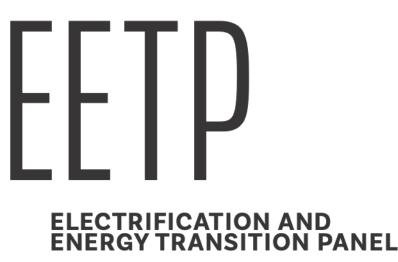
# Ontario's Clean Energy Opportunity: Report of the Electrification and **Energy Transition Panel**





# AGENDA



- Mandate and Engagement Summary
- Report Overview and Key Messages
- Key Areas of Recommendations
- Next Steps

# The Global View on Energy Transition

EETP

#### **Sixth Assessment Report**

Synthesis Report

20 March 2023



#### International Energy Agency

World Energy Outlook 2023



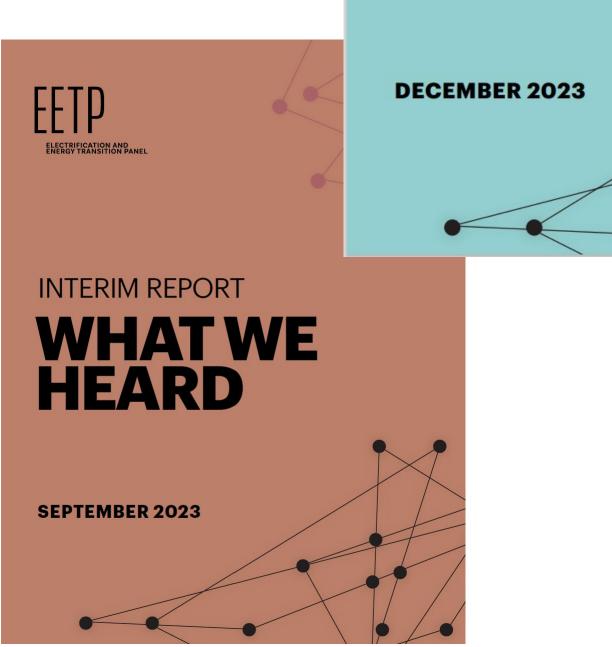
## **Report Table of Contents**

Transmittal letter from the Chair

- Executive Summary
- 1. Introduction
- 2. Ontario's Opportunity in the Global Energy Transition
- 3. Fundamentals of Success: Principles for Ontario's Energy Transition
- 4. True partnerships: Building a Pathway for Future Generations
- 5. Planning for Electrification and the Energy Transition
- 6. Governance and Accountability
- 7. Energy Innovation and Economic Development
- 8. Consumer, Citizen and Community Perspectives
- 9. Final Reflections
- 10. Complete List of Recommendations Appendix: What We Heard

ergy Transition or Ontario's Energy Transition for Future Generations rgy Transition

lopment spectives



ELECTRIFICATION AND ENERGY TRANSITION PANEL

#### ONTARIO'S CLEAN ENERGY OPPORTUNIT

REPORT OF THE ELECTRIFICATION AND ENERGY TRANSITION PANEL

4



# Mandate and Engagement Summary

- (Panel) as a short-term advisory body.
- broader transition to a clean energy economy.
- government regarding:
  - prepare for electrification and the energy transition;
  - considerations and overall costs to consumers.
- both regarding energy project development and on the process of long-term energy planning.

FFID

• In April 2022, the Ministry of Energy (ENERGY) established the Electrification and Energy Transition Panel

• The Panel, comprised of the Chair, David Collie, and members Professor Monica Gattinger and Chief Emerita Emily Whetung-MacInnes, was established to identify strategic opportunities for Ontario and recommend necessary planning reforms to support emerging electricity and fuels planning needs in the context of the

• Building on ongoing work in the sector, the Panel's broad mandate was to explore and provide advice to

• Highest value medium and long-term opportunities for the energy sector to help Ontario's economy

Opportunities to strengthen Ontario's long-term energy planning process by better coordinating **fuels** and the electricity sector in the context of energy demand, emerging technologies, environmental

The Panel was also expected to consider the interests and perspectives of Indigenous communities,





## Mandate and Engagement Summary

### **Engagement Summary**

- From March to July 2023, the Panel conducted one-on-one, group and roundtable virtual engagement sessions and sent out an open call for written feedback. Over 200 stakeholders, Indigenous partners and communities, federal, provincial and municipal government departments and agencies, and members of the general public provided their input for the Panel's consideration. The panel completed 13 direct indigenous engagements.
- In addition to the final report, the Panel submitted a 'What We Heard' report to the Minister, which captures the key themes the Panel heard across engagements.
- Engagement feedback, as well as relevant jurisdictional research and sectoral studies were used by the Panel to inform their recommendations in the final report.

FETP



# Many Important Inputs Along the Way

ONTARIO ENERGY BOARD

**Report of the Ontario Energy Board to Ontario's Electrification** and Energy Transition Panel

June 30, 2023

FFTP



Intario Energy oard

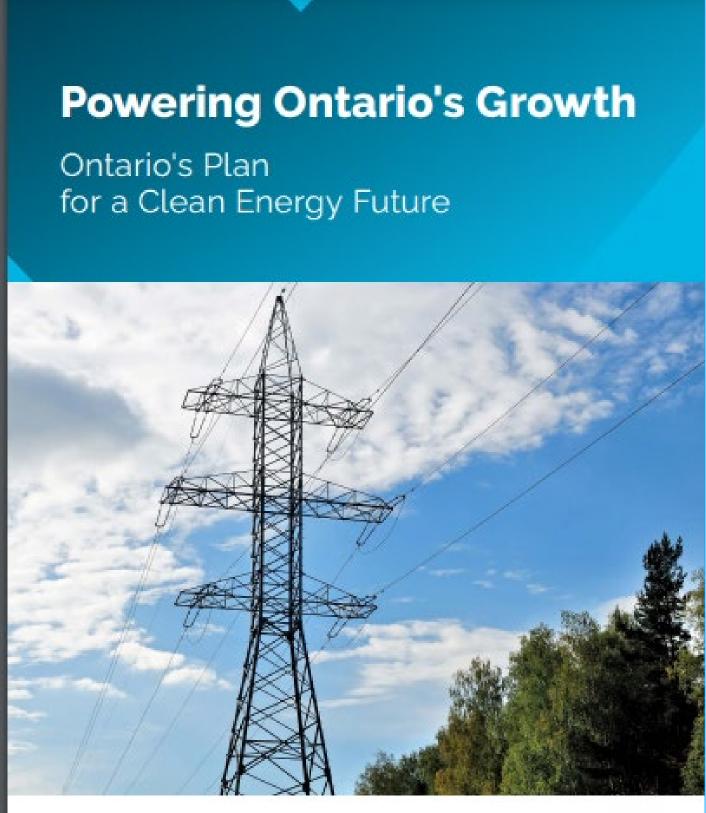


#### Pathways to Decarbonization

A report to the Minister of Energy to evaluate a moratorium on new natural gas generation in Ontario and to develop a pathway to zero emissions in the electricity sector.

**DECEMBER 15, 2022** 





ontario.ca/energy



# **Cost-Effective Energy Pathways Study**

**Key Observations** 

- Independent Study
- Supports EET, Energy and Government
- All Economy, All Fuels.
- Pathways are Similar for Other Jurisdictions
- Need for Regular Modelling: Importance



### FFIU **ELECTRIFICATION AND** ENERGY TRANSITION PANEL

**REDUCE** total energy demand relative to current forecasts, through accelerating the pace of energy efficiency efforts

**SWITCH** >80% of fossil fuel use, including the vast majority of heating, mobility and industrial needs, to renewable & emissions-free options

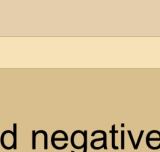
**GROW** the grid to over 2x

SEQUESTER remaining emissions using CCS and negative emissions technologies, including biochar and DAC









# **Report Overview and Key Messages**

- The Panel delivered their final report to the Minister of Energy on **December 15**, **2023**, **titled**, **Ontario's** Clean Energy Opportunity: Report of the Electrification and Energy Transition Panel.
- The report includes a total of 29 recommendations across five core sections:
- Planning for Electrification and the Energy Transition
- Governance and Accountability

FFID

- True Partnerships with Indigenous Communities
- Innovation and Economic Development
- Consumer, Citizen and Community Perspectives

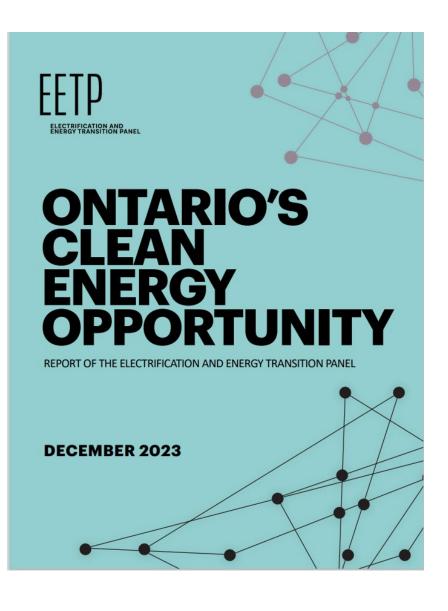
# **ONTARIO'S** PPORTII

ECTRIFICATION AND ENERGY TRANSIT

DECEMBER 2023



# **Report Overview and Key Messages**



EETP

- and across governments.
- the clean economy.
- to lead energy planning.
- review their roles and responsibilities.
- will be critical for an effective and successful transition.
- Ontario.
- **changes**. An affordable and reliable<sub>1</sub> supply of energy is key.

• Electrification and the global energy transition present unprecedented opportunities for Ontario.

• Seizing those opportunities requires careful and ongoing analysis, a common strategic focus, and integration, coordination and alignment across electricity and fuels, across ministries and policy areas,

• Government should make key decisions to provide investment clarity, protect customers and build

• The best way to achieve cross-sector coordination and prepare for electrification and energy transition is to carefully modify the existing institutional framework in which the Ministry of Energy continues

• Reflecting their distinct roles, **IESO and OEB will be expected to provide leadership** and critically

• Effective support for **Indigenous communities** and inclusion in energy planning and decision making

• The energy transition will be a multi-decade process bringing significant change to all aspects of life in

• As a result, it will be crucially important to build and maintain broad and lasting support for electrification and the energy transition. People need to have good information and be able to see themselves and their community in the province's clean energy economy vision.

• Supports will need to be in place to help people manage the variety of social and economic



#### shows leverage Powering Ontario initial clean energy economy population Clean Energy Opportunity #cdnpoli innovative recommendations released #onpol provided sector Today final report report Clean build released their report future ntaric province grid growing work Growth U cost-effectively times Exciting prepare highlights insights economy Established welcomes comprehensive comprehensive Electrification and Energy Transition Panel Report reading



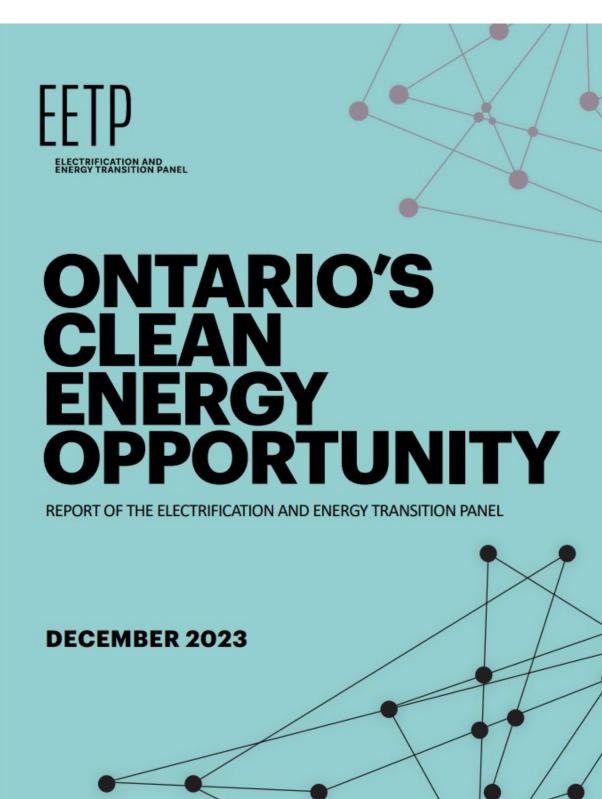
EETP

## **Overview of the Report**

- analysis and the Panel members' own expertise.
- The report's key principles for Ontario's energy transition include:  $\bullet$ 
  - 1. North Star: A Prosperous Clean Energy Economy for Ontario by 2050
  - 2. Vision, Policy Clarity, Consistency and Adaptability
  - 3. Effective Governance and Adequate Resourcing
  - 4. Ensuring Ongoing and Durable Public Support
  - 5. Full Indigenous Participation
  - 6. Managing Uncertainty: Advanced Insights and Strategic Foresight
  - 7. Planning and Decisions Closer to the Customer

The report is based on extensive input from stakeholders and Indigenous partners as well as additional jurisdictional

The report provides 1) a view of Ontario's position today in relation to the global move to a clean energy economy; 2) a set of recommendations; and 3) principles that should guide Ontario's transition over the coming decades.





### **Recommendations 1 - 9: Planning for Electrification and the Energy Transition**

#### **Government-wide Planning:**

- public forces, and act as a catalyst for pursuing dynamic opportunities to enhance Ontario's prosperity.
  - 1.Commitment to a Clean Energy Economy by 2050
  - 2.Cabinet-level coordination, Mandate letters and ministry KPIs
  - 3.Alignment with other governments

#### **Energy-sector Planning:**

- transition that prioritizes affordability, reliability and resilience.
- This is the best way to achieve cross-sector coordination and prepare for electrification and energy transition. Government will need to provide direction on complex and contentious issues to ensure an orderly transition that allocates resources effectively and protects customers.

4.Clean energy vision

- 5.Integrated long-term energy plans
- 6.Need for government direction on the future of natural gas

• Establishing a government-wide commitment to develop a clean energy economy by 2050 to align private, social and

• Articulating a clear strategic policy vision to focus the sector, bring alignment in managing change and deliver an orderly

• Carefully modifying the existing institutional framework in which the Ministry of Energy continues to lead energy planning.

7. Framework for Comprehensive Local Energy Planning

- 8. Energy Transition Advisory Council
  - 9. Pathways Studies

#### **Recommendations 10 – 18: Governance and Accountability**

- central and distinct roles in this process.
- that unlocks their full value.
  - 10. IESO and OEB to promote innovative business models
  - 11. Safety Authorities to participate in planning and regulation for energy sector evolution
  - 12. OEB to use all tools within existing mandate
  - 13. In the future: Ministry to review OEB mandate/objectives, as needed

  - 16. Electricity-natural gas coordination framework
  - 17. DERs and Distribution Innovation
  - 18. Sufficient resourcing for ENERGY and agencies

• Undertaking a series of actions to ensure that Ontario's planning and regulatory systems are ready for electrification, support the move to a clean energy economy and can manage increasing pressures in a proactive, coordinated and adaptive manner. The Independent Electricity System Operator (IESO) and the Ontario Energy Board (OEB) will play

• Ensuring effective collaboration and integration in energy planning across fuels, especially electricity and natural gas, across end use sectors and across levels of government, to ensure investments and innovation can be deployed in a way

14. More independent IESO-led planning and procurement, coupled with procedural OEB oversight 15. OEB to review cost allocation and recovery policies for natural gas and electricity infrastructure

### **Recommendations 19 – 22: True Partnerships with Indigenous Communities**

- energy economy.
  - 19. Indigenous capacity building
  - 20. Financing to enable Indigenous participation
  - 21.Indigenous representation on IESO and OEB boards
  - 22. Resourcing for Indigenous participation and facilitation supports within ENERGY

• Building meaningful partnerships with Indigenous communities that advance reconciliation and provide Indigenous opportunities in electrification and energy transition. Partnerships are the only way Ontario will be successful in making energy infrastructure investments at the pace and scale necessary to build a clean



#### **Recommendations 23 – 25: Innovation and Economic Development**

- Clean energy infrastructure plays a key role in advancing growth and economic prosperity for Ontario. energy value chains
  - 23. Clean energy economy as the guidepost for the government's industrial strategy
  - 24. Vision and principles for funding the energy transition, including impacts on different groups.

#### **Recommendations 26 – 29: Consumer, Citizen and Community Perspectives**

- communities in this process.
  - 26. Long-term information and engagement for public and Indigenous partners
  - 27. Support fuel switching
  - 28. Redesign rate mitigation programs
  - 29. Climate resilience and adaptation

23. Energy sector development to support industrial investments and growth and promote energy innovation in key

• Building and maintaining public support for electrification and the energy transition with a principled pragmatic approach grounded in cost-effectiveness and solutions tailored to the specific and often local needs and circumstances of people as customers, citizens and community members. Ontarians need to be able to see themselves and their community in the province's clean energy economy vision. Governments and the energy sector have important roles to play in supporting and working with customers and

### **Next Steps**

- The Panel's term concluded on December 31, 2023.
- The <u>report</u> was released publicly on January 19, 2024. In his <u>statement</u> the Minister indicated he would be "working with leaders from Ontario's energy sector to carefully review the report's recommendations and advice" and announce "next steps towards an integrated energy planning process later this year."
- Please direct your inquiries regarding the Ministry of Energy's response to the final report to relevant Ministry representatives:

For questions about the Panel's work: Joerg Wittenbrinck Manager, Integrated Energy Policy and Research joerg.wittenbrinck@ontario.ca

### FFID**ELECTRIFICATION AND** ENERGY TRANSITION PANEL

For questions about next steps in energy planning: Christopher Goode Director, Policy Coordination and Outreach

christopher.goode@ontario.ca

