
Ontario Energy Association

# Energy Platform

# About

The Ontario Energy Association (OEA) is the credible and trusted voice of the energy sector. We earn our reputation by being an integral and influential part of energy policy development and decision making in Ontario. We represent Ontario's energy leaders that span the full diversity of the energy industry.

OEA takes a grassroots approach to policy development by combining thorough evidence based research with executive interviews and member polling. This unique approach ensures our policies are not only grounded in rigorous research, but represent the views of the majority of our members. This sound policy foundation allows us to advocate directly with government decision makers to tackle issues of strategic importance to our members.

## Together, we are working to build a stronger energy future for Ontario.

# KEY OBJECTIVES

The purpose of this document is to provide elected officials and key decision makers from Ontario's main political parties with clear and precise recommendations on energy policies to address the needs of Ontario energy consumers. Our recommendations have been guided by the key objectives of ensuring energy in Ontario is:

## Affordable

Policies should deliver the lowest cost possible to promote affordability for Ontario consumers and economic growth objectives, while still delivering on the objectives below

## Sustainable

Energy policies should be developed in an integrated manner to achieve Ontario's climate change and environmental objectives by reducing energy related emissions and facilitating emissions reductions in other sectors of the economy, such as transportation and industry. It is only through taking a comprehensive approach to energy system planning by linking different types of energy (e.g., electricity, natural gas, and liquid fuels) together with the end-uses (e.g., heating, cooling, transport) that decarbonization targets will be reached

## Reliable

Energy policies should ensure that Ontarians continue to have uninterrupted access to reliable energy. Our modern society and economy are dependent on reliable energy, and interruptions can have very serious consequences. Policies should allow for continuous investment in Ontario's energy infrastructure so that it can withstand and recover from extreme weather events and continue to supply Ontario's energy consumers with reliable access to affordable clean energy

# RECOMMENDATION

## 1 | Comprehensive & Co-ordinated Plan

**1A** A comprehensive energy-use plan is required to ensure that Ontario finds the most affordable, reliable, and sustainable pathway to achieving both energy needs and emissions reductions objectives

**1B** The plan should eliminate infrastructure planning siloes within the energy sector, but also across sectors (e.g., transportation, buildings, industrial processes)

**1C** The Ontario Energy Board (OEB) and Independent Electricity System Operator (IESO) need to move swiftly on implementing recent government guidance and direction regarding emissions reductions objectives into their decision-making and policy making. This will ensure that regulated utilities and market participants have certainty and guidance regarding what investments are allowed in the energy system

**1D** Federal, provincial, and municipal governments need to coordinate and align their policies and programs and collaborate on future programs to ensure that there is a clear, comprehensive, costed, and complementary emissions reduction strategy for Ontario

# RECOMMENDATION

## 2 | Optimize Use of Existing Infrastructure

**2A** Optimize and co-ordinate the use of Ontario's substantial existing electricity and natural gas assets (transmission, generation, distribution, and storage facilities), where prudent and assessed against alternatives, to decarbonize our economy cost-effectively and provide reliable, sustainable energy choices for Ontario's homes and businesses.

**2B** To best leverage the natural gas system:

- Provide the OEB with a mandate to enable emissions reductions investments or energy sources even when more costly, when they meet cost of abatement thresholds
- Set targets for the blending of renewable natural gas (RNG) into the gas system, and move away from voluntary RNG option (as is already being done with ethanol for transportation fuel)
- Create a provincial strategy for hybrid heating systems with smart controls, replacing a conventional air-conditioner with a higher efficiency air-source heat pump, and pairing it with a gas furnace and smart controls through collaboration and partnership between electric and natural gas utilities
- Give the OEB a mandate for more aggressive demand-side management DSM targets and expanded programs, to reduce the volume of natural gas used for building heat and therefore reduce emissions
- Implement Automated Metering for natural gas customers to support and monitor DSM initiatives, promote usage awareness, and encourage behaviour change
- Immediately initiate a carbon, capture utilization and sequestration or storage pilot project for natural gas generation in Ontario
- Strengthen investments in RNG, and compressed natural gas to reduce emissions in medium- and heavy-duty transportation

# RECOMMENDATION

## 2 | Optimize Use of Existing Infrastructure

**2C** To best leverage the electricity system:

- Leverage our existing almost emission-free electricity sector to electrify key segments (e.g., transport, industry, mining) of the economy where it is the most economic option and/or supports sustainability objectives
- Given the long lead times required for new infrastructure (e.g., generation, transmission or distribution upgrades) begin planning now to expand the electricity system so that it will be able to meet the significant increase in demand for electricity as a result of Net Zero and electrification objectives, including enabling investments in the capacity of the distribution system to handle the anticipated fast growth in electric vehicle charging
- Support the integration of distributed energy resources (DERs) into the electricity grid, including power storage and hydrogen, where they provide system benefit, and offer customers choices
- Invest and expand the transmission and distribution grids to address and enable economic development, accommodate changes in generation and prepare for decarbonization
- Invest in and expand conservation and demand management programs to reduce demand, emissions, and pressure on the electricity system. Expand these programs to include fuel switching to electricity to support decarbonization in key sectors such as building heating and industrial processes
- Continue to drive efficiencies in Ontario's distribution sector through collaboration, partnerships, and consolidation

# RECOMMENDATION

## 3 | Invest in Infrastructure, Technology & Adaptation

**3A** Competitive and regulatory processes should be used, wherever prudent, to procure new infrastructure as they are needed to ensure consumers get the lowest cost reliable clean energy

**3B** Foster a flexible regulatory regime that enables market participation of new and evolving technology and resource types, including energy storage and demand response

**3C** Invest in an expansion of province wide hydrogen infrastructure to facilitate a fueling network for heavy transportation; this will also require legislative and regulatory updates to enable production, transportation, and consumption of blue and green hydrogen

**3D** The provincial government should update the Oil, Gas & Salt Resources Act to remove the current ban on carbon sequestration to unlock opportunities for industry to invest and create jobs in Ontario

**3E** The OEB should move quickly to consult, develop, and implement recent government direction to provide guidance to utilities on system investments to prepare for electric vehicle adoption, so that utilities can incorporate these investments in distribution rate applications submitted to the OEB for review

**3F** The provincial government needs a policy on energy efficiency and decarbonization goals for buildings to achieve emissions reductions related to heating and ventilation

**3G** Continue to make investments in Ontario's cybersecurity framework to protect customers and energy sources

# RECOMMENDATION

## 4 | Invest in Energy Efficiency

**4A** Ontario should expand investment in energy efficiency and demand response programs that reduce energy needs across all sectors and fuels

**4B** Ontario should pursue a decentralized delivery model for energy efficiency and energy conservation programs, taking advantage of the strong relationships that utilities and energy services companies have with consumers

**4C** Regular meetings should be established between the federal government and provincial government with the objective of coordinating and aligning energy efficiency programs (and funding) to eliminate overlap, duplication, and customer confusion

**4D** The federal government's funding of energy efficiency in Ontario should align with and support the provincial comprehensive plan outlined above, and also be consistent with the principles in the letter from the Ministry of Energy to the federal government encouraging collaboration between DSM and the new Canada Greener Homes Program to benefit Ontario ratepayers

# RECOMMENDATION

## 5 | Achieve Behavioural Change

**5A** Governments must work together to invest in public education to increase consumer awareness of the impact of daily decisions on emissions and the choices available to them, including

- The emissions impact of our various purchases
- The emissions profile of various products and services
- The impact of our transportation decisions
- How to make cost-effective purchases of goods and services to lower emissions
- Leverage the existing customers relationships of utilities and energy companies to develop and deliver education initiatives

# Detailed Discussion of Recommendations

# CHARTING THE COURSE

Achieving net zero emissions by 2050 requires a well thought out planning process and plan. The process will require numerous iterations and course corrections as we learn what works and what does not work to achieve the significant emissions reductions needed. Ontario needs to initiate a comprehensive integrated energy planning process. Businesses and investors need a roadmap to provide certainty to ensure consumers are well served during the energy transition and that Ontario attracts the investments necessary to make the transition. Ontario will need a plan to capitalize on the economic opportunities arising out of the energy transition.

The European Union has already taken steps towards integrated energy system planning, and takes the view that "Energy system integration refers to the planning and operating of the energy system "as a whole", across multiple energy carriers, infrastructures, and consumption sectors, by creating stronger links between them with the objective of delivering low-carbon, reliable and resource-efficient energy services, at the least possible cost for society."

The EU strategy states further that "Energy system integration will translate into more physical links between energy carriers. This calls for a new, holistic approach for both large-scale and local infrastructure planning, including the protection and resilience of critical infrastructures. The objective should be to make the most of the existing infrastructure while avoiding both lock-in effects and stranded assets. Infrastructure planning should facilitate the integration of various energy carriers and arbitrate between the development of new infrastructure or re-purposing of existing ones. It should consider alternatives to network-based options, especially demand-side solutions and storage."

Without a similar approach in Ontario (and Canada), businesses and households will experience fluctuating policies, unreliable service, uncertainty, and higher costs as uncoordinated and random policies and programs fail to both serve consumers and achieve net zero goals. Importantly, a credible plan is necessary to create coverall citizen and voter support in the implementation of the significant changes in energy use and individual behaviour required to meet climate targets.

# 1 COMPREHENSIVE & CO-ORDINATED PLAN

The past two decades have shown that without a transparent, coordinated plan to tackle emissions, we will see further inaction or slow response. This outcome is no longer acceptable as evidence continues to accumulate that the cost of inaction on climate change will far outweigh the costs of making the investments needed to reach net zero targets. The planning process will need to pull together all levels of government, industry, and the public to achieve success.

**1A** A comprehensive energy-use plan is required to ensure that Ontario finds the most affordable, reliable, and sustainable pathway to achieving both energy needs and emissions reductions objectives

**1B** The plan should eliminate infrastructure planning siloes within the energy sector, but also across sectors (e.g., transportation, buildings, industrial processes)

**1C** The Ontario Energy Board (OEB) and Independent Electricity System Operator (IESO) need to move swiftly on implementing recent government guidance and direction regarding emissions reductions objectives into their decision-making and policy making. This will ensure that regulated utilities and market participants have certainty and guidance regarding what investments are allowed in the energy system

**1D** Federal, provincial, and municipal governments need to coordinate and align their policies and programs and collaborate on future programs to ensure that there is a clear, comprehensive, costed, and complementary emissions reduction strategy for Ontario

In Canada, the provinces and territories are responsible for energy security, development and management of resources, regulation and legislative framework for energy supply, and energy pricing at the distribution level. However, increasingly, the federal, provincial, and municipal governments are all active in advancing energy policies related to emissions reductions strategies. Therefore, given the responsibilities of the provinces, and that the powers of municipalities are granted and defined by the provincial government, it is the view of the OEA that any comprehensive energy plan would best be led and developed by the provincial government (and its agencies), but in coordination with municipalities and the federal government.

This planning process will require clear and transparent mandates across government ministries and agencies (such as the OEB and IESO) to incorporate emission reductions into their policy, regulatory, system planning and other relevant decision-making.

The government has recently taken action to provide direction to the OEB (e.g., the Minister of Energy's renewed Mandate Letter) that provide guidance to the OEB with respect to developing policies related to electrification, integration and alignment between natural gas and electricity conservation programs, and support the decarbonization of the economy. Similarly, the Ministry of Energy has asked the IESO to evaluate a moratorium on procurements of new natural gas generating stations in Ontario and develop a pathway to zero emissions in the electricity sector.

Critical to this planning is that the energy industry be a partner in the development of plans as our industry is in the best position with respect to building the infrastructure necessary for the energy transition, the ability to quickly make course corrections when necessary, and understanding the differing needs and concerns of customers and communities.

The energy industry is keenly aware of the planning siloes (e.g., transportation infrastructure; building codes and standards; the needs of industrial customers) that need to be address across sectors of the economy to tackle the energy transition.

Energy industry partnership with government (and its agencies) has been extremely successful in Ontario with many recent examples in collaborating in developing Ontario energy plans and policy:

- During the COVID-19 pandemic, the Ministry of Energy and the sector and successfully worked together to develop and implement customer protections such as the COVID-19 Energy Assistance Program as well as extending the ban on disconnections related to non-payment

- The existing regional planning process, overseen by the OEB, recognizes that each region in Ontario has unique needs and that there are many ways for these needs to be met (e.g., conservation, generation, transmission, distribution, and innovative solutions, such as Distributed Energy Resources). It is an inclusive process with the IESO, local utilities, generators, local transmitter, gas utilities, Indigenous communities, and the public (i.e., municipalities, individuals, and business groups) working together to determine the best way for electricity needs to be met.

- Recent collaborations between the OEB and the sector and on planning and policy development, include the Energy[X]Change, Adjudication Modernization Committee, and the Framework for Energy Innovation Working Group.

- The IESO has a well-established Stakeholder Advisory Committee, in addition to Standing Committees and Working Groups.

This successful track record of industry-government cooperation outlined above provides a strong foundation for the sector, the provincial government, and other partners to work together to create and implement solutions to accomplish net zero goals on time, reliably, and cost-effectively

When considering issues related to costs the OEA believes energy costs should be borne typically by those that benefit from the access to energy. The widespread socialization of cost across all ratepayers and/or taxpayers should be avoided to achieve cost effective solutions. However, it is likely that affordability and access to energy will be an issue for some groups and targeted relief will be warranted to help those that need it. This will require careful analysis to ensure that the costs of pursuing the public policy objective of net zero will be allocated equitably among different customer classes of ratepayers, between ratepayers and taxpayers, and among different income levels.

# STARTING THE JOURNEY

Once the course to reaching net zero is established, the journey to reach the destination can begin. A key component of this will be making the best use of Ontario's existing energy assets.

To its credit, the province has already started this work through the IESO's Natural Gas Phase-out study which found that completely phasing out natural gas generation by 2030 would lead to blackouts, require system changes that would increase residential electricity bills by 60 per cent, and also hinder the advancement of electrification of the broader economy (e.g., transportation). However, there is more work to be done.

# 2 OPTIMIZE USE OF EXISTING INFRASTRUCTURE

The first step in the energy transition is making the best use of our vast existing energy infrastructure investments. Prudent public policy should adopt a cost-effective approach that seeks to optimize the use of existing assets (and minimizing stranded assets). Pipelines, transmission lines, distribution infrastructure, power plants, refineries, storage facilities, distributed energy resources, demand response and energy efficiency resources are all major investments that have been made by utilities, customers, and other parties. These assets shape the energy landscape of the province.

Experience has shown that the public (i.e., voters) are very price sensitive to increases in the cost of energy. Taking advantage of existing infrastructure is the best way to ensure cost effective energy services and reliable supply for Ontario's residential and business consumers and meet public policy objectives.

As new system needs emerge in the future, Ontario should ensure that existing assets and their locations are assessed fairly for reinvestment potential. The recent past, in Ontario and other provinces, reveals that siting new energy infrastructure such as generation facilities and transmission lines can be very controversial and costly; this makes communities with existing facilities attractive locations for additional investment.

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**2B** To best leverage the natural gas system:

- Provide the OEB with a mandate to enable emissions reductions investments or energy sources even when more costly, when they meet cost of abatement thresholds
- Set targets for the blending of renewable natural gas (RNG) into the gas system, and move away from voluntary RNG option (as is already being done with ethanol for transportation fuel)

- Create a provincial strategy for hybrid heating systems with smart controls, replacing a conventional air-conditioner with a higher efficiency air-source heat pump, and pairing it with a gas furnace and smart controls through collaboration and partnership between electric and natural gas utilities
- Give the OEB a mandate for more aggressive demand-side management DSM targets and expanded programs, to reduce the volume of natural gas used for building heat and therefore reduce emissions
- Implement Automated Metering for natural gas customers to support and monitor DSM initiatives, promote usage awareness, and encourage behaviour change
- Immediately initiate a carbon, capture utilization and sequestration or storage pilot project for natural gas generation in Ontario
- Strengthen investments in RNG, and compressed natural gas to reduce emissions in medium- and heavy-duty transportation

**2C** To best leverage the electricity system:

- Leverage our existing almost emission-free electricity sector to electrify key segments (e.g., transport, industry, mining) of the economy where it is the most economic option and/or supports sustainability objectives
- Given the long lead times required for new infrastructure (e.g., generation, transmission or distribution upgrades) begin planning now to expand the electricity system so that it will be able to meet the significant increase in demand for electricity as a result of Net Zero and electrification objectives, including enabling investments in the capacity of the distribution system to handle the anticipated fast growth in electric vehicle charging
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- Continue to drive efficiencies in Ontario's distribution sector through collaboration, partnerships, and consolidation

Ontario has existing electricity distribution system assets of over $29 billion, electricity transmission assets of over $13 billion, and natural gas distribution system assets of over $25 billion. In addition, Ontario has billions of dollars of existing electricity generation, distributed energy resources, and other energy infrastructure assets located on the transmission and distributions systems as well as behind-the-meter on a customer's premise.

## Maximizing the value of existing assets is the only way to meet NZ2050 targets in an affordable and reliable manner.

These investments are an important part of Ontario's energy future and must be leveraged by the government as it pursues the dual objectives of meeting climate change objectives. This should include giving the IESO clear direction on extending the life of existing power generation assets (particularly those with lower emissions and/or emissions-mitigation measures in place).

Additionally, the transportation sector is currently Ontario largest source of greenhouse gas emissions, representing Ontario's best opportunity to lower its carbon footprint in a cost-effective way by taking advantage of existing infrastructure (e.g., incorporating EV's into the electrical grid and RNG and CNG for heavy- and medium-duty transportation).

It is important to recognize that these existing assets include energy efficiency and demand response capacity. Ontario's utilities have invested significantly in conservation programs that deliver cost effective capacity to Ontario's energy system. The programs delivered by Ontario's electricity and gas utilities have an excellent track record of delivering value to their customers. Further, customers and other energy services providers have made investments in energy efficiency and demand response to lower their energy costs and reduce their environmental footprint.

For example, the government should leverage existing energy utility energy efficiency and conservation leadership and expertise for an expanded role in meeting GHG reduction goals. Utilities are in the best position to further expand conservation program offerings to the residential, multi-residential and commercial building sector as well as large industrial energy users.

Further, the investment by customers in new technologies and innovations that offer them greater autonomy over their energy use is steadily increasing. These distributed energy resources represent more existing infrastructure investments, and can include renewable generation, energy storage, combined heat and power, and micro-grids.

It behooves the province to take the fullest advantage possible of all the significant existing infrastructure described above that has already been paid for by ratepayers, taxpayers, utilities, energy service providers, and customers.

# REACHING THE DESTINATION

Maximizing the value and utility of existing infrastructure as described in the previous section will enable the province to move forward with the new investments to reach NZ2050 in an expeditious, reliable, and cost-effective way. In many areas, industry and customers are already taking action to make the energy transition within the existing policy and regulatory framework. However, there are limitations in the current environment, requiring leadership and direction from the government to enable the sector to make additional infrastructure investments efficiently.

Moreover, Ontario will clearly have to develop new electricity generation capacity as the demands for electricity fuel switching increase. Any plans for a significant increase in generation capacity or imports will require a proportionate need for increased transmission and distribution capacity. New infrastructure will be required to reliably deliver this additional electricity from generators to loads, to allow for system optimization, and accommodate increases in two-way power flows. These long-lived key assets require long-lead times to both plan and build-out, involving intensive major planning processes, regulatory approvals, and extensive consultation processes. Therefore, it is imperative that work begin well before needs materialize to ensure this essential transmission and distribution infrastructure expansion will be ready on time to meet our 2050 targets.

Again, to its credit, the province has started work in this area through the request by the Minister of Energy that the develop an achievable pathway to phase-out natural gas generation and achieve zero emissions in the electricity system, taking into consideration reliability, cost, electrification of the broader economy, and the use of green fuels (e.g., hydrogen and RNG) and other technologies (e.g., pumped storage, battery storage, and demand response).

# 3 INVEST IN INFRASTRUCTURE, TECHNOLOGY & ADAPTATION

The path to net zero is uncertain. Experimentation and pilot projects will be necessary to reach the ultimate destination. There will be successes and failures along the way, but whether technologies live up to (or fail to live up) their promise will not be predictable. Therefore, the approach to planning should be technology agnostic going forward and evaluate promising evolving fuels and technologies based on their cost, feasibility, and scalability.

Timely technology investments, incentives, funding, and red tape reduction will be needed to achieve efficiency and commercial-scale in energy sources and production (e.g., alternative fuels, storage, and carbon capture and sequestration), but also in how energy is used across sectors (e.g., transportation, buildings, industrial processes).

Critically, these strategies and policies need to recognize that investments are required to not only lower emissions, but also to assist in adapting to climate change by making energy infrastructure more able to withstand and recover from extreme weather events (e.g., wind and flooding) caused by climate change

**3A** Competitive and regulatory processes should be used, wherever prudent, to procure new infrastructure as they are needed to ensure consumers get the lowest cost reliable clean energy

**3B** Foster a flexible regulatory regime that enables market participation of new and evolving technology and resource types, including energy storage and demand response

**3C** Invest in an expansion of province wide hydrogen infrastructure to facilitate a fueling network for heavy transportation; this will also require legislative and regulatory updates to enable production, transportation, and consumption of blue and green hydrogen

**3D** The provincial government should update the Oil, Gas & Salt Resources Act to remove the current ban on carbon sequestration to unlock opportunities for industry to invest and create jobs in Ontario

**3E** The OEB should move quickly to consult, develop, and implement recent government direction to provide guidance to utilities on system investments to prepare for electric vehicle adoption, so that utilities can incorporate these investments in distribution rate applications submitted to the OEB for review

**3F** The provincial government needs a policy on energy efficiency and decarbonization goals for buildings to achieve emissions reductions related to heating and ventilation

**3G** Continue to make investments in Ontario's cybersecurity framework to protect customers and energy sources

As Ontario builds its energy system for the future, when Ontario's requires resources, the use of a competitive (IESO procurement) and regulatory (OEB review) processes should be the main avenues of infrastructure acquisition to ensure that the system can meet environmental and reliability objectives at the lowest possible cost for consumers. In the case of the IESO, the government should also include access to procurement mechanisms with longer periods of return to support upgrades, repowering, and the addition of emerging technologies.

Also, given the likely long lead times required for new infrastructure (e.g., pipelines, underground carbon capture, large scale energy storage, generation, transmission or distribution) policy clarity as well as investments, incentives and regulatory mandates are in place in the near future to (1) expand the electricity system so that it will be able to meet the significantly increase in demand for electricity from transport and buildings (which are two of the largest sources of GHG in the province); and, (2) expanding the ability of the gas distribution system for the use of hydrogen in transportation and other future applications, that meeting emissions reduction targets requires.

As the province looks toward making these investments infrastructure and new technology, it should make sure that it leverages the significant amount of funds available from federal sources (e.g., Net Zero Accelerator Zero-Emission Vehicle (ZEV) programs) and encourage the growth of made-in-Ontario solutions.

# 4 INVEST IN ENERGY EFFICIENCY & DEMAND RESPONSE

Until recently, Ontario had projected a surplus electricity generation capacity and energy into 2030s, which led logically to system efficiency and affordability being policy priorities. However, pursuing NZ2050 changes the outlook significantly because it will result in a large increase in the use of cleaner forms of energy. The electrification of transportation and building will result in a significant increase in the demand and consumption of electricity. RNG and hydrogen will also increase in usage. Therefore, maintaining the critical need for both a reliable supply of energy and keeping energy costs affordable require that we not just increase the supply of clean energy and the infrastructure to deliver that energy to consumers, but produce and use all energy more efficiently.

Ontario has had great success in developing a culture of conservation behaviour that has demonstrably reduced the amount of electricity and natural gas we use at home and at work. The value of this conservation will need to be harnessed and expanded greatly as Ontario approaches 2050.

**4A** Ontario should expand investment in energy efficiency and demand response programs that reduce energy needs across all sectors and fuels

**4B** Ontario should pursue a decentralized delivery model for energy efficiency and energy conservation programs, taking advantage of the strong relationships that utilities and energy services companies have with consumers

**4C** Regular meetings should be established between the federal government and provincial government with the objective of coordinating and aligning energy efficiency programs (and funding) to eliminate overlap, duplication, and customer confusion

**4D** The federal government's funding of energy efficiency in Ontario should align with and support the provincial comprehensive plan outlined above, and also be consistent with the principles in the letter from the Ministry of Energy to the federal government encouraging collaboration between DSM and the new Canada Greener Homes Program to benefit Ontario ratepayers

Ontario's energy capacity can be enhanced through increased energy efficiency. Energy efficiency is a proven low-cost system resource in Ontario. As we look to expand the capability of our electricity system and other clean energy sources to replace carbon fuels, energy efficiency will have significant cost-effective potential.

Further, expanding DSM programs in the natural gas sector are also a critical component to reducing emissions.

Energy companies have the insights required to best deliver energy efficiency programs to customers; both residential (houses, apartments, and condominiums) and businesses (commercial and industrial), which require specifically tailored programs depending size, location on the energy system, region of the province (North v. South) and/or their particular line of business/industry. A decentralized delivery model would take the greatest advantage of the creativity and nimbleness of utilities and energy companies compared to the current centralized structure.

Ontario has been very successful in developing a new capacity auction in which demand response resources compete to provide low-cost energy capacity to our system. Demand response aggregators bring together electricity users who are willing to reduce their consumption in times of peak need. By reducing peak demand, the reliance on expensive, under-utilized peaking resources is reduced and in most cases carbon emissions are lowered. This resource has the potential to grow and to cost-effectively enhance Ontario's grid capacity with existing aggregation strategies.

As with other funding measures discussed earlier, investments in Ontario on energy efficiency and demand management should align with and leverage funding be offered by federal sources.

# 5 ACHIEVE BEHAVIOURAL CHANGE

Meeting NZ2050 requires a fundamental change in the behaviour and attitudes of society towards energy use. Lowering emissions and adaptation to climate change requires investments in ongoing communication with citizens and customers to make them aware of the role they can play in reducing their individual emissions, the options available to them to help them do so, and how to choose the options that best align with their needs and household budgets.

Greater awareness will allow consumers, families, and businesses to make informed choices about the impact they are having on emissions. Industry is in the best position to take a leadership role in delivering education and opportunities to customers, enabling their ability to change behaviour, lifestyle choices, and/or adopt low/zero emission technology.

**5A** Governments must work together to invest in public education to increase consumer awareness of the impact of daily decisions on emissions and the choices available to them, including

- The emissions impact of our various purchases
- The emissions profile of various products and services
- The impact of our transportation decisions
- How to make cost-effective purchases of goods and services to lower emissions
- Leverage the existing customers relationships of utilities and energy companies to develop and deliver education initiatives

Our behaviour can have a significant impact on our emissions footprint generally, including choices we make that impact how we use energy. As discussed earlier, Ontario has had great success in developing a culture of conservation behaviour with respect to electricity and natural gas. We also saw how behavioural practices have resulted in increasing transportation emissions even when technological advancement has resulted in much more fuel-efficient vehicles.

Reaching NZ2050 will require Ontarians to build on this progress by adapting our behaviour to continually reduce our emissions profile through all our activities and purchases. The education required to achieve emissions targets must go beyond the success Ontario has had in building a culture of conservation of electricity that was led by the utilities. It will require significant customized and individualized messaging to a diverse set of residential and business customers.

Governments and the energy sector need to work together to provide ongoing education of citizens and all customers (residential and business) to make them aware of the role they can play in reducing their individual emissions and the options available to them to help them do so.

And we must all work together to build a culture of emissions consciousness just as we have successfully built a culture of conservation with respect to household energy consumption within our homes.

# KEY OBJECTIVES

The purpose of this document is to provide elected officials and key decision makers from Ontario's main political parties with clear and precise recommendations on energy policies to address the needs of Ontario energy consumers. Our recommendations have been guided by the key objectives of ensuring energy in Ontario is:

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## Sustainable

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## Reliable

Energy policies should ensure that Ontarians continue to have uninterrupted access to reliable energy. Our modern society and economy are dependent on reliable energy, and interruptions can have very serious consequences. Policies should allow for continuous investment in Ontario's energy infrastructure so that it can withstand and recover from extreme weather events and continue to supply Ontario's energy consumers with reliable access to affordable clean energy

**To shape our energy future for a stronger Ontario**


Ontario Energy Association

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