We want a livable future for the children and youth of Ontario. One of the most significant threats to this future is climate change, but the Ontario government wants to build new fossil gas plants for electricity generation. Fossil gas threatens our health and the environment, and it is ultimately more expensive than renewable alternatives. We are heading to Queen's Park so the government can hear from young people about why we need to move on from fossil gas.













## **Later Is Too Late**

#### **Press Conference at Queen's Park**

Monday, May 6, 2024, 9:30am Queen's Park Media Studio

### Partners:

Citizens' Climate Lobby Canada, For Our Kids Toronto, CAPE Ontario, TERRE, SCAN! Toronto

#### Co-Hosts:

Green Party of Ontario Leader Mike Schreiner and MPP Aislinn Clancy

### Speakers:

Mary Blake Rose, Citizens' Climate Lobby Canada, Deputy Project Manager Grace Kuang, Medical Student, University of Toronto Robert, 11-Year-Old Climate Activist

## **Our Ask**

We are asking the Ontario government to replace fossil gas with cheaper, cleaner, renewable energy sources. In concrete terms, this means:

- Stop the expansion of infrastructure for fossil gas-fired electricity;
- Expand and accelerate the procurement of electricity from renewable sources;
- Pursue more conservation, demand management, and distributed energy networks.

We are asking this of the government for three main reasons:

- Our Money: New renewable electricity is cheaper than new fossil gas-generated electricity and gas plants risk becoming stranded assets;
- Our Health: Climate change and burning fossil gas both pose significant risks to our health;
- Our Future: We are in a climate emergency and fossil gas is mostly methane, a potent greenhouse gas. We need to lower our greenhouse gas emissions to protect the future of young people in Ontario and of generations to come.

# **Further Information**

What follows is a series of brief write-ups on specific topics related to phasing out fossil gas and expanding renewable energy generation.

- Ontario Should Pause Expansion of Fossil Gas-Fired Electricity Plants
- Expand and Accelerate the Procurement of Electricity from Renewable Sources
- Pursuing More Conservation, Demand management and Distributed Energy Networks
- Lifting the Moratorium on Off-shore Great Lakes Wind Power
- Removing Red Tape for Solar Installation
- Local Opposition to New Gas Plants
- Climate Action is a Matter of Fiscal Responsibility
- Renewable Energy is Cheaper than Fossil Gas
- Renewable Energy and Storage are Unstoppable
- The Dire Picture of Climate Change in Ontario
- Why Ontario Should Reconsider its Opposition to the OEB

# Ontario Should Pause Expansion of Fossil Gas-Fired Electricity Plants

**Takeaway**: Multiple recent reports indicate that Ontario does not need new fossil gas-fired electricity plants.

A report commissioned by Ontario's Independent Electricity System Operator (IESO)<sup>1</sup> has noted that Ontario can cost-effectively avoid the need for new fossil gas-fired generating capacity by investing in: a) renewable energy; b) load controls that shift electricity demand from peak to off-peak periods; and c) energy storage.

Moreover, according to a new report from the Royal Bank of Canada's Climate Action Institute,<sup>2</sup> Ontario can avoid the need for new gas plants and save at least \$500 million by taking action to conserve energy, and by adopting readily available technologies such as smart thermostats, electric panels and AI-enabled HVAC systems that can substantially improve grid efficiency and sustainability.

Finally, a recent report by Sustainability Solutions Group<sup>3</sup> highlights the imperative to develop integrated localised energy systems planning jointly between municipalities, utilities and the IESO.

# **Expand and Accelerate the Procurement of Electricity from Renewable Sources**

**Summary**: The Independent Electricity System Operator (IESO) is considering the acquisition of up to 5,000 megawatts (MW) of new non-emitting electricity generation, including wind, solar, hydro and bioenergy, in three procurements between 2025 and 2029. IESO is also looking at options to re-acquire, upgrade, or expand existing facilities.

<sup>&</sup>lt;sup>1</sup> "How Ontario Can Avoid New Gas Plants and Lower Electricity Costs" (January 5, 2023), https://www.cleanairalliance.org/wp-content/uploads/2023/01/Avoid-New-Gas-Plants-INTERACTIVE-jan-16-cop v.pdf.

<sup>&</sup>lt;sup>2</sup> RBC Climate Action Institute, "Power Shift: How Ontario Can Cut Its \$450-Billion Electricity Bill, <a href="https://thoughtleadership.rbc.com/wp-content/uploads/Power-Shift-Report-EN-1.pdf">https://thoughtleadership.rbc.com/wp-content/uploads/Power-Shift-Report-EN-1.pdf</a>.

<sup>&</sup>lt;sup>3</sup> Sustainability Solutions Group, "Assessment of IESO's Pathways to Decarbonization Study" (June 2023), https://www.cleanairpartnership.org/wp-content/uploads/2023/06/Assessment-of-IESO-Pathways-to-Decarbonization-Study Final-1.pdf.

In order to decrease reliance on fossil gas generation, Ontario must commit to increased, and accelerated, procurement of renewable electricity generation and electricity storage capacity.

**Full version**: The Independent Electricity System Operator's (IESO) upcoming procurement (Long-Term 2 RFP)<sup>4</sup> will acquire 2,000 MW of new build resources, much of it likely coming from wind and solar generation, to be in service between 2029 and 2031. This procurement is expected to commence in 2025.

Possible further procurements by IESO in 2027 and 2029 may each target about 1,500 MW of additional new-build non-emitting resources, to be in service in each of 2032 and 2034, respectively.

The total of the procurements<sup>5</sup> of new non-emitting electricity generation could total 5,000 MW, which would come into service in the period 2029 to 2034.

IESO is also looking at options to re-acquire, upgrade, or expand existing facilities. Wind and solar contracts for about 4,100 MW will expire between 2026 and 2034.

Ongoing IESO procurements of electricity storage capacity have a target 2,482 MW, to be in service by 2028.

### We urge that

- the target capacity for the procurement of new, renewable energy resources must be expanded, and the timeframe of their procurement must be accelerated,
- additional electricity storage must be procured in a timely manner to complement the new, renewable energy sources, and
- expiring contracts for renewable energy sources must be proactively extended.

The increased procurement of renewable energy and storage resources should be accompanied by:

- lifting the moratorium on off-shore wind power and
- pursuing more conservation, demand management and distributed energy networks.

<sup>&</sup>lt;sup>4</sup> IESO, "Evaluating Procurement Options for Supply Adequacy" (December 11, 2023), <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/resource-eligibility/Evaluating-Procurement-Options">https://www.ieso.ca/-/media/Files/IESO/Document-Library/resource-eligibility/Evaluating-Procurement-Options</a>-For-Supply-Adequacy.ashx.

<sup>&</sup>lt;sup>5</sup> "IESO Proposes New Clean Electricity Supply to Help Meet Ontario's Energy Needs and Zero-Emissions Targets" (December 14, 2023),

https://www.ieso.ca/Sector-Participants/IESO-News/2023/12/IESO-Proposes-New-Clean-Electricity-Supply-to-Help-Meet-Ontarios-Energy-Needs.

# Pursuing More Conservation, Demand Management and Distributed Energy Networks

**Summary:** Ontario can reduce its need for large, centralized power resources by pursuing more conservation, demand management and distributed energy networks.

**Full version:** Ontario can reduce its need for large, centralized power resources by pursuing more conservation, demand management and distributed energy networks.

Conservation and Demand Management

Electricity conservation could emerge as a vital policy lever to avoid new gas plants. By 2040, Ontario could meet nearly 20% of its expected demand growth—or 28 terawatt-hour (TWh)—via economically viable conservation.

Demand management technologies such as smart thermostats, electric panels and AI-enabled HVAC systems can reduce peak winter and summer demand hours, improve grid efficiency and sustainability and give Ontario the ability to manage demand peaks.<sup>7</sup>

The potential for conservation and demand management to reduce the need for constructing large centralized electricity generation resources (and reduce electricity costs) is discussed in reports from the RBC Climate Action Institute<sup>8</sup> and The Atmospheric Fund.<sup>9</sup>

#### Distributed Energy Resources

Traditionally, electricity has been generated at large power plants far from urban centres and transmitted over long distances, giving most electricity customers very little choice about the source of that electricity.

Distributed energy resources (DERs) are technologies that can support locally-owned facilities for electricity generation, control and storage, which supply some (or all) of a community's energy needs and reduce the amount of electricity the provincial system needs to provide.

<sup>&</sup>lt;sup>6</sup> RBC Climate Action Institute, "Power Shift: How Ontario Can Cut Its \$450-Billion Electricity Bill, https://thoughtleadership.rbc.com/wp-content/uploads/Power-Shift-Report-EN-1.pdf.

<sup>&</sup>lt;sup>7</sup> "How Ontario Can Avoid New Gas Plants and Lower Electricity Costs" (January 5, 2023), <a href="https://www.cleanairalliance.org/wp-content/uploads/2023/01/Avoid-New-Gas-Plants-INTERACTIVE-jan-16-cop">https://www.cleanairalliance.org/wp-content/uploads/2023/01/Avoid-New-Gas-Plants-INTERACTIVE-jan-16-cop</a> v.pdf.

<sup>&</sup>lt;sup>8</sup> RBC Climate Action Institute, "Power Shift: How Ontario Can Cut Its \$450-Billion Electricity Bill, https://thoughtleadership.rbc.com/wp-content/uploads/Power-Shift-Report-EN-1.pdf.

<sup>&</sup>lt;sup>9</sup> The Atmospheric Fund, "Closing the Gap – Electricity Solutions Toolbox," <a href="https://taf.ca/custom/uploads/2023/03/Closing-the-Gap-Electricity-Solutions-Toolbox-.pdf">https://taf.ca/custom/uploads/2023/03/Closing-the-Gap-Electricity-Solutions-Toolbox-.pdf</a>.

DERs can include smart thermostats, solar photovoltaic and battery storage systems and gas/wind/hydro-electric turbines, vehicle-to-grid charging stations and co-generation (combined heat and power).<sup>10</sup>

Reports from Dunsky Energy + Climate Advisors<sup>11</sup> and The Atmospheric Fund<sup>12</sup> outline the substantial contributions DERs can deliver to the province's electricity system and provide key insights and recommendations to harness these resources.

# Lifting the Moratorium on Off-shore Great Lakes Wind Power

**Summary**: Great Lakes off-shore wind power has the potential to meet all of Ontario's electricity needs. The government should lift the current moratorium on the development of off-shore wind electricity generation in the Great Lakes.

**Full version**: Great Lakes off-shore wind power has the potential to meet Ontario's new electricity needs.

Off-shore wind power facilities could therefore be an important addition to Ontario's available energy resources, as these facilities can be built in as little as 12 months, and deliver cost competitive electricity.<sup>13</sup>

In February, 2011, the Government of Ontario, citing environmental concerns, imposed a moratorium on off-shore wind projects.<sup>14</sup>

Since then, five government-commissioned studies on the impacts of off-shore facilities on fish, other environmental impacts, sound and decommissioning requirements largely found

https://www.ieso.ca/en/Learn/Ontario-Electricity-Grid/Distributed-Energy-Resources.

https://taf.ca/custom/uploads/2023/03/Closing-the-Gap-Electricity-Solutions-Toolbox-.pdf.

<sup>&</sup>lt;sup>10</sup> IESO, "Distributed Energy Resources,"

<sup>&</sup>lt;sup>11</sup> Dunsky Energy + Climate Advisors, "Ontario's Distributed Energy Resources (DER) Potential Study," Volume I (September 28, 2022),

https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/derps/derps-20220930-final-report-volume-1.ashx.

<sup>&</sup>lt;sup>12</sup> The Atmospheric Fund, "Closing the Gap – Electricity Solutions Toolbox,"

<sup>&</sup>lt;sup>13</sup> Ontario Clean Air Alliance, "Great Lakes Wind Power: Now is the Time" (April 17, 2023),

https://www.cleanairalliance.org/wp-content/uploads/2023/04/Great-Lakes-Wind-Report-apr-17-v 01.pdf.

<sup>&</sup>lt;sup>14</sup> Tanya Talaga, *The Toronto Star*, "Ontario scraps offshore wind power plans" (February 12, 2011), https://www.thestar.com/news/ontario/ontario-scraps-offshore-wind-power-plans/article 47eca917-4531-5337-87a1-d50de58d5426.html.

that, while there were still many unknowns about off-shore wind in freshwater environments, impacts were likely to be minimal.<sup>15</sup>

In view of the enormous power generation potential of off-shore wind power facilities in the Great Lakes, we urge the government of Ontario to lift the moratorium and allow their development in accordance with all applicable regulatory requirements.

This would allow off-shore wind facilities in the Great Lakes to be added to Ontario's available energy resources.



Image Credit: Ontario Clean Air Alliance

## **Removing Red Tape for Solar Installation**

The following is a write-up by a solar installer from Northern Ontario, based on his own experience.

Net metering stands as a pivotal mechanism in Ontario's transition towards renewable energy. It aligns with the province's ethos of economic progress and offers substantial benefits to both individuals and businesses. The current barriers hindering widespread

<sup>&</sup>lt;sup>15</sup> Allison Jones, *The Toronto Star*, "Ontario signals offshore wind moratorium will continue for several more years" (February 13, 2017), <u>www.thestar.com</u>.

adoption and private investment need revision to unlock the full potential of renewable energy in Ontario.

Allowing homeowners and businesses to invest in their energy security through net metering not only reduces after-tax electricity costs but also offers significant returns on investment. With a rate of return as high as 17%, net metering aligns perfectly with the goal of achieving net zero emissions, a goal many are striving towards.

Moreover, net metering installations and Distributed Energy offer substantial benefits by minimizing long-distance distribution losses. By enabling energy consumption at the source, such installations avoid inefficiencies associated with remote distribution, ensuring a more efficient and sustainable energy ecosystem.

To promote widespread adoption, clear mechanisms must be established to allow individuals and corporations to capture clean energy credits and access new markets for selling them. Additionally, regulations specifying roof-only installations disadvantage Northern Ontario residents, compelling them to navigate unnecessary red tape and safety hazards.

Virtual metering offers a solution for high-density residential areas and commercial settings, where space limitations make traditional net metering impractical. By allowing cooperatives to own off-site installations, virtual net metering empowers communities to directly own and benefit from clean energy generation.

Furthermore, adjusting the micro distributed generator threshold to 100 kW addresses the disproportionate impact on Northern Ontario residents. Such adjustments not only align with global standards but also reduce unnecessary costs and bureaucratic hurdles, fostering a more conducive environment for private investment.

In conclusion, removing obstacles to net meter installation is essential for Ontario's long-term energy plan of moving towards a zero-emission electricity grid. By facilitating private investment and enabling virtual net metering, Ontario can substantially reduce electricity costs for residents and businesses while advancing environmental sustainability. Net metering also plays a crucial role in electric vehicle adoption, offering a cost-effective and sustainable solution without requiring additional government incentives. Therefore, it's imperative to streamline regulations and promote net metering as a cornerstone of Ontario's renewable energy future.

### **Local Opposition to New Gas Plants**

The Ford government requires that new energy projects obtain a resolution of support from the local municipal council. Several municipalities have used this policy to withhold support, and therefore block, new infrastructure for burning fossil gas in their communities.

- In November 2022, the City of Brampton was given two choices<sup>16</sup> by the energy company Capital Power for stabilizing their electricity supply: increased fossil gas use or batteries. The city chose batteries.<sup>17</sup>
- In December 2023, the Town of Halton Hills rejected a proposal for a new 265 MW turbine with a 9-2 vote in Council. In 2021, Halton Hills had committed to the ambitious target of net zero emissions by 2030. In voicing their opposition to gas plant expansion in their community, several councillors referred to the town's climate goals. Said Councillor Alex Hilson, "We declared a climate emergency in 2019. We've got a climate change adaptation plan [...] And now we're being asked to endorse a gas plant." 18
- In September 2023: Thorold City Council rejected a new 198 MW plant with a
  unanimous vote. Several councillors cited concerns about health and air quality as
  reasons for their decision. Councillor Nella Dekker stated, "I know what it's like to have
  respiratory issues, and especially this year we've had so many issues with the air
  quality from our fires and whatnot."
- In November 2023: Councillors in Loyalist Township rejected a proposed 100 MW plant.<sup>20</sup>

In addition, 35 Ontario municipalities have passed motions endorsing a phase-out of gas power.<sup>21</sup>

<sup>&</sup>lt;sup>16</sup> Aakash Harpalani, "A tale of two cities: What we learned from recent gas plant proposals" (February 14, 2023), https://taf.ca/a-tale-of-two-cities-what-we-learned-from-recent-gas-plant-proposals/.

<sup>&</sup>lt;sup>17</sup> The Corporation of the City of Brampton, "Summary of Recommendations: Planning and Development Committee" (November 28, 2022):

https://pub-brampton.escribemeetings.com/FileStream.ashx?DocumentId=67664.

<sup>&</sup>lt;sup>18</sup> Marco Chown Oved, *The Toronto Star*, "'I would feel both betrayed and abandoned': Halton Hills rejects new gas plant" (December 12, 2023), <u>www.thestar.com</u>.

<sup>&</sup>lt;sup>19</sup> Marco Chown Oved, *The Toronto Star*, "This community just threw a wrench into Doug Ford's plans for new gas plants" (September 20, 2023), <u>www.thestar.com</u>.

<sup>&</sup>lt;sup>20</sup> Elliot Ferguson, *The Kingston Whig Standard*, "Loyalist Township denies support for energy projects west of Kingston" (November 28, 2023), www.thestar.com.

<sup>&</sup>lt;sup>21</sup> Ontario Clean Air Alliance, "Ontario Municipalities that have endorsed gas power phase-out" (March 25, 2021), <a href="https://www.cleanairalliance.org/ontario-municipalities-that-have-endorsed-gas-power-phase-out/">https://www.cleanairalliance.org/ontario-municipalities-that-have-endorsed-gas-power-phase-out/</a>.

It is worth noting that the requirement for municipal support only applies to new energy projects<sup>22</sup> (including clean energy projects).<sup>23</sup> It does not apply to upgrades to existing energy infrastructure (such as the 50 MW upgrade to the capacity of the Portlands Energy Centre gas plant, which was opposed by Toronto City Council).<sup>24</sup>



Image credit: Ontario Clean Air Alliance

## **Climate Action is a Matter of Fiscal Responsibility**

By 2050, global annual damages are estimated to be around \$38 trillion, with a likely range of \$19-59 trillion by 2050.<sup>25</sup>

Researchers have found that even with drastic cuts to CO2 emissions starting today, the world economy is already set to lose 19% of its income by 2050 due to climate change. The damages, estimated to be six times larger than the costs of limiting global warming to two degrees, were calculated using empirical data from over 1,600 regions worldwide over the past 40 years.

These figures primarily result from rising temperatures and changes in rainfall and temperature variability, and could be even higher when accounting for other weather

<sup>&</sup>lt;sup>22</sup> Mitchell Beer, *The Energy Mix*, "Ontario Overrules Cities to Push Gas Plant Expansions" (March 23, 2023), https://www.theenergymix.com/ontario-overrules-cities-to-push-gas-plant-expansions/.

<sup>&</sup>lt;sup>23</sup> Fatima Syed, *The Narwhal*, "Despite the risk of military explosives, TC Energy wants to build 'Ontario's battery' on Georgian Bay" (November 23, 2023), <a href="https://thenarwhal.ca/tc-energy-battery-meaford-georgian-bay/">https://thenarwhal.ca/tc-energy-battery-meaford-georgian-bay/</a>.

<sup>&</sup>lt;sup>24</sup> Marco Chown Oved, *The Toronto Star*, "Toronto city council voted against more gas-plant production. The province is making it happen anyway" (May 29, 2023), <u>www.thestar.com</u>.

<sup>&</sup>lt;sup>25</sup> "Climate Change to Cost Global Economy 19% by 2050, Study Finds" (April 17, 2024), ScienceBlog.com.

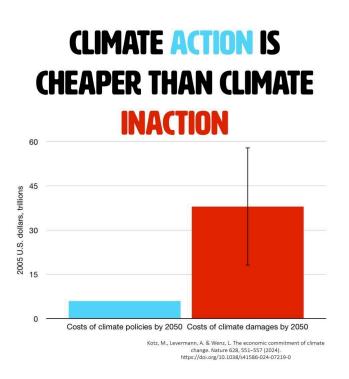
<sup>&</sup>lt;sup>26</sup> Maximilian Kotz, Anders Levermann, and Leonie Wenz, "The economic commitment of climate change," *Nature* (April 17, 2024), <a href="https://www.nature.com/articles/s41586-024-07219-0.pdf">https://www.nature.com/articles/s41586-024-07219-0.pdf</a>.

extremes like storms and wildfires.

If fossil fuel pollution is not drastically and immediately reduced, economic losses could reach up to 60% on global average by 2100, clearly demonstrating that protecting the climate is much cheaper than not doing so.

The study also highlights the considerable inequity of climate impacts, with countries in the tropics suffering the most due to their already warmer climates. The countries least responsible for climate change are predicted to suffer income losses 60% greater than higher-income countries and 40% greater than higher-emission countries, despite having the least resources to adapt to the impacts.

"It is on us to decide: structural change towards a renewable energy system is needed for our security and will save us money. Staying on the path we are currently on, will lead to catastrophic consequences. The temperature of the planet can only be stabilized if we stop burning oil, gas and coal," says Anders Levermann, Head of Research Department Complexity Science at PIK and co-author of the study.



### Renewable Energy is Cheaper than Fossil Gas

Investing in infrastructure for renewable energy instead of fossil gas can save Ontarians money. The Ontario Clean Air Alliance has looked at projected costs for Ontario's energy options, and you can see what they've found in the graph below.

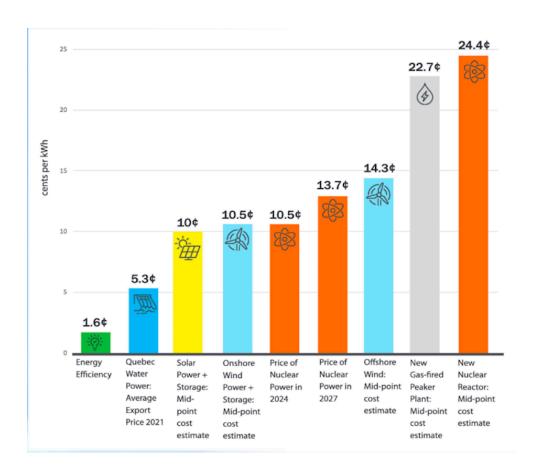


Image Credit: Ontario Clean Air Alliance

For more on why renewable energy is an affordable option, see:

Max Roser, Our World in Data, "Why did renewables become so cheap so fast?" (December 1, 2020), <a href="https://ourworldindata.org/cheap-renewables-growth">https://ourworldindata.org/cheap-renewables-growth</a>.

United Nations, "Renewables: Cheapest form of power," <a href="https://www.un.org/en/climatechange/renewables-cheapest-form-power">https://www.un.org/en/climatechange/renewables-cheapest-form-power</a>.

Victoria Masterson, World Economic Forum, "Renewables were the world's cheapest source of energy in 2020, new report shows" (July 5, 2021),

https://www.weforum.org/agenda/2021/07/renewables-cheapest-energy-source/.

### Renewable Energy and Storage are Unstoppable

Renewable energy adoption is surging globally, with 7 countries already generating 100% of their electricity from renewable sources, while 40 others produce over 50% from renewables, including 11 European nations. Solar energy, driven by efficiency gains and cost reductions, is poised to become the primary global energy source by 2050.<sup>27</sup> The fact is new renewable energy is cheaper than new fossil energy.<sup>28</sup>

California leads in battery storage, boasting 10,000 MW installed, second only to China.<sup>29</sup> The state is making strides toward achieving 24/7 renewable energy, with the grid operating on 100% renewables for parts of the day throughout March and April.<sup>30</sup>

Increasing the price on pollution from fossil fuels (with rebates) enables clean solutions to develop to scale. This will speed up the transformation that is already underway without burdening the taxpayer.

## The Dire Picture of Climate Change in Ontario

**Summary:** A report quietly released by the Ontario government in August 2023 suggests that climate change is having significant impacts on everything from agriculture to infrastructure and that the majority of the province will likely experience an average of over 60 extreme hot days per year by the end of the century. If greenhouse gas emissions are not significantly reduced, "warming trends will continue into the latter half of this century, leading to an increase in more devastating and frequent extreme weather."

https://www.politico.com/newsletters/california-climate/2024/04/25/check-out-californias-batteries-00154503.

<sup>&</sup>lt;sup>27</sup> Anthony Cuthbertson, *The Independent*, "Seven countries now generate 100% of their electricity from renewable energy" (April 24, 2024),

https://www.independent.co.uk/tech/renewable-energy-solar-nepal-bhutan-iceland-b2533699.html.

<sup>&</sup>lt;sup>28</sup> IRENA, "Renewable Power Remains Cost-Competitive amid Fossil Fuel Crisis" (July 13, 2022), <a href="https://www.irena.org/news/pressreleases/2022/Jul/Renewable-Power-Remains-Cost-Competitive-amid-Fossil-Fuel-Crisis">https://www.irena.org/news/pressreleases/2022/Jul/Renewable-Power-Remains-Cost-Competitive-amid-Fossil-Fuel-Crisis</a>.

<sup>&</sup>lt;sup>29</sup> Wes Veteicher, *Politico*, "Check out California's batteries" (April 25, 2024),

<sup>&</sup>lt;sup>30</sup> Twitter, Mark Z. Jacobson (@mzjacobson), https://twitter.com/mzjacobson/status/1784795592138604734.

**Full version:** A 553-page report written by the Climate Risk Institute, was commissioned in 2020 and contains three years' worth of information. It was released publicly on a government website on Aug. 25, 2023.<sup>31</sup>

The report paints a dire picture of how climate change is impacting Ontario, noting there are medium to very high risks associated with agriculture, infrastructure, business and people—in addition to the impacts on the natural environment.

For Ontario's agriculture, the report suggests the sector faces "declining productivity, crop failure and livestock fatalities," with a very high risk of climate change impacts by the end of the century. It also suggests that risk profiles across all of Ontario's natural systems and species are likely to rise to high or very high by 2050.

Infrastructure is already experiencing failures related to extreme weather and changing climate conditions, the report says, while most Ontario businesses will also face increased risks as a result.

In particular, the report notes that climate change impacts vulnerable populations across the province.

The Climate Risk Institute warns that if greenhouse gas emissions are not significantly reduced, "warming trends will continue into the latter half of this century, leading to an increase in more devastating and frequent extreme weather.

According to the report, the majority of Ontario will experience an average of over 60 days in which the temperature surpasses 30 C by the end of the century.

On average, these regions of the province experience up to 18 extreme hot days per year.

A government report found the number of extreme heat days is likely to triple by the end of the century.

As such, extreme cold days are expected to decline, from an average of over 55 days on average per year in northern Ontario to about 12 per year by 2080.

In 2023, Ontario experienced hazardous air quality as a result of fires from both northern Ontario as well as Alberta and Quebec. Extreme heat and severe thunderstorms also plagued the summer months.

<sup>&</sup>lt;sup>31</sup> "Ontario Provincial Climate Change Impact Assessment" (August 25, 2023), <a href="https://www.ontario.ca/page/ontario-provincial-climate-change-impact-assessment?utm\_source=substack&utm\_medium=email">https://www.ontario.ca/page/ontario-provincial-climate-change-impact-assessment?utm\_source=substack&utm\_medium=email</a>.

### Why Ontario Should Reconsider its Opposition to the OEB

While the focus of today's event is electricity production, we have also included the following on Bill 165.

**Takeaway:** The Ontario government should reconsider its declared intent to overrule the decision of the Ontario Energy Board (OEB) to subsidize gas expansion in new housing developments by having existing customers pay for the expansion.

**Full version:** On December 21 the OEB ordered that new infrastructure to put fossil gas in homes be paid for up front by developers, rather than paid off over about 40 years by existing customers through higher rates.<sup>32</sup>

The OEB's decision is very significant as the energy transition, and how it impacts the future of the gas system, was a major focus of a gas rates application. The OEB concluded that climate change policy is driving an energy transition away from fossil gas to electricity that gives rise to a stranded asset risk, and the usual way of doing business is not sustainable.

The day after the OEB's decision, the Ontario Minister of Energy said that his government would introduce legislation to reverse this decision claiming that the OEB ruling would make housing more expensive and slower to build.<sup>33</sup> On February 22, 2024, the provincial government introduced Bill 165 (*Keeping Energy Costs Down Act*, 2024)<sup>34</sup> which, if passed, would give the government the authority to reverse the OEB's decision.<sup>35</sup> As well, Enbridge Gas has appealed the OEB's decision.<sup>36</sup>

The OEB ruling could in fact make building new homes more affordable because they could be built to use only one type of energy infrastructure, electricity, and not require a second. New homes could be built more quickly by forgoing gas lines and installing heat pumps and induction stoves instead.

<sup>&</sup>lt;sup>32</sup> Ontario Energy Board, "OEB issues decision on remaining Phase 1 issues in Enbridge Gas Inc.'s 2024–2028 Rates Proceeding" (December 21, 2023),

https://www.oeb.ca/sites/default/files/backgrounder-EGI-EB-2022-0200-20231221-en.pdf.

<sup>&</sup>lt;sup>33</sup> Ontario Newsroom, "Ontario Government Standing Up for Families and Businesses" (December 22, 2023), <a href="https://news.ontario.ca/en/statement/1004010/ontario-government-standing-up-for-families-and-businesses">https://news.ontario.ca/en/statement/1004010/ontario-government-standing-up-for-families-and-businesses</a>.

<sup>&</sup>lt;sup>34</sup> Legislative Assembly of Ontario, *Bill 165* (February 22, 2024), https://www.ola.org/sites/default/files/node-files/bill/document/pdf/2024/2024-02/b165 e.pdf.

<sup>&</sup>lt;sup>35</sup> Fatima Syed, *The Narwhal*, "Ontario government fulfills promise to overrule independent energy board—in favour of Enbridge Gas" (February 22, 2024), <a href="https://thenarwhal.ca/ontario-overrules-energy-board-enbridge/">https://thenarwhal.ca/ontario-overrules-energy-board-enbridge/</a>.

<sup>&</sup>lt;sup>36</sup> The Canadian Press, "Enbridge appeals Ontario Energy Board ruling on natural gas costs" (January 23, 2024), <a href="https://www.nationalobserver.com/2024/01/23/news/enbridge-appeals-ontario-energy-board-ruling-natural-gas-costs">https://www.nationalobserver.com/2024/01/23/news/enbridge-appeals-ontario-energy-board-ruling-natural-gas-costs</a>.

Recent research on electrification suggests that homes using cold climate electric heat pumps<sup>37</sup> would cost less to heat than those burning fossil gas.<sup>38</sup> In addition, electric induction stoves can boil water faster than gas without introducing poisonous fossil gas into homes.<sup>39</sup>

Reversing the OEB ruling could result in building fossil gas infrastructure that will take about 40 years to pay for; infrastructure that will still be delivering fossil fuels in 2064, 14 years beyond the time when the world has agreed to have achieved net zero fossil fuel consumption; infrastructure that will be made obsolete by the ongoing energy transition.<sup>40</sup>

Who stands to gain by letting the OEB decision stand? Existing gas customers; the pocket books of new homeowners; the health of new homeowners; the environment. Who stands to gain from a reversal? The gas company.

It would be a mistake to overturn the OEB decision. Minister Smith, please reconsider your decision and instead allow for a solution that is less expensive for homeowners, healthier for families, and that also avoids contributing to the buildup of Greenhouse Gases that drive climate change.

<sup>&</sup>lt;sup>37</sup> Corporate Knights, "GREEN house effect: Calculate the savings from electrifying your home" (Summer 2023), <a href="https://www.corporateknights.com/issues/2023-06-best-50-issue/calculate-the-savings-from-electrifying-your-home/">https://www.corporateknights.com/issues/2023-06-best-50-issue/calculate-the-savings-from-electrifying-your-home/</a>.

<sup>&</sup>lt;sup>38</sup> Heather McDiarmid, "An Analysis of the Financial and Climate Benefits of Electrifying Ontario's Gas-Heated Homes by Installing Air-Source Heat Pumps" (August 2, 2022), <a href="https://www.cleanairalliance.org/wp-content/uploads/2022/08/Heat-Pump-Report-gas-heated-2022-8.5x11-aug-02-v 01.pdf">https://www.cleanairalliance.org/wp-content/uploads/2022/08/Heat-Pump-Report-gas-heated-2022-8.5x11-aug-02-v 01.pdf</a>.

<sup>&</sup>lt;sup>39</sup> Abby Jackson, "This viral video proves induction cooktops outperform gas stoves: 'Induction's your best friend!" (January 22, 2024),

https://www.thecooldown.com/green-home/induction-cooktop-stove-price-gas-better/.

<sup>&</sup>lt;sup>40</sup> Canada Energy Regulator, "Canada's Energy Transition: Historical and Future Changes to Energy Systems – Update – An Energy Market Assessment,"

https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/canadas-energy-transition/index.html.