Vigilante Electric Cooperative

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OWNED BY THOSE WE SERVE

GUEST COLUMN

Northwest hydropower system provides hope in climate fight

By **KURT MILLER** | *Executive Director, Northwest River Partners*

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THOSE of us who live west of the Rockies are all too familiar with the profound East Coast bias in the media. From sports to politics, or even business, if it happens outside of New York or Washington, D.C., the national media tends to ignore it.

Even within our own corner of the country, we're still required to follow Washington with the word "state" or the media will assume we mean the nation's capital.

The East Coast bias, however, doesn't seem to apply when it comes to natural disasters. Last summer's historic wildfires across California and Oregon, and this summer's record-obliterating heat waves along the West Coast and Inland Southwest have received plenty of attention.

Recent national headlines have noted dried-up reservoirs, curtailed hydropower and havoc-wrought Western states. One article noted the best chance the West may have to avoid deadly heat waves is if dangerous wildfires create enough smoke to block out some of the sun.

That's a pretty dark take on what we can expect from the climate crisis.

But, there are some rays of metaphorical sunshine in the climate fight coming from the Pacific Northwest. Perhaps that's a bit ironic for a region known for its rainy, gray skies. But, it's actually our abundance of rain that provides us with a clear environmental advantage, thanks to Northwest hydropower.

While the reservoirs behind dams in Nevada and California have gotten to

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Smart thermostats

Save energy and money by setting a schedule

By **ROD SIRING** | *Member Services*

Programmable thermostats can reduce your energy use by not running your HVAC system when you are away or are sleeping.

WHILE the numbers differ a little based on the source, approximately 40 to 50 percent of the energy consumed by your home is used for heating and cooling. Many factors impact this number, and numerous low-cost and no-cost strategies exist that can help lower your energy bill. Yet, one of the most impactful things you can do to save energy is also the simplest: upgrade your thermostat to a programmable thermostat.

I have worked with members for more than 20 years on understanding their home energy use through in-home energy audits. Since heating and cooling are where most consumption occurs, I always start an audit by noting the type of thermostat being used and what the thermostat setting(s) are. I also try to get a feel for how the home is occupied over the course of a normal week. What this has shown me over the years is there are still a lot of old bimetal thermostats in use, and many programmable thermostats not being programmed with optimal settings.

What are the optimal temperature settings for our thermostats? Sources vary, but the Department of Energy recommends 68 degrees for the heating cycle and 78 degrees for the cooling cycle. This means that the heater will not start until the room temperature falls below 68 degrees and the air conditioner will not start until room temperature exceeds 78 degrees.

While some savings may be realized implementing these settings, they are just a starting point. Real savings occur when we account for the time we are not at home or when we are in bed. While not impossible to do manually, remembering to continually adjust the thermostat is not practical. The best way to do this is with a programmable thermostat.

While programmable thermostats range from simple to sophisticated, they all basically do the same thing. Mainly used with central HVAC systems, programmable thermostats help reduce the amount of energy consumed by accounting for the periods that we are not home and when we are asleep. These are called setback periods.

Basic programmable thermostats allow you to set a schedule that is similar to your workday. Say you wake up at 6 a.m., leave for work a little before 8, return at 5 p.m., and go to bed at 10. Not only do you program the times, but you assign a temperature for that period.

During the colder months, when you're awake and active in your home, you can set the temperature for 68 degrees and when you're away from home or asleep, the setback can be 60 degrees. Studies indicate that there is the potential for a 1 percent savings for each degree during a setback period if the period is at least 8 hours.

Air conditioning is becoming more prevalent within our service territory. Whether it is central units or portable ones, here, too, is an opportunity to save. Your A/C unit does not need to come on when you're not home. So, during the period when you're away, increase the temperature at which the central A/C starts; for the portable units, power them down.

Advanced or smart thermostats provide more convenience and better control of your heating and cooling system, and fit seamlessly into most of our lifestyles. Smart thermostats can come with occupancy sensors that can tell if a person is not at home. They also have the ability to learn from your behavior, avoiding the need to program a set schedule.

Smart thermostats have the ability to control the heating and cooling system remotely through wireless apps on your phone or tablet. They provide feedback notifications on the energy-saving potential of your thermostat set point and other efficient settings, have the ability to monitor previous electric-use data, and provide more control of your heating and cooling system when it's not needed at full capacity.

For all central HVAC systems, and regardless of fuel type, programmable thermostats are a proven energy saver. For members of Vigilante Electric who have electric forced-air heating systems or heat pumps, we strongly recommend the installation of a smart thermostat. We think they are a sound investment, and there are incentives available on specific models. RM

Some things to consider (electrically) if you are working from home

WHILE working remotely is not a new concept, COVID-19 has dramatically increased the amount of people now working from home. It has also made many people realize that a home office can be almost anywhere. Vigilante Electric Cooperative is experiencing unprecedented growth in our member population due to this very reason. While this is a wonderful opportunity for many, there are a few issues, electrically, that need to be taken into consideration and planned for.

Vigilante Electric Cooperative spends a lot of time and money on our distribution facilities in order to provide our members with the most reliable service as possible. However, despite our best efforts, outages will occur. While we make every effort to restore power as quickly as possible, our service territory is rural and traverses some very rugged terrain so it may take time to determine the cause of an outage and restore power. We understand that power outages are inconvenient and frustrating. When you are working from home, an outage becomes problematic. We recommend having a few additional things on hand to ensure that you can continue to work effectively from home.

First, we encourage our members to have all office electronics plugged directly into power strips that are rated for surge protection. This will help to minimize potential damage to your equipment from power fluctuations. We also recommend desktop computer users to consider using an uninterruptable power supply (UPS). A UPS is essentially a battery backup that can supply energy to your computer for roughly 15 minutes, allowing you time to save your work and to shut down your computer properly. A UPS can also have integrated surge protection. Lastly, if you have a laptop, be mindful of your battery life and have a fully charged back up battery on hand should an outage occur.

Another thing to consider while working from home is the rise in daily energy consumption. If you are transitioning from office work to working remotely, you may have noticed an increase on your power bill. The largest increase will be from your HVAC (heating, ventilation, and air conditioning) system, but you also have to consider all of the electronics that are in use when you are working. You may even have additional equipment necessary to make your home office functional. What used to be idle while you were away, is now being used regularly throughout the day, making your power bill go up.

Lastly, there are electrical safety issues that come with having a home office. Issues of such importance that we dedicated an entire article to them. You can find this article in the December 2020 edition of this publication which can be found on our website vec.coop.

As you transition into this new work lifestyle, know that we are here to help in any way we can. Please call our office at (406) 683-2327 or (800) 221-8271. Our office is staffed Monday – Friday, 7:30 a.m. – 5 p.m. and we are happy to help you navigate these new challenges as best we can. After-hour outages can be reported by calling the same number above and you will be connected to the dispatch center we contract with. RM

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Vigilante Safety Roundup Tracker

Participating members: 607

Total Contributions: $9,941.56

To apply, contact our office at
(800) 221-8271 or 683-2327
An online application is available at www.vec.coop.

Affordable electricity power quality of life

By **ANNE PRINCE**
For Vigilante Electric

MOST of us use electricity, either directly or indirectly, at almost all times. Because electricity is so abundant and available with the simple flip of a switch, it's easy to take it for granted.

According to the Energy Information Agency (EIA), the typical U.S. household now uses more air conditioning, appliances and consumer electronics than ever before. The average home also contains 10 or more internet-connected devices. Considering everything that is powered by electricity, it's no wonder we occasionally might wince at our monthly bill. But keep in mind, it's no longer just the "light bill."

Electricity powers our quality of life. From the infrastructure of your home (appliances, water heater and HVAC system) to charging your smartphones, computers, TV and Wi-Fi router, your energy bill covers so much more than lighting.

Today, there is more demand for electricity than ever before. At home, in schools and business, and in commercial sectors such as transportation, the need for electricity is increasing.

Typically when demand goes up, so too does the price, as is the case with most goods or services, like cable or even your favorite specialty coffee. However, that's not true with electricity. Let's take a look at how the value of electricity compares to other common expenses.

Over the last five years, the cost of rent increased 3.4 percent; medical care increased 2.8 percent; and education increased 2.2 percent. But the cost of electricity only increased 1 percent. Considering all the ways we depend on electricity, it still remains a great value.

So, the next time you're enjoying your favorite podcast, TV series or movie, consider the value of electricity and how it enhances your quality of life.

We care about you, the members we serve, and understand that electricity is more than a commodity — it's a necessity. That's why Vigilante Electric will continue working hard to power your life, reliably and affordably. RM

HYDROPOWER

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levels so low it threatens their ability to produce electricity, the Northwest is in a much different position. Near the headwaters of the Columbia River Basin in Canada, water supply levels are near their historical average. Even downstream on the lower Columbia River, the seasonal water supply is about 80 percent of normal.

While poor water supply years can and do occur in the Pacific Northwest, scientists are quick to point out that climate change will affect our region much differently than our neighbors to the south. In fact, mega-droughts are not anticipated for the Columbia River Basin at all.

Instead, scientists at the University of Washington Climate Impacts Group anticipate the Northwest will see about the same amount of annual precipitation under likely climate-change scenarios.

The rub is that much of the precipitation that historically has fallen as mountain snow in the winter will likely fall as mountain rain in the future, due to warming temperatures. This change means that much less water will be stored as a snowpack for the spring runoff. This is problematic for juvenile salmon because they count on robust river flows during the spring and early summer to help their journey to the ocean. It's also not good news for farmers who rely on the river to irrigate their crops.

Fortunately, our hydropower system is able to capture much of that runoff in large reservoirs, such as the ones at Grand Coulee Dam in Washington, Dworshak Dam in Idaho, and Hungry Horse Dam in Montana. These reservoirs are ideally positioned to help shape the timing of the river flows to help with salmon migration, power production and irrigation.

A peer-reviewed study from Pacific Northwest National Laboratory showed that it's not just the big dam reservoirs that can help salmon, but also dams with smaller reservoirs, such as those on the mid-Columbia, lower Snake and lower Columbia rivers. The research demonstrated the pools of water behind smaller dams warm more slowly than a shallow, free-flowing river. This thermal inertia effect provides a layer of protection from extreme summer temperatures.

Of course, perhaps the most important benefit our hydropower system provides is its ability to help fight climate change in the first place. The Pacific Northwest boasts the least carbon-intensive electric grid in the nation, with approximately 50 percent of its electricity coming from hydropower. In addition, our hydropower resources, which can store and release water to control energy production, act as a buffer for the ups and downs of wind and solar power, making it much easier to add these important renewable resources to the grid.

While we are undoubtedly experiencing genuine and unprecedented challenges, we're hoping the rest of the nation, including those in the "other" Washington (D.C.) will take note that at least one region in the West has a pretty good climate-change plan. RM