

# MORE JOBS, LESS POLLUTION:

Why energy conservation is common sense for Ontario



**BLUEGREEN**

CANADA

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BLUE GREEN CANADA is an alliance between Canadian labour unions, environmental and civil society organizations to advocate for working people and the environment by promoting solutions to environmental issues that have positive employment and economic impacts. The alliance is based upon the realization that a future sustainable economy must provide good jobs and protect the environment, not one or the other.

This report is the second in a series of reports exploring some of the less-examined aspects of Canada's resource development and the global transition to a green economy. These reports are part of Blue Green Canada's contribution to the discussions of a Canadian energy strategy.

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# MORE JOBS, LESS POLLUTION:

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“Energy efficiency is widely recognized as a key option in the hands of policy makers but current efforts fall well short of tapping its full economic potential”

-International Energy Agency, 2012.

## EXECUTIVE SUMMARY

What's stopping Ontario from creating 25,000 jobs and reducing deficits by about \$2 billion? The answer may surprise you. Because nothing is.

It's not magic. In fact, these benefits—as well as cutting global warming pollution by nine per cent— can be achieved rather simply, by doing more of the things we all do all the time, all across Ontario. We turn off lights. We insulate. We buy more efficient appliances. We use less energy and pay lower bills as a result. We all conserve energy every day, but we can do much more, and government has a key role to play in making that happen.

The environmental benefits of saving energy are significant. But Blue Green Canada isn't just about the environment. It's also about creating jobs and boosting our economy by taking action that benefits and protects the environment.

Energy conservation is one of these actions. In the U.S., it's estimated that *not* investing in energy efficiency has *harmed* the economy for decades now. Conserving energy is the best and cheapest way to meet Ontario's energy needs as its population grows. Building or upgrading new power plants costs a lot, but if Ontario uses energy more efficiently, homes and businesses will save twice. First, through lower energy bills. Second, by not having to pay for pricey new generating capacity, such as gas plants.

How much could we save? Conservation programs in Ontario currently cost three to seven times *less* per kilowatt-hour than electricity from a natural gas plant. Every dollar spent on efficiency saves two dollars in generation.

In this report, we make the case for putting energy conservation first. Ontario can cut electricity and natural gas use by at least 25 per cent by 2025.

That may sound ambitious. But consider this: of the world's 12 biggest economies, Canada ranks 11<sup>th</sup> in energy efficiency. America is better; China, too. In fact, only Russia is worse. And a 25 per cent reduction is lower than what the Canadian Manufacturers and Exporters Association, Enbridge Gas and Union Gas estimate is possible.



Consider this as well: Ontario per capita energy use is 50 per cent more than New York State. That's a lot. Our climates are similar. Lifestyles are comparable. So while a 25 per cent cut by 2025 might seem ambitious, it's on par with what leading jurisdictions are doing.

Blue Green Canada hired Stokes Economic Consulting to model the impact of cutting electricity and natural gas use by 25 per cent by 2025. Their report, *The Economic Impacts of Reducing Natural Gas and Electricity Use in Ontario*, shows impressive benefits through conservation.

It would:

- Create more than 25,000 net new jobs in the province;
- Reduce Ontario's global warming emissions in 2025 by nine per cent. That's 19 megatonnes of carbon dioxide, more than was produced by the country's single largest polluter – the Nanticoke coal-fired generating plant – when it was running at full capacity;
- Increase Ontario's GDP by \$3.7 billion;
- Cut the federal deficit by \$1 billion and cut Ontario's by \$982 million.

We're not starting from scratch. Some provincial conservation programs already exist to help homeowners and businesses cut energy use. Between 2005 and 2011, these programs saved enough energy to power 600,000 homes. That's about as many as Mississauga and Hamilton combined. The now-defunct federal ecoEnergy Retrofits program also helped hundreds of thousands of homeowners make their homes more comfortable and energy efficient. But we've only scratched the surface.

In addition, energy conservation is a growing industry that will only grow more as energy prices climb. The market for energy efficient buildings alone is projected to top \$100 billion.

So it's not a question of whether conservation works. It's a question of whether we want to get going and use our existing expertise to create jobs, boost our manufacturing sector, and feed a growing global demand for energy efficient products while doing our part to mitigate catastrophic global climate change.

Our report and the modeling we commissioned comes as the province is reviewing its long-term energy goals, and seeking input on how to prioritize energy conservation when planning to meet our energy needs.

There are many ways Ontario can make the most of the opportunity presenting itself. In *More jobs, lower costs*, we outline why this opportunity is so important, and how Ontario can take advantage of it now.

“Climate change is the greatest economic challenge of the 21st century... Unless we take action on climate change, future generations will be roasted, toasted, fried and grilled.”

- Christine Lagarde, managing director of the International Monetary Fund

Specifically, we recommend Ontario:

- 1. Embed the conservation-first principle in energy planning:** The province has set out a new vision to find all cost-effective ways to save energy before spending on new generation. To realize this, the conservation-first principle needs to be adopted in legislation or energy agencies need to be clearly directed to adopt a conservation-first approach. This should apply to electricity and natural gas.
- 2. Ensure proper oversight and accountability:** Truly putting conservation first requires a fundamental culture shift in how we plan for our energy needs. To make sure this happens, there should be an independent board or body to oversee the determination of how much cost-effective energy conservation is possible, verification that various programs and policies are achieving their potential, and public reporting and transparency.
- 3. Long-Term Energy Plan should set a floor, not a ceiling, for conservation:** An ambitious target for energy conservation should be established in the new plan, consistent with a reduction of 25 per cent by 2025. This should be a minimum target, rather than a cap, so as not to limit the potential to find all cost-effective ways to save energy.
- 4. Make conservation an economic development strategy:** A clear strategy should be developed and implemented to fully harness the jobs and economic benefits of making the province a leader in energy conservation. This should look to create markets for Ontario-made products and spur export, and identify a clear role that the public sector can play to support the growth of a conservation industry in the province.
- 5. Send the right price signals:** As part of the overall plan to put conservation first, it's critical to make sure that consumers, businesses and utilities are receiving the right financial incentives to save energy. This can include 'time of use' pricing, rewards for utilities that exceed conservation targets and innovative financing mechanisms for homeowners.
- 6. Adopt gold standards:** It should be routine and mandatory that Ontario adopt the best practices within North America for building codes, appliance standards, etc.
- 7. Champion conservation as part of the Canadian energy strategy.** Canada's premiers are actively developing a pan-Canadian energy strategy. The province needs to ensure that climate change and energy conservation are core components of that energy strategy.



“[C]onservation is proving its ability to help balance supply and demand. As well, it plays a role in avoiding the greenhouse gas emissions that result from using natural gas generators as the balancing tool. Moreover, it's much cheaper than adding any type of new generation.”

- Gord Miller, Environmental Commissioner of Ontario

By 2025, Ontario's greenhouse gas pollution could be reduced by 19 million tonnes per year. That's more than the Nanticoke coal plant released - once Canada's biggest carbon polluter - when it was running at full capacity.



## INTRODUCTION

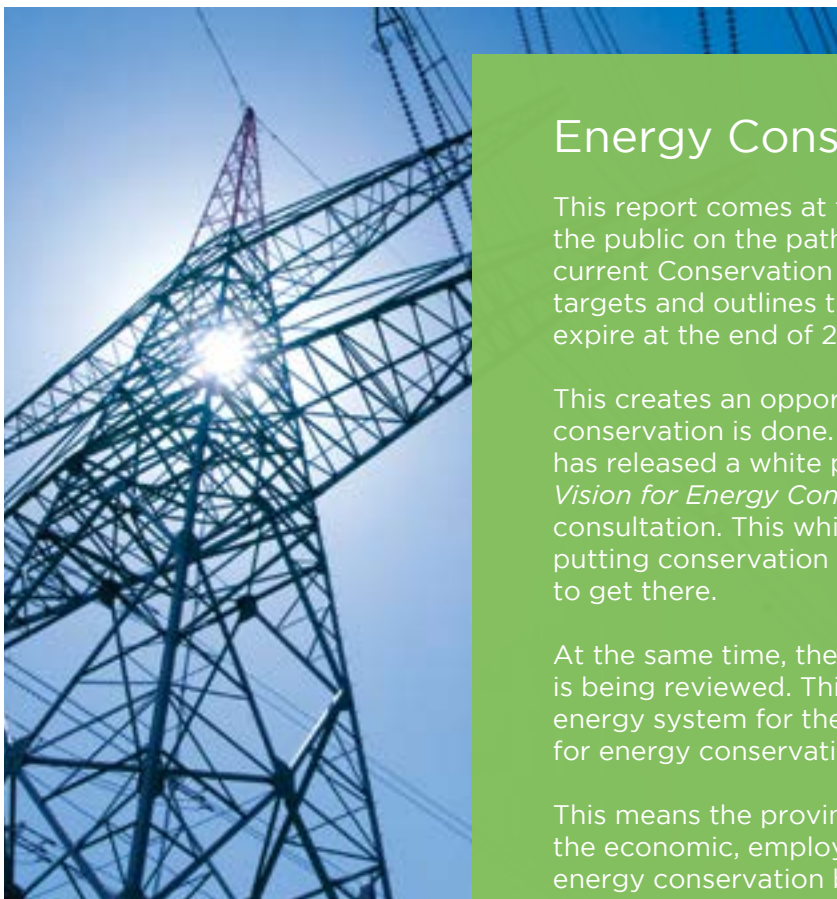
Conserving energy isn't just widely agreed to be a key way to cut greenhouse gas pollution and clean the air.<sup>1</sup> It's also often the easiest<sup>2</sup> and cheapest way to do so. And, it's the cheapest way to meet our energy needs, while spurring jobs and economic activity.

How does that work? It's like improving an economy's productivity by reducing waste and increasing efficiency. That's been Economics 101 for years. Cutting energy waste to make industries, businesses and homes more efficient saves money on energy bills. It also puts money directly back into Ontario's economy rather than sending dollars out of province to buy raw materials like natural gas, coal and uranium to feed our energy needs.

Take natural gas as an example, which Ontario is importing in increasing amounts. If we invest in better insulation and green building technologies instead, we'll spend less on natural gas from the U.S. or Alberta and more on things that create jobs here.

Even better news is that it costs less to reduce energy use than to build new energy generating capacity. For a province still paying down Ontario Hydro's stranded debt, that is extremely good news because it helps avoid the high, long-term capital costs that building new generating capacity requires.

This report and the modeling that accompanies it looks at both electricity and natural gas use. This isn't usually the case, since the former is highly regulated and government-managed; the latter is largely managed and supplied privately.<sup>3</sup> But that's a nuance lost on homeowners and businesses looking to reduce their energy bills. An effective energy conservation plan needs to include both.



### Energy Conservation in Ontario

This report comes at time when the province is consulting the public on the path forward for energy conservation. The current Conservation and Demand Framework – which sets targets and outlines the approach to conservation – is set to expire at the end of 2014.

This creates an opportunity to rethink the way energy conservation is done. As part of this process, the province has released a white paper – *Conservation First: A Renewed Vision for Energy Conservation in Ontario* – for public consultation. This white paper puts forward a vision of putting conservation first, as well as suite of possible policies to get there.

At the same time, the government's Long-Term Energy Plan is being reviewed. This will set targets for the province's energy system for the next 15 or so years, including targets for energy conservation and renewable energy.

This means the province now has the opportunity to harness the economic, employment and environmental benefits of energy conservation by prioritizing it in the policies currently up for review.

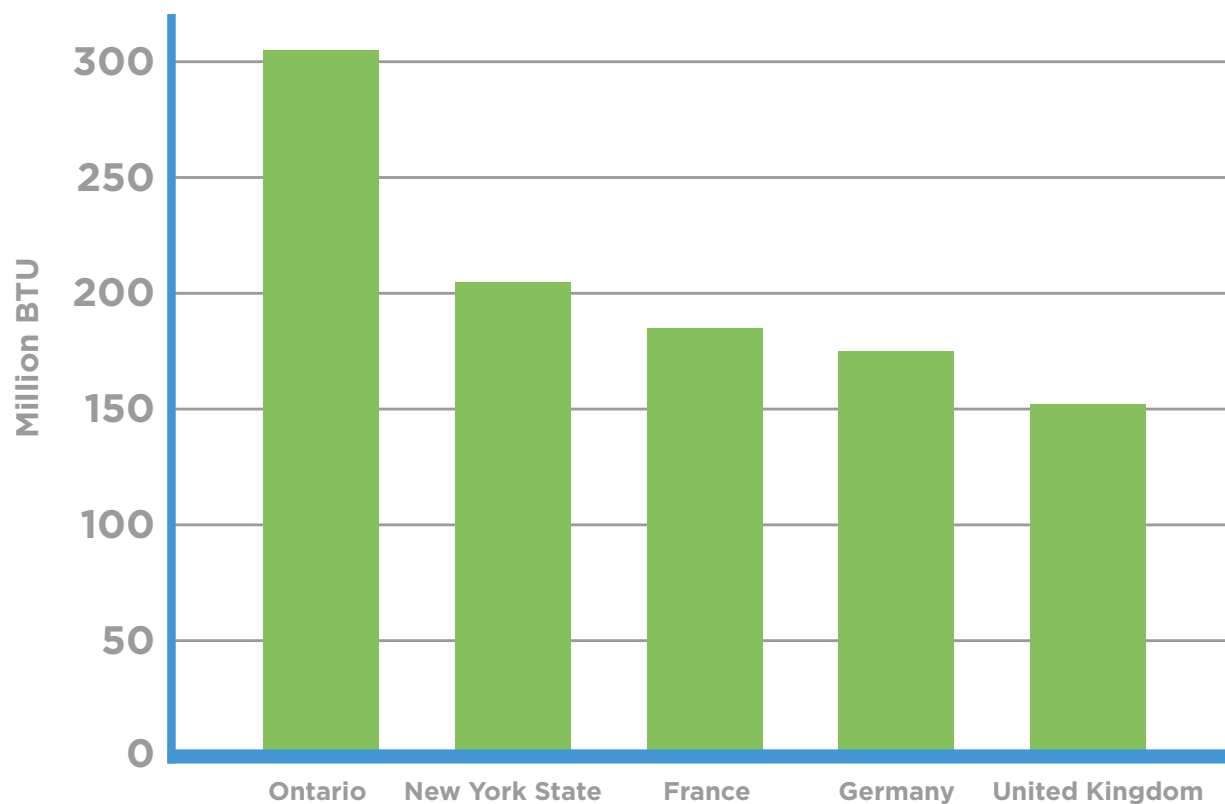


## PLAYING CATCH UP: How we're lagging behind on conservation

If there's a silver lining to Canada being the second-worst among the world's 12 largest economies in terms of energy efficiency, it's that we have lots of room for improvement. America is better, so is China. Only Russia is worse.<sup>4</sup>

This means there is lots of low-hanging fruit to pick, and huge potential to do much better. As an example, Ontario's per capita energy consumption is 50 per cent more than New York State's and double that of the U.K.<sup>5</sup> And yet both of them are doing even more to conserve more,<sup>6</sup> and so can we.

### Energy Consumption Per Person in 2008



Source: Ontario Clean Air Alliance

We're not starting from scratch: Ontario has taken some important steps to spur conservation in recent years, but much more needs to be done to position the province as a leader in this field.

The Ontario Power Authority's *peaksaver* program only reached 6.5 per cent of Ontarians.<sup>7</sup> And while 158,000<sup>8</sup> households participated in Ontario's Home Energy Savings Program, up to four million households could have signed up.<sup>9</sup> And of homes that did sign on, most didn't pursue its full benefits.<sup>10</sup> Despite this, it still helped save some 6.4 million gigajoules of energy,<sup>11</sup> over one per cent of the total amount of energy used in Ontario each year,<sup>12</sup> which helps illustrate how much potential there is to save energy if uptake were more widespread.

“There are significant opportunities to improve energy-efficiency in buildings, and the sector has the greatest potential ...to reduce global GHG emissions”

- United Nations Environment Program



The same thing was seen with the federal ecoEnergy Retrofits program, which is now closed. It got 640,000 households across Canada to increase their efficiency by roughly 20 per cent.<sup>13</sup> And while that's impressive, 640,000 is less than one tenth of the detached homes in Canada—not including semi-detached or row houses, which were also eligible.

And there are many other ways that the province can spur greater conservation. Ontario received an A+ on the Canadian Energy Efficiency Alliance's report card in 2010 thanks to the conservation initiatives in the *Green Energy and Green Economy Act*.<sup>14</sup> However, many of these programs are stalled, and will take years to be rolled out, if they ever are.<sup>15</sup>

One example is a mandatory energy audit and disclosure when homes are put up for sale, which would go a long way towards making energy efficiency a selling feature. Another example is to move ahead faster in labeling high-efficiency appliances.<sup>16</sup>

Despite this, it's estimated that between 2005 and 2011, businesses and families in Ontario conserved more than 1,900 megawatts—enough to power over 600,000 homes.<sup>17</sup> The point is, even with relatively low levels of participation, we're already making big savings, which illustrates how much more can be done.

In fact, thanks to better appliances, improved insulation and efficiency programs, from 2000-2010, the average household used 19 per cent less energy. While this speaks to how inefficient Ontario homes were before, it also underlines the potential we have for even bigger savings because this average reduction was achieved with only low levels of uptake in just a few efficiency programs.

Don't take our word for it, either. The Canadian Manufactures and Exporters Association estimates that Ontario industries could cut energy consumption by 29 per cent if they pursued all cost effective opportunities.<sup>18</sup> Similarly, Enbridge Gas Distribution says that its customers could cost-effectively reduce their gas consumption by up to 34 per cent.<sup>19</sup> And Union Gas estimates its customers could cut gas use by 30 per cent by 2017.<sup>20</sup>

Good ideas like this are catching on, too. China recently announced plans to reduce its energy intensity by 16 per cent by 2015; the European Union will cut energy use by 20 per cent by 2020; Japan wants to cut 10 per cent by 2030.<sup>21</sup> And in February, U.S. President Obama pledged to increase conservation and double energy productivity, or the amount of energy used per dollar of GDP, by 2030.<sup>22</sup>

Ontario can also look at comparable jurisdictions south of the border for inspiration. Green Jobs - Green New York is a statewide program to promote energy efficiency and clean technologies to lower energy costs and emissions.<sup>23</sup> Massachusetts recently approved a plan expected to deliver \$8.9 billion in economic benefits and enough energy savings to power nearly 500,000 homes.<sup>24</sup> And many Canadian provinces are also taking steps to increase energy conservation. For example, in 2012 Nova Scotia reduced electricity consumption by enough to power 16,000 homes annually, saving over \$150 million in future electricity costs.<sup>25</sup>

“In terms of cutting pollution and creating good jobs, energy efficiency is a workhorse”

- Green For All



## BANG FOR YOUR BUCK: The economic benefits of conservation

Studies on the impacts of energy efficiency routinely find that it boosts the economy and creates jobs.<sup>26, 27, 28</sup> Conservation should be seen as a resource in and of itself, and an engine of economic growth.<sup>29, 30</sup>

One study estimated that aggressively pursuing efficiency could save the U.S. economy over a trillion dollars by 2020 and create nearly 2 million jobs. It also showed that *not* investing in efficiency has actually harmed economic growth for the past few decades.<sup>31</sup> Similarly, a plan to double American energy productivity is estimated to be capable of stimulating 1.3 million jobs.<sup>32</sup>

The U.K.'s Green Deal, which focuses on efficiency, is projected to create up to 250,000 jobs.<sup>33</sup> This mirrors other studies in Canada and the U.S.<sup>34, 35, 36, 37</sup>

How does energy conservation deliver these benefits?

First, jobs are created because investments go to sectors such as construction and manufacturing that are more labour-intensive than other sectors. And second, jobs keep being created because money isn't leaving Ontario to buy imported energy,<sup>38</sup> and instead goes to more productive uses.

This is only true when conservation costs less than building new power generation or upgrading existing facilities, which is often the case. Indeed, conservation programs delivered in Ontario have cost about three cents per kilowatt-hour,<sup>39</sup> while electricity from gas-fired power plants costs between nine and 29 cents per kilowatt-hour.<sup>40</sup>

The money saved on energy gets reinvested in the Ontario economy, creating more economic activity and jobs.

For example, consider what happens when someone gets a new high-efficiency furnace or hot water heater. Instead of sending their money to a gas company in another province, it goes to an installer who lives in Barrie, Brockville or Burlington. The appliance may even be made in the province, too. So buying these products and paying to install them leads to more local spending and local economic activity. It also creates jobs, which then returns more money to government through taxes.

The Ontario government says for every dollar invested in energy efficiency, two dollars in costs have been avoided.<sup>41</sup> And these savings are, naturally, passed along to homeowners and businesses. No wonder the Canadian Manufacturers and Exporters Association says, “Energy management is increasingly being recognized as an important core strategy to help sustain the productive sectors of our economy...”<sup>42</sup>



“Energy management is increasingly being recognized as an important core strategy to help sustain the productive sectors of our economy...”

- Canadian Manufacturers and Exporters Association

## MONEY ON THE TABLE: Modeling Ontario's conservation opportunity

Blue Green Canada hired Stokes Economic Consulting<sup>43</sup> to model the economic and job impacts of reducing electricity and natural gas use by 25 per cent by 2025, what we refer to as “25 by 25.” Stokes made use of the Centre for Spatial Economics’ macro-economic model, and charted two scenarios: a base case, with no new policies, and a conservation leadership scenario in which energy use is reduced by 25 per cent.

The methodology is fully explained in the study, *The Economic Impacts of Reducing Natural Gas and Electricity Use in Ontario*, which accompanies this report.<sup>44</sup>

Not surprisingly, and consistent with prior research,<sup>45, 46, 47</sup> Stokes’ analysis projected significant gains relative to the base case. Specifically, it found that meeting a 25 per cent reduction by 2025 would have the following impacts:

<b>GDP</b>	Increase real GDP by 0.4 per cent, or \$3.7 billion, by 2025. This is largely driven by an increase in consumer spending spurred by a rise in personal income of 0.8 per cent. Residential investment would also rise as homeowners spend to become more energy efficient.
<b>Jobs</b>	Create more than 25,000 jobs, a 0.4 per cent increase in employment levels. Hourly wages would also be 0.8 per cent higher.
<b>Deficit</b>	The federal budget balance is nearly \$1 billion higher in 2025. Ontario’s budget balance is \$982 million higher in 2025.
<b>Climate change</b>	Reduce GHG emissions by 9 per cent, or 19 megatonnes, of carbon dioxide by 2025. This is more than was produced by the country’s single largest polluter – the Nanticoke coal-fired generating plant – when it was running at full capacity.
<b>Trade</b>	Improve Ontario’s trade balance by cutting natural gas imports. Total imports would decrease by roughly \$3 billion, while the impact on exports would be negligible.
<b>Manufacturing</b>	GDP from manufacturing would increase by 1.6 per cent, with primary metals, paper and allied products seeing the most benefit.
<b>Other sectors</b>	Retail and wholesale trade, finance, insurance, real estate, and accommodation and food services would be positively impacted. Investment in the electric power generation industry would be substantially reduced.

It should be noted that Stokes makes use of a top-down approach to modeling which yields economy-wide impacts, rather than the bottom-up approach that makes use of multipliers. As such, it doesn't break down jobs created into direct, indirect and induced, but instead calculates the net difference in employment as a result of the changes incorporated into the scenario.

These results reflect the broad economy-wide impacts of using less energy. They're based on the fact that when people and businesses spend less on energy, they will spend more in other places and in other ways. It should be noted that while energy conservation programs create jobs directly in that sector, a large number of the jobs estimated here are the outcome of a healthier economy overall rather than individual programs.

Also of note is that the traditional economic models used like this one assume as a 'base case' continued rise in energy use as the economy grows in the absence of new climate change policy. But, as Ontario's economy has changed, economic growth has become less tied to rising energy needs.

And there are many actions the province can and should take to reduce greenhouse gas emissions that aren't contemplated in these results, such as the expansion of public transit and new rules for emissions from large industries. An ambitious energy conservation plan can have a significant impact on emissions – equivalent to the country's largest polluter, Nanticoke, when it was running at full tilt – but it's just one part of a larger climate change strategy.

“A low-carbon, clean energy economy can be an engine of growth for decades to come...And I want America to build that engine.”

- U.S. President Barak Obama



## MAKING CONSERVATION PART OF ECONOMIC DEVELOPMENT

The benefits of investing in conservation don't end with improving the productivity of Ontario's economy. As we've seen, other places are pursuing conservation too, fueling a growing global demand for energy efficient products and services. This represents an opportunity for Ontario's firms and workers to export their products and sell their expertise globally. Moreover, the demand for energy efficient goods and services will only increase as energy costs climb and the world gets more serious about climate change.

After all, as the International Energy Agency (IEA) says, climate change may have “slipped to the back burner of policy priorities. But the problem is not going away – quite the opposite...”<sup>48</sup>

Indeed, American spending alone on energy conservation is projected to double by 2025.<sup>49</sup> And between 2011 and 2017, it's expected that the energy efficiency market for buildings alone will soar more than 50 percent to \$103.5 billion.<sup>50</sup>

Ontario's conservation strategy should seize the opportunity to be a leading jurisdiction—exporting efficient goods and services to meet a growing global demand.

We've already seen examples of this thinking at work. *The Green Energy and Green Economy Act* explicitly sought to make Ontario a leading manufacturer of wind and solar technologies. And it's working. It's credited with creating roughly 31,000 jobs,<sup>51</sup> and seeding a whole new industry.

Likewise, *The Water Opportunities Act* recognized that environmental laws are also economic opportunities and sought to “make Ontario the North American leader in the development and sale of water conservation and treatment technologies.”<sup>52</sup>

An Ontario '25 by 25' plan could follow the lead of these policies and recognize that environmental leadership can translate into economic development, a message that is echoed by esteemed organizations such as the IEA,<sup>53</sup> the United Nations,<sup>54</sup> and others.<sup>55</sup>

Ontario is well positioned to produce the goods and services that will be in increasing demand. While other jurisdictions, like Ontario, will create many local jobs through efficiency, there will still be a huge market for energy efficiency equipment and machinery. We can build it.

Ontario has a strong manufacturing sector and a skilled labour pool. We are also already home to many firms at the cutting edge of energy conservation and efficiency, such as insulation manufacturers Owens' Corning and Roxul; and HVAC companies like Carrier, Honeywell and Johnson Controls, to name but a few.

Ontario can help create markets for these products at home to spur export abroad. It could, for example, direct public entities such as schools, hospitals, and municipally- and provincially-owned buildings to implement efficiency upgrades and source supplies locally. Government procurement is one of the key ways governments can help seed new industries.<sup>56</sup>

Ontario could pursue a strategy to build partnerships, as it has with the *Water Opportunities Act*.<sup>57</sup> We could develop an energy conservation task force to identify ways to make Ontario a hub for businesses that foster innovation on conservation.<sup>58</sup> Ontario could create a fund

modeled after Sustainable Development Technology Canada and invest in companies working on cutting edge technologies that can help decrease polluting emissions. Or the province could provide direct support for companies by providing incentives for Ontarians to source domestically manufactured goods.

The provincial government can also be an enabler, for example, by directing its agents like the Ontario Energy Board to support the attempts of local utilities to spur greater conservation. The province can support a variety of financing options with long pay-back periods and low interest rates, which will allow homeowners and businesses to pay as they save. Or greater support can be provided to help raise public awareness among families, business owners and workers about the benefits of conservation for themselves and the province.

The provincial government can create jobs and economic growth through energy conservation in many different ways, with positive results.



The LEED Platinum Certified Earth Rangers Centre features low-impact design, renewable energy generation, on-site waste water treatment and smart system integration, enabling the building to use less than a quarter of the energy of the average Canadian office building.

## GOOD FOR THE PLANET: Environmental benefits of saving energy

### Climate Change

There is a scientific consensus that the Earth is warming due to human activity.<sup>59</sup>

According to the International Energy Agency, without new policies, the world is on track for six degrees of warming by 2100. The scientifically agreed safe limit is two degrees, which will be “locked in” by 2017.<sup>60</sup> That is, unless governments worldwide act quickly to reduce greenhouse gas emissions dramatically and fast track long term solutions. Even traditionally conservative voices agree: the World Bank predicts four degrees of warming by 2100, which it says would be devastating.



While climate change is usually treated as an environmental issue, it also has the potential to cripple global and domestic economies. Christine Lagarde, head of the International Monetary Fund, recently told participants at the World Economic Forum that climate change is “the greatest economic challenge of the 21st century.” She warned that if action is not forthcoming, “future generations will be roasted, toasted, fried and grilled.”<sup>61</sup>

The IEA says that delaying action on climate change is a “false economy” and the longer we wait, the more costly it will be.<sup>62</sup> Similarly, esteemed British economist Sir Nicholas Stern predicted that heading off climate change will cost the global economy about one percent of its GDP, while adapting to climate change could cost five times more.<sup>63</sup>

Furthermore, the now-defunct Canadian National Roundtable on the Environment and the Economy estimated that the costs of inaction far exceed the cost of action, and if left unchecked, climate change could cost the Canadian economy up to \$5 billion annually by 2020 and up to \$40 billion each year by 2050.<sup>64</sup>

And while energy conservation alone will not stop the climate from warming, it’s a key part of the solution and buys valuable time.<sup>65</sup> According to the IEA, if efficiency initiatives are rolled out rapidly and broadly, we could have five more years before “locking in” emissions that would lead to two degrees of warming.<sup>66</sup>

In this light, it’s good news that achieving 25 by 25 will cut Ontario emissions by nine per cent, or 19 megatonnes.<sup>67</sup> It’s also very helpful in achieving the goal of closing Ontario’s coal-fired power plants by 2014, and avoiding the need for new gas-fired power plants that communities just don’t want and which will also increase emissions.

Ontario’s environmental commissioner, Gord Miller, recently criticized the provincial government’s lack of a strategy to cut emissions after coal is phased out. He cited plans to build new gas-fired generation as a big reason why.<sup>68</sup>

There’s no doubt that closing Ontario’s coal-fired plants is one of the single largest climate change initiatives in North America.<sup>69</sup> There’s also no doubt that reducing our need to burn gas for electricity through conservation would be another.

## Human Health

It’s not just the climate that benefits from efficiency, either. When the Nanticoke power plant—once Canada’s worst polluter<sup>70</sup>—closes at the end of this year, local air quality will improve thanks to fewer emissions of sulphur dioxide, nitrogen oxides, mercury, lead, heavy metals and arsenic.<sup>71</sup> And while gas-fired plants aren’t as bad as coal-fired ones, they still emit pollutants, such as sulphur dioxide and nitrogen oxides that contribute to acid rain and ground-level ozone<sup>72</sup>, and particulate matter, which cause asthma and other respiratory illnesses.<sup>73</sup>

“Everything that is good for the environment is a job”

- Van Jones, former advisor to U.S. President Obama, founder of Green For All”

## MOVING FORWARD: How to put energy conservation first:

Energy efficiency is the ‘quiet giant’ of clean energy options.

In the words of Martin Ferguson, Australia’s Minister of Energy and the Chairman of the IEA’s 2011 meeting “in the near term, energy efficiency and energy savings remain the single most important means of seeking to meet climate and energy security goals in a cost-effective manner.”<sup>74</sup>

Blue Green Canada agrees.

As Ontario reviews its Long-Term Energy Plan and commits to energy conservation before building expensive new generation, it’s time to set—and meet—bold targets with an action plan that puts us on pace to be a leading jurisdiction, for the sake of our environment and our economy.

Specifically, we recommend Ontario:

- 1. Embed the conservation-first principle in energy planning:** The province has set out a new vision to find all cost-effective ways to save energy before spending on new generation. To realize this, the conservation-first principle needs to be adopted in legislation or energy agencies need to be clearly directed to adopt a conservation-first approach. This should apply to electricity and natural gas.
- 2. Ensure proper oversight and accountability:** Truly putting conservation first requires a fundamental culture shift in how we plan for our energy needs. To make sure this happens, there should be an independent board or body to oversee the determination of how much cost-effective energy conservation is possible, verification that various programs and policies are achieving their potential, and public reporting and transparency.
- 3. Long-Term Energy Plan should set a floor, not a ceiling, for conservation:** An ambitious target for energy conservation should be established in the new plan, consistent with a reduction of 25 per cent by 2025. This should be a minimum target, rather than a cap, so as not to limit the potential to find all cost-effective ways to save energy.
- 4. Make conservation an economic development strategy:** A clear strategy should be developed and implemented to fully harness the jobs and economic benefits of making the province a leader in energy conservation. This should look to create markets for Ontario-made products and spur export, and identify a clear role that the public sector can play to support the growth of a conservation industry in the province.
- 5. Send the right price signals:** As part of the overall plan to put conservation first, it’s critical to make sure that consumers, businesses and utilities are receiving the right financial incentives to save energy. This can include ‘time of use’ pricing, rewards for utilities that exceed conservation targets and innovative financing mechanisms for homeowners.
- 6. Adopt gold standards:** It should be routine and mandatory that Ontario adopt the best practices within North America for building codes, appliance standards, etc.
- 7. Champion conservation as part of the Canadian energy strategy.** Canada’s premiers are actively developing a pan-Canadian energy strategy. The province needs to ensure that climate change and energy conservation are core components of that energy strategy.

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