

# An Ontario Recovery Plan: Energy, Electricity and Climate Change

Sustainable Energy Initiative, York University

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The Government of Ontario has created a [Provincial Committee on Jobs and Recovery](#) to discuss options to support jobs and recovery of the Province once the Emergency Orders have been lifted.

Based on our recent research, the [Sustainable Energy Initiative](#) has identified the following key challenges and potential responses in the areas of electricity, climate change, land-use and transportation and buildings and energy efficiency. A list of relevant SEI research publications from which the information is drawn and recommendations developed is provided at the end of this document, along with specific references for the points in the document.

Issue	Challenge	Recommended Responses
Electricity	<ul style="list-style-type: none"><li>• \$5.6 billion/yr cost to treasury of “Fair Hydro Plan” rate reductions,<sup>1</sup> while failing to deal with energy poverty in the province.</li><li>• High electricity costs with further cost increases planned to cover the costs of the Darlington and Bruce nuclear refurbishments.<sup>2</sup></li><li>• Projected major increases in emissions of GHG and smog precursors from natural gas fired power plants to cover electricity needs during nuclear refurbishments.<sup>3</sup></li><li>• Decision-making over planning and system investments explicitly politicized.<sup>4</sup></li><li>• System poorly configured for technological change in a period of exceptional innovation in the electricity sector (e.g. distributed energy resources (DERs) and microgrids).<sup>5</sup></li></ul>	<ul style="list-style-type: none"><li>• Phase-out ‘Fair Hydro Plan’ electricity rate reduction and replace with targeted support for low-income and rural electricity consumers.<sup>6</sup></li><li>• Conduct comprehensive review of electricity options available to Ontario, including renewables, distributed energy resources (DERs), Quebec hydro imports and energy efficiency, before proceeding with further nuclear refurbishments.</li><li>• Establish a transparent, evidence-based approach to electricity system planning, subject to meaningful public regulatory oversight and review.<sup>7</sup></li><li>• Establish new organization, Energy</li></ul>

		<p>Efficiency Ontario, to develop a comprehensive energy efficiency strategy for the province, covering electricity and natural gas use, and addressing the needs of marginalized communities.<sup>8</sup></p>
<p><b>Climate Change</b></p>	<ul style="list-style-type: none"> <li>• Growing evidence and experience of climate change impacts (spring 2019 floods, forest fires, extreme weather in Ontario).<sup>9</sup></li> <li>• Conflict with federal government over carbon pricing.<sup>10</sup></li> <li>• No effective provincial climate change mitigation or adaptation strategy<sup>11</sup></li> <li>• No effective support for local governments attempting to undertake climate change mitigation and adaptation planning.<sup>12</sup></li> <li>• GHG emission reductions from coal-phase out being eroded by increased reliance on natural gas in electricity sector to cover nuclear refurbishments.<sup>13</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Resolve carbon pricing conflict with federal government. Implement an effective carbon pricing system in Ontario.</li> <li>• Establish mechanisms to ensure that carbon pricing revenues are invested in cost-effective low-carbon transition strategies and address the impacts of carbon pricing on marginalized communities.<sup>14</sup></li> <li>• Develop a comprehensive climate change mitigation and adaptation strategy for Ontario, addressing buildings, transportation, industry, agriculture and waste management.</li> <li>• Examine alternatives to nuclear refurbishment/natural gas fired replacement generation pathway for electricity (as above).</li> <li>• Establish Efficiency Ontario (as above)</li> <li>• Provide legislative, policy, data access, analytical support and financial resources to municipalities developing and implementing climate change mitigation plans.<sup>15</sup></li> <li>• Re-establish separate reporting mandate on</li> </ul>

		<p>provincial climate change performance by the Auditor General/Environmental Commissioner.<sup>16</sup></p>
<p><b>Land-use and Transportation</b></p>	<ul style="list-style-type: none"> <li>• Land-use policies encourage automobile dependant urban sprawl.<sup>17</sup></li> <li>• Decision-making over major infrastructure investments, particularly transit, highly politicized.<sup>18</sup></li> <li>• No strategy for electrification of transportation or active transportation.<sup>19</sup></li> <li>• Poor internet access reinforces social inequality and need for travel, especially in rural areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Review land-use planning policies to discourage sprawl, encourage complete communities and protection of important agricultural, source water and natural heritage lands.</li> <li>• Establish a meaningful, transparent, evidence-based public review process for major transportation infrastructure projects, to consider their economic viability, impacts on climate change, and effects on future development patterns.<sup>20</sup></li> <li>• Develop cost-effective strategy to promote EV adoption, including provision of charging infrastructure.</li> <li>• Establish policy framework for end-of-life management of EV and other advanced batteries.<sup>21</sup></li> <li>• Establish strategy for provision of high-speed internet capacity to marginalized and rural communities.</li> </ul>
<p><b>Energy Efficiency and Buildings</b></p>	<ul style="list-style-type: none"> <li>• No policy framework for electricity energy efficiency.<sup>22</sup></li> <li>• No policy framework to significantly advance natural gas energy efficiency or for low carbon building heating and cooling.<sup>23</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Establish new provincial organization, Energy Efficiency Ontario, to develop a comprehensive energy efficiency strategy for the province.<sup>24</sup></li> </ul>

- Ensure building code and energy efficiency standards match leading North American standards.<sup>25</sup>
- Investigate long-term role natural gas in a low-carbon energy transition.<sup>26</sup>
- Re-established separate reporting mandate for Auditor-General/ECO on provincial energy conservation performance.<sup>27</sup>

## **Recent Sustainable Energy Initiative Publications on Electricity, Climate Change, Transportation and Energy Efficiency in Ontario.**

### **Electricity**

Winfield, M., and Gelfant G., "Distributed Energy Resource Development in Ontario: A socio-technical transition in progress?" *Energy Regulation Quarterly*, January 2020 - [Volume 7](#), Issue 4.

MacWhirter, R., and M.Winfield, "The Search for Sustainability in Ontario Electricity Policy." in G.Albo and R.MacDermid eds., *Divided Province: Ontario Politics in the Age of Neoliberalism* (Kingston/Montreal: Queens-McGill University Press 2019) - working version of chapter available at <https://sei.info.yorku.ca/files/2020/02/Winfield-and-MacWhirter-Working-Final-June-2018.pdf?x46177>

Winfield, M., Shokrzadeh, S., and Jones, A., "Energy Policy Regime Change and Advanced Energy Storage: A Comparative Analysis," *Energy Policy*, [Volume 115](#), April 2018, Pages 572-583.

Winfield, M., "Ontario's hydro: Some unwelcome truths," *Policy Options*, May 23, 2018. <https://policyoptions.irpp.org/magazines/may-2018/ontarios-hydro-unwelcome-truths/>.

### **Climate Change**

Winfield, M., and Kaiser, K., "Ontario and Climate Change," for J. Onusko and D. Anastakis, eds., *Ontario Since Confederation: A Reader* (Toronto: University of Toronto Press - under development) - working paper available upon request.

D.Macdonald and M.Winfield "Federalism and Canadian Climate Change Policy" for G.Skogstad and H.Bakvis, eds., *Canadian Federalism (4<sup>th</sup> ed)* (Toronto: Oxford University Press - in press) - working paper available upon request.

Winfield, M., Wyse, Susan M., and Harbinson, S., "Enabling community energy planning? Polycentricity, governance frameworks, and community energy planning in Canada," submitted to *Canadian Planning and Policy Journal* January 2020. Working version available at <https://sei.info.yorku.ca/files/2020/01/Community-Energy-Planning-paper-January-15-2020-for-Posting-1-1.pdf?x46177>

### **Land-use and transportation**

Kaiser, C., [Decarbonizing Road Transportation in Ontario](#) (Montreal and Toronto: Working Paper: Joint Climate Change and Transportation Research Project, 2018).

S.Sooch, *Post-Consumer Management of EV Batteries* (Toronto: MES Major Paper, Faculty of Environmental Studies, 2020) <https://sei.info.yorku.ca/files/2020/04/SumeetSooch-Major-Paper.pdf?x46177>.

### **Energy Efficiency**

Winfield, M., Love, P., Gaede, J., and Harbinson, S., [Unpacking the Climate Potential of Energy Efficiency: Effective and Resilient Governance for Energy Efficiency in Low-Carbon Sustainable Energy Transitions](#) (Toronto: Sustainable Energy Initiative, York University, 2020). Appendix 1 makes specific recommendations regarding Ontario.

### **Governance and Environmental Assessment**

Winfield, M., [A New Era of Environmental Governance in Canada: Better Decisions Regarding Infrastructure and Resource Development Projects](#) (Toronto: George Cedric Metcalf Foundation, 2016)

## References

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- <sup>1</sup> <https://www.cbc.ca/news/canada/toronto/ontario-hydro-rates-spending-1.5446353>
- <sup>2</sup> Ontario, *2017 Long Term Energy Plan*, <https://www.ontario.ca/document/2017-long-term-energy-plan>
- <sup>3</sup> <http://www.ieso.ca/Powering-Tomorrow/Data/The-IESOs-Annual-Planning-Outlook-in-Six-Graphs>
- <sup>4</sup> MacWhirter, R., and M. Winfield, "The Search for Sustainability in Ontario Electricity Policy." in G. Albo and R. MacDermid eds., *Divided Province: Ontario Politics in the Age of Neoliberalism* (Kingston/Montreal: Queens-McGill University Press 2019) - working version of chapter available at <https://sei.info.yorku.ca/files/2020/02/Winfield-and-MacWhirter-Working-Final-June-2018.pdf?x46177>
- <sup>5</sup> <https://www.theglobeandmail.com/report-on-business/rob-commentary/electricity-policy-is-falling-behind-the-energy-revolution/article34996377/>. See also Winfield, M., and Gelfant G., "Distributed Energy Resource Development in Ontario: A socio-technical transition in progress?" *Energy Regulation Quarterly*, January 2020 - [Volume 7](#), Issue 4.
- <sup>6</sup> Winfield, M., "Ontario's hydro: Some unwelcome truths," *Policy Options*, May 23, 2018. <https://policyoptions.irpp.org/magazines/may-2018/ontarios-hydro-unwelcome-truths/>. See also <https://energyontario.ca/wp-content/uploads/2020/04/Help-Those-Who-Need-Help-FINAL-042520.pdf>.
- <sup>7</sup> MacWhirter and Winfield, "The Search for Sustainability in Ontario Electricity Policy."
- <sup>8</sup> Winfield, M., Love, P., Gaede, J., and Harbinson, S., [Unpacking the Climate Potential of Energy Efficiency: Effective and Resilient Governance for Energy Efficiency in Low-Carbon Sustainable Energy Transitions](#) (Toronto: Sustainable Energy Initiative, York University, 2020). Appendix 1 makes specific recommendations regarding Ontario.
- <sup>9</sup> Environmental Commissioner of Ontario, *2018 Greenhouse Gas Progress Report* <https://docs.assets.eco.on.ca/reports/climate-change/2018/Climate-Action-in-Ontario.pdf>
- <sup>10</sup> D. Macdonald and M. Winfield "Federalism and Canadian Climate Change Policy" for G. Skogstad and H. Bakvis, eds., *Canadian Federalism (4<sup>th</sup> ed)* (Toronto: Oxford University Press - in press) - working paper available upon request.
- <sup>11</sup> [https://www.auditor.on.ca/en/content/annualreports/arreports/en19/v2\\_300en19.pdf](https://www.auditor.on.ca/en/content/annualreports/arreports/en19/v2_300en19.pdf)
- <sup>12</sup> Winfield, M., Wyse, Susan M., and Harbinson, S., "Enabling community energy planning? Polycentricity, governance frameworks, and community energy planning in Canada," submitted to *Canadian Planning and Policy Journal* January 2020. Working version available at <https://sei.info.yorku.ca/files/2020/01/Community-Energy-Planning-paper-January-15-2020-for-Posting-1-1.pdf?x46177>
- <sup>13</sup> <http://www.ieso.ca/Powering-Tomorrow/Data/The-IESOs-Annual-Planning-Outlook-in-Six-Graphs>
- <sup>14</sup> Winfield, M., and Kaiser, K., "Ontario and Climate Change," for J. Onusko and D. Anastakis, eds., *Ontario Since Confederation: A Reader* (Toronto: University of Toronto Press - under development) - working paper available upon request.
- <sup>15</sup> Winfield, Wyse and Harbinson "Enabling community energy planning? Polycentricity, governance frameworks, and community energy planning in Canada,"
- <sup>16</sup> <https://theconversation.com/scrapping-environmental-watchdog-is-like-shooting-the-messenger-107345>
- <sup>17</sup> <https://urbantoronto.ca/news/2019/01/ontarios-growth-plan-changes-end-smart-growth>
- <sup>18</sup> Kaiser, C., [Decarbonizing Road Transportation in Ontario](#) (Montreal and Toronto: Working Paper: Joint Climate Change and Transportation Research Project, 2018).
- <sup>19</sup> Ibid.
- <sup>20</sup> Ibid. See also Winfield, M., [A New Era of Environmental Governance in Canada: Better Decisions Regarding Infrastructure and Resource Development Projects](#) (Toronto: George Cedric Metcalf Foundation, 2016)
- <sup>21</sup> S. Sooch, *Post-Consumer Management of EV Batteries* (Toronto: MES Major Paper, Faculty of Environmental Studies, 2020) <https://sei.info.yorku.ca/files/2020/04/SumeetSooch-Major-Paper.pdf?x46177>.
- <sup>22</sup> Winfield, M., Love, P., Gaede, J., and Harbinson, S., [Unpacking the Climate Potential of Energy Efficiency: Effective and Resilient Governance for Energy Efficiency in Low-Carbon Sustainable Energy Transitions](#) (Toronto: Sustainable Energy Initiative, York University, 2020).
- <sup>23</sup> [https://www.auditor.on.ca/en/content/annualreports/arreports/en19/v2\\_300en19.pdf](https://www.auditor.on.ca/en/content/annualreports/arreports/en19/v2_300en19.pdf).

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<sup>24</sup> Winfield, Love, Gaede, and Harbinson, [Unpacking the Climate Potential of Energy Efficiency: Effective and Resilient Governance for Energy Efficiency in Low-Carbon Sustainable Energy Transitions](#). Appendix 1 contains Ontario-specific recommendations.

<sup>25</sup> [Ibid.](#)

<sup>26</sup> <https://www.pollutionprobe.org/future-hold-natural-gas-report/>

<sup>27</sup> <https://theconversation.com/scrapping-environmental-watchdog-is-like-shooting-the-messenger-107345>.