# Welcome to your Home!

Marin County Homeowner Resources Kit



All your home sustainability questions answered.

Brought to you by the Marin County Sustainability Team 3501 Civic Center Drive, Suite 308



### Marin Climate & Energy Partnership



Individually, we are all responsible for caring about what happens to our earth and how we leave it for future generations. While climate change is a global issue, it all starts with our

individual choices. We all have to do our part and this guide can help you do yours.

Marin's local governments came together in 2007 to form the Marin Climate and Energy Partnership to foster cooperation and collaboration around our greenhouse gas reduction efforts.

### At www.marinclimate.org, you can:

- View each jurisdiction's Climate Action Plan and latest inventories
- Track our progress using the Sustainability
   Tracker which shows progress in our efforts
   to reduce energy and water use, waste and
   vehicle miles traveled
- Learn more about what you can do to reduce your own footprint



The interactive Sustainability Tracker illustrates progress made by local jurisdictions, residents, and businesses in Marin County towards reducing emissions and increasing sustainable practices.

www.marintracker.org



### Marin Sea-Level Rise

Even with aggressive efforts to minimize the amount of greenhouse gases entering the atmosphere, climate change is already under way and cannot be completely avoided. Current research efforts have shown that Marin County and the North Bay region have already experienced some changes in climate, including increases in temperature and precipitation.

Marin County ranks second of the nine Bay Area Counties for projected risk of impacts from sea level rise (SLR) flooding and storms, with estimated losses of \$13 billion worth in homes along Marin's shoreline. Flooding associated with high tides and storms already impacts infrastructure and disrupts people's lives on a recurring basis. These impacts are expected to increase in frequency and severity as sea level rise accelerates. Low income communities are particularly vulnerable to these impacts.

The Federal Emergency Management Agency (FEMA) offers guidance on floodproofing homes: www.fema.gov/floodproofing

Join the conversation about planning for sea level rise: www.marinSLR.org

Enter your address to see how sea level rise may affect you:

www.ourcoastourfuture.org

Even if you live inland or on a hill, sea-level rise can affect your daily life by flooding transit corridors and cutting off critical services.

### **Commute Options**

Our roads can only handle so much traffic, no matter how many improvements we make. If we can modify our traveling habits, even just once a week, we can help make the commute better for everyone. Finding alternatives to driving solo to work or school helps improve our community by decreasing both traffic congestion and greenhouse gas and other toxic emissions.

Visit the Marin Commutes website to learn more about alternatives to single occupancy vehicle commuting.

### www.marincommutes.org

#### **Take Transit**

Golden Gate bus and ferry services offer discounts for youth, disabled riders, and those aged 65+. The bus service includes commuter routes to Downtown San Francisco. The ferry operates services from Larkspur, Tiburon, and Sausalito to/from San Francisco. The ferry is one of the most unique and beautiful commutes in the Bay Area; it also has a snack bar!

www.goldengate.org

### **SMART Train**

Sonoma Marin Area Rail Transit (SMART) operates commuter train service along the 101 corridor from Northern Santa Rosa to Larkspur. Riders can also take advantage of the snack bar and Wi-Fi.

www.sonomamarintrain.org

### Walk Bike Marin

Walk Bike Marin's site has useful information for someone getting started as a bike commuter. It also includes links to Marin bike maps so you can plan your route.

www.walkbikemarin.org

### Plan a Trip

Use Marin Transit's trip planner to map your commute route using transit. It is powered by Google Transit so it works for trips throughout the Bay Area – not just those within the County.

marin/transit

www.marintransit.org

### **Ride Sharing**

- Carpooling: www.511.org provides options for ridematching throughout the Bay Area.
- Vanpools: New vanpools may be eligible for TAM's \$3,600 cash incentive. Visit www.511.org to find vanpools and apply for the incentive.
- Uber and Lyft are also expanding their services to include carpool options.

### **Emergency Ride Home Program**

Want to get out of your car but worried about getting trapped at work in an emergency? Transportation Authority of Marin's (TAM) Emergency Ride Home Program is available to all Marin employees. This program provides rides home for employees who use commute alternatives and need to get home quickly in the event of an emergency.

www.marincommutes.org

### Safe Routes to Schools (SR2S)

The Safe Routes to Schools (SR2S) program is an opportunity for parents to work closely with their children's school, the community and the local Marin government to create a healthy lifestyle for children; to foster a safer and cleaner environment for everyone and to promote traffic relief. The program is offered to all schools in Marin County.

www.saferoutestoschools.org



### Clean Energy Options

Whether your electricity provider is MCE Clean Energy or PG&E, you have to the option to enroll in 100% renewable energy programs.

### MCE Deep Green

Switching to MCE's Deep Green 100% renewable energy program ensures that all of the electricity you pay for on your utility bill is being sourced from 100% renewable energy. It is one of the easiest ways to lower your carbon footprint.



www.mceCleanEnergy.org

### **PG&E Solar Choice Program**

Pacific Gas and Electric (PG&E) customers also have the option to purchase electricity generated from more renewable sources than PG&E's standard generation service.

You can enroll in PG&E's Solar Choice program by signing in to your PG&E online account or by calling (877) 743-8429.

www.pge.com

### PG&E Pacific Energy Center

The PG&E Pacific Energy Center provides professional training, a tool-lending library, ondemand courses and access to industry experts, all at no cost. You don't have to be a building professional to attend classes online or in person at the Pacific Energy Center in San Francisco. Visit the website for a list of upcoming classes.

www.pge.com/pec



### Resiliency

Given the increasing length and severity of the wild fire season in California, local and state agencies and utilities are focusing more on resiliency and prevention. For homeowners in wildland urban interface, or WUI areas, this means taking steps to cut back vegetation and create defensible space around properties, and make building improvements to better protect against fire.

### Learn more about fire safety at:

www.firesafemarin.org

During wildfire season, Marin County residents need to be prepared for prolonged power outages related to PG&E's efforts to reduce wildfire risk.

Here are some important steps you can take to prepare for a Public Safety Power Shutoff:

- Have a personal safety plan in place
- Plan for any medical needs like medicines that need to be refrigerated or devices that require power
- Build or restock your emergency supply kit
   including food, water, flashlights, a radio,
   batteries, first aid, and cash
- Identify backup charging methods small chargers for phones, or larger, home battery systems
- Learn how to manually open your garage door or install a battery backup system for the garage door opener
- If you own a generator, ensure it is ready to safely operate

### **Public Safety Power Shutoff**

www.prepareforpowerdown.com



# Consider Going Solar for Your Home

The average residential system size in Marin is about 5 kW; however, the system size will ultimately depend on how much electricity you use annually and the available room on your roof. Most contractors can come out and perform a site assessment for free, while some can do the assessment remotely using mapping programs. The site assessment and bid will include an estimate of the potential system size that fits your roof and meets your energy usage needs. Their bids will include the estimated cost savings and financial analyses. We recommend that you get at least 2-3 bids as you are considering a solar system. Some points to consider as you investigate a potential system:

#### Costs

System costs can vary based on the scope of the installation, but a very general approximation of cost (as of early 2019) is about \$3,500 to \$5,000 per installed kilowatt. So for a 5 kW system the total installed cost could be about \$17,500 to \$25,000.

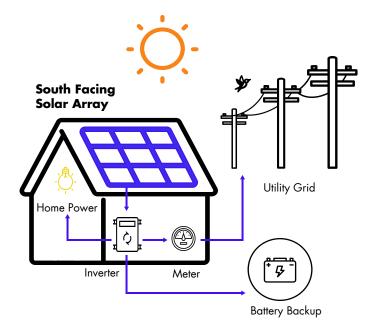
#### Tax Credits

Residents are eligible for a 26% Federal tax credit on the net system cost (the cost after state and local rebates) with no cap. If you don't have enough federal tax obligations in the first year to use the full credit you are allowed to roll it over to a second year, but not beyond that. The tax credit declines over time through 2021.

### **Paying for Your System**

There are several ways to pay for a solar electric system including straight purchase, financing (including home equity loans and Property Assessed Clean Energy financing), solar leases or Power Purchase Agreements (PPA). Most solar contractors will include example financing alternatives in their bids, and we are available to go over the proposals with you.

The Average Simple
Payback for Solar PV in California is
9 Years



### **Financing**

If you are considering a PPA or a solar lease, make sure you read the contract clauses closely regarding removal of the systems for reroofing and what happens if/when you sell your home – how is the lease contract transferred. For more information on the various financing mechanisms, please visit: www.gosolarcalifornia.ca.gov/solar\_basics/pricing\_financing.php

Additional financing products for solar and energy efficiency retrofits are also available. Visit the County's Energy Financing page for more information:

www.marincounty.org/EnergyFinancing

### Resources

Marin County Solar Page

www.marinsolar.org

Database of State Incentives for Renewables and Efficiency (DSIRE)

www.desireusa.org

Google Project Sunroof - Check your home's solar potential

www.google.com/get/sunroof

# Save Energy in Your Home

**Increase Comfort and Efficiency** 

Financial incentives and no-cost technical assistance are available to Marin homeowners that are planning energy efficiency improvements to the home through the Bay Area Regional Energy Network (BayREN). Almost every big or small remodel project presents an opportunity to increase the energy efficiency and comfort in the home. Taking steps like improving insulation, sealing air leaks, upgrading your heating, ventilation, and air conditioning (HVAC) and domestic hot water systems will lower your utility bills, make your home more comfortable, improve air quality, and increase the value of your home.

WATER HEATER UPGRADES

A high-efficiency water heater can save the average household hundreds of dollars a year compared to standard models.

Call an Energy Advisor for Free Support! (866) 878-6008



### **INSULATION**

One of the most important steps you can take to keep your home warm in the winter and cool in the summer.

### AIR SEALING

Sealing up air leaks cuts heating and cooling costs, while improving durability, comfort, and air quality.

### **DUCT SEALING**

About 20-30% of the air that moves through ducts can be lost due to leaks and poor connections. Proper sealing solves the problem.

### **HEATING AND COOLING**

#### **EQUIPMENT**

When it's time to replace an old furnace or AC, choose a more efficient and properly sized model.

# BAYREN Local Governments Empowering Our Communities

### **Examples of Energy-Wasting**

Do any of these pictures look familiar? These are examp common than you might think. BayREN contractors are performance issues.



**Disconnected Attic Duct** 



**Leaky Duct Seam** 

#### **How it Works**

Visit BayRENResidential.org to browse certified Home Upgrade contractors or call 866-878-6008 to speak with a Home Energy Advisor. The Energy Advisors are Building Performance Institute Certified energy professionals that are available to answer all of your questions regarding your home's energy use, the rebate programs in your area, finding the right contractor, financing programs, and more.

The Energy Advisors are sponsored by the Bay Area Regional Energy Network and are not financially connected to any contractor or any work that you do. So you don't have to worry about getting upsold.

BayREN participating contractors are independent contractors that have gone through extensive energy efficiency training and can work with you on making your home efficient and comfortable.

### Online Tool and Energy Saving Kit

BayREN provides a free Online Evaluation that helps you learn what changes you can make to lower your utility bill.

Simply go to BayRENResidential.org and answer some questions about your home energy use. Upon completion, BayREN will send you an energy-saving kit with LED light bulbs, a smart power strip, faucet aerators, and a shower head, all at no cost.

#### Features in Homes

les of poor performing homes, and they are more trained to identify and fix these common building



**Poorly Insulated Attic** 



Poorly Insulated Floor/Crawl Space

### **Homeowner Case Study**

The Loretz family have lived in their vintage 1960s

Peacock Gap home in San Rafael since 1994. In 2015 they decided to upgrade their furnace and duct system to improve



energy efficiency and air quality.

The Loretz's worked with an Energy Advisor to review bids from contractors, identify what measures qualified for rebates, and track the status of their rebate after the project was completed. They were able to secure \$1,750 in rebates for their project\*.

"The house heats up incredibly fast. The new furnace burns really well and the air quality has improved."

-Mr. Loretz on their furnace and duct system project with BayREN.

### **Home Energy Score**

Not sure where to start? Home Energy Score is a green labeling program

U.S. DEPARTMENT OF

that gives homeowners a 1 to 10 score indicating a home's efficiency. Each Home Score comes with a U.S. DEPARTMENT OF ENERGY Home Energy Score

custom recommendation report to help homeowners prioritize upgrades.

Home Energy Scores raters are professionals in the building industry including energy raters, home inspectors, assessors, and contractors.

It's an affordable way learn about your home's energy use and make a plan for improvements.



<sup>\*</sup>Rebate amounts may vary.

### ZERØWASTEMARIN

Zero Waste Marin is the formal name for the Marin Hazardous and Solid Waste Joint Powers Authority (JPA) which represents all of Marin County.

Zero Waste Marin offers a wide range of resources and programs to help residents reduce and properly dispose of waste.

### **Programs Include:**



- Bulb and Battery Take Back
- Home Composting Courses



- California Paint Care
- Motor Oil & Filter Recycling



### Certified Construction and Demolition Waste Facilities

### Redwood Landfill and Recycling Center

8950 Redwood Highway, Novato, CA 94945 (415) 892-2851

### **Marin Resource Recovery Center**

565 Jacoby Street, San Rafael, CA 94901 (415) 485-5646

### **Home Composting Courses**

Almost every community in Marin provides curbside recycling and food scrap collection services. Learn more at www.zerowastemarin.org/residents/who-is-my-hauler. Zero Waste Marin also offers home composting courses.



### Dig Safe!



Safety First—Call before you dig. If you're going to put a shovel in the ground to install an irrigation system, plant a tree, or do anything else that requires digging, be sure to call 811 at least 2 business days in advance before starting your project. It's free!

Visit www.usanorth811.org to submit a request. Visit www.pge.com/safety for more information about staying safe with help from PG&E.

### **Electrify Marin**

Marin homeowners can receive financial incentives for changing gas and propane appliances to efficient electric-powered models.

Eligible projects include:

- Central heat pump systems
- Mini-split heat pumps
- Heat pump water heaters
- Induction cooking



### Why Electrify?

Similar to electric vehicles, new electric appliances are on the market that can do the same job as gas and propane-fueled appliances. As California's electricity supply gets cleaner with more solar and other renewable energy coming onto the grid, you can further reduce local greenhouse gas emissions by removing gas-burning appliances from your home. Electric appliances powered by renewable energy will not produce greenhouse gases that contribute to climate change.

### Heat Pumps

The most efficient electric water heating and home heating/cooling systems use heat pumps. Heat pump technology works by using refrigerant and the compression and expansion cycle to move heat from one area to another instead of creating it at the source. Heat pumps have been in use for years (in fact, your refrigerator is a heat pump!) but breakthroughs in efficiency have made them a viable and cost-effective replacement for traditional gas space heating and gas water heating.

### Induction Cooking

Induction cooking has gained popularity among professional and home chefs in recent years. Induction cooktops use an electromagnetic current to heat cookware directly, rather than heating it indicrectly with a flame or resistance burner, making it more efficient. Induction burniners provide chefs with a level of control and flexibility unparalleled by other cooking methods.

### Indoor Air Quality (IAQ)

Indoor air quality (IAQ) refers to the air quality within and around buildings, especially as it relates to health and comfort. We spend most of our time indoors so good IAQ is essential to our health and quality of life.

Poor IAQ can be attributed to a number of factors ranging from existing features in the home, like leaky ducts and poorly ventilated combustion appliances, to occupant behavior and products used or stored in the home.

Energy efficiency and electrification home improvement projects can carry the added benefit of improving IAQ in the home. Fixing leaky ducts will save energy and prevent dirty attic and crawl space air from entering your air system. Replacing gas appliances with efficient electric options eliminate gas combustion, and the health and safety risks that come with it.

- •Volatile Organic Compounds (VOCs) cause eye, nose, and throat irritation, headaches, nausea, and cause other health problems
- •VOCs are chemicals that evaporate at room temperature and are found in common household products like paints, varnishes, cleaners, and building materials

# MOLD &



 Burning wood creates particulate matter (PM) which is a complex pollutant that negatively impacts health

WOOD

SMOKE

- Home wood burning generates PM pollution in the home and neighborhood
  - •In the Bay Area, burning wood is the largest source of PM pollution during winter

### when cooking CARBON

 Make sure combustion MONOXIDE appliances are venting properly

Use range hoods and

proper ventilation

•Consider changing gas appliances to efficient electric alternatives (heat pumps and induction cooking)

### Wood Smoke

Burning wood for heat produces harmful particulate matter in the home and community. Rebates for removing or replacing fireplaces and wood stoves are available.

www.marincounty.org/WoodSmoke

### Water Efficiency

Rebates may be available for watersaving devices and projects for your home. Check with your water district to find current rebate offerings.

### Rebates may be available for:

- Pool covers
- Rain barrels
- Hot water recirculating systems
- Laundry-to-landscape system components
- High efficiency toilets

"California is always prone to dry conditions, we must focus on our daily conservation habits and making permanent changes to save water. The future is unpredictable; we do not know what next year will bring."

-Saveourwater.org



Marin Municipal Water District (415) 945-1520

marinwater.org/conservation

Free Indoor and Outdoor Consulations

are Available!

**Contact You** 



North Marin Water District (415) 761-8933

nmwd.com/conservation.php

# Look for the WaterSense Label When Purchasing Appliances



- Bathroom sink faucets
- Showerheads
- Toilets
- Urinals
- Weather-based irrigation controllers
- New homes

### For more information visit:

www3.epa.gov/watersense/index.html

### Take Action to Protect Water and Health

In Marin, rain is not cleaned before it enters storm drains that flow to creeks, bays or the ocean. To keep Marin's waters healthy, only clean rain can enter storm drains. Follow water-friendly practices to help keep Marin's waters and wildlife, and your family and pets healthy.

Make sure the companies you hire (painters, landscapers, surface cleaners, and pest control companies) use proper waste management, dumping, presticide, and pollution prevention practices when working on your home. Visit the Marin County Stormwater Pollution Prevention Program's website for more information.



### **Water Saving Tips**

According to the U.S. EPA, the average American home wastes more than 10,000 gallons of water per year due to running toilets, dripping faucets, and other household leaks. The good news is that many leaks are easy to fix - but first you have to find them

### Common Household Leaks

- Toilets
- Irrigation Systems
- Pools

Contact your water provider for tips and resources on how to identify and fix leaks!

### Join Your Community

#### Marin Green Business

Help your workplace implement sustainable best practices and become recognized as a certified Marin Green Business.



Browse through the Marin Green Business listing and learn more about certification by visiting:

www.maringreenbusiness.org

### Support Clean and Green Businesses

- Less toxic landscaping & pest management products: www.ourwaterourworld.org
- Bay-friendly landscapers: www.rescapeca.org
- EcoWise certified pest control: www.ecowisecertified.org
- Water protecting surface cleaners: www.basmaa.org

### Resilient Neighborhoods

Resilient Neighborhoods is a fun, free program that has helped over 660 Marin residents save money, make families safer, and reduce over 2.8 million pounds of carbon emissions.

Friends, family, and neighbors get together to form an EcoTeam that meets 5 times to learn about actions they can take like simple ways to trim energy use and waste, drive ecologically, conserve water, and prepare their homes and neighborhoods for emergencies.

It's a great way to meet your neighbors and learn about what's going on in Marin about sustainability and community disaster preparedness practices.

### Learn more by visiting:

www.resilientneighborhoods.org



#### **Farmers Markets**

Farmers Markets take place all over the county and on almost every day of the week. Marin farmers markets are a great place to get your produce and support local agriculture at the same time.



### Find Your Local Farmers Market:

www.growninmarin.org

or

www.marincounty.org/depts/ag/farmers-markets

### **Volunteer Opportunities**

Find volunteer opportunities in your community and throughout Marin County.

## Center for Volunteer & Nonprofit Leadership

Search for volunteer and nonprofit opportunities in Marin:

www.volunteer.cvnl.org

### Marin County Volunteer Page

Visit Marin County's volunteer page for current nonprofits and charity organizations enlisting volunteer support:

www.marincounty.org/residents/community/volunteering



### Marin Building Departments

### San Rafael

1400 5th Avenue PO Box 151560 San Rafael, CA 94915 (415) 485-3367 cityofsanrafael.org

#### Novato

922 Machin Ave Novato, CA 94945 (415) 899-8989 novato.org

### **Fairfax**

142 Bolinas Rd Fairfax, CA 94930 (415) 453-1584 town-of-fairfax.org

#### Ross

31 Sir Francis Drake Blvd Ross, CA 94957 (415) 453-1453 townofross.org

### Mill Valley

26 Corte Madera Ave Mill Valley, CA 94941 (415) 388-4033 cityofmillvalley.org

#### Belvedere

450 San Rafael Ave Belvedere, CA 94920 (415) 435-3838 cityofbelvedere.org

#### Sausalito

420 Litho St Sausalito, CA 94965 (415) 289-4100 ci.sausalito.ca.us

### **Marin County**

3501 Civic Center Drive Suite 308 San Rafael, CA 94903 (415) 473-6550 marincounty.org

#### Corte Madera

300 Tamalpais Drive Corte Madera, CA 94925 (415) 927-5062 townofcortemadera.org

#### **Tiburon**

1505 Tiburon Blvd Tiburon, CA 94920 (415) 435-7380 townoftiburon.org

### Larkspur

400 Magnolia Ave Larkspur, CA 94939 (415) 927-5038 ci.larkspur.ca.us









Bay Area Regional Energy Network Disclaimer. The BayREN Home+ Program provides assistance and incentives for home improvement projects that can reduce energy use and make homes more comfortable. This program is managed locally by regional energy networks and directed byt he California Public Utilities Commission in collaboration with the California Energy Commission. Funding comes from utility customers under the auspices of the California Public Utilities Commission. Incentives are offered on a first-come, first-served basis and are effective until funding is expended or the program is discontinued. Programs may be modified or terminated without prior notice. Trademarks are property of their respective owners. All rights reserved.

All County publications are available in alternative formats upon request. Request for accomodations can be made by calling (415) 473-3069 (Voice), (415) 473-3232 (TDD/TYY) or by email at energy@marincounty.org.