

Top renos
for rebates

Solar power
you can afford

ENERGY CHECKLIST:

Stay warmer
this winter



BEFORE & AFTER

**Eco-smart
kitchen makeover**

Here's one page to thank our employees for saving millions.

We had a goal to reduce copy paper use by 5% last year. Not satisfied with that, our employees managed to reduce it by 10%. Because when it comes to being green, the right people make all the difference in the world. We couldn't have made the Green 30 list without them.



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EcoLiving Magazine Fall/Winter 2010

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Find eco-tips and rebates at
ecoliving.scotiabank.com

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Saving with Scotiabank

Finding ways to reduce our environmental impact is top of mind for Canadians and for Scotiabank. There are hundreds of rebates and environmentally friendly ways to renovate the home, and Scotiabank's EcoLiving program simplifies this process by providing information and resources to get you on your way.

By supporting sustainable home renovation options, we collectively reduce our impact on the earth and become part of the solution, and that is something to be proud of.

In our introductory issue of the EcoLiving Magazine, you'll find expert tips on everything from eco-friendly bathroom fixtures to solar energy systems. Even small changes can make a difference.

Chris Hodgson

Chris Hodgson
Group Head, Canadian Banking



Scotiabank's EcoLiving program helps Canadians discover how they can make greener choices for their homes, reduce their energy bills and take advantage of government rebates.

FIND HOME IMPROVEMENT TIPS AND TOOLS

EcoLiving Magazine offers environmentally friendly options and practical tips that you can use. The EcoLiving website (ecoliving.scotiabank.com) has more valuable information to help you make choices for your home and family, including a tool that finds rebates where you live, plus articles on the best renovations for your budget, home energy audits, do-it-yourself projects and much more.

INTRODUCING THE SCOTIABANK ECOLIVING AWARDS

With three prizes totalling \$75,000, the awards will recognize individuals, businesses and students for excellence in enabling Canadians to live with better energy efficiency at home. Look for entry forms and news about this exciting program on our website.

MEET CANADIANS FIGHTING CLIMATE CHANGE

As part of the EcoLiving program, Scotiabank is proud to sponsor Environmental Defence's I AM Green Power campaign. Visit the I AM Green Power website (iamgreenpower.ca) for inspiring stories of how Canadians are finding local solutions to climate change and learn how you can help.



Dairy farm turned wind farm

WIND FARM PHOTO/ENVIRONMENTAL DEFENCE



Making green easier

If sorting out a renovation is like piecing together a jigsaw puzzle, then greening your home makes the puzzle a little more interesting—and a lot more satisfying.

The question is, how? Fortunately, the EcoLiving Magazine team is committed to helping Canadians make their homes healthier. And we're just as curious as you are about how to make better home improvements. So we asked a lot of questions—and picked up a ton of doable tips—for the premiere issue of EcoLiving. We hope you learn a few useful tricks too.

One of our editors remodelled her kitchen with everything from concrete-and-reclaimed-glass countertops to recycled denim insulation (see page 12). And she reduced landfill by giving away the old kitchen on craigslist.org.

We learned that you don't need to spend a fortune to make your home feel cozier. Instead, start with a \$9 can of low-expansion insulating foam to seal cracks—and lower your heating bills (see page 10).

And we discovered there are millions of dollars in rebates up for grabs, but homeowners are making one big mistake—they're not getting an energy audit *before* doing improvements (see page 31). To find out how governments will help pay for green renovations, visit ecoliving.scotiabank.com/rebates.

Happy home improvements!
The EcoLiving team

“From solar power to energy-saving home renovations, thousands of Canadians are already using and benefiting from green power. With Scotiabank’s support, we are telling these stories and helping more Canadians get involved. It’s innovative partnerships like this that are needed to tackle global warming.”

—Rick Smith, executive director, Environmental Defence

LEARN ABOUT GREEN LIVING

Green Living Enterprises is a pioneer and leader in providing consumers with the information they need to make more environmentally responsible choices. GLE helps Canadian companies, environmental organizations and governments get their authentically green messages to Canadians. Using its green-screen process, GLE ensures that the companies it works with are engaged in environmentally sound practices. Using this process, GLE also produces the Green Living Show, North America's largest green consumer show.

“Green Living Enterprises is proud to partner with Scotiabank by providing our knowledge and expertise to help educate Canadians about easy and workable solutions for leading a sustainable lifestyle,” says Laurie Simmonds, president and CEO, Green Living Enterprises. Find out more at greenlivingenterprises.ca.



Shrink your carbon footprint while growing your investment opportunities.

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Faces/places/finds >

SALVAGE CHIC

If your entryway feels more like a dumping ground than a welcoming space, keep clutter in check with an eye-catching display of repurposed doorknobs.

HERE'S HOW: Collect at least five knobs from second-hand or antique shops or your own reno. Look for ones that have backplates with screw holes. Determine the placement of each knob by marking the screw holes in pencil on the wall. Make sure to use appropriate anchors so they can handle some weight.

If you have a vintage doorknob, remove the original spindle (the long piece that the knob screws onto). Then attach a dummy spindle (available at specialty door hardware stores and online at houseofantiquehardware.com) to the wall. Screw on the knob's backplate and secure the knob to the dummy spindle with hot glue. —Catherine Therrien



For full shopping info, click ecoliving.scotiabank.com/shop.

LOCAL HERO

THANKS TO RON MCKAY (left), more than 100 Toronto households are reaping the benefits of solar power. In 2005, McKay founded RISE (Riverdale Initiative for Solar Energy) to interest enough people in photovoltaic (PV) systems that everyone would get a 15-per-cent discount. "It just snowballed," says McKay, who promoted the plan at local fairs and through door-to-door visits. In the summer of 2006, 30 homes installed PV systems.

Though he's no longer involved, McKay's group returned in 2010 as RISE Again, giving incentives to 100 households to install rooftop solar hot water systems (solarneighbourhoods.ca). The technology allows him to turn off his water heater all summer. —Linda Clark



Enter the EcoLiving Awards at ecoliving.scotiabank.com/awards

SALVAGE CHIC: PHOTO BY MICHAEL GRAYDON; HAIR AND MAKEUP BY ANNA MENDOU FOR GIORGIO ARMANI COSMETICS; TRESSEME HAIR CARE AND PAGETONEMANAGEMENT.CA; RON MCKAY PHOTO BY FIONA MCKAY

Find eco-tips and rebates at ecoliving.scotiabank.com

 **Scotiabank**
 **ecoliving**



GreenWorks' no-VOC Yolo paints and natural-fibre carpets contain no indoor air pollutants.



SMART SHOPPER

PETE MCGEE FIRST CONSIDERED

opening a green building store while in graduate school studying resource management. But it was while selling lake-salvaged wood into the U.S.—and visiting local green merchants with one-stop shopping he couldn't get in Vancouver—that he got the final push to co-found GreenWorks with friend Alastair Moore in spring 2007.

The 3,000-square-foot store is a trusted source for building supplies that are responsibly sourced and non-toxic, such as countertops made of recycled paper, and flooring made of reclaimed, local or FSC-certified wood. GreenWorks is expanding beyond building supplies and including more decor items

like locally made beds and organic sheets and towels. “Our goal is to simplify the shopping process,” McGee says. —LC

WHY JULIA BLACK FROM HGTV'S PURE DESIGN SHOPS HERE:

“I love the variety of products at GreenWorks. The Coyuchi 100-per-cent organic cotton bed linens are silky soft.”

HOW TO FIND THEM

GreenWorks Building Supply
386 W. 8th Ave., Vancouver
greenworksbuildingsupply.com

TIP: Avoid installing a money-saving programmable thermostat over a heat vent, where readings will be inaccurate.

—David Ryan, director, Canadian Building Energy End-Use Data and Analysis Centre in Alberta

ROAD-SALT ALTERNATIVES

We need to break our addiction to road salt, says **Rick Bates**, executive director of the Canadian Wildlife Federation. Aside from corroding cars, driveways and winter boots, excess salt in the environment harms wildlife and water systems. For a healthier way to melt ice on your walkway, Bates suggests these alternatives:



SAND: “It’s cheap and easy to apply,” says Bates. Available at home improvement stores.



ECOTRACTION: Made of granular volcanic material, this product offers better traction than sand. \$15 for 10 kg at Home Hardware.



ORGANIC MELT: This sugar-beet-based melter works to -30°C. While it contains sodium chloride, it’s safer than traditional salt because you use much less. \$10 for 5 kg at Canadian Tire. —LC



SMART SHOPPER PHOTO BY LAURA ARSIE; RICK BATES PHOTO/CANADIAN WILDLIFE FEDERATION; SAND PHOTO/ISTOCKPHOTO.COM



environmental
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Are You Green Power?

We want you to tell us your story about creating and conserving clean energy.

Now, more than ever, it is time for Canadians to take the lead in finding clean and safe solutions to the problems facing the planet.

Tell us your story, we'll tell others



**I AM GREEN
POWER.CA**

See stories from people who power their lives
with renewable energy at iamgreenpower.ca

Laundrylist

BY BARBARA NYKE

Shrink your environmental footprint by making a clean start in the laundry room. According to Environment Canada, clothes washers use 20 per cent of indoor water, and dryers are one of the home's big energy users. Fortunately, there's an incredible range of Energy Star-qualified washers, which use up to 50 per cent less water and 30 per cent less energy and require less detergent. Plus, new clothes dryers are about 17 per cent more efficient than they were in 1990. An even better choice is a drying rack, which saves energy and your clothes.

You can also go greener when choosing detergent. Consider brands that are biodegradable, made with plant-based ingredients (not petroleum-derived), and free of phosphates (they promote blue-green algae growth, which harms aquatic life).

Every laundry room needs an air-drying rack, Energy Star-certified washer and biodegradable detergent. *Expandable drying rack, \$20, Canadian Tire; GE washer, \$1,100, The Home Depot.; for full shopping info, see ecoliving.scotiabank.com/shop.*



Barbara Nyke is the principal eco-designer at Nikka Design (nikkadesign.ca).



EcoLogo, Energy Star—find out what these and other certifications mean at ecoliving.scotiabank.com/fall10

BUDGET

washers

This high-efficiency washer is certified by Energy Star. Its delay wash feature lets you program washing up to 10 hours ahead, to take advantage of lower utility rates at off-peak hours. (Check with your local utility.)

Whirlpool
4.0-cu.-ft.
Front-Load Washer
(model
WFW9050XW),
\$680
at Future Shop



MID-RANGE

This Energy Star-certified washer's high spin rate (1,100 r.p.m.) removes more water from clothes, meaning less drying time is needed. It also has a sanitization cycle, which kills more than 99% of many common laundry bacteria.

GE Energy Star
King Size Capacity
Front Load Washer
(model
GCVH6800JWW),
\$1,100 at The
Home Depot



INVESTMENT

This Energy Star-certified washer's ActiveWater system uses 70 per cent less water than the industry average.

Bosch Vision Washer DLX 500
Series (model WFVC6450UC),
\$1,499 See
bosch-home.ca
for dealers



detergents

Free of toxic ingredients, brighteners, sodium lauryl sulphate (which can cause skin irritation) and enzymes, this EcoLogo-certified biodegradable detergent is derived from corn and palm oils. Safe for high-efficiency machines.

Nature Clean
Laundry Liquid,
\$12 for 3 L at Metro
12 cents/load



This EcoLogo-certified detergent is biodegradable and has no phosphates, brighteners, dyes or toxic chemicals. Products with this logo meet strict standards of environmental leadership.

Compliments
Green Care Liquid
Laundry Detergent,
\$6 for 946 mL
at Sobeys
19 cents/load



Method created the first cradle-to-cradle certified laundry detergent. It's 95% natural and renewable, and it boasts the most concentrated formula on the market: 50 loads from a container the size of a small water bottle.

Method Laundry
Detergent, **\$10**
for 300 mL at
Shoppers Drug Mart
37 cents/load



drying racks

Compact and sturdy, this powder-coated adjustable-height steel drying rack requires no assembly and folds up neatly when you don't need it.

Small
Deluxe
White Dryer
(product
42-8805-8),
\$40 at Canadian
Tire



Each rod in this ceiling-mounted rack adjusts from 36 to 60 inches and can be raised and lowered individually.

Greenway
Indoor 6-Rod
Laundry Lift (item
42033700010),
\$80 at Sears



Made in B.C. from locally sourced Douglas fir, this extra-large rack is available in ceiling- and wall-mounted versions.

Drying rack,
\$150 (plus shipping)
at hoganwood.com



9 instant home warm-ups

BY CARA SMUSIAK



1 Have a professional home energy audit done to choose the most effective ways to go green and stay warm. **Good to know: An energy audit is required for many energy retrofit rebate programs.** Find a qualified local auditor at ecoliving.scotiabank.com/article/what-is-a-home-energy-audit.

2 Use a programmable thermostat to keep your home warm when you're there and cool when you're not. You can reduce heating bills by two per cent for every degree you turn down your thermostat at night.

3 Lay area rugs on floors. If your feet are cold, you'll feel colder. Rugs act as a cozy barrier against hard floors that typically feel colder than indoor air.

4 Set up a space heater to warm a home office or other contained space rather than raising the temperature of your whole home. Buy a space heater with a timer and a thermostat or multiple heat settings, all of which prevent overheating the room.

5 Replace weatherstripping around doors and windows. Ross Elliott, president of HomeSol Building Solutions in Ottawa, recommends spending more on a higher-quality product for a tighter seal. "You want one that has lots of flexibility."

6 Use thick drapes to retain solar heat. On winter days, open curtains and blinds on south- and west-facing windows so the sun can help heat your home. Prevent heat loss by closing window coverings on east- and north-facing windows during the day—and all window coverings at night. This simple action can save you five to 15 per cent on heating costs, according to BC Hydro.

7 Apply plastic sheeting to windows to prevent heat loss and drafts. This is especially smart if you have wood-framed single-pane windows. Investment tip: Consider upgrading to low-E windows, which help control indoor temperatures by blocking UV rays in summer while allowing heat gain in winter.

8 Seal air leaks. Air leaks behind walls and between floors can be tricky to find, but exposed ductwork in a basement, a garage, a crawl space or an attic can easily be sealed to improve energy efficiency. Feel for leaks with your hand or a feather. Fix small leaks with foil tape, or call a pro to install new gaskets. **Tip: Avoid using duct tape to seal air leaks—the adhesives don't perform well in contact with heat.** Use expanding foam to seal leaks around attic hatches and chimneys and in basement foundations.

9 Upgrade insulation. Depending on your home, the job may be as simple as adding loose-fill insulation through a series of small holes, or as large as opening up walls and installing spray foam. You'll stay warmer, reduce greenhouse gas emissions and save as much as 30 to 35 per cent on heating bills, says Stephen Olsen, president of Hometite Services Ltd. in Halifax.

Tip: Insulating ductwork in unheated areas, such as basements and attics, helps prevent heat loss.



Find out why replacing windows and doors is one of the best green improvements you can do. Visit ecoliving.scotiabank.com/fall10

PHOTO:ISTOCKPHOTO.COM

Introducing the Scotiabank EcoLiving Awards

CALL FOR
ENTRIES

We're rolling out the
green carpet for Canada's
brightest stars in home
energy efficiency.

Celebrating individuals and businesses who are taking the lead in developing products and services to help us all live a little more green. The gala will be held in Toronto, **June 2, 2011.**

\$50,000

Business Leadership Award

\$15,000

Innovation Award

\$10,000

Student Leadership Award

Entry deadline is **January 31, 2011.**

For details visit

ecoliving.scotiabank.com/awards



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BEFORE & AFTER



Steer clear of chemicals

The space has all the comforts of a contemporary kitchen with none of the odours. “To me, that ‘new’ smell means we’re inhaling poisons,” says homeowner Trish Snyder. So she chose products that wouldn’t emit hazardous chemicals in the home. Cabinets were built of formaldehyde-free plywood and recycled veneer with low-VOC finishes. The Marmoleum floor contains natural ingredients: wood flour, linseed oil and jute. *Cabinets, AyA Kitchen Gallery; for full shopping info, visit ecoliving.scotiabank.com/shop.*



KITCHEN *smarts*

Eco-friendly finds for the heart of the home

BY RHEA SEYMOUR, PHOTOS BY MICHAEL GRAYDON,
PRODUCED BY SASHA SEYMOUR AND CATHERINE THERRIEN

Living green has always been a way of life for EcoLiving executive editor Trish Snyder and her husband, Rob Harris. Long before blue boxes were fashionable, they cycled to work, composted food scraps for the garden and sweated out Toronto summers without air conditioning. So when it was time to update their 20-year-old kitchen, going green was an easy call. “I knew there was a growing number of products that would save energy, produce less garbage and give off fewer toxic fumes,” says Snyder, who scoured books and the web to track down green building materials, and worked with designer Cameron MacNeil, who created a clean look. “With his good taste and my homework, we put together a great-looking, functional kitchen that also happens to be green.” >

Give old treasures new life

The mismatched chairs are junk-store finds unified with fresh paint. On the banquette, old sofa pillows were recovered with linen, which is cultivated with less pesticides and water than cotton. Feather pillow inserts and a latex banquette cushion are natural alternatives to petroleum-based foam. The family chose a white acrylic window shade because it doesn't off-gas like vinyl. *Shade, Hunter Douglas; drapery, Kravet Canada; latex cushion, Foamsource; AFM Safecoat wall paint, CBR Products.*



Recycle and revitalize

To keep the old kitchen out of landfill, the cabinets were removed intact and given away via craigslist.org. The owners had spray-foam insulation applied to an exposed crawl space below the kitchen, and installed insulation made from recycled denim behind the walls. Even the artwork was recycled: magazine clippings were placed in white frames painted fire-engine red to create a striking gallery wall. *Spray-foam insulation, Green\$aver; Ultra Touch cotton insulation, Twin Maple Marketing.*



Remember, old is gold

Rylie and Morgan get crafty at the vintage harvest table, a consignment find that will last forever and look even better with scratches and wear. >



Find out how to keep your family safe from reno-related air pollutants. Visit ecoliving.scotiabank.com/fall10



Conserve water

The Moen faucet has an aerated sprayer that reduces water use. Even the sink, made of recycled stainless steel, conserves water; the smaller bowl is ideal for handwashing delicate glasses and small batches of dishes. *Moen faucet, The Home Depot; sink, Julien; tiles, Interstyle.*

Surprising earth-savers

1 Refrigerators with top-mounted freezers

Energy Star fridges consume about half the electricity of decade-old models, but top-mounted fridges use 10 to 25 per cent less

energy than bottom-mount or side-by-side refrigerators. Consider going without an icemaker or water dispenser, which increase energy use by up to 20 per cent.

2 Induction cooktops

Popular in restaurants, induction cooking uses less energy than gas or electric and boils water faster than both. Electricity flows through a coil beneath a ceramic cooktop, producing

a magnetic field.

When a pan is placed on the element, it creates a current that heats the pot and the food inside, which keeps the ceramic surface from burning little fingers and the kitchen from getting too hot.

3 Energy-saving dishwashers

Today's Energy Star models reduce water and energy wastage. Choose a model with an air-dry option to further reduce electricity needs.

Savvy shopping checklist



Choose smarter appliances

The couple invested in Energy Star-certified appliances by Bosch, including a water-saving dishwasher, freestanding fridge and freezer, and efficient induction cooktop (above). A full load in the high-efficiency dishwasher (below) uses about half the water of handwashing dishes in the large sink bowl.



Let there be LED light

Extremely low-voltage and long-lasting, under-cabinet LED lights sparkle on the IceStone countertops, made with chips of recycled glass and locally fabricated concrete. *LEDs, LSD Lighting Solutions.*



Contemplating an eco-friendly reno? Sustainable building materials specialist Stephani Carter of Edmonton's EcoAmmo suggests asking these questions to choose the most virtuous products:

Is it low in VOCs?

VOCs (volatile organic compounds) include chemicals in paint, furnishings and building materials, emitting potentially hazardous gases. Many major paint brands have low-VOC lines, including Behr Premium Plus Ultra and Benjamin Moore Aura. Keep in mind that many others that claim to be low-VOC have been tested with just the white base, says Carter. Adding pigment typically adds VOCs.

Is it non-toxic?

Building materials, including MDF and plywood, are often glued with a binder that includes urea formaldehyde, a known carcinogen. To ensure that a product meets off-gassing

limits, look for third-party certification, such as Green Seal (greenseal.org).

Is it made from recycled materials?

Products manufactured with recycled content often bear the SCS seal (Scientific Certification Systems), which certifies how much of the product is recycled. Look for products with post-industrial and post-consumer material.

Is it sustainable?

The FSC (Forest Stewardship Council) logo on wood cabinets and flooring certifies that the products were crafted from sustainably managed forests.

Is it an energy-saver? High-efficiency fluorescents and LED lights reduce energy consumption and last for years. Appliances with superior energy efficiency carry an Energy Star or EnerGuide logo. Compare models and brands online at oee.nrcan.gc.ca.

Should you go solar?

Weigh the facts before you reach for the sun BY ALLAN TONG

AFTER KEEPING her baby and two-year-old warm during a 10-hour blackout in late 2006, Laura Iwan had had enough. “We started thinking of some kind of back-up power system to prevent this from happening again.” She and her husband considered a diesel generator (too loud and smelly) and wind power (not enough blowing in Burnaby, B.C.) before they settled on solar panels. They paid \$30,000 for a system with 12 rooftop solar panels, which generate 2,160 watts, or enough to cover half of their annual electricity needs.

because of the microFIT program. There are also no rebates for installing a solar PV system. Depending on how much electricity a system generates, homeowners may also still find themselves paying for energy from the grid.

For Laura Iwan, her peace of mind over winter power shortages made it worth the price of a solar energy system. The panels also shaved her electricity bills in half—and helped reduce her family’s impact on the planet—which Iwan considers a welcome bonus.



Marc Melanson is a solar energy expert at Harvest Energy Solutions in Moncton, N.B.

GOOD REASONS TO BUY IN

Solar photovoltaic (PV) systems unquestionably reduce your carbon footprint. They also extend the life of a furnace, lower hydro bills and offer security in the face of aging grids. If Iwan generates excess electricity and supplies it to the grid, BC Hydro would credit her bill at eight cents per kilowatt hour (kWh). Quebec, Nova Scotia and New Brunswick have similar programs, while Ontarians can earn a whopping 80 cents per kWh through the government’s microFIT program, which buys excess electricity from homeowners (for details, visit microfit.powerauthority.on.ca/) PV panels are also durable, delivering at least 80 per cent peak power for 25 years.

POTENTIALLY BAD NEWS ABOUT PAYBACK

Depending on your province, it will take anywhere from seven to 80 years to recoup your costs, explains Marc Melanson. That’s because electricity is relatively cheap in Canada, from 5.3 cents per kWh in Ontario to 11.8 cents in P.E.I. Ontarians recover costs fastest

IS YOUR HOME A GOOD CANDIDATE? IT IS IF YOU HAVE...

- 1 A large, flat, south-facing roof** PV panels should be oriented to true (not magnetic) south to max out the sun’s rays. East- and west-facing panels are possible but less effective. And the flatter the roof, the more energy the panels will absorb.
- 2 No shade** A tree branch hanging over a panel can drastically cut power output, as can chimney shadows, neighbouring buildings or satellite dishes.
- 3 No fear of heights** Though low-maintenance, PV panels still require cleaning twice a year to clear bird droppings, dirt and dust. Snow can also reduce the amount of energy produced.
- 4 A sunny climate** Saskatchewan, Alberta and Manitoba get the most sunshine, so residents in these provinces get the most from solar panels.

SOLAR FOR EVERY SNACK BRACKET



Spend \$3,000...

Get: Solar air-heating panels, ducts and a thermostat to heat a room (south-facing, up to 750 square feet)

Payback: 5 to 10 years



Spend \$3,000-\$7,000...

Get: Solar pads to heat a pool (price depends on pool size)

Payback: 3 to 6 years



Spend \$7,500...

Get: Two solar thermal panels to heat household water (almost 100 per cent in summer and over 50 per cent annually)

Payback: 10 to 15 years

Bonus: Check if your province or territory offers rebates for installing a solar water-heating system at ecoliving.scotiabank.com/rebates.



To hear from other Canadians who've switched to green energy, visit IamGreenPower.ca.

READY TO START SHOPPING?

Ask a pro Start at the Canadian Solar Industries Association (cansia.ca) to find a certified installer to properly assess your energy needs and design a system. "Find one with experience in your local area who can give realistic expectations about how much power you can generate," says Rob Baxter, co-founder of the Vancouver Renewable Energy Co-op.

Do your homework If you're into math, use this formula to calculate a panel's cost-effectiveness: PV panel cost ÷ STC rating (watts) = \$/watt. (STC stands for "standard test conditions," which represent the power ratings of PV panels. For example, if a 100W panel has a power tolerance of ±5 per cent, then it'll produce at least 95W in electricity.) However, cautions Marc Melanson, other parts of the system can influence the amount of electricity generated, so choose a reputable certified installer and ask for referrals.

Buyer beware As with any major purchase, be wary of deals that sound too good to be true. You might save cash up front, but spend more fixing an improperly installed system or replacing unsuitable parts.

IF NOT SOLAR, THEN WHAT?

If you have a lot of yard space and don't mind digging it up, consider **geothermal heating and cooling**. A special liquid transfers the earth's perpetually moderate temperature out of the ground (or a lake) through a network of tubes, which rest deep in your yard, and into your home. Geothermal systems can be slightly cheaper than solar PVs, and because they benefit from more rebates, they boast a shorter payback period. Is a geothermal system right for you? Learn more about it at ecoliving.scotiabank.com/fall10.

PROFILE



How hosting *World's Greenest Homes* inspired John Bell to uproot his family, sell his dream house and create a smaller, better life.

THE GREEN REVELATION

BY LESLEY YOUNG, PHOTOS BY LAURA ARSIÈ

Former sportscaster John Bell was inspired to downsize while shooting green homes for HGTV. This house is half the size of his previous home.

the only things holding up John Bell's 2,200-square-foot house in Toronto are the original brick and wood frames. A light cross-breeze blows through the holes in the walls where the windows will go. His house may be a shell, but the former host of HGTV's *World's Greenest Homes* couldn't be happier as he describes the green transformation he's working on. He and his wife, Patsy, traded down their 4,500-square-foot home for this one downtown so they could walk to local amenities, use their car less and reduce their carbon footprint. "It's really exciting," says Bell.

The weird thing is, Bell's just like you or me—or at least he was: a successful family man content to drive 10 minutes to the nearest store and cool a jumbo home with 24/7 air conditioning. His awakening came in 2008 when he toured eco-friendly homes for HGTV. The owners, who'd built the greenest living spaces possible in their desire to make a healthier planet, inspired him to change his life. "Before, I knew about being green, and I knew it made sense," says Bell. "The show gave me a kick in the butt to say, 'Hey, if you are a believer and you're passionate, why not do something?'" >

John Bell took a side-door entrance into the building business. While renovating one of his first houses, he discovered that he hated not knowing how to do basic home repairs and loved physical labour. So, two months after daughter Hadley was born (son Hudson arrived two years later), with Patsy's blessing, he quit his job as Global TV's weekend sports anchor, enrolled in a carpentry course and started working for \$17 an hour as an apprentice to become a builder. "My wife's family was probably wondering what I was thinking," jokes Bell.

Within two years, he climbed to his current role as freelance renovation project manager, working with labourers and homeowners to manage tasks and timelines. He briefly detoured back to the screen in 2005, landing a small role in a film titled *Earth Storm* or, as he calls it, the "world's worst movie." And then he learned about an audition for a carpenter role on the W Network's *Colour Confidential*—a perfect melding of his on-air talent and woodworking skills.

Two seasons and 53 episodes later (he continued in construction when he wasn't filming), a new opportunity came up in 2008: host of HGTV's *World's Greenest Homes*. "I loved the show concept. I would get to travel the world, see amazing green homes, and talk with people who were really interesting." In fact, almost every episode led to a green lifestyle change for the Bells.

While filming a contemporary cabin in Northern California made entirely of reclaimed materials, Bell met the owner, architect/designer Olle Lundberg. "He is this great barrel of a guy with long hair, and his whole philosophy is to reuse and recycle." Bell was impressed with Lundberg's rainwater-fed



outdoor pool, made of a 189,000-litre wooden livestock cauldron that would otherwise have been destroyed. He'd made kitchen cupboards from old desk cabinet doors that were repainted. He'd used tile offcuts in his shower. "The grout lines didn't match up but it looked great," says Bell. "Olle changed my perspective on what we can be doing with stuff we throw in the garbage." After filming that episode, Bell started holding on to discarded materials on construction sites, in case there was a way to reuse them.

After filming an off-the-grid house in Toronto's Beaches neighbourhood, Bell realized he'd never thought about how much electricity his own home was consuming. After a look at his bills, he started to pay attention. "Once you understand, you may be more inclined to conserve because now you know what it costs to turn on a room with 10 pot lights."

After filming stunning homes in Canada, the United States and Europe that were devoted to water conservation, Bell felt compelled to act. While the show was shooting, he cancelled his irrigation sprinkler system and bought a rain barrel. "Water is the new oil,"

Almost every episode of *World's Greenest Homes* that Bell hosted led to a green lifestyle change for his family.



Bell's home will reduce water consumption by collecting, disinfecting and reusing water from showers and using it to flush toilets with this grey-water recycling system.

he says. "We can't live without it, and yet no one gives water that much attention because they think we have so much. In 15 to 25 years, there are going to be serious shortages." And he's since turned up the pressure on his water crusade: this past summer, he co-founded HTO Water Technologies, a company that distributes grey-water systems, which recycle and clean shower, bath and laundry water for toilets to preserve potable water. "Toilets are the biggest water users in a house," says Bell. "If you don't have to use drinking water to flush your toilet, why would you?"

The show also opened Bell's eyes to the possibility that a smaller home can be better. "It can be cleaner and more liberating," he says. "The less space you have, the more you have to think about what you buy and how to store it." Already he and his wife have been downsizing belongings as they prepare to move into the smaller, greener home (they expect renovations to be finished in spring 2011). "Before, we were living the life we *thought* we wanted," he says, adding that it never really felt right: they had a formal seating area they used once a year as a place to stand the Christmas tree, and other rooms they rarely entered. He can say with confidence that the new green lifestyle they're building from scratch feels 100-per-cent right.

Even if the show has not been renewed for another season, Bell's eyes have been opened. "I realized that you don't need to be altruistic or rich or obsessed to make green changes. You just need to be educated," he says. "*World's Greenest Homes* was the best thing that ever happened to me." 🍃

3 cool things about John Bell's reno

1 A small footprint.

The number-one green change for John Bell's reno is downsizing to a house that is half the size of his family's former home, which means a smaller carbon footprint.

Baby step: If you can't physically downsize, reduce your footprint with careful energy consumption. Turn off lights when you don't need them, and unplug all non-essential electronics—they draw electricity even when they are not in use. Or connect TVs and computers to a power bar with an "off" switch.

2 Grey-water recycling.

Save up to 40 per cent on your annual water bill by recycling waste water from the bath, shower and laundry for the toilet. Bell points out that this is most financially feasible for a gut job or a new build since installation requires

access to existing pipes. **Baby step:** Invest in low-flow showerheads. The difference in water usage between high-efficiency and standard showerheads for a 10-minute shower is nearly 90 litres. "That's more than one person's daily toilet flushing," says Bell.

3 Radiant heating.

Bell's hydronic system works by heating water in a boiler and pumping it through tubing beneath the floors. Because radiant heating distributes warmth evenly, homeowners can save energy by setting their thermostats two to four degrees lower.

Baby step: In the winter, make sure that drapes on south-facing windows are open during the day to let warm sun in, and closed at night to reduce the chill. In summer, keep drapes closed to block the sun.

Protect your family from hidden reno hazards:
ecoliving.scotiabank.com/fall10


GREEN ROOM

A better bathroom

BY JACLYN LAW

ONE GORGEOUS
BATHROOM,
11 WAYS TO
MAKE IT ECO





if you can only make eco-improvements to one room in your home, make it the bathroom. Sixty-five per cent of household water is used there; toilets account for 30 per cent, and the shower and tub use the rest. Upgrading to efficient fixtures, such as a dual-flush toilet, conserves water and saves you money.

You can also make your bathroom a healthier place. Whenever you can, keep things natural. Avoid vinyl, which emits harmful volatile organic compounds (VOCs), and choose organic cotton towels and bath mats, and PEVA shower curtains, which are chlorine-free.

For the walls, go with low-VOC paint and recycled-glass tiles, available at home improvement stores. Vintage decor finds, such as frames, mirrors and hooks, take the room from pit stop to pretty. >



Make it *green*



Washing Reduce water consumption with a high-efficiency showerhead. This Delta model (\$50) sprays just 5.7 litres per minute. A high-efficiency faucet, such as this chrome version by Riobel (\$469), saves water and money.

Paint Benjamin Moore's Natura line of paint is odourless and contains no VOCs, even after tinting (shown in Cotton Balls, 2145-70; \$29 per litre).



Drying Green gets cozy with Coyuchi organic towels made of unbleached, chemical-free, dye-free cotton; at Grassroots Environmental Products and other retailers (\$8 and up).



Storage Boost storage space with a classic cabinet made of low-emission engineered wood, like the Paterson from Crate and Barrel (\$399).

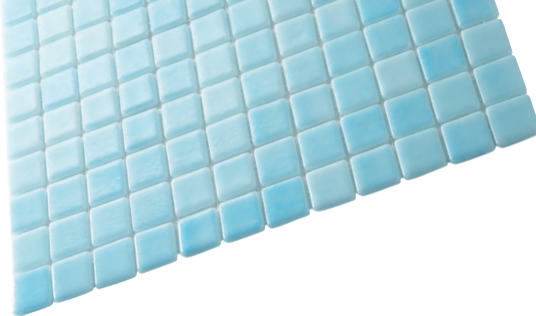


Display Add a personal touch with photos and art in vintage frames from thrift stores and flea markets. Hang bathrobes and towels on vintage coat hooks or doorknobs (see page 5).



Easy upgrades for the bathroom, with fixtures and building materials assessed by green building consultant Tyler Hermanson of Calgary's 4 Elements Integrated Design.

Walls and floors Recycling goes glam with Vidrepur's 100-per-cent-recycled glass tiles, available in over a dozen hues (shown in Fog Clear Sky Blue; about \$6 per sq. ft.). For flooring, look for wood that is reclaimed or FSC-certified, which means it was responsibly harvested. This FSC-certified maple flooring is from Nadurra Wood Corp. (from \$7 per sq. ft.).



Windows Levolor's Sheerweave roller shade (\$236 for a 45- x 90-cm window) blocks winter's chill, protects from fading and allows natural light to filter through.



Lighting Use a compact fluorescent light bulb in this handsome Kichler fixture (\$60) to reduce energy usage. CFLs use one-tenth the electricity and last 10 times longer than incandescent bulbs.

For full shopping info, see ecoliving.scotiabank.com/shop.

Smart toilet Toilets consume more water than any other fixture. To save precious H₂O, install a high-efficiency, low-flow toilet, such as American Standard's Cadet 3 FloWise (4.8 litres per flush; \$368, seat not included).



TOILET TALK: DUAL FLUSH

If you've ever encountered a powder-room toilet with two buttons instead of a single lever, it may have been a dual-flush model. The smaller button disposes of liquid waste with a three-litre flush; the larger button uses 4.8 to six litres of water to flush solids.

How much water do dual-flush toilets save? Considering the average person typically flushes liquids four times more often than solids, these models can save up to 69,000 litres of water per year for a family of four compared with a 13-litre toilet.

Sure, but do they work? Dual-flush toilets are relatively new to North America, but in water-scarce Australia they've been used—and mandated by law—for decades. Compare 20-plus manufacturers' toilets in reports by the Alliance for Water Efficiency

(cwwa.ca/freepub_e.asp), which measures how much solid waste (from 350 to 1,000 grams) is removed in a single flush. The higher the number, the more powerful the flush.

Are they good for older homes?

All toilets can back up if drain lines are degraded or damaged by roots, solid buildup, sags or breaks. Homes with long drain-line runs may also pose problems. But these issues might occur with any toilet, not specifically dual-flush models.

Can I convert my toilet to dual flush?

Troy Maney of Enviro Green Homes in Calgary says conversion kits should be fine for retrofitting a six-litre toilet, but he wouldn't recommend converting a 13-litre model. "Those older toilets are designed to require a higher volume of water to flush properly, so you could end up having problems." —*Trish Snyder*



Save \$65 or more on a water-efficient toilet. Find out how at ecoliving.scotiabank.com/rebates

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Rebate guide >



Home checklist

FALL / WINTER

☐ Check deadlines for retrofit rebates at ecoliving.scotiabank.com/rebates. Many expire on December 31.

☐ Complete energy-saving retrofits, and book and complete your post-retrofit audit before March 31 to take advantage of provincial rebates you may qualify for.

☐ Maintain your furnace for peak efficiency. For oil, have a pro check it once a year; for gas, every other year.

☐ Clean or replace furnace air filters each month. Check ventilation system filters every two months.

☐ Check weatherstripping around windows, exterior doors and skylights—they should close tightly.

☐ Check holiday lights for wear and tear. Replace cords and plugs that feel warm. If buying new lights, consider LEDs—they use 95 per cent less energy and last 10 times longer.

☐ Empty your rain barrel before the first frost; expanding ice can crack the barrel.

SPRING

☐ March 31 is the deadline for post-retrofit audits, which must be completed by this day for homeowners to qualify for federal, provincial and territorial rebates.

☐ Check your home's foundation walls for cracks, leaks or signs of moisture and repair as soon as possible. —VK

TOP MONEY-SAVING ECO-FIXES

Replacing a few items around the house will add up to more money in your wallet.

BY VIVIANE KERTÉSZ



Cost

\$90 and up

Upgrade to a dual-flush toilet

Before

Annual household water use of an 18 L/flush toilet: 120,450 L

Water savings

80,000 L/year, or at least 66%

Annual savings

\$119.84

Rebates

\$65 to \$200 from government rebates



Cost

\$12 and up

Switch to LED holiday lights*

Before

50 incandescent bulbs use 250W per hour

Energy savings

247W per hour

Annual** savings

\$45.58

Rebates

Look for in-store promotions and municipal light-exchange programs.



Cost

\$10 and up

Install a low-flow or aerated showerhead

Before

Annual household water use for baths and showers: 167,900 L

Water savings

117,532 L/year, or up to 70%

Annual savings

\$148

Rebates

Up to \$100



Calculate your rebates:
ecoliving.scotiabank.com/rebates

*Based on upgrading to one strand of 70. **Based on running holiday lights for two months/year.

Find eco-tips and rebates at
ecoliving.scotiabank.com



"HOW CAN I SAVE BIG ON HEATING?"

Get a warmer home and cut bills by \$1,100/year with 3 easy upgrades *By Cara Smusiak*

Upgrade your furnace.

Based on replacing a gas furnace rated at 60% AFUE with one rated at 98% (AFUE is a measure of a furnace's fuel efficiency).*



Insulate your attic.

Based on laying batts over existing insulation in a 1,250-sq.-ft., 2-storey house; heating a home this size costs about \$2,400/year.*



Install a programmable thermostat.

Based on savings for turning down thermostat 3°C at night in a 1,250-sq.-ft. bungalow; heating a home this size costs about \$1,900/year.*

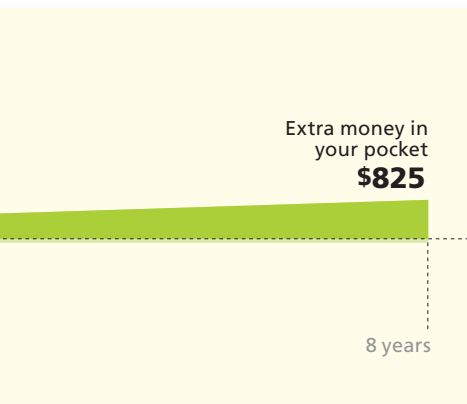
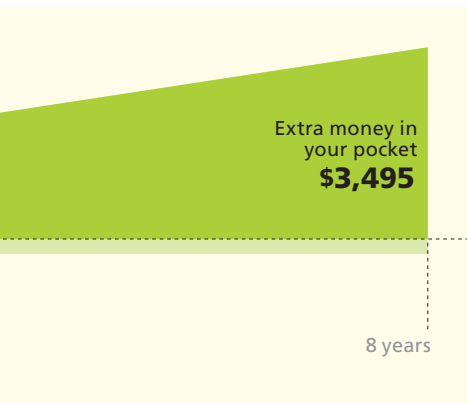
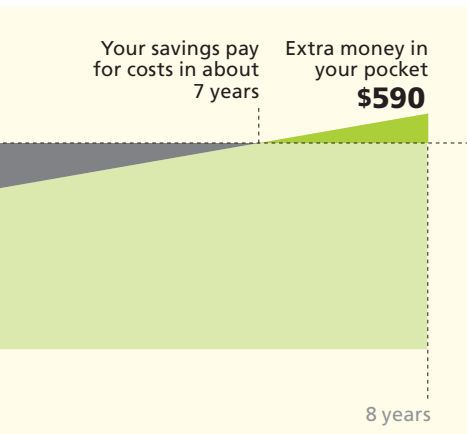


*All costs and rebates are averages. For more details on the data above, visit ecoliving.scotiabank.com/stats

Turn to page 10 to see more tips for a warmer home this winter.



**See how much you
can save on renos:**
[ecoliving.scotiabank.com/
rebates](http://ecoliving.scotiabank.com/rebates)



PHOTOMASTERFILE: TYLER PRESCESKY PHOTO/AMERISPEC HOME INSPECTION SERVICE

Common rebate blunders

Follow these tips from an energy auditor to make sure you get cash back.

Rebate programs lighten the financial burden of home retrofits—if you follow the rules. EnerGuide adviser **Tyler Prescesky** with

AmeriSpec Home Inspection Service in Saskatoon offers tips to maximize your renovation return.



What is the worst rebate mistake consumers make?

Finishing part or all of the work before having a pre-retrofit inspection. The home energy assessment needs to take place before any upgrades or renovations can begin.

The federal government has closed its ecoENERGY Retrofit – Homes program. Are rebates still available?

While the federal government discontinued its \$5,000 ecoENERGY program on March 31, 2010, almost every province and territory still offers some rebate funding. Saskatchewan and Ontario each extend up to \$5,000 per homeowner!

What's the deadline to have a pre-retrofit audit, perform upgrades, then have a post-retrofit audit?

For those already enrolled in the federal ecoENERGY program, you must complete everything by March 31, 2011. Don't wait 'til the last minute to book your post-retrofit audit! Call long before the deadline. Check with the program in your province or territory for its deadline and requirements, or look up rebates in your area at ecoliving.scotiabank.com/rebates.

What else do homeowners need to know?

Hang on to your receipts for the post-retrofit audit. There's no harm in snapping photos of each stage of the renovation as an extra safety step, especially if insulation is involved. And remember, you don't have to perform all of the changes recommended in an audit report. Choose as many as you feel are right for your home and budget.

What retrofits can homeowners who live in newer houses make?

I have seen a lot of uninsulated and unfinished basements, which lose a great deal of energy. You'll improve efficiency and comfort by insulating the foundation and crawl-space walls and finishing floors. If you're looking at building a new home, check EnerGuide for New Homes, Energy Star and R-2000 homes, which have guidelines to make them up to 30 per cent more energy efficient than conventionally built homes. —VK



Save all home improvement receipts to qualify for government rebates.

“My green *dream*...



...is to protect green space for agriculture.

I think we all should have access to fresh food that's grown close to home. I feel lucky to live in a smaller city in the Niagara peninsula with farms, orchards and vineyards nearby. Any day of the week I can get the most affordable, authentic food from farmers' markets or a gate stand. My dad's family grew up in Cleveland, where there used to be quaint berry farms and rolling hills just outside the city. About 30 years ago, the bulldozers moved in because people wanted to live in this pastoral setting. It wasn't long before people started asking, 'Where did all the berry farms go?'

—Anna Olson, host of *Fresh with Anna Olson* on *The Food Network*

PHOTO BY LAURA ARSIE; ANNA OLSON PHOTO BY RYAN SZULC



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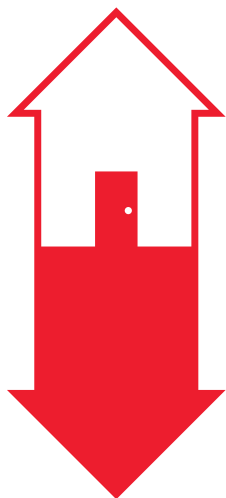


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