

The water issue



Switch

TEAM POWER SMART MEMBER MAGAZINE

SUMMER 2016

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in the shower** p.6

**Is a drought in
the forecast?** p.13

**Go
remote**

Be power smart
whether you're
home or away
this summer p.8



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Dear Team Power Smart Member,

After last summer's severe drought, water is on all of our minds. As meteorologist Mark Madryga notes in his page 13 column, there will likely be more rainfall this summer than last, but water restrictions have become a seasonal fact of life. More than ever, we're aware of the planet's most precious resource, and the need to safeguard and preserve it.

Which brings us to the theme of this issue: water. What does this have to do with electricity use? Around 90% of BC Hydro's power generation is hydroelectric, and that helped us supply more than 1.9 million customers with 98% clean and renewable power in 2015. What's more, water heating can account for more than 17% of a household's BC Hydro bill, and much higher if you're not using electric space heating.

By reducing hot-water use, you'll cut your yearly spend on electricity. And because B.C. wastewater passes through treatment plants, which draw power, even conserving cold water saves energy.

With that in mind, we're offering a variety of water-saving tips and technologies to help you manage your home energy use, from low-flow shower heads to high-efficiency appliances and monitoring through metering. Our cover story features an eco-friendly home on the Sunshine Coast that showcases best practices in sustainability and energy management.

How do you save water and power at home? To share your comments or questions, email us at teampowersmart@bchydro.com.

Thanks for being a proud member of Team Power Smart.



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 Please recycle



Inspire

Ocean Heaven

Sunshine Coast gem fits perfectly into the eco-friendly lifestyle of a Whistler family

It seemed obvious at first. Build a vacation place on the ocean near Lund, B.C. that serves up postcard views including the sun sinking into the water right there in front of you. This is, after all, the Sunshine Coast.

That had been Paul Shore's plan until he discovered that a bluff sitting to the right of his site would block that idyllic sunset in the summer months. And that it was actually a good thing.

"When we first were looking at the land, I said to a friend—who became our builder—that it's a bummer the bluff will block the direct view of the sun going down," recalls Shore with bemusement. "He said: 'You don't want to watch the sunset directly during the summer months—it turns your place into something like a terrarium, it heats it up so much.'"

OK, nobody wants to feel like a lizard. But surely, it's a good idea to chop down a few trees to ensure a clear view to the Pacific?

Wrong again.

"The builder was really smart," he says. "He advised us not to cut any trees down until the place is basically done. First, you need to see the view from where you're standing, in the rooms, before you make a decision. And you have to figure out how much shading you need."

Today, Shore marvels at how his builder's advice and a bunch of online research led to the creation of a stunning, efficient, seaside home that's a gateway to what he calls "ocean heaven". The white sand beaches of Savary Island are a

"You don't want to watch the sunset directly during the summer months—it turns your place into something like a terrarium, it heats it up so much."

two-kilometre paddle away. Also in the neighbourhood are the Cope-land Islands and Desolation Sound marine parks.

And then there's Nancy's Bakery in Lund harbour, a 500-metre or so paddle around the corner—and a favourite of Paul and Talya Shore's kids, ages 8 and 4.

"It's like, 'Let's take the kayaks to get ice cream or a cinnamon bun,'" says Paul. "It's a pretty dreamy bonus of our proximity to Lund Harbour."

Technology makes it easier to be sustainable

Long-ago transplants from Ottawa and South Africa respectively, Paul and Talya met in B.C. and discovered that they shared a general interest in being sustainable. Two things accelerated that shift.

One was having kids. "Both Talya and I have it in our DNA to attempt to be light on the world, but I wouldn't go so far as to say that we've been that shining example to date," says Paul. "So now we're trying even harder."

The other factor is the explosion of technologies that are bringing the smart home into view, from



LED lighting to ENERGY STAR® appliances and online tracking of electricity use. What had once seemed geeky is now becoming not just cool, but practical. What once required a degree of sacrifice is now being viewed as a lifestyle upgrade.

An electrical engineer by trade, Paul has done business development in a variety of tech ventures, either as management or as a consultant. His goal is to start work soon in the clean tech sector, and technology has allowed him to work primarily from home in Whistler for the last decade.

Talya does need to commute—she travels to work with families

SHADY SHORES
Although the Shore family was looking forward to enjoying clear ocean views and sunsets directly from their home, the builder wisely advised them not to cut down trees. In the end, the shady bluff keeps the home cool and efficient.

throughout the Sea to Sky corridor with Big Brothers and Big Sisters. But her commutes are now carbon-free, thanks to the family's most recent sustainability upgrade—the purchase of a Nissan Leaf electric car.

"I'm pretty sure my kids will never drive a gas car"

For the past four months, Paul and Talya have been getting adjusted to life with an electric car, a so-called "second car" to go along with their older-model Volvo station wagon.

The Shores opted for a Nissan Leaf with a slightly larger battery pack, which gives them a range of up to about 170 kilometres between charges, helpful for trips

to Vancouver to see family. They've been able to do most of their charging at home—even before they installed a faster, Level 2 charger in the garage—along with the occasional plug-ins at Squamish or the Whistler Conference Centre.

"Talya is pleasantly surprised," says Paul. "I've been the advocate for electric vehicles, but she's having so much fun. It's really funny. It's like most days we're vying for who gets to take the Leaf."

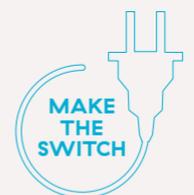
The larger Volvo will remain part of the family, says Paul, until electric car manufacturers can come up with affordable full-sized options. But he has already tested the Leaf with a drive to the end of the

Sunshine Coast Highway to Lund, stopping en route for a DC fast charge at Sechelt.

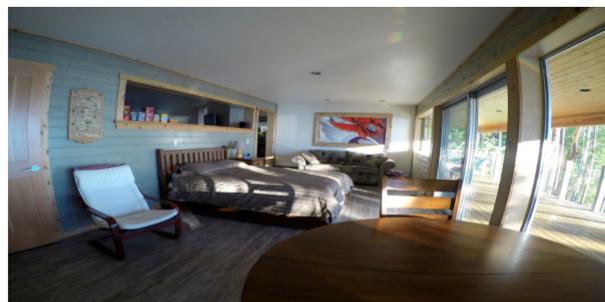
What happens when the heat's left on in Lund?

With places in two of B.C.'s most breathtaking locations, the Shores rent their Lund pad out when they're not using it. "If someone's using it, that's one less place that has to be built," says Paul—and they strive to limit its energy use.

They opted for green slate floors in the Lund home for longevity, then learned that the winter sun would heat them up to provide more comfort in the coolest months. Those same floors are



Fill that half empty fridge and freezer with jugs of water. A fuller fridge and freezer takes less energy to keep cool, and you'll have water (and ice) available when you need it, including for emergencies such as an extended power outage.



EFFICIENT LIVING

The Shore's seaside home features slate floors that absorb heat in the winter and stay cool in the summer as well as Zigby-equipped LED lights that can be shut off remotely from a smart phone.

protected from direct heat in the summer, thanks to branches from trees in front of the home—and the home's shed-like roof that slopes toward the ocean.

The Lund home is also wired for the addition of solar power down the road, and includes LED lights. The in-floor heating is controlled by individual thermostats in various rooms, and Paul keeps a close eye on electricity use online at bchydro.com.

BC Hydro's online electricity tracking tools have already helped the Shores to "catch mistakes" at the

home, such as when the family (or renters) forget to turn off heating in a room.

"If you forget to turn one thermostat down, that one area tries to heat the whole house when you're not there," says Paul. "I noticed a couple of times when I checked online. Consumption wasn't going down as much as I know it should, so I got my neighbour to go over and check. And sure enough, there's one thermostat sitting at 19 C, trying to heat the whole place."

Paul also installed Zigby-equipped LEDs at the home that



Resist the temptation to let the sun shine in on long, hot summer days. Drawing the blinds or window coverings during the hottest time of the day helps keep your home more comfortable, cuts down on cooling costs and can prevent floors and furniture from getting sun-bleached. Consider opening windows and closing your blinds to allow air to flow freely.

he can shut off remotely from his smartphone. That serves two purposes—the ability to make the place more secure by turning a few lights on when no one's there, and as on-demand lighting for another remote-controlled feature: cameras. "The cameras are mostly for peace of mind, not really for security," he says. "It's a side benefit that I can peer into the place and make sure that nothing's happened, that a tree didn't fall on the place during a storm."

A special place

Paul says that living in "natural places" like Whistler and Lund makes the family's shift to a greener lifestyle easier. The local culture demands it.

Summer sunsets are still spectacular from the front deck at Lund, even if you don't see that red rubber ball set into the water. And while the beaches of Savary Island hardly count as a B.C. secret anymore, Paul says it's a place that's more than worth that long trip up the Sunshine Coast.

"When my kids run around on those beaches, they can't prevent joy from just kind of seeping out of them," he says. "They run around with this skip and hop. They're happy kids, but this is a whole other level."

Sweet summer savings

No matter what your holiday haven looks like, here are some tips to help lower your footprint and reduce your overheads:

- Recycle your old fridge and replace it with something more efficient. And rather than having a second fridge, keep your drinks cool in cold water, or a cooler.

- For safety and security, put lights on a timer or motion sensor. Bright lights also disorient birds and other animals, so use only the required amount of light and turn them off when not needed.

- Change your cabin's bulbs to LEDs wherever you can. They last longer and use less electricity.

- Spend less time slaving over a hot stove. Use smaller appliances, like toaster ovens and slow cookers, and eat more fresh food (like salad and fruit). This uses less energy and keeps you and your cabin cooler.

- Time for some R&R. Leave your computer and other electronics at home and spend quality time with your friends and nature. If you can't forego the electronics completely, use

power bars or smart strips to reduce phantom energy loads.

- Keep cool in the cabin without using a fan. Close the blinds on south and west windows in the day to keep the heat out, open windows for a cross breeze, and minimize cooking, or cook outside.

- Seal gaps or cracks to draft-proof the home and keep the heat (and insects and rot) out.
- Insulation is not just for winter. Putting insulation into the roof or attic of your cabin will help keep it cooler in summer. If you have hot water, insulate your tank as well. (Note: If it's a gas-heated tank, this should be

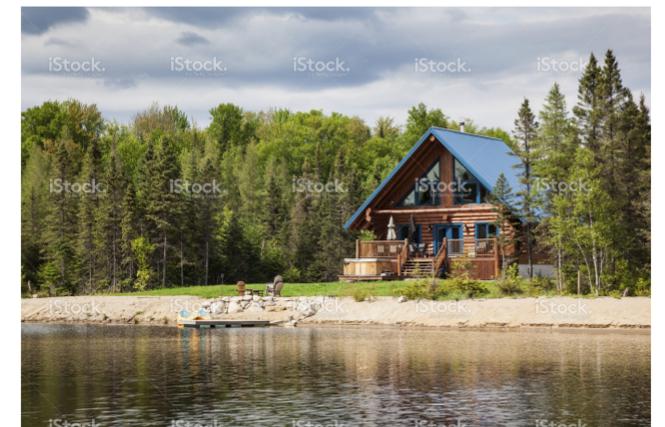
done by a professional).

- Putting overhangs above your south- or west-facing windows and doors will help keep out unwanted heat.

- Planting a drought-tolerant deciduous tree or vine outside south or west windows will reduce the heat that comes in and be visually pleasing.

Choose varieties that feed birds and/or that have fruit for you. Locate it well and place soil-shading plants underneath to avoid the need for irrigation.

- One last thing: when you're packing to go home, don't forget to bring your new habits with you. Enjoy your holidays!



There's always more you can do

It's the small things that add up to make all the difference. That's the message from Rob Klovance, managing editor at bchydro.com. "The Shore family is obviously taking measures to reduce their electricity consumption, but there are still changes they can make," says Klovance.

One measure is washing clothes in cold water and hanging them to dry. "Most detergents these days work well with cold water. Washing in cold water helps clothes keep their colour and the electricity bill down. The dryer is one of the biggest energy consumers in a home. Hang-drying clothes on racks inside or outside the house can result in clothes lasting longer and a savings of up to 12% of total electricity costs," says Klovance.

When it comes to electronics, Klovance says that, "On its own, unplugging one device when not in use, like a PVR, can save you \$35 a year. It seems like small potatoes until you add it all up."

By reading BC Hydro's "21 Tips in 21 Days" (bchydro.com/21tips) and then monitoring these small changes via MyHydro tools on bchydro.com, Klovance says the Shores will be able to track the changes not just month by month, but compare year to year, and reduce their costs even further.