

the 20/20 Planner



A practical guide to **CUTTING ENERGY USE**
at home and on the road by 20%



For better health and a cleaner environment.

20/20 The Way to Clean Air

20/20 The Way to Clean Air is a campaign to help you reduce home energy and vehicle use by 20%. By following the actions in this booklet, you will help improve air quality and your health, lower energy costs, and increase the comfort of your home.

To reduce your energy use and clean the air, visit:

www.cleanairpartnership.org/2020.



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20/20 is a campaign of public health units in Toronto, Durham, Halton, Peel, Simcoe and York. It is coordinated by the Clean Air Partnership.

Be Part of the Solution

Every time we drive our vehicles and use energy in our homes, we are burning fossil fuels – such as gas, oil and coal – and sending pollution and greenhouse gases into the air. This contributes to smog and climate change.

Climate change and smog are closely related. Greenhouse gases (like carbon dioxide) build up in the atmosphere and trap the sun's heat close to the earth, increasing global warming and climate change. Since heat and sunlight help to create smog, global warming could increase the number of smog days, leading to serious health issues for people with heart or breathing problems. Even for healthy people, air pollution can reduce lung function and irritate the eyes, nose and throat.

You can take action today to protect your health and improve air quality in your community. Join thousands of others participating in 20/20 The Way to Clean Air and become part of the solution to air pollution. Check the **Air Quality Health Index** each day and learn when to be active and when to take it easy, visit www.airhealth.ca.

DID YOU KNOW?

- The Air Quality Health Index is a tool that measures air quality in relation to your health on a scale from 1 to 10. A reading of 1 means a low risk and 7 or greater represents a high risk. This index can help you decide when to enjoy physical activity outdoors and when to reduce or reschedule your activities. Hourly conditions and forecasts can be found at: www.airhealth.ca.

Something for Everyone

Everyone can participate in 20/20, whether it's turning off lights in your apartment, sealing drafty doors in your house or leaving your car home once a week. 20/20 has helped thousands of families achieve meaningful energy reductions. In fact, many 20/20 participants have gone beyond the target and achieved a 25% reduction in home energy use.

This guide offers you easy-to-use checklists outlining a range of home energy and transportation actions you can take. There is additional advice for people who live in apartments and condos (page 8) and a 20/20 Connector listing key incentives and services to help you reach your reduction targets (page 13).



DID YOU KNOW?

- 30% of home heat is lost through cracks and crevices. That's like living with a basketball-sized hole in your living room wall! Sealing the cracks can save you up to 10% on your space heating bill.
- It costs the average Canadian driver approximately \$9,330 a year or 52 cents a kilometre to drive their vehicle. Driving less can reduce these costs and help your vehicle last longer.

Getting Started

Start your commitment to clean air by achieving the easy-to-do activities listed on the next page. If you do everything on this list, you will be reaching a 5% reduction in your home energy use. Consider using an on-line calculator to find out how much energy you are using in your home. You can calculate your “carbon footprint” by going to www.zerofootprinttoronto.org.



KICKSTART YOUR SAVINGS WITH A HOME ENERGY AUDIT

You can save even more energy and money by bringing in a home energy inspector to assess your home. They will inspect your house from top to bottom and tell you how to improve the energy efficiency of your home. And when you make improvements, financial incentives are often available through government and/or your local energy provider. (See 20/20 Connector page 13 for incentive and contact information.)

DID YOU KNOW?

- Laundry soaps can now clean clothes that are washed in cold water, making it easier for you to reduce your hot water use, save money and reduce air pollution.

Home Energy Planner: Getting Started Checklist

If you do everything on the list, you will be reaching a 5% reduction in home energy use.

WILL COMMIT
TO DOING THIS



ALREADY
DO THIS



Energy Saving Activity

example:

Set thermostat (for heating) back...etc.

Set thermostat (for heating) down 1°C during the day and/or 2°C at night

Set thermostat (for cooling) up 1°C during the day and/or 2°C at night

To keep the heat in (during winter), close window coverings each night and open for the daylight hours on sunny days

To keep the cool air in (during summer), close window coverings for the daylight hours on sunny days

Clean or replace your furnace filter regularly (e.g., every two months)

Use cold water instead of hot water every time you wash your clothes

Reduce the number of drying cycles by half (by hanging your clothes or making sure your dryer is full)

Keep all air vents and doors to unused rooms closed when your furnace or air conditioner is operating

Clean the coils on the back of your refrigerator by brushing off or vacuuming the dust

Use your dishwasher only when full; use the energy-saving or light wash cycle; select the air dry option

Turn off lights, computers, TVs and DVDs when not in use; to reduce "phantom" or "stand-by" power use, plug electrical items into a power bar and switch off

Close the fireplace damper or air-tight fireplace door after each use of your fireplace

DID YOU KNOW?

- Green power (such as wind, water, and the sun) generate electricity with little or no air pollution. Contact your local energy provider to find out about switching to green power or visit www.electricitychoices.org.

Going the Distance

The actions listed on the next two pages will require a bit more effort, but they are well worth it in terms of the comfort, financial savings and environmental benefits of reaching a 20% (or more!) reduction in your home energy use.

Read through the list on the following pages and check off the energy-saving activities you will commit to doing. You will see the percentage of energy you will save with each action. Add Column 2 to get your reduction target and enjoy putting your plan into action.



REDUCE ENERGY USE AND STAY HEALTHY

Turning your thermostat down in the winter and up in the summer is a great way to save energy. However, the elderly, young children and those with breathing problems need to be sure that they aren't too hot or too cold. Consider special health needs as you try to save energy. While sealing your windows and doors is a great way to block drafts and save energy, sealing a home too tightly can cause indoor air quality problems that can affect your health. To avoid this problem, talk with the home energy experts before you begin.

DID YOU KNOW?

- A tap leaking one drop of hot water per second can waste over 181 litres of hot water a week. That's equal to about 724 glasses of water! Fixing this leak could save you over \$42 a year.
- Heating water for bathing, washing dishes and doing laundry can add up to as much as 15% of your home energy costs. By turning down your hot water heater by only 5°C (only for gas and oil water heaters), you can reduce your energy use by 3%.

Home Energy Planner: Going the Distance Checklist

	COLUMN 1		COLUMN 2
	WILL COMMIT TO DOING THIS	ALREADY DO THIS	ENERGY REDUCTION
Heating and Cooling			
Set thermostat for heating back: (select one)			
• By 2°C 24 hours a day	<input type="checkbox"/>	<input type="checkbox"/>	6%
• By 2°C at night only	<input type="checkbox"/>	<input type="checkbox"/>	2%
• By 2°C during the day and 3°C at night	<input type="checkbox"/>	<input type="checkbox"/>	8%
Set thermostat for cooling up: (select one)			
• By 2°C higher 24 hours a day	<input type="checkbox"/>	<input type="checkbox"/>	1%
• By 4°C higher at night only	<input type="checkbox"/>	<input type="checkbox"/>	1%
• By 2°C higher during the day and 4°C at night	<input type="checkbox"/>	<input type="checkbox"/>	2%
Use fans and reduce your air conditioner use by half	<input type="checkbox"/>	<input type="checkbox"/>	2%
Do comprehensive draft-proofing. For example:			
• Caulk and weather-strip doors and windows			
• Cover windows and unused doors with plastic sheeting	<input type="checkbox"/>	<input type="checkbox"/>	10%
• Install insulating gaskets in electrical outlets and light switches, and install childproof plugs in the same outlet (particularly on outside walls)			
Upgrade attic insulation to R40 (about a foot in depth)	<input type="checkbox"/>	<input type="checkbox"/>	5%
Upgrade basement insulation to R-18	<input type="checkbox"/>	<input type="checkbox"/>	10%
Install double glaze low-e argon-filled windows throughout your house	<input type="checkbox"/>	<input type="checkbox"/>	3%
Permanently seal an unused fireplace	<input type="checkbox"/>	<input type="checkbox"/>	3%
Heating Water			
Lower hot water tank temperature by 5°C and aim for the ideal energy savings temperature of 49°C (run hot water from your tap onto a meat thermometer to figure out the temperature)	<input type="checkbox"/>	<input type="checkbox"/>	3%
Place insulation around at least the first three feet of water pipes attached to your hot water heater	<input type="checkbox"/>	<input type="checkbox"/>	1%
Install a low-flow showerhead and faucet aerators	<input type="checkbox"/>	<input type="checkbox"/>	3%
Repair leaky faucets and showerheads throughout your house	<input type="checkbox"/>	<input type="checkbox"/>	2%

Home Energy Planner: Going the Distance Checklist

	COLUMN 1		COLUMN 2
	WILL COMMIT TO DOING THIS	ALREADY DO THIS	ENERGY REDUCTION
Lighting			
Replace frequently-used standard light bulbs with energy efficient bulbs			
• Replace 2 bulbs	<input type="checkbox"/>	<input type="checkbox"/>	1%
• Replace 4 bulbs	<input type="checkbox"/>	<input type="checkbox"/>	2%
• Replace 6 bulbs	<input type="checkbox"/>	<input type="checkbox"/>	3%
Replace frequently-used outside lights with motion detecting lights	<input type="checkbox"/>	<input type="checkbox"/>	1%
Install timers for frequently-used outdoor lights	<input type="checkbox"/>	<input type="checkbox"/>	1%
Appliances			
Discontinue use of a second refrigerator	<input type="checkbox"/>	<input type="checkbox"/>	3%
Discontinue use of a stand alone freezer	<input type="checkbox"/>	<input type="checkbox"/>	1%
Replace low efficiency furnace with high efficiency Energy Star furnace	<input type="checkbox"/>	<input type="checkbox"/>	20%
Install a tankless or solar hot water heater	<input type="checkbox"/>	<input type="checkbox"/>	10%
Replace an old refrigerator with an efficient Energy Star model	<input type="checkbox"/>	<input type="checkbox"/>	3%
Swimming Pools			
Set your pool heater thermostat back:			
• By 1°C	<input type="checkbox"/>	<input type="checkbox"/>	7%
• By 2°C	<input type="checkbox"/>	<input type="checkbox"/>	14%
• By 3°C	<input type="checkbox"/>	<input type="checkbox"/>	20%
Use a solar blanket to cover your swimming pool for each night of the summer season when the outside air temperature is cooler than the pool water	<input type="checkbox"/>	<input type="checkbox"/>	20%

DID YOU KNOW?

- 25% of home heat is lost through drafty windows. Wrapping your windows with plastic is a low-cost option that can reduce this loss by 50%.
- The average low efficiency furnace wastes as much as 45% of the heat it produces. Newer natural gas furnaces are up to 96% efficient. Replacing an old furnace with a high efficiency one can reduce your home energy use by 20%!

Tenants and Condo Owners Can Save Too

Tenants and Condo Owners

Whether you pay your energy bills or they are included in your rent or building fees, your efforts to conserve energy are important. With lower energy use and costs, chances of your rent or building fees going up are less.

You can take action!

- **Review the activities** on the Home Energy Planner checklists in this guide. Many of them can be done in apartments or condos - especially those listed in the "Getting Started" section on page 4.
- **Look for the Energy Star® symbol** when buying household items that use electricity (such as light bulbs, computers and air conditioners).



- **Contact Eneract** for a Smart Living workshop. They offer simple low-cost actions that can lower energy use in your unit and building. Call: 416-488-3966 or visit www.eneract.org.

Involve your Landlord or Property Manager

When you live in a building, you may need to involve your landlord or property owner to achieve greater energy reductions. Here are a few ideas to pass along:

- **Fix all leaking taps.** One drop a second of hot water can waste as much as 181 litres of hot water a week! Find out about water conservation tips and/or incentives by visiting your regional government's website. See pg. 13
- **Close off vents** to parts of your building (such as basements) that don't need to be heated.



Reducing Vehicle Use

Smog! Traffic Jams! Rising gas prices!
No room to bicycle!

These are just a few reasons why we should all reduce the amount that we drive. That's why, for families that have a vehicle, the 2nd goal of the 20/20 campaign is to help you reduce the amount of energy you use while on the road by 20%.

Think about the energy you can save by:

Carpooling – share a ride to work, school or to events

Using public transit – take the bus, streetcar, subway or GO Train

Walking or biking – use your legs for great exercise

Teleworking – work from home even once a month and make a difference

Trip chaining – combine errands into one journey rather than making several separate car trips



DO YOU DRIVE TO WORK? KICKSTART YOUR SAVINGS WITH SMART COMMUTE

If you leave your car at home just once a week, you will easily reach your 20% goal. But to work from home, or to find a carpool partner, you may need your employer's help. Tell your manager about a great program called Smart Commute – a trip-reduction plan offered to workplaces across the Greater Toronto Area. Smart Commute staff will help your employer set up such activities as carpooling, teleworking and shuttle programs designed for you and your colleagues. See the 20/20 Connector on page 13 for contact information.

DID YOU KNOW?

- David Suzuki - a famous Canadian environmentalist, and his family decided long ago that they would not use their car for any trips under seven blocks. This "reduction-rule" helped them reduce the amount they drove and, as a result, they got more exercise and reduced air pollution. Think about making a "reduction-rule" for your family!

Transportation Planner: Getting Started

Reducing Emissions

To reach a 20% reduction in vehicle use, you will need to start thinking about taking transit, walking, cycling, or carpooling more. However, an easy first step to improving air quality is to reduce your emissions when you drive. Here are some ways to get started:

- **Keep your tires properly inflated.** When the air in your tires is low, you burn more gasoline, which makes more air pollution. Check your tire pressure at least twice a month and add air when needed.
- **Keep your engine properly tuned.** An engine that runs rough spews more exhaust and costs more money in repairs. Have your mechanic tune up your vehicle according to the maintenance schedule or once a year.
- **Take your time speeding up and slowing down.** Quick starts and stops waste fuel and put “wear and tear” on your vehicle.
- **Choose an energy-efficient vehicle.** Larger cars and engines often burn more fuel and cost more money to run.
- **Don’t idle your engine.** Idling wastes gas and creates air pollution. Turning off your engine is especially important when you stop near a school or other places where young children may breathe in harmful vehicle exhaust.

DID YOU KNOW?

- Keeping your tires properly inflated year-round can save you the same as what it costs for two weeks of gas!
- Financial incentives are often available for buying energy-efficient vehicles so check the next time you are shopping for a new car.
- 10 seconds of idling uses more fuel than restarting your engine and it can damage your engine by causing soot build-up.

Transportation Planner: Going the Distance

Going the Distance – Step 1

Keeping your vehicle properly tuned can reduce emissions, but driving less is even better for the environment. Start your plan to reduce the amount you drive by thinking about how you use your vehicle. Do you use it for going to work, taking your kids to school, running errands, or going out of town on weekends? Use the tools below to help you choose how you want to reduce your driving. To find out how many kilometres you drive from one location to another, go to <http://ca.maps.yahoo.com>.

GET TO YOUR DESTINATION THE HEALTHY WAY

Active modes of transportation such as walking or cycling are great ways to reduce vehicle use and stay healthy. The World Health Organization recommends that you think about walking up to 5km (about 50 minutes) a day for good health. You can achieve this goal by adding more walking to your daily commute. Try carpooling part of the way and walking the rest, or, if you take transit, get off a stop or two early and walk the rest of the way. Be creative. When you find active ways to get to your destination, you'll arrive energized and you'll be benefiting your health as well as the environment.

STEP 1 – CALCULATE YOUR 20% KILOMETRE REDUCTION TARGET FOR A ONE-WEEK PERIOD

TOTAL NUMBER OF KILOMETRES DRIVEN IN THE PAST WEEK	20% REDUCTION	YOUR WEEKLY REDUCTION TARGET
_____ KM	X .20	= _____ KM

Transportation Planner: Going the Distance

Going the Distance – Step 2

Take your weekly target number and plug it into one or more of the categories and options below. Try your plan for a week or two, and if it works, continue throughout the year and enjoy your savings in gas. You may also want to try a different plan for each season. The warmer months are great for biking or walking.

Driving children to school, sports events and/or other activities

My family will commit to reducing its vehicle use in this category by:

- Taking Public Transit ____ km
- Carpooling with ____ other person (people) ____ km*
- Cycling or walking ____ km

TOTAL REDUCTION ____ Km per week

Commuting to work

My family will commit to reducing its vehicle use in this category by:

- Taking Public Transit ____ km
- Carpooling with ____ other person (people) ____ km*
- Cycling or walking ____ km
- Teleworking/teleconferencing ____ km

TOTAL REDUCTION ____ Km per week

Shopping, running errands or going out for entertainment

My family will commit to reducing its vehicle use in this category by:

- Taking Public Transit ____ km
- Carpooling with ____ other person (people) ____ km*
- Cycling or walking ____ km
- Trip Chaining ____ km

TOTAL REDUCTION ____ Km per week

Taking weekend trips (e.g., local holidays, cottage, etc.)

My family will commit to reducing its vehicle use in this category by:

- Taking Bus or Train ____ km
- Carpooling with ____ other person (people) ____ km*

TOTAL REDUCTION ____ Km per week

*This number should be the total distance driven in your carpool, whether it is in your vehicle or someone else's

Get connected to innovative energy saving programs and incentives!

Below is just a partial list of great incentives and programs that can help you cut your energy use at home and on the road. For the complete list, go to www.cleanairpartnership.org/2020.

Save energy and receive rebates. See updated list of incentives and rebates at www.oeenrcan.gc.ca

Reduce emissions by carpooling to work. Find carpool matches at www.carpoolzone.ca

Connect your workplace with trip reduction services offered by Smart Commute. www.smartcommute.ca 416-406-0489

Have a home energy audit done by Windfall Ecology Centre and learn more ways to reduce energy bills and improve home comfort. www.windfallcentre.ca 416-465-6333

Improve home energy efficiency and get cash back from the Government of Canada's ecoEnergy program (www.ecoaction.gc.ca 1-800-622-6232) and the Province of Ontario's Home Energy Audit and Retrofit Rebate program (www.homeenergyontario.ca 1-888-668-4636)

Plan your daily commute with information on transit schedules, fares, and services within the GTA at www.findtheway.ca

For more information on smog and health, contact your local health unit:

Durham Region Health Department: www.region.durham.on.ca 1-800-841-2729, ext. 2188

Halton Region Health Department: www.region.halton.on.ca/health 1-866-442-5866

Region of Peel Public Health Department: www.peelregion.ca/health 905-799-7700

York Region Community and Health Services Department: www.york.ca 1-877-GO4-YORK

Simcoe Muskoka District Health Unit: www.simcoemuskokahealth.org 1-877-721-7520



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