

CITY OF BARTOW (COB)



WATT CHOPPER knows how to “take a bite” out of your electric bill and save both energy and money. . .

5 Quick Steps for you to Conserve Energy Today. . .

- 1. CHANGE A LIGHT** – Replace three frequently used light bulbs with compact fluorescent bulbs. This will save you approximately \$60 per year.
- 2. CHECK YOUR WATER HEATER** – Keep your water heater thermostat no higher than 120°F. This will save you approximately \$30 per year.
- 3. FILL YOUR DISHWASHER** – Run your dishwasher only with a full load and save approximately \$40 per year. Set your dishwasher to the “eco-mode” to save even more energy and water.
- 4. ADJUST YOUR THERMOSTAT** – Set your home thermostat between 78° and 82°, and consider shutting off your air conditioner if you are planning on leaving your home for an extended period of time.
- 5. TURN OFF ELECTRONIC DEVICES** – Turn off your TV, DVD player, stereo and computer when you’re not using them. Also, consider unplugging devices when not in use to avoid “ghost loads”, or the power that keeps devices energized and ready to be turned on.

Most of us consume electricity while hardly even noticing – it’s simply there whenever we need it. But what would happen if electric energy were stored in a tank, like your car’s gasoline? How would you feel if, toward the end of the day, you discovered you were “running on empty” and couldn’t cook your evening meal? Or watch your favorite TV show?

Your appliances don’t have fuel gauges to tell you how much electricity they’re consuming. But if you do have a handle on how much your home equipment and appliances use, it may help you consume only the electricity you really need so you spend as little as necessary.

You may be able to manage your energy purchases more efficiently by reading your electric meter and tracking your monthly electricity purchases day by day. As a result, you’ll understand when and how you consume the most electricity, and become more aware of your personal energy needs.

As your equipment and appliances operate, the electricity they use is recorded by the electric meter. It measures watts, and records watt-hours (the number of watts used in an hour). The meter dials advance as you use 1,000 watts, or one kilowatt-hour.

Your Energy Services meter reader reads your meter on approximately the same day each month. The current reading is subtracted from your previous reading, and the difference is your kilowatt-hour use for the month.

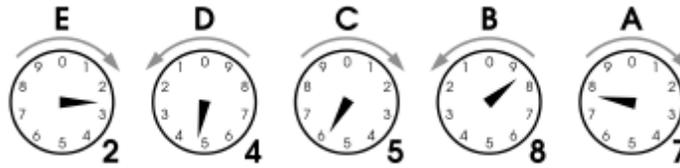
To keep track of your energy expenses, you need to know how to read your electric meter (see following pages for a tracking chart).

Your meter has five dials . . .

Three of the dial hands turn clockwise;  and two turn counterclockwise. 

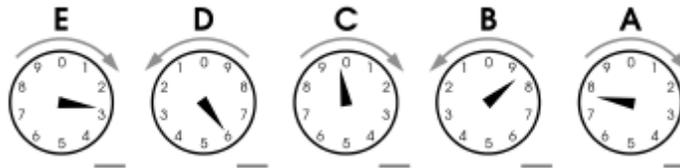
How to read your meter . . . Start reading from the right hand (dial A).

When the dial pointer is between two numbers, write down the lower of the two numbers. Continue reading from right to left to obtain your correct reading.



The above meter's reading is 24587.

When a dial pointer appears to be exactly on a number, as on Dial D (below), look back at the dial to the right (C in this case). If the pointer on that dial has not passed zero, the reading on the dial in question (D in our example) is the lower number. The reading on Dial C is 9. Therefore, the reading for dial D is 5.



This meter's reading would be 25987

To figure your monthly electrical usage,

read the meter at the beginning of the month (24587 in our example), and again one month later (25987). The electricity bought is the difference between the two numbers, or 1,400 kilowatt-hours. Remember, the day your meter is read each month varies depending on your location.

Customers with digital meters will not need to read their meter using the techniques mentioned above, rather they need only to log the reading on their meters' digital display when tracking their energy consumption.

Using the ENERGY TRACKING Chart

To use this tracking chart, simply read your meter the same time each day and complete the information. See sample below.

	A	B	C	D	E
Day of Month	Day of Week	Temperature	Daily Meter Reading	Kilowatt Hours per Day	Reason for Increase or Decrease
1	Mon		24587		
2	Tues		24612	25	
3	Wed		24640	28	
4	Thur		24672	32	4 loads wash/dryer
5	Fri		24725	53	hot day 76o A/C
6	Sat				

Weekly Kwh Total : 138

A – Enter day of the week.

B – Temperature affects your energy costs, too. Record daily high or low temperatures.

C – Read meter at same time each day.

D – Subtract the previous day's reading and place the difference here to give your daily usage.

E – List things you did differently than on a normal day (like extra loads of laundry, lowered thermostat, extra showers/baths, dishwasher, visitors, or students home from college).

ENERGY TRACKING CHART

Day of Month	Day of Week	Temperature	Daily Meter Reading	Kilowatt Hours per Day	Reason for Increase or Decrease
1					
2					
3					
4					
5					
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Understanding how you buy electricity can help control your energy budget

The City of Bartow encourages you to always give energy management your best effort. But remember, there are some circumstances beyond your control.

For example:

- The hotter it is outside, the more it costs to keep cool inside.
- If you live in an older home, it's probably not as energy efficient as a newer model.
- Older appliances and equipment are less energy efficient than newer models, and cost more to operate.

Tips for ENERGY TRACKING

Here are some key items to consider when reviewing your daily consumption:



GENERAL

- **How many people live in your home?** Larger households have higher electric bills than smaller households.
- **Have you changed your day-to-day energy use?** Adding new equipment such as a freezer may increase the electric bill.
- **Are your children home for the summer, or do you have house guests?** Are you or a family member home all day because of recent retirement, illness, or a new work schedule?
- **Have you had problems with your existing electrical equipment and appliances?** Faulty equipment must work harder and may use more electricity than appliances in good repair.
- **Is your electrical equipment old?** As it ages, equipment uses more electricity to do the same amount of work.



WATER HEATING

- **Your water heater is usually the second largest user of electricity in your home.** Larger families use more hot water and, therefore, more energy.
- **At what temperature do you maintain your electric water heater?** For general purposes, 120 degrees is sufficient.
- **Keep faucets in good repair** – even a slow drip wastes water and costs you money.



COOLING & HEATING

- **At what temperature do you set your thermostat?**

Set your thermostat lower in the winter and higher in the summer. COB recommends setting the thermostat at 78 or higher. When cooling, set the fan to “auto” instead of “on” for optimum efficiency. (Each degree below the temperature of 78 degrees adds eight percent to cooling costs) A recommendation of 65 to 68 degrees when heating the home.

- **How many rooms does your air conditioner cool?** The larger the space to be cooled, the larger the air conditioner required. A large air conditioner is more costly to operate than a small one.
- **How old is your cooling system?** Older equipment (more than 10 years old) may be less efficient than newer models and probably costs more to operate.
- **Have you had your cooling system checked by a licensed contractor?** COB recommends having an annual spring A/C tune-up to make sure your system is in good repair. You also should replace the air conditioner’s filters monthly. Clogged filters mean higher operating costs because your equipment has to work harder.
- **Does your home have ceiling fans?** Ceiling fans are a cost-effective way of helping you feel cool at higher thermostat settings.
- **Has your home been weatherproofed?** Sealing leaks around windows and doors with caulking and weather-stripping helps prevent air from escaping.



INSULATION

- **Is your home properly insulated?** Proper ceiling insulation can reduce your cooling and heating costs and help keep your home cool in the summer and warm in the winter. Insulation’s effectiveness is measured by its resistance to heat flow (the R-value). A minimum R-value of 19 is recommended.

To know where you can save the most, look where you use the most energy.

Save Energy, Save Money... START TODAY!

To know where you can save the most, look where you use the most energy.

By saving energy you can cut your household costs and help protect the environment at the same time.

The recommendations in this brochure will start you on the road to saving.

You can implement these simple, low-cost, measures and practices yourself!

C O O L I N G

- **Clean or replace your air conditioner filters monthly.**
- **Set your home thermostat between 78° and 82°.**
- **Turn off your air conditioner if you leave your home** for more than two or three hours.
- **Consider installing a programmable thermostat** that will automatically set your thermostat during the times that your home is unoccupied.
- **Have your system serviced regularly** to keep it in top operating condition.
- **Caulk and weather-strip windows, doors, and other openings** to reduce the drafts.
- **Keep windows, doors, and other openings closed and shaded** when sun shines upon them.
- **Shade all windows or glass doors** from outside of the building with awnings, plants, blinds, and overhangs to stop radiation of sun into your living area. Interior shading is not recommended because sun energy that has entered the house is heat that your air conditioner must overcome.
- **Insulate your attic space** in order to reduce the convection of heat through the ceiling into the living area (attic spaces can be 15-30° hotter than ambient temperatures).
- **Install attic exhaust fans to remove hot air** from attic spaces.

W A T E R H E A T E R

- **Wrap an insulation blanket around your water heater.**
- **Set the temperature on your water heater to 120°** (140° if you use a dishwasher).
- **Install low flow shower heads** and faucet aerators to decrease your hot water usage.
- **Turn your water heater off if you leave your home** for more than two days.

A P P L I A N C E S

- **Consider energy efficiency when buying new appliances.** Look for appliances labeled with high energy efficiency ratios and low operation costs.
- **Turn off appliances, like the TV, when they're not being used.**
- **Wash and rinse most clothes in cold water.**
- **Clean refrigerator and freezer coils regularly.**
- **Check refrigerator and freezer door gaskets.**
- **Use pressure cookers and microwave ovens to reduce cooking time** and save energy.
- **When you have a choice, use the rangetop** rather than the oven.
- **Turn off the dry cycle on your dishwasher.**

L I G H T I N G

- **Turn off lights in unused rooms.**
- **Install compact fluorescent bulbs wherever you can.** Although they are initially more expensive, your savings in electricity costs could pay for the bulb in about a year.
- **Replace standard fluorescent lamps and ballasts with T-8 lamps and electronic ballasts.**
- **Remove unnecessary bulbs.**
- **Install photo cells or motion detectors on outdoor security lights.**

ELECTRONIC CONSUMPTION of Household Items

The following gives the estimated monthly kilowatt hour (kWh) consumption.

COMFORT CONDITIONING

CENTRAL AIR

2 tons -1450kw 3 tons -2100kw 4 tons -2750kw

ROOM UNITS: 1 Ton, EER 6 -2kw per hr 1 Ton, EER 8 -1.5kw per hr.

DEHUMIDIFIER 31kw

FANS: Whole House 30kw Circulating 4kw Ceiling 12kw

WATER : HEATING , POOL & GARDEN

WATER HEATER

Typical Use, 2 Persons 195kw Typical Use, 4 Persons 310kw

POOL PUMP (3/4 HP) 375kw

SPRINKLER SYSTEM (1 HP) 28kw

FOOD PREPARATION

BABY FOOD/BOTTLE WARMER 2kw BROILER/ROTISSERIE 7kw COFFEE MAKER 9kw

DEEP FAT FRYER 7kw DISHWASHER 30kw

EGG COOKER 1kw FRYING PAN 8kw HOT PLATE 4kw MICROWAVE OVEN 16kw

RANGE WITH OVEN 58 RANGE/SELF-CLEAN OVEN 61kw ROASTER 5kw

SANDWICH GRILL 3kw SLOW COOKER 12kw TOASTER 3kw TRASH COMPACTOR 4kw

WAFFLE IRON 2kw BLENDER, CAN OPENER & FOOD MIXER Less than 1kw

FOOD PRESERVATION

REFRIGERATOR

Manual 12 cu. ft. 78kw

REFRIGERATOR-FREEZER

Manual, 12-14 cu. ft. 125kw Frost-free, 14-17 cu. ft. 170kw

Frost free, 17-20 cu. ft. 205

FREEZER

Manual, 14 - 17 cu. ft. 135kw Frost-free, 14 - 17 cu. ft. 188kw

LAUNDRY SERVICES

DRYER 75

IRON 5

WASHING MACHINE 9

LIGHTING

INDOORS

4-5 Rooms 50kw 6-8 Rooms 60kw

OUTDOORS

1 Spotlight, All Night 45kw

HOUSEWARES

CLOCKS 1kw FLOOR POLISHER 1kw

SEWING MACHINE 1kw VACUUM CLEANER 4kw

HEALTH & BEAUTY

HAIR DRYER 2kw HAIR ROLLER 1kw HEATING PAD 1kw

INFRARED HEAT LAMP 1kw SUN LAMP 1kw

CURLING IRON, SHAVER Less than 1kw

HOME

ENTERTAINMENT

RADIO 7

RADIO/CD PLAYER 9

TELEVISION 27