

Ratify Kyoto or risk future

By Ronald Colman, Special to The Daily News

SUPPOSE YOUR doctor tells you that you have high blood pressure that puts you at risk of heart attack. She acknowledges that there are major uncertainties: most hypertensives don't have heart attacks; your blood pressure may stabilize; or it may cause different problems like stroke. Nevertheless, she says, better safe than sorry. Take drugs to control your blood pressure; change your lifestyle; exercise more; eat less fat.

Now along come the National Post, the premier of Alberta, and the president of the Chamber of Commerce. They tell you in detail how much the drugs will cost you, how much productive work time you'll lose exercising every day, how much less competitive you'll be as a result, how inconvenient it will be to change your diet and your lifestyle. They never mention heart attacks or strokes or premature death.

This is their argument against meeting the Kyoto targets. If you mention risk, they quickly remind you the doctor's diagnosis is uncertain. Better be absolutely certain before you act or spend a dime. How certain, you ask? When I have a heart attack? When Nova Scotia farmers experience a fourth year of drought? When we have another ice storm or when Charlottetown is flooded?

No wise decision, and no accurate reckoning of costs and benefits are possible when we ignore half the equation, when we ignore the costs of not controlling our blood pressure, and of not curbing our greenhouse gas emissions. When a risk is potentially catastrophic, we err on the side of caution. We follow the doctor's advice. We wear seat belts and bicycle helmets, even when the risk of death and catastrophe is remote. And we carry that logic forward to future generations. We regularly make sacrifices for our children to ensure their safety, security and wellbeing.

Yes, the science of climate change is uncertain. But it is much less uncertain than the chance of our house burning down. A consensus of 2,000 highly qualified international scientists on the United Nations' Intergovernmental Panel on Climate Change (IPCC) noted that the 1990s were the hottest decade on record 'that snow cover has declined by 10 per cent, mountain glaciers are retreating, and sea level is rising. They stated: "In the light of new evidence and taking into account remaining

uncertainties, most of the observed warming over the last 50 years is likely (66-90 per cent chance) to have been due to increase in greenhouse gas concentrations ... The projected rate of warming (in the 21st century) ... is very likely (90 to 99 per cent chance) to be without precedent during at least the last 10,000 years."

Seventeen countries The scientific academies of 17 countries, including the Royal Society of Canada, the Royal Society of the United Kingdom, and the Royal Swedish Academy of Sciences, which awards the Nobel Prizes, have strongly endorsed the IPCC findings. In a joint statement, the 17 academies recently urged ratification of the Kyoto Protocol and said:

"We urge everyone – individuals, businesses, and governments – to take prompt action to reduce emissions of greenhouse gases ... The balance of scientific evidence demands effective steps now to avert damaging changes to Earth's climate." No wonder the Canadian government declared climate change to be the greatest challenge facing this country since the Second World War. And yet, we keep on burning fossil fuels in our cars, homes, power plants, and industries as if there were no tomorrow. Nova Scotians pump out an average of 22 tonnes of greenhouse gases per person each year, twice the west European average. Our provincial emissions are now 15 per cent higher than they were in 1995.

In Nova Scotia, the predicted impacts of climate change include an increase in extreme weather events, particularly hurricanes, floods, and droughts, as well as adverse impacts on the province's fisheries and agriculture industries. Nova Scotia farmers have already suffered from an unprecedented three years of drought in the last four years, with 1999 farm losses estimated at \$50 million. Low-lying regions around Yarmouth, the Bay of Fundy and Halifax Harbour have been identified by Environment Canada as particularly vulnerable to sea-level rise, higher tides, increases in storm intensity and frequency, and storm-surge flooding.

Climate change economists, using computer models, have estimated that each tonne of greenhouse gases we emit will cause at least \$38 in climate change damages. This means that Nova Scotia's current annual

greenhouse gas emissions will cause more than \$760 million in damages. The national figure is almost \$27 billion.

All the talk about the "cost of Kyoto" never mentions this side of the equation – what is the cost of not reducing our emissions? In its 230-page Greenhouse Gas Accounts for Nova Scotia, GPI Atlantic did look at both sides of the equation and found that every dollar invested now in reducing greenhouse gas emissions will save at least \$17 in avoided damages due to climate change.

The GPI report also identified many ways to reduce greenhouse gases that would save money and make us more competitive, (for example, by conserving energy and thereby reducing business costs). Without serious dislocation, the province could reduce its greenhouse gases to 17 per cent below 1995 levels by 2010, and avoid more than \$200 million a year in energy costs and global climate change damages. Yes, ratifying Kyoto will require some lifestyle changes, just like controlling our high blood pressure. But for the sake of our children's safety and security 50 years from now, will we not be willing to drive a smaller car rather than an SUV, to carpool when possible, and to turn down our thermostats at night?

How long will we wait? The reassuring thing about the precautionary principle is that if our blood pressure goes down, and if climate change scientists determine there is no risk of global warming, we can always ditch the drugs, eat more meat, and burn more fossil fuels. By contrast, once we have had a heart attack or another drought, ice storm, hurricane, or heat wave, once Charlottetown or Truro are flooded, our options are much more limited. Another drought year will put many Nova Scotia farmers out of business. How long will we wait to take preventive action?

What the National Post, or the Alberta premier, or the Chamber of Commerce president never tell you is that "uncertainty" could mean worse than predicted outcomes as easily as better ones. Let's play it safe and do our part to make the world a safer place for our children, rather than a more dangerous and uncertain one. Ratifying the Kyoto Protocol, says the Royal Society of Canada, is "a small but essential first step towards stabilizing atmospheric concentrations of greenhouse gases"

that will create a base "for the more substantial reductions that will be necessary by the middle of the century."

That's the advice of our country's most prestigious scientific academy. It is time to stop delaying, and follow the doctor's wise advice. And when the Post, and Alberta Premier Ralph Klein, and the chamber come calling, let us at least ask to see both sides of the cost equation.

Ronald Colman is executive director of GPI Atlantic, a non-profit research group that is preparing an index of well-being and sustainable development for Nova Scotia.

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Weather we like it or not!

The climate here and around the world is changing – and we know what to do about it

COMMENTARY by Ronald Colman

THE LAST 10 years were the hottest ever recorded. For the fourth year out of five, Nova Scotian farmers are battling drought and losing crops. Fires rage, our forests are tinder dry, and the fire hazard is extreme - the worst in decades. At the height of tourism season, the woods are closed. The heat wave claims lives in central Canada. Smog shrouds the Annapolis Valley and a smog alert warns Nova Scotians with respiratory problems to stay inside. Forecasters predict more hurricanes than usual this season. Worldwide, natural disasters have increased sharply and insurance companies refuse to insure places vulnerable to climate change.

Day after day, the headlines trumpet the costs of an increasingly unstable climate and of air pollution, both of which have been linked to excessive burning of fossil fuels. What does it take to wake us up?

We take out fire insurance against the very unlikely possibility that our house may burn down. But we take no precautionary action and make no investment to protect ourselves and our children against the much more likely probability that a changing climate will produce massive costs. Indeed, we fan the flames.

Nova Scotia's greenhouse gas emissions have increased 15 per cent since 1995. More than a third of Nova Scotian households now own sport utility vehicles, vans or trucks, a 25 per cent increase in just five years, although each one has one-third the fuel efficiency and three times the greenhouse emissions of a small car. Instead of fire insurance, we douse our house with kerosene.

But it's not only our house we are burning down. Carbon dioxide has an atmospheric life of 100-200 years. Every tonne of greenhouse gases that we spew into the atmosphere now is likely to keep causing damage for generations to come.

A consensus of 2,000 scientists on the United Nations Intergovernmental Panel on Climate Change projects that temperatures

will rise by up to 5.8°C this century and that greenhouse gas concentrations in the atmosphere will more than double from pre-industrial times. And they tell us that the oil, coal and gas burned by power plants, cars, industry and homes are the most likely cause of the global warming that has already begun.

Science can never be 100 per cent certain, and further research on climate change is clearly essential. But these 2,000 top international scientists tell us that fossil fuel burning is more than 99 per cent certain to be the main cause of increased greenhouse gas concentrations this century. They tell us that the expected temperature rise is more than 90 per cent certain to be unprecedented "during at least the last 10,000 years."

And the official scientific academies of Canada, the United Kingdom and 15 other countries say "it is now evident that human activities are already contributing adversely to global climate change. Business as usual is no longer a viable option."

If we pay premiums and take precautions to protect ourselves against highly unlikely house fires and accidents, what kind of odds do we need before we act to protect our children and grandchildren?

But we are not listening to the scientists. They are telling us that snow cover has already declined by 10 per cent since the 1960s alone, mountain glaciers are retreating, and sea level is rising. The Geological Survey of Canada projects a 75-centimetre sea level rise in Halifax Harbour this century.

Possible impacts of climate change on Nova Scotia include more intense hurricane activity, an increase in floods and droughts, and a decline in agricultural production. Environment Canada has identified low-lying regions around Halifax, Yarmouth and the Bay of Fundy as most vulnerable to higher tides, increases in storm intensity and frequency, and storm-surge flooding.

The Truro flood plain and the Tantramar Marshes are particularly susceptible to flooding. Sections of the southern and eastern shores may see more erosion and coastal instability. In other parts of N.S., Environment Canada has pointed to potential saltwater infiltration of groundwater, threats to communication links, overtopping of dykes during storm surges, and falling lake and groundwater levels.

Yet Nova Scotians continue to spew more than 20 million tonnes of greenhouse gases into the atmosphere every year, more than 21 tonnes for every man, woman and child in the province. This is twice the level of the average Briton and West European.

Using estimates by climate change economists, a recent GPI (Genuine Progress Index) Atlantic study found that Nova Scotia's annual emissions will likely cause more than \$760 million in global damages due to climate change.

But the GPI report is not about "gloom and doom." On the contrary. It is about practical, cost-effective actions we can take now that will not only protect us and our children against the devastating costs of climate change, but will save us money in reduced energy and fuel costs.

Just like installing a smoke alarm protects against future fire damages and loss of life, the economics of climate change show that every dollar invested in reducing greenhouse gas emissions will save between \$17 and \$31 in avoided energy costs and global climate change damages. By 2010 Nova Scotians can reduce their greenhouse gases to 17 per cent below 1995 levels and each year save future generations more than \$200 million in avoided damages.

A computerized carpooling system and better mass transit could easily cut single occupant auto commuting by 50 per cent, reduce Nova Scotia's greenhouse gas emissions by 228 kilotonnes, and save more than \$12 million a year.

That will also improve air quality and save an additional \$1.5 million in avoided health care and other costs due to reduced smog, sulphur dioxide, nitrogen oxide and other pollutant emissions. And acting now literally puts money in our pockets in reduced gas expenses.

Simple household conservation measures like turning down the thermostat, washing some clothes in cold water, and cleaning or replacing furnace filters regularly can cut residential greenhouse emissions by half and save the average Nova Scotia household \$800 a year in reduced energy costs.

But the biggest emission cuts can come by improving the efficiency of our power generating units. Currently 60 per cent of fuel burned in Nova Scotia's thermal power stations is discarded as waste heat that could be

turned into space heating and hot water for residences, as the Europeans are increasingly doing.

Combined cycle (gas fuel, steam injection) technology, investment in renewable energy sources like wind power, and other efficiency measures could cut the province's greenhouse gas emissions by 2.3 million tonnes, for savings of nearly \$100 million.

The GPI report also describes cost-effective business investments in energy efficiency. Dupont estimated that an 18 million tonne reduction in emissions would save the company \$31 million a year in reduced energy costs. Blandin paper saved \$1.8 million a year through a 37,000 tonne reduction. Dow Chemical in Louisiana saw a 204 per cent return on its emission reduction investment due to energy savings.

Shifting the tax burden from labour and wages to carbon and fuel, as many European countries are doing, can provide the economic incentives necessary to encourage these shifts in behaviour. For example, British taxes that reward fuel efficiency and penalize emissions encourage small car use and keep gas guzzlers like SUVs off the roads.

Perhaps most important, the U.S. withdrawal from the international Kyoto agreement on climate change leaves that country isolated in the world, and leaves North America looking for a model of responsible action on global warming. There is a tremendous business opportunity for Nova Scotia to become the North American leader in reducing greenhouse gas emissions and to export its know-how to other jurisdictions.

Nova Scotia has already become a world leader in recycling, composting and diverting solid waste from landfills and it already attracts delegations from around the world to learn how helping the environment can also save money. Halifax has become the first city in North America to protect its people from the harmful effects of lawn pesticides.

And the Nova Scotia Genuine Progress Index for the first time counts greenhouse gas emissions and climate change damages as costs to the economy, not as gains the way the GDP and the economic growth statistics do. The GPI can help us regularly measure our progress in reducing emissions and protecting the environment.

So the province is well placed to become the first jurisdiction in North America to meet and surpass the Kyoto targets and to take effective

action on the greatest environmental challenge of the century. Indeed, the Canadian government has called climate change the country's greatest challenge since the Second World War. For the sake of our children, we can lead the way. There's nothing stopping us!

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Can N.S. become a leader in cutting greenhouse gases?

By Ralph Surette

I WAS DOWN HOME in Western Nova Scotia last weekend where a bark beetle has been ravaging the white spruce. A woods-savvy friend and I were contemplating the many dead and dying trees around Ste. Anne du Ruisseau, and agreed this wouldn't be half as bad, or wouldn't be happening at all, if we still had the cold winters that once kept such pests in check.

Then I found a neighbour raking leaves under his ash tree and cursing. The leaves were turning brown and falling. Usually they turn wine-red and fall in early October. We checked up and down the road. Sure enough. All the ash trees were doing that. Then on the way back, along Highway 103, I saw other stuff I've never seen before in early August - broad patches of young alders suddenly brown and dead, and leaves turning yellow and falling off young poplars.

A bad year? Local oddities? Somehow, the big picture is not reassuring either: spectacular cross-Canada heat, drought, smog, infestations of usually more southerly insects, and other eye-poppers.

What to do? Just as things are hot, as it were, GPI Atlantic dropped a report on Nova Scotia's greenhouse gas emissions, their cost, and how to cut them down - although it was strangely reduced on the front page of this newspaper on Thursday to a mere "pro-rail" report. The essentials of the report are that Nova Scotians, like other North Americans, are big energy hogs and that global warming is starting to cost us in terms of drought, floods and other climate chaos as well as, in future, rising sea levels.

Certain things can be done, says GPI, whose report is part of a series in constructing a "genuine progress index." We can drop our emissions by 17 per cent from 1995 levels by 2010, even though they're now 15 per cent higher than in 1995 (merely switching from coal to natural gas in power plants will account for a large part of the drop).

Not only can we do this, the group says, but why not become leaders - as we have with composting and recycling, bringing the world to our door

to see how we do it? Plus, as has been shown relentlessly by a growing number of private companies and some public jurisdictions, saving energy, doing things more efficiently, saves money.

What GPI proposes is mostly not new. What it suggests - more rail and buses, more conservation in the household, more efficient industrial processes, and so on - has been talked about for decades, and should have been done 30 years ago, as many other countries with less energy to waste have done.

Some of it has even been half tried, then dropped for lack of interest. For example, GPI points out that Nova Scotia Power's thermal plants are only 40 per cent efficient - the rest is waste in the form of warmed up cooling water. A number of years ago, NSP and the government pursued the notion with the Tuft's Cove plant in Dartmouth, but it died from lack of interest by its neighbours. After all, natural gas was coming. Why go through all the trouble of laying down water pipes?

The point is that "doing something" is not a matter of finding magical solutions. Looking for technical fixes is counterproductive as often as not. Rather, it's a matter of human will, of attitudes changing at all levels - the public, business and government - and seeking administrative, political and social ways to make the common cause work.

It has been done brilliantly with recycling. Why not with greenhouse gases?

Doing it, however, means that prickly business of changing our ways, and it becomes especially messy when somebody's livelihood is going to be affected. This is the point with the truckers, entrepreneurs making a difficult living, whose association was infuriated by GPI's suggestion that 10 per cent more freight on the Halifax-Amherst line be shifted to rail.

And, of course, there's still a formidable and illogical resistance to the notion that something must be done. After all, even the U.S. government says we have to blow more energy out the window to stimulate the economy. I don't know how much more evidence we're going to need before the last thick heads are penetrated, but we're getting closer all the time.

I suggest that, in Nova Scotia, we don't wait.

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Hot enough for all – Editorial

“ THERE'S MORE than one answer to that opener, "Hot enough for you?" and in the recent heat wave not all would be printable. However, if sweltering temperatures don't get us thinking about global warming, nothing will. ¶ With red-hot timing, the non-profit researcher GPI Atlantic has warned of the economic cost of not addressing atmospheric pollution concerns - and pointed out our lack of innocence, even as a small industrial producer compared to the huge outputs elsewhere on the continent. ¶ The biggest single culprit in the province is Nova Scotia Power, burning 39 per cent of emissions that contribute to greenhouse gases and what is believed to be a gradually rising average Earth temperature. But everyone has a role in saving energy that in turn saves burning fossil fuels.

Per capita, Nova Scotians are high producers of greenhouse gases. Worldwide, the worst performers based on population are Canada, the U.S. and Australia.) ¶ The products of global warming are more than sweaty summer days (there are cycles of hotter weather over centuries) and include floods, extreme storms, coastal erosion and drought. Such pollution is not just the fault of large industrial regions; every province has to accept responsibility. ”

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