEE, Lawrence Berkeley and Oak Ridge National Laboratories.

\* This appliance has different energy-use modes. **Active** mode is when the device is being used as intended (e.g., drying with a hairdryer).

**Standby** mode is when the device is in a lower-power mode. This includes Idle mode (for example, a computer in sleep mode) or Off (for example, a TV that is off but needs to respond instantly to a signal from a remote control). See also the Standby Power Table below.

\*\* This appliance turns on and off to maintain a set-point (for example, a refrigerator is always plugged in but the compressor cycles on and off to keep things cold). The hours of use for this appliance will depend on its set-point and ambient conditions.

\*\*\* Costs are based on Eugene Water & Electric Board residential rates in effect as of Jan 1, 2019, at 9.148 cents per kWh.

## Standby Power Table

**Standby Power** is the power draw of a device in its low-power modes. This includes Idle mode (for example, a computer in sleep mode) or Off (for example, a TV that is off but needs to respond instantly to a signal from a remote control). This type of power draw is often referred to as “phantom power.” As shown below, standby power draw is relatively low. However, modern homes often have multiple smartphones, TVs, computers, and other items plugged in. The total power used by these devices adds up. To make sure your devices do not consume standby power, you can unplug them from the wall, or plug them into a power strip and turn the power strip off when not in use.

| Appliance                                | Mode                  | Typical Wattage | Average Cost per Month |
|--|-----------------------|-----------------|------------------------|
| Audio Mini System/CD/Radio               | Off                   | 8               | \$0.53                 |
|  | On but not playing    | 14              | \$0.92                 |
| Blue-ray disc player                     | Off                   | 1               | \$0.07                 |
| CD Player                                | Off                   | 5               | \$0.33                 |
|  | On but not playing    | 9               | \$0.59                 |
| Clock Radio                              | On                    | 2 - 10          | \$0.13 - \$0.66        |
| Coffee Maker                             | Off                   | 1               | \$0.07                 |
| Computer Modem , Cable                   | Off/Standby           | 4               | \$0.26                 |
|  | On                    | 6               | \$0.40                 |
| Computer Monitor, CRT                    | Off                   | 1               | \$0.07                 |
|  | On/Sleep              | 12              | \$0.79                 |
| Computer Monitor, LCD                    | Off                   | 1               | \$0.07                 |
|  | On/Sleep              | 1               | \$0.07                 |
| Computer, Desktop                        | Off                   | 3               | \$0.20                 |
|  | On/Sleep              | 21              | \$1.38                 |
| Computer, Notebook                       | Off                   | 9               | \$0.59                 |
|  | On/Sleep              | 16              | \$1.05                 |
| Copier/Printer                           | Off                   | 3               | \$0.20                 |
|  | On/Sleep              | 20              | \$1.32                 |
| DVD/VCR Player                           | Off                   | 5               | \$0.33                 |
|  | On but not playing    | 14              | \$0.92                 |
| Fax, Inkjet                              | Off                   | 5               | \$0.33                 |
|  | On but not being used | 6               | \$0.40                 |
| Fax, Laser                               | Off                   | 1               | \$0.07                 |
|  | On but not being used | 6               | \$0.40                 |
| Game Console                             | Off                   | 1               | \$0.07                 |
|  | On but not being used | 23              | \$1.51                 |
| Garage Door Opener                       | On but not being used | 5               | \$0.33                 |
| Heating, Furnace Fan                     | Off                   | 4               | \$0.26                 |
| Microwave Oven                           | Off                   | 3               | \$0.20                 |
| TV Set-top Box, Digital Cable w/ DVR     | Off                   | 33 - 44         | \$2.17 - \$2.90        |
|  | On but not recording  | 33 - 44         | \$2.17 - \$2.90        |
| TV Set-top Box, Digital Cable            | Off                   | 18 - 20         | \$1.19 - \$1.32        |
|  | On but not being used | 120 - 25        | \$1.65                 |
| Telephone, Mobile Charger                | Power supply only     | 0 - 1           | \$0.02 - \$0.07        |
|  | On, charging          | 4               | \$0.26                 |
| Telephone, Cordless w/ Answering Machine | Off                   | 3               | \$0.20                 |
|  | On but not being used | 4               | \$0.26                 |
| Television, CRT                          | Off                   | 4               | \$0.26                 |
| Television, non-CRT (including LED, LCD) | Off                   | 1               | \$0.07                 |
| Toothbrush, electric                     | Off                   | 2               | \$0.13                 |
| Wireless Internet Router                 | On but not being used | 2               | \$0.13                 |



## Eugene Water & Electric Board

500 East 4th Avenue/Post Office Box 10148  
Eugene, Oregon 97440-2148  
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[www.eweb.org](http://www.eweb.org)

### Residential Light and Appliance Daily Electric Cost Worksheet

You can use the worksheet on the back to estimate the daily cost of your home lighting and appliance energy use. With this information you can make choices about your energy usage.

#### Instructions

1. List all lights (ceiling and freestanding) and appliances plugged into the electrical outlets in each room of your house in the first column.
2. Enter the watts of each light or appliance in the second column. Look on the rating label. Most appliances are rated by watts (w) (sometimes called "va"). If neither of these is shown, most rating labels will at least indicate Amps (a) and Volts (v). Calculate watts by multiplying the two together: Amps (a) x Volts (v) = Watts. If you cannot locate an appliance's electrical rating label, use the EWEB Typical Residential Electricity Use and Cost sheet to estimate the watts.
3. Enter the estimated hours per day the light or appliance operates in the "Hours per day" column.
4. Enter the electric rate you want to use to estimate your energy costs. Your electric rate will be the sum of the distribution charge and the power charge shown on your EWEB electric bill, currently:

|                 |                  |
|-----------------|------------------|
| Delivery Charge | \$0.02624        |
| Power Charge    | \$0.06524        |
| "Electric Rate" | <u>\$0.09148</u> |

5. Perform the calculations across each line and total your costs at the bottom.

#### Remember:

1. Electric use for lights and appliances is only a percentage of your total bill. Other uses, such as space and water heating typically represent the greatest portion of the bill.
2. Appliances do not use energy unless they are plugged in and turned on.
3. Any appliance with a remote control, clock, or programmable timer is always using some power, even when turned off. (See Appliance Standby Power Table, attached to Typical Residential Electricity Use and Cost.)





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### High Bill Site Visit Application

Account Holder Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone number: \_\_\_\_\_

Email address: \_\_\_\_\_

#### Please confirm you have completed the following:

- Step 1: Understanding your EWEB Bill
- Step 2: Diagnosing your High Bill
- Step 3: Data Collection & Self-Testing.

Please provide the following information to better help your energy management specialist assist you with resolving your high bill.

What is your primary heating fuel and system type?

\_\_\_\_\_

How often is your heating system turned on?

\_\_\_\_\_

What is the average thermostat setting?

\_\_\_\_\_

How many people are living in the home?

\_\_\_\_\_

Are there any additional heating source(s)?

\_\_\_\_\_

Is there any additional information?

\_\_\_\_\_

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