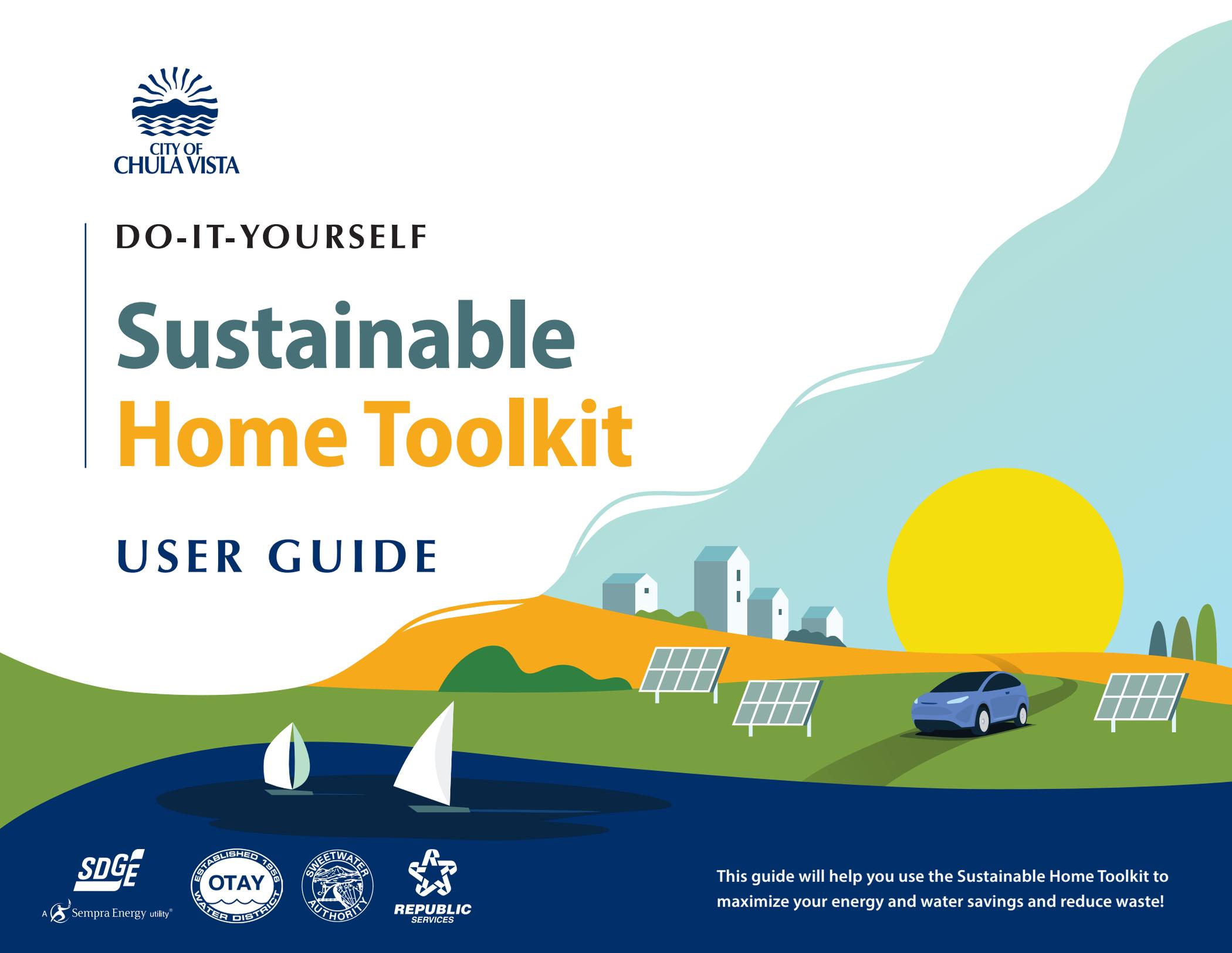




DO-IT-YOURSELF

Sustainable Home Toolkit

USER GUIDE



A Sempra Energy utility



This guide will help you use the Sustainable Home Toolkit to maximize your energy and water savings and reduce waste!

TABLE OF CONTENTS

Welcome	1
Checkout and Return Process	2
Tracking Your Savings	3
Introduction/CAP	4
What's in the Toolkit	6
How to Use Energy Saving Tools	8
How to Use Water Saving Tools.....	16
Recycling and Reducing Waste	23
Additional Resources	27

LET'S GET STARTED!

WELCOME!

Thank you for checking out the Sustainable Home Toolkit! You're on your way to saving money, cutting your energy and water use and reducing your waste and carbon footprint. This handbook is a step by step guide for using all the tools and items contained in this kit. For more information please visit www.chulavistaca.gov/departments/clean/home-toolkit

Track Your Progress

There's no better feeling than finishing a project and being able to look back and see how far you've come. Along with this guide you received a Tracking Energy and Water Use form that will help you take a snapshot of your current energy and water usage. While you use the kit, you'll then track the equipment you've installed and behaviors you've adopted, and then calculate your estimated savings.

Chula Vista Climate Action Challenge

The tools will also enable you to complete some of the actions in the Chula Vista Climate Action Challenge. Make sure to sign up and learn more at www.cvclimatechallenge.com.

Remember to Return the Toolkit

Don't forget to drop off the Sustainable Home Toolkit within 14 days so that your neighbors can be sustainable too!



Contact us for help!

Have a question about the Toolkit? For more information please visit www.chulavistaca.gov/departments/clean/home-toolkit, send us an email at Conservation@chulavistaca.gov or call (619) 409-3893 and we'll be happy to help.

Socialize Your Sustainability

Spread the word about your sustainability success! Send us photos or videos and tag us in your sustainability posts by using #ChulaVistaCLEAN

 @thinkchulavista  @thinkchulavista  @thinkchulavista



CHECKOUT AND RETURN PROCESS

The toolkits can be checked out and returned at the following Chula Vista Library Locations:



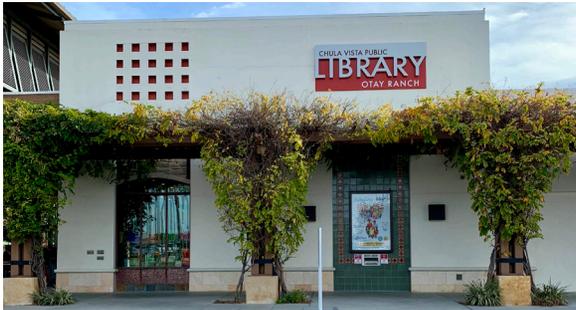
Civic Center Branch

365 F Street
Chula Vista, CA 91910
(619) 691-5069



South Chula Vista Branch

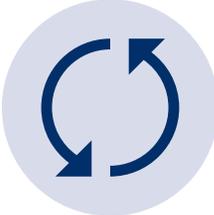
389 Orange Avenue
Chula Vista, CA 91911
(619) 585-5755



Otay Ranch Branch

2015 Birch Road, Suite 409
Chula Vista, CA 91915
(619) 397-5740

For more information or to reserve items online please visit: www.chulavistalibrary.com

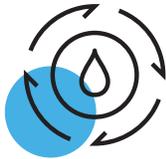


Please contact the Chula Vista Library for more details about where you can check out a kit. To return the kit please call the library from which it was checked out.



TRACKING YOUR SAVING

Use the tracking sheet included or available online at www.chulavistaca.gov/departments/clean/home-toolkit to determine your household natural gas, electricity and water use. Once you determine your baseline, you will be able to see the differences this tool kit can help make in your home and your wallet!



TRACKING ENERGY AND WATER USE



This document will help you determine your household baseline natural gas, electricity, and water use. For an online version of this tracking sheet please visit www.chulavistaca.gov/departments/clean/home-toolkit. These metrics will help you understand your home energy use and how your energy use changes over the course of the year. To complete this section, you will need your monthly SDG&E and Sweetwater Authority or Otay Water District bill data for the last three months (either hard copy or your online account) and the Sustainable Home Toolkit - How to Use Energy Savings Tools. For the most accurate picture of your home energy use, you can look at 12 months of energy data. When you are done make sure to get points for your savings in the Chula Vista Climate Action Challenge (www.cvclimatechallenge.com) and share online with #ChulaVistaCLEAN.

Step 1

Calculate your natural gas usage

Natural Gas Usage	Bill Start Date	Bill End Date	Natural Gas Usage (therms)	Total Natural Gas Charges (\$)
Bill 1				
Bill 2				
Bill 3				
Average =	X			
$\frac{(\text{Bill 1} + \text{Bill 2} + \text{Bill 3})}{3}$				

Divide your **Total Natural Gas Charges** by your **Natural Gas Usage** to calculate the Cost per Therm. Tracking this month to month will help you to track seasonal changes in energy costs.

$$\text{\$} \frac{\text{Total Natural Gas Charges}}{\text{Natural Gas Usage}} = \text{\$} \frac{\text{Total Natural Gas Charges}}{\text{Natural Gas Usage}} \text{ therms} = \text{\$} \frac{\text{Total Natural Gas Charges}}{\text{Natural Gas Usage}} \text{ /therms (cost per therm)}$$

Step 2

Calculate your electricity consumption

Electricity Usage	Bill Start Date	Bill End Date	Electricity Usage (kilowatt hours)	Total Electricity Charges (\$)
Bill 1				
Bill 2				
Bill 3				
Average =	X			
$\frac{(\text{Bill 1} + \text{Bill 2} + \text{Bill 3})}{3}$				

Divide **Total Electricity Charges** by your **Electricity Usage** to calculate the **cost per kilowatt hour**. Tracking this month to month will help you understand seasonal changes in energy costs. You can use the **cost per kilowatt hour** on the **Do-It-Yourself Toolkit Home Energy and Water Savings Calculator** sheet to calculate how much your electronic devices cost each year and potential lighting savings.

$$\text{\$} \frac{\text{Total Electricity Charges}}{\text{Electricity Usage}} = \text{\$} \frac{\text{Total Electricity Charges}}{\text{Electricity Usage}} \text{ kWh} = \text{\$} \frac{\text{Total Electricity Charges}}{\text{Electricity Usage}} \text{ /kWh (cost per kilowatt hour)}$$

CLIMATE ACTION WITH A PLAN!

Since 2000, Chula Vista has been implementing a “Climate Action Plan” to address the threat of climate change impacts to the local community. The most recent plan is the 2017 Climate Action Plan (CAP) which was adopted by City Council in 2017. It includes ambitious new goals and policies to strengthen the City’s climate action efforts. Implementing the CAP facilitates achieving numerous community co-benefits such as utility savings, better air quality, reduced traffic congestion, local economic development and improved quality of life. The current CAP brings together past City of Chula Vista climate plan efforts including the original Carbon Dioxide Reduction Plan (2000), the mitigation plan (2008) and the adaptation plan (2011). The City regularly conducts greenhouse gas (GHG) emission inventories to help guide the implementation of the Climate Action Plan as well as to monitor and evaluate the progress. For more information please go to www.chulavistaca.gov/home/ and search for 2017 CAP User Guide for Action.

CAP GOALS BY 2035

Provide
100%
OF ELECTRICITY FROM
CLEAN SOURCES



Directly engage **8%** of households
ENERGY CONSERVATION per year

Increase citywide
**ALTERNATIVE COMMUTE
RATES TO 9%**



Expand the
URBAN TREE CANOPY
25%

RETROFIT
1,000 HOMES
per year with water-efficient devices



DIVERT
90%
of waste from the landfill

REDUCE VEHICLE MILES TRAVELED
BY 5%



For more information, visit
www.chulavistaca.gov

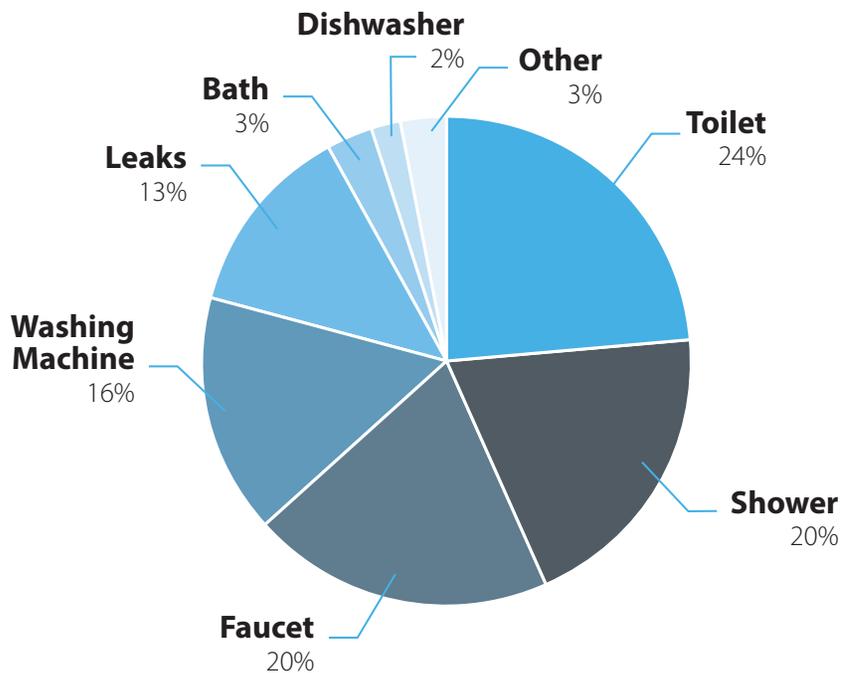
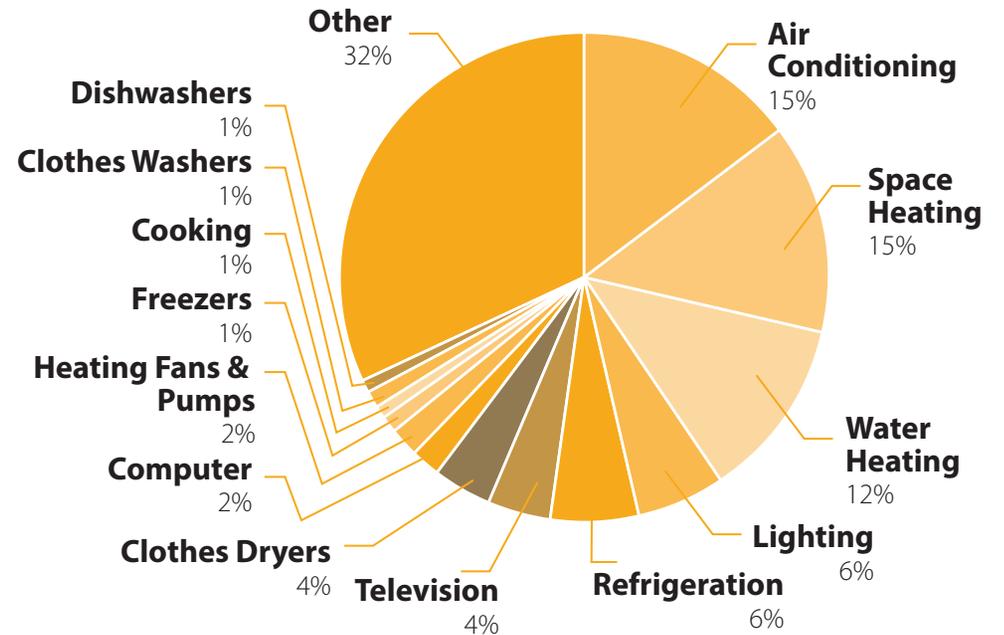


bit.ly/2X4y96t

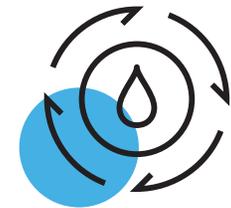
ENERGY AND WATER OVERVIEW



Average Household Energy Use



How Water is Used – Typical Water Usage for Single Family Home



WHAT'S IN THE TOOLKIT?



ENERGY



Kill-A-Watt® Meter **Return**

Measure the energy use of appliances and equipment to better understand your home's overall energy use.



Infrared Thermal Imager **Return**

Check for heat loss in trouble areas such as windows, vents and door jams.



Propane and Natural Gas Detector **Return**

Detect leaks along gas pipes or fuel lines for safety and conservation.



Refrigerator Thermometer **Return**

Monitor the temperature in your refrigerator.



LED (Light Emitting Diode) Light Bulb

Replace incandescent or compact fluorescent bulbs (LED) in high-use fixtures.



Weather-stripping

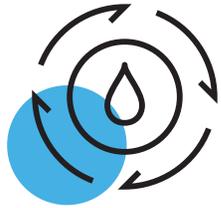
Seals air gaps in windows and doors.



Outlet Gaskets

Seals the void around your outlets and prevents heat loss.

Return Please return these items to the library after 14 days



WATER



Thermometer **Return**

Check the temperature of your hot water supply.



Water Flow Rate Bag **Return**

Measure the true rate of flow in gallons per minute of your faucets and showers.



Drip Gauge **Return**

Measure how much water a leaky faucet is wasting each day and year.



Pliers **Return**

Use to replace old faucet aerators and showerheads with new ones.



Water Pressure Gauge **Return**

Test your house water pressure using the included water pressure gauge.



Plumber's Tape **Return**

Help prevent leaks in your faucets and showerheads.



Detect-A-Leak Toilet Tablets

Test your toilet for leaks using the tablets.



Faucet Aerators

Install new aerators to help you save water.



Low-flow Showerhead

Reduce your household water consumption by using a low-flow showerhead.



Rubber Bands

Return Please return these items to the library after 14 days



ENERGY USE
HOW TO USE
ENERGY SAVING
TOOLS



HOW TO BEGIN USING ENERGY SAVING TOOLS

First, you'll want to understand what your current energy usage looks like so you can calculate (and celebrate!) your energy savings and fill out Tracking Energy and Water Use forms to calculate your average energy usage.

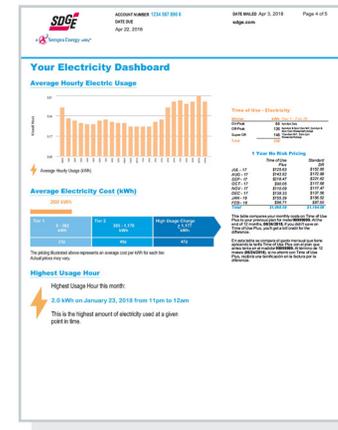
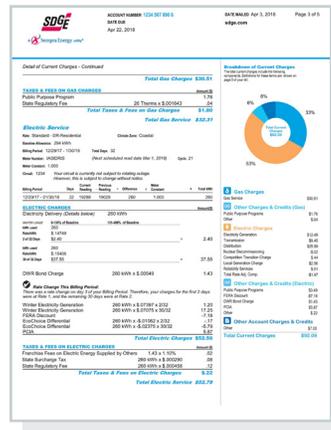
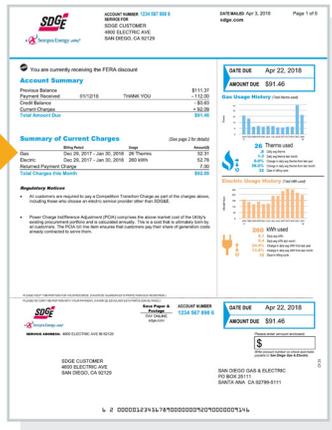
How to Read Your Energy Bill

How to access your bill data on SDG&E's website

- Log in to your SDG&E account
- Bills & Payments tab > Bill History
- Click on Statement Date for the three (or more) most recent billing periods to download PDFs of your bills

Click on the "My Energy" tab to take a deep dive into your energy use and find ways to save!

Billing Period



1. The first page of an SDG&E bill gives you a general overview of your energy for that month. **Paying attention to the start and end of a billing period** is important because activities in that month may explain higher or lower energy use.

2. The next few pages of your bill will break down your costs for gas and electric in detail. In this section you will also find the prices you were charged for electricity use during the billing period. As SDG&E switches to a Time-of-Use (TOU) billing structure, the cost of electricity throughout the day will vary based on electricity demand at that time.

3. **Time-of-Use (TOU)** electricity pricing considers **when you use** electricity, not just how much you use. This section of your bill will show the hourly and seasonal pricing and your bill savings compared to the former standard rates.



EVALUATING YOUR ENERGY

Now that we know how much energy you use on average, let's take a closer look at where some of that energy is going.

Use the Kill-A-Watt® Meter

The Kill-A-Watt® meter measures the energy drawn by appliances and electronics in both operating and standby modes. Use the Kill-A-Watt® meter to measure the energy usage of your appliances, then compare them to the average usage outlined in the table at the bottom of this page.

1. Look at your most recent energy bill and find the Rate/kWh under "Electric Charges."
2. Plug the meter into an outlet, then plug an appliance or electronic device you would like to measure into the meter's outlet.
3. Press and hold the RESET button on the meter until "rEST" appears.
4. Press and hold the SET button until "Rate" is shown and the currently set rate flashes.
5. Input the Rate/kWh cost from your energy bill into the meter and press the "SET" button to save it.
6. Press the MENU button until "Cost" is shown.
7. Press the UP or DOWN button to see the cost estimates per hour, month, day and year.

Average Energy Consumption of Operating Standard Appliances*

Clothes Dryer 1,800-5,000	Dishwasher 1,200-2,400	Clothes Iron 1,000-1,800	Vacuum Cleaner 1,000-1,400
Toaster 800-1,400	Heater 750-1,500	Microwave 750-1,100	Refrigerator 725
Computer 270 (awake) 60 (asleep)	Flat-screen TV 120	DVD Player 20-25	

*Actual energy usage depends on the age and model of the appliance



ENERGY USE

HOW TO USE
ENERGY SAVING
TOOLS



Scan this QR code or follow the link to watch a video on how to use the Kill-A-Watt Meter.



bit.ly/2XYHlBk

Did You Know?

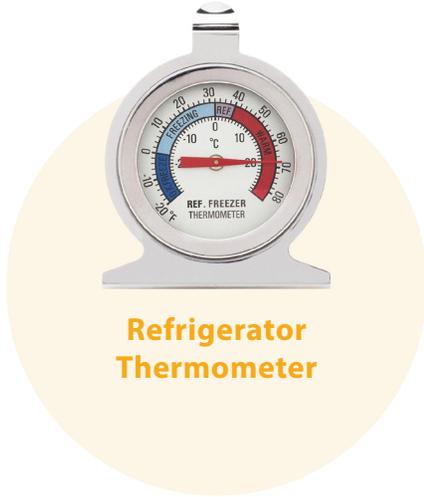
Household electronics account for up to 15% of electricity consumption in a typical California home. Many small appliances and electronics use up to 75% as much energy while off or in standby mode as they do while on!

ENERGY
SAVING



ENERGY USE

HOW TO USE
ENERGY SAVING
TOOLS



**Refrigerator
Thermometer**

Measure the Refrigerator Temperature

Use the Refrigerator Thermometer to help set optimum temperatures for your refrigerator and freezer:

1. Place thermometer in refrigerator between several food items. After 20 minutes, record the temperature.
2. Adjust temperatures if it is outside the target range: 36-40°F for refrigerator and 0-5°F for freezer.
3. Look and test for cracks in the door seal: Close the door on a piece of paper and tug. If the paper moves easily, then you need to replace the seal.
4. Repeat these steps with your freezer.

Use the Infrared Thermal Imager

The Infrared Thermal Imaging Laser Thermometer detects heat gain and loss in areas of your home by measuring surface temperatures in real time. Follow these steps to measure drafts, insulation breakdown and hot spots in electrical systems or cooling systems.

1. Hold down the power button to turn on the thermometer and then remove the camera cap. Press the left and right arrow keys to switch between image types.
2. Point the thermometer at potential trouble spots in your home such as doors, windows, outlets and exterior walls. Look at the temperature reading in the top left corner and note any temperature fluctuations, which may be caused by air leaks.
3. To take a picture with the thermometer, press the image capture key, located at the trigger point of the handhold, below the camera lens.
4. The screen color will change depending on the temperature conditions:
Red = Gaining or High Heat **Blue = Losing or Low Heat**. You can see the temperature difference between the reference temperature and the scan temperature.
5. If you want to save the photos, use the Micro USB port and connect it to a computer to download.

If you found any temperature differences by doors and windows while using the Infrared Laser Thermometer, use weather stripping to seal gaps or reach out to a local contractor for more air sealing options.



**Infrared
Thermal
Imager**



Scan this QR code or follow the link to watch a video on how to use the Infrared Thermal Imager.



bit.ly/2MHk4WQ

ENERGY
SAVING



ENERGY USE

HOW TO USE
ENERGY SAVING
TOOLS

Installing Weatherstripping

If you found any thermal leaks in doors and windows while using the Infrared Thermal Imager, you can use weatherstripping provided in this Toolkit to seal gaps.

1. To check for drafts around doors and window jambs, you can either use the Infrared Laser Thermometer or try to slide a piece of paper through the area. If you see light, then that area will need weatherstripping. Focus on the sections where you feel air or can see light.
2. Clean the application area to ensure a good seal.
3. Cut a length of weatherstripping to match the length of the door or window where the strip will be applied. Peel back adhesive strip and apply.
4. Please return what you do not use with the Toolkit so your neighbor can make the same upgrades.



Weatherstripping



Instructional Video
on How to Apply
Weatherstripping



<https://goo.gl/ipPQhn>



Propane and
Natural Gas
Detector



For some tips on using
gas safely please go to
bit.ly/2XNzg9K



Using the Propane and Natural Gas Leak Detector

Find the location of any natural gas, propane, LP or fuel leaks by running sensor probe along a gas pipe, fuel line or fittings near any gas smells.

1. Turn the power switch to ON and place the detector in a location with clean and fresh air to warm up for 10 seconds. The yellow indicator light will turn off when the detector is ready.
2. Use the dial on the right side to adjust the sensitivity until the first, bottom LED is almost lit up and the high frequency ticking starts to sound.
3. Move the sensor to an area where you suspect a gas leak. The detector will make an increased ticking sound when gas is detected, and the level indicators will change.



Reference the included
instructions for more
information or scan the QR
code for a video how-to.
bit.ly/2Yh5Px0

If you suspect a natural gas leak, immediately evacuate the area. From a safe location, call 911 or call SDG&E at 1-800-611-7343, 24 hours a day, seven days a week.

ENERGY
SAVING



ENERGY USE

HOW TO USE

ENERGY SAVING

TOOLS



INSTALLING ENERGY SAVING EQUIPMENT

Switch Light bulbs to LEDs

Lighting represents as much as 22% of your home's electrical use. You can reduce your energy bill significantly by switching to energy-efficient lighting. The LED bulbs provided in this kit use at least 75% less energy than incandescent bulbs and last 25 times longer.

1. Replace the incandescent bulbs in fixtures that have the highest use; this will result in the highest savings.
2. Turn off the lamp and wait for the incandescent bulb to cool for 5 minutes.
3. Match the equivalent wattage of the old bulb (a 60W incandescent should be replaced with a 9W or other 60W equivalent LED).

Note: If you buy your own LED bulbs, read the packaging to see where the bulb should be used; not all LEDs are designed to work in every socket.

Each LED bulb will save you about \$187.50 over its life when you switch from incandescent bulbs. Consider replacing all bulbs in your home with LED bulbs. Replace incandescent bulbs first to save the most energy and money; then you can also replace any CFLs (CFLs contain mercury and cannot be thrown away in the regular trash).



For info on LED bulb:



goo.gl/Y7NRNo

For info on CFL disposal



bit.ly/3ht2ljp

ENERGY SAVING

Installing Outlet Gaskets

Another way to ensure proper insulation and help prevent air leaks that can result from poor wall insulation is by using outlet gaskets.

1. Identify exterior walls with the most exposure to draft.
2. Choose an outlet or switch plate to upgrade.
3. Carefully loosen the faceplate screw with a screwdriver (not provided) and remove faceplate.
4. Place gasket over internal area. If necessary, trim the gasket to fit around the outlet.
5. Replace faceplate cover and tighten screw.
6. Repeat for other outlets or switches throughout your house.



Instructional Video on
How to Apply Outlet
Gaskets



goo.gl/g5yxaJ



Outlet Gaskets



ENERGY USE

HOW TO USE
ENERGY SAVING
TOOLS

ENERGY
SAVING



MORE ENERGY INFO AND TIPS

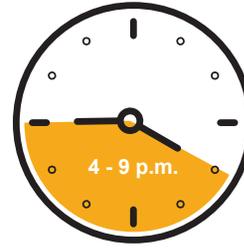
ENERGY USE

HOW TO USE
ENERGY SAVING
TOOLS

Time of Use Matters

When you use energy is just as important as how much you use. SDG&E and its customers are transitioning to Time-of-Use pricing plans to give customers more choice and control for managing energy use and better align when we use energy to when we produce clean energy. With these plans, prices will be most expensive between the hours of 4 p.m. and 9 p.m. and lower during the rest of the day.

Each day is broken out into different time periods:



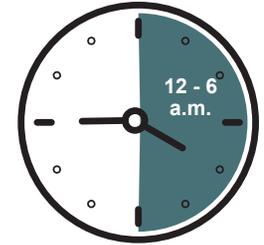
On-Peak Time:
4 - 9 p.m.

Avoid this time!



Off-Peak Time:
9 - 4 p.m.

Turn on your washing machines, dryers, dishwashers, and pool pump!



Super Off-Peak:
Weekdays: 12 a.m. - 6 a.m.
Weekends: 12 a.m. - 2 p.m.

Reducing “Phantom” Energy Use

Unplug small appliances (toasters, coffee pots, phone and battery chargers, etc.) when not in use or plug all appliances into a power strip and be sure to turn that off when not in use.

In your entertainment and computer areas, plug equipment into a Smart Strip which will shut off equipment when in standby mode.



How much phantom energy is your house consuming?

Device	Cell phone chargers	TVs, VCRs, ceiling fans	Computer printers and monitors	Clothes washers, microwave ovens
Average Kilowatt hours annually	18 to 58	29 to 146	29 to 292	58 to 146
Potential cost per year	\$1.77 to \$5.73	\$2.84 to \$14.32	\$2.84 to \$28.65	\$5.69 to \$14.32

Scan the QR Code to buy a smart strip



amzn.to/2WUi7wa



What is Phantom Energy?

Also known as Standby Power, Phantom Energy is the energy used by appliances and electronics when they are turned off but still plugged in to a power outlet.

OPTIMIZING YOUR HOME'S ENERGY EFFICIENCY



ENERGY USE

HOW TO USE

ENERGY SAVING

TOOLS



Refrigerator

- Regularly clean the coils on your refrigerator.
- Turn off the condenser feature in the refrigerator.
- If you have a second refrigerator, consider donating it. These are often old and can save you about \$230 annually on your utility bills.



Washer & Dryer

- Wash full loads and use short wash cycles for mildly dirty laundry. This goes for your...
 - dishwasher too!
- Use cold water whenever possible.
- Use the washer's high spin cycle to reduce drying time and try a clothesline instead of the dryer.
- Clean the lint trap after every use to ensure safe, efficient drying.



Home Envelope

Heating and cooling can account for up to 50% of home energy use; a properly insulated home will reduce this cost and keep your home cooler in the summer and warmer in the winter. Take these steps to reduce leakage in your home envelope:

- Caulk windows.
- Schedule a professional audit or contact a local contractor to address insulation needs around your light fixtures, vents or other spots.
- Insulate ceilings, walls, attics, floors, crawl spaces and basements to recommended standards for optimum savings.



Heating & Cooling Systems

- Clean and replace filters when dirty or at least once a quarter
- Use a smart thermostat or set your winter heating temperature at 68°F; set your summer cooling temperature at 78°F.
- Use window coverings to prevent heat loss and gains.
- Circulate air with ceiling or portable fans.
- Replace A/C units (10 to 15 years or older) with EnergyStar® appliances. This could reduce your costs by 20 to 40%!

SDGE Marketplace

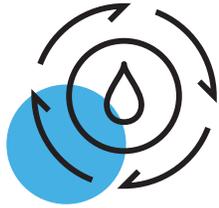
For help finding and reviewing energy efficient appliances visit SDG&E's Marketplace at marketplace.sdge.com.

ENERGY
SAVING



WATER USE

HOW TO USE
WATER SAVING
TOOLS



HOW TO USE WATER SAVING TOOLS

Water is one of our most precious natural resources, but with climate change stressing our already variable rainfall and growing population there is more demand on our limited water resources than ever before.

Thanks to the efforts of San Diego's water agencies, we've been able to strengthen our community's water supply through various resources. However, it's up to each of us to do our part to reduce our use and make sure our water consumption is as efficient as possible. Here are some simple steps to help.

How to Read Your Water Bill

1. You can easily find your water district contact numbers and information.
2. A complete breakdown of your current meter readings. A water bill shows the amount of water used in units called Hundred Cubic Feet (HCF). 1 HCF = 748 gallons.
3. Bills have an easy-to-read account summary.
4. History of water use, so you can compare consumption and track your water efficiency.
5. Details of current charges.
6. Important timely messages and announcements.
7. Payment coupon and stub for return with check payment.
8. The back side of the bill provides descriptions about certain charges, services provided, how to read your water meter, water efficiency information and a change of address form.

1 WATER BILL

2 SERVICE INFORMATION

Address				
Next Read				
Meter #	Prior Read	Current Read	HCF	Gal/Day
123456	530	550	20	241

3 ACCOUNT INFORMATION

Customer Name
Account Number 12345678
Mail Date
Billing Type
Account Type Residential

4 WATER USE ANALYSIS

5 DETAIL OF CURRENT CHARGES

Water	HCF	\$/HCF	Amount
0-10	10	\$X.XX	\$X.XX
11-16	6	\$X.XX	\$X.XX
17-27	4	\$X.XX	\$X.XX
28+	-	\$X.XX	\$X.XX
CURRENT TOTAL			\$X.XX
TOTAL DUE			\$XX.XX

6 MESSAGES

Target Water Allocations are for information only to assist in your water efficiency efforts.
Target Water Allocation: 25 HCF

Please return bottom portion along with your payment.

7 PAYMENT COUPON

Amount Number 555-555-5555
Service Address 5555 ANYWHERE ST
Due Date 05/30/2055
Amount Due \$XX.XX
Amount Enclosed

Check box for changes to you account (see back)

8

YOUR ADDRESS
5555 ANYWHERE ST
CHULA VISTA, CA 91910

WATER COMPANY ADDRESS
PO BOX
CHULA VISTA, CA 91911

WATER
SAVING



WATER USE

HOW TO USE
WATER SAVING
TOOLS

Measure Flow Rate of Faucets

Using the water flow rate bag, you will measure the rate that water flows from your faucets and showerheads. Even if you have low flow aerators, it can be helpful to check the flow rate because aerators can corrode.

1. Turn on faucet and fill water flow rate bag for 5 seconds.
2. Record the gallons per minute measured on the flow rate bag.
3. If your water is flowing at a rate greater than the numbers listed, we'll explain how to fix it by installing aerators:



i. Bathroom sink:
0.5 gpm



ii. Kitchen sink:
1.5 gpm



iii. Showerhead:
2.0 gpm

Water Flow Rate Bag



Faucet
Aerators

You'll need:

Faucet Aerator
Pipe Thread
Seal Tape
Pliers

Installing (or replacing) Aerators

After measuring the flow rate of your aerators and showerheads using the flow rate measure bag, see if their flow rates match the flow rates we have listed. If they are higher, then you can replace them to help save water.

1. Close or plug your drain.
2. Unscrew old aerator counterclockwise; if needed, use the pliers to loosen the aerator. Wrap the teeth of the pliers with painter's tape or a towel to avoid scratches to the existing equipment.
3. Clean and dry water pipe threads (grooves at end of faucet).
4. Wrap provided pipe thread seal tape around pipe thread.
5. Screw on new aerator clockwise by hand.
6. Turn on faucet to test for leaks. Tighten with pliers if necessary.



Did You Know?

Over half of all water use in the home takes place in the bathroom. Installing aerators saves an average of 1.2 gallons per person per day.

WATER
SAVING



WATER USE

HOW TO USE

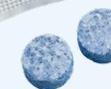
WATER SAVING

TOOLS

Checking Your Toilet for Leaks

A toilet that runs constantly can waste up to 200 gallons of water per day, which can cost you \$250 over the course of a year! The Detect-A-Leak Toilet Tablets are a simple and inexpensive way to test for leaks on a regular basis – and we’ve included some in the toolkit!

1. Carefully remove tank lid.
2. If you hear water flowing in the toilet, check the ball float valve to make sure it is not set too high.
3. Drop 1-2 tablets into exposed tank.
4. Wait 20-30 minutes. Do not flush the toilet during this time.
5. If blue color appears in the toilet bowl, you have a toilet leak.
6. Typically, a leaky flapper is the cause for toilet leaks and needs to be replaced.



Detect-A-Leak Toilet Tablets



Drip Gauge

Gauging Your Drip

A dripping faucet is the definition of wasteful. Here’s what you should do.

1. First, find out how much water your leaking faucet is wasting so we can measure how much you save by fixing it (and give you a high five for it, too!). To measure, hold the empty drip vial (provided in the Toolkit) under the drip for 5 seconds.
2. Set it on a level surface and look at the gallons per day (GPD) and gallons per year (GPY) markings to see how much water the leak is wasting each day and year. Visit <http://fishnick.com/leakcalculator/> to see what the leak is costing you.
3. Enter this into the Tracking Energy and Water Use form.
4. Follow this link or scan the QR code for step-by-step direction to fix a leaking faucet.



More Tips: Scan the QR code for more information.



goo.gl/o9Bg4N

WATER SAVING

Replacing the Showerhead

Here are two ways to measure your showerhead flowrate. Check the imprint on the showerhead for flow rate or use the flow rate bag to measure if one is not noted. If the showerhead flows at more than 2.0 gpm, you should replace it with the showerhead provided.

1. Replacing a showerhead is just like replacing or installing aerators.
2. Close or plug your drain.
3. Unscrew old aerator counterclockwise; if needed, use the pliers to loosen the aerator. Wrap the teeth of the pliers with painter's tape or a towel to avoid scratches to the existing equipment.
4. Clean and dry water pipe threads (grooves at end of faucet).
5. Wrap provided pipe thread seal tape around pipe thread.
6. Screw on new aerator clockwise by hand.
7. Turn on faucet to test for leaks. Tighten with pliers if necessary.



Low-flow
Showerhead



WATER USE

HOW TO USE
WATER SAVING
TOOLS



Adjusting Your Water Heater

Did you know that almost half of all the natural gas used in your home is spent heating water? Making a small change to your water heater could have a huge impact on the amount of natural gas your home uses. Here's what you can do:

1. Locate your water heater.
2. Locate adjustment dial and mark current setting with a pencil or masking tape.
3. Locate the faucet closest to the water heater.
4. Run water until hot and capture a cupful in a mug (Collect excess water in a pitcher or bucket and use to water plants).
5. Insert thermometer and wait for it to reach its highest point.
6. Record highest point temperature.
7. Adjust setting so that your hot water runs at 120°F. If your water heater does not have specific temperature settings, this action might take a few tries.

WATER
SAVING



WATER USE

HOW TO USE
WATER SAVING
TOOLS



Water Pressure Gauge

Testing Your Home's Water Pressure

Your household water devices such as showerheads and aerators work best at 60 psi. If your water pressure is higher, it could lead to water waste and even damage to the plumbing pipes in your home. Testing your water pressure regularly is a good idea, even if you have a pressure regulator – they can get old and fail. Here's what you can do:

1. Locate a hose bibb/outside spigot that is close to where your main water supply line enters your house (often near your garage, if you have one).
2. Make sure water isn't being used anywhere inside or outside your home. Turn off washing machines, ice machines on refrigerators, dishwashers, sprinklers, etc.
3. Remove the hose from the faucet.
4. Thread the pressure gauge (included in the kit) onto the faucet.
5. Turn the faucet all the way on. Tighten the gauge by hand or with an adjustable wrench if it leaks during the test.
6. Typical home water pressure ranges from 40 to 75 psi and generally should not exceed 60 psi.
7. If your pressure is over 75 psi, then you may need to adjust your pressure regulator (if you have one) down to 60 psi or install a pressure regulator if you don't have one.



WATER
SAVING

WATER SAVING TIPS AND INFO

Saving Water Outdoors

Irrigation Leaks: Regularly check for and fix leaks in your irrigation system; leaks can waste thousands of gallons of water annually.

Drip Irrigation: Upgrade to a drip irrigation system to get water to the roots of your trees and plants more efficiently.

Timing Watering: Water when temperatures and wind are the lowest - in the evenings and in the mornings before sunrise. This reduces evaporation and allows water to soak deeper into your landscaping.

Irrigation Controls: Change your irrigation schedule for each season depending on local weather conditions. Consider upgrading to a weather-based irrigation controller.

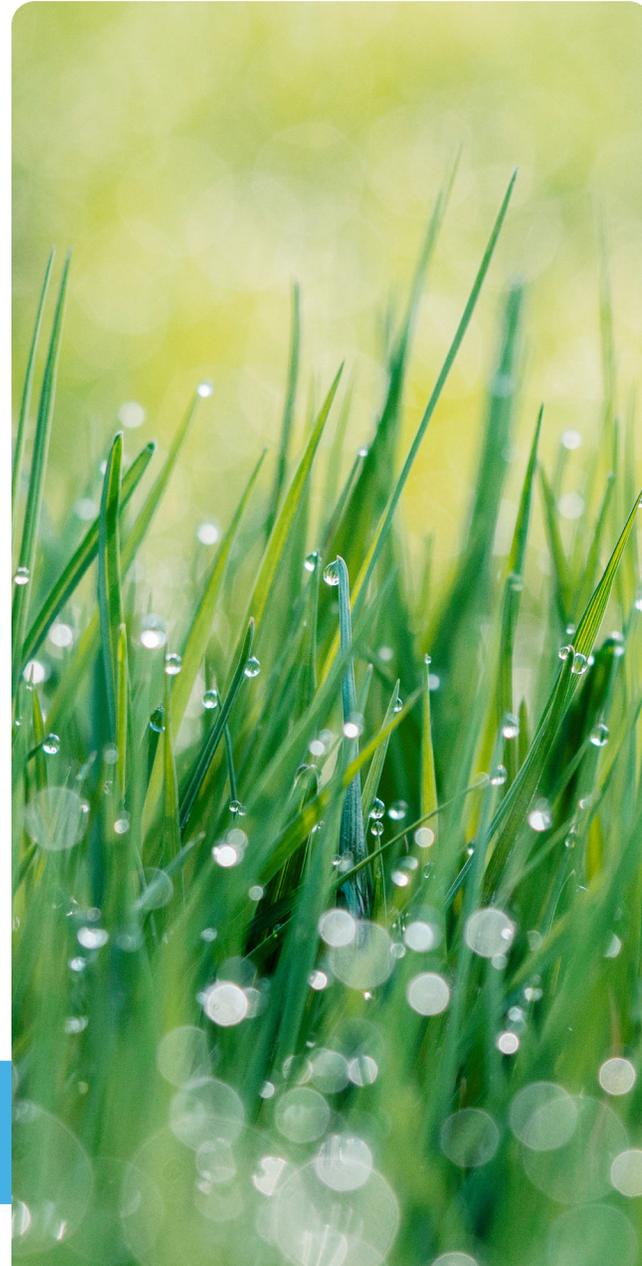
Car Washes: When your car needs a wash, be sure to visit a commercial car wash that recycles wash water. A home car wash uses 80-140 gallons of water, whereas most commercial car washes with water recycling use 30-45 gallons. Washing your car on your driveway or in the street sends dirty water, soap, heavy metals, oil and grease into the gutter, which flow to local creeks and the bay.

Drought-Resistant Plants: Remove part or all of your grass and plant native, drought-resistant species. These will require much less water and will therefore help reduce your water and energy bills.

Pool Filter Scheduling: Pool filters are energy intensive. Consider reducing your filter times in the fall and winter and set timers to avoid peak utility rates. Using a pool cover will save even more energy and water.

Don't Overwater:

Water runoff from irrigation onto streets and sidewalks is prohibited in California.



WATER USE

HOW TO USE
WATER SAVING
TOOLS

WATER
SAVING



WATER SAVING TIPS AND INFO (CONTINUED)

WATER USE

HOW TO USE
WATER SAVING
TOOLS

Other Water Saving Tips

Turn water off: while brushing your teeth and shaving.

Upgrade your toilet: Change an old, inefficient toilets (3.5 gallons per flush or more) to a high- efficiency or dual flush toilet.

Time your shower: Make use of a shower timer, which helps you save water and energy at the same time. Try to set it for five minutes or less.

Insulate pipes: Make sure your water heater and all exposed pipes are insulated to help conserve energy.

Upgrade clothes washer: A high-efficiency clothes washer can save energy and use 55 percent less water than the standard washer.

Check the EnergyGuide: Find the EnergyGuide sticker when purchasing a new hot water heater. It provides the estimated cost to run the equipment.

Do you have a recirculation pump? These pumps can save water, but only if the timer is set correctly.

More Tips: Visit www.watersmart.org or scan the QR codes to learn about Sweetwater/Otay rebate programs.

Sweetwater Rebates



bit.ly/2Y95tIO

Otay Rebates



bit.ly/3eNFzB8



WATER
SAVING



RECYCLING AND REDUCING WASTE

Recycling and reducing the waste you send to the landfill is another way to live sustainably. Luckily there are a ton of opportunities and resources available to you in Chula Vista.



WASTE & RECYCLING

HOW TO REDUCE WASTE

Waste Diversion Rate

Diversion rate means the percentage of waste diverted from our landfills through reuse and recycling. California has a statewide goal to divert **75%** of all waste it sends to landfills, but the City has taken a step further by committing to a **90%** diversion goal.

To meet the City's goals, we must keep waste out of our landfills, which are running low on space.

The State's mandatory



The goal of Chula Vista



Track Your Trash

For the next week, be mindful of the items you place in the trash and recycling bins. Is your recycling bin filled with single-use water bottles? Tons of food waste heading right to the trash can? Make note of these trends and then implement the strategies on the next page to cut your waste!



More Tips

Don't dump cooking fats, oils or grease (FOG) down the sink. FOG materials collect, harden and cause serious plumbing issues. Instead, once the FOG materials cool, pour them into a disposable container and put them in a trash can.

WASTE & RECYCLING



WASTE & RECYCLING

HOW TO REDUCE WASTE

Reduce, Recycle, Reuse



1. Reduce

Avoid products designed for one-time use, such as straws, plastic lids, plastic bags (including produce and snack bags), beverage containers, coffee cups, sleeves and coffee pods.



2. Recycle

It's the law. Be sure to place a recycling bin right next to your trash can in high-use areas so it's easy and convenient to recycle.



3. Reuse

Reusable items like water bottles and shopping bags helps avoid plastic pollution in our creeks and ocean.

Try Composting

For the food waste you do create, try composting it! Compost improves the fertility of your soil, retains moisture, encourages natural nutrient cycling and saves money.

Composting can be practiced almost anywhere... in the backyard, at work or at school, even in an apartment! All you need to get started is a little bit of space, the basic ingredients, and an understanding of the process.

Learn the basics of composting in this video



bit.ly/2M4e4Hr

Take advantage of the City's free composting workshops



bit.ly/2ZwiQ8i



Did You Know?

Every ton of recycled paper saves 380 gallons of oil and 7,000 gallons of water. By recycling one aluminum can, enough energy is saved to run a TV or computer for three hours. Americans throw away more than 2.5 million plastic bottles every hour]

What can I recycle?

Dry food boxes, packaging, paper bags, cardboard, white paper, colored paper, letters and junk mail, shredded paper (in a see-through bag)

Milk cartons and juice boxes

Magazines, newspapers, catalogs, phone books

Empty metal paint or aerosol cans

Glass or plastic bottles and jars, plus all CRV containers

Steel, tin, pie tins, wire hangers, aluminum cans, foil, plus all CRV containers



Don't Bag Your Recyclables

Reduce Food Waste

Food waste is a worldwide epidemic. Today, an estimated one-third of all the food produced in the world goes to waste. When food goes to the landfill it produces methane—a greenhouse gas even more potent than carbon dioxide. In the US alone, the production of lost or wasted food generates the equivalent of 37 million cars' worth of greenhouse gas emissions. Here's how you can cut your food waste.

Shop realistically

Make sure you don't buy too much food and try freezing perishable items to avoid unnecessary waste.

Save — and actually eat — leftovers

If you cooked too much or went to a restaurant, label the date on your leftovers so you can keep track of how long they've been in your fridge or freezer. Then try to incorporate them into your daily or weekly routine through creative recipes or by taking them to work.

Avoid clutter

When food in your fridge, pantry and freezer are out of sight, they're also out of mind

First In, First Out

After you buy new groceries, move the older products to the front so you consume them first and keep things neat and visible.

Donate to food banks and farms

Research food banks and charities near you where you can bring items you know you're not going to consume before they go bad and give them to people in need.

Try canning and pickling

Canning is a great way to preserve food (especially fruit) and increase its shelf life for months.

Eat what you have before shopping for more by taking EPA's Food Recovery Challenge.

Visit <http://goo.gl/XWk0Zf>

Follow this link or scan the QR code to see how to conduct a household waste audit.



<https://youtu.be/-IK93VqycGo>



WASTE & RECYCLING

HOW TO REDUCE WASTE

RECYCLING & WASTE





WASTE & RECYCLING

HOW TO REDUCE WASTE

OTHER RECYCLABLES

Construction and Demolition Recycling

Recycling your construction and demolition materials saves you money because the cost of recycling is a fraction of what it costs to use a landfill. Chula Vista's Mandatory Construction and Demolition Debris Recycling Ordinance (CVMC 8.25.095) requires that 100% of inert materials and a minimum of 65% of all other materials be recycled and/or reused.

Follow this link or scan the QR code for more tips:



bit.ly/3ea1UIP



Household Hazardous Waste

Residents who have household hazardous waste (HHW), such as batteries, fluorescent lights, paint, chemicals, mercury devices (including thermometers) or electronics, can dispose of household hazardous waste, free of charge, at the South Bay Regional Household Hazardous Waste drop-off center located at 1800 Maxwell Road, Chula Vista.

Scan the QR Code for hours and more information



bit.ly/3ht2ljp

WASTE & RECYCLING

ADDITIONAL RESOURCES

Sustainable Lifestyle



KITCHEN

Cook efficiently. Heat only as much water as needed and cover pans to reduce cook time and energy use.

Try the meatless option. Meat production uses an enormous amount of water and energy. On average, it takes 28 calories of fossil fuel energy to produce one calorie of meat, versus 3.3 calories of fossil fuel energy to produce one calorie of protein from grain. Similarly, it takes 4,200 gallons of water daily to support a meat-based diet, versus 300 gallons to support a vegan diet. Going meatless once a week will make a difference.

Opt for organic. Avoiding pesticides is better for the environment and your health.

Practice efficient dishwasher habits. Scrape, don't rinse, dishes. Air dry dishes by turning off the heat setting and opening the door. This will save energy and water.

Plant a garden or fruit tree and grow your own organic produce!



TRANSPORTATION

Under-inflated tires will decrease your gas mileage, so check the tire pressure when filling your tank. Proper tire pressure levels can be found on the inside of the driver's side door.

Walk, bike or take public transportation whenever possible. Visit the iCommuteSD website for bikeway maps and local public transit routes and schedules.

"Safe Routes to School" are cool! Encourage your kids to commute by walking, biking, scootering or taking the school bus to school. Visit <https://goo.gl/HwXJfE> to learn the ways to create a fun, healthy, and safer way to get to school.

Follow the link or scan the QR code to learn about the clean transportation incentives and resources you qualify for!



goo.gl/jYkcZn

THANKS FOR YOUR COMMITMENT TO SUSTAINABILITY!

You've conserved vital resources and reduced a whole bunch of waste. Plus, the steps you took through using this Sustainable Home Toolkit will make your pocketbook happy in the long run, too! For more sustainability information please visit www.chulavistaca.gov/clean

Before you return this kit (thanks in advance!), please spread the word on social media. Snap a photo, post a video or just share your experience with all of your friends. When you post, please use the hashtag #ChulaVistaCLEAN so we can see it and share it as well.

For updates on the Chula Vista's Climate Action Plan and other news, visit <https://www.chulavistaca.gov/residents/enotification> and select "CLEAN" to sign up for the CLEAN newsletter.

 @thinkchulavista  @thinkchulavista  @thinkchulavista



This program is funded by California utility customers and administered by San Diego Gas & Electric® (SDG&E®) under the auspices of the California Public Utilities Commission. Participation in this program is voluntary and at the Customer's risk. ©2020 City of Chula Vista. Trademarks are property of their respective owners. All rights reserved.