Saving billions on natural gas costs

environmental defence

ONTARIO CLEAN AIR ALLIANCE RESEARCH

As the latest report from the Intergovernmental Panel on Climate Change makes clear, we have very little time left to reduce emissions in order to avoid catastrophic climate change. Ontario is already seeing the early effects of a runaway climate, including damaging storms, massive flooding and more intense forest fires.

Buildings and industry combined are the largest source of greenhouse gas emissions in Ontario, with industry accounting for 30 per cent of emissions and buildings 21 per cent. Natural gas use is the biggest sources of greenhouse gas emissions in these sectors, but the good news is that we can quickly and efficiently reduce natural gas use and associated greenhouse gas emissions while saving money.

A recent study by ICF International has found that deeper efficiency efforts between now and 2030 could save the province's consumers $85 billion in natural gas costs over the life-times of the energy efficiency measures. In addition, efficiency efforts will also help customers reduce their exposure to the federal carbon price.

Providing gas consumers with support to improve efficiency by, for example, providing technical assistance and incentives for switching to better equipment or adopting energy-smart building techniques, is a win-win for our province. To be approved by the Ontario Energy Board, gas utility spending on such measures must result in savings that are at least equal to the cost of the measure (e.g., every $1 in program costs must result in $1 in savings for customers). However, in reality, current efficiency programs result in much greater benefits. Enbridge's 2019 programs, for example, are forecast to generate $4.72 in savings for every dollar spent. Enbridge's most cost-effective programs in the commercial sector are forecast to generate around $15 in savings for every dollar spent.

Improved energy efficiency programs can save gas consumers $85 billion

Average efficiency programs

Cost 

Payback 

Top efficiency programs

Cost 

Payback 

Gas conservation and efficiency programs are highly cost-effective

Efficiency programs help all gas customers by reducing the need for expensive new gas infrastructure

These efficiency cost savings don't just benefit program participants. All gas customers will benefit from reduced costs when we meet the demand for gas-provided services through efficiency improvements rather than through expensive new infrastructure, such as new pipelines. And, of course, by reducing the burning of natural gas, these programs also cost-effectively reduce greenhouse gas emissions, thereby helping to reduce the damage being done by climate change across Ontario. Natural gas creates approximately 25 per cent of Ontario's greenhouse gas emissions and the burning of natural gas is the largest source of greenhouse gas emissions in the province after transportation. However, the ICF report found that improved efficiency efforts can reduce emissions from natural gas by 17.8 per cent by 2030.

Efficiency programs also create economic opportunities, including jobs, right here in Ontario. Instead of paying for imported gas, we pay local workers to help upgrade buildings, retrofit production lines, or install new equipment. We generate jobs in both services and manufacturing by creating demand for more efficient equipment while making our industries and businesses more competitive by reducing their input costs. Efficiency efforts also increase disposable income for households by reducing spending on natural gas. These saved dollars can be put toward purchases of goods and services in local markets instead of being used to pay for natural gas.

To capitalize on this win-win opportunity to reduce costs and greenhouse gas emissions, we have to act quickly. We need to ensure that businesses and consumers looking to replace old equipment select the most efficient replacements available today before they lock into less efficient choices that could remain in operation for the next 15-20 years (the average lifecycle of major capital equipment). Similarly, homes and buildings undergoing renovations or additions are often ripe for efficiency upgrades, an opportunity we can't afford to waste if we want to lower significant building-related emissions. In fact,

if we miss these windows of opportunity, we will have many businesses and households using equipment or operating buildings that needlessly waste gas and add avoidable greenhouse gas emissions to our atmosphere.

Thanks to new technologies, smart controls and improvements in building science, it has never been easier to squeeze more benefit out of every cubic metre of gas we burn. But even smart consumers may not be aware of all the benefits of choosing more efficient equipment or have the necessary up-front capital to invest in measures that will pay off over time. This is why we need to empower our gas utilities to further help their customers reduce their gas consumption. We can do that in two ways.

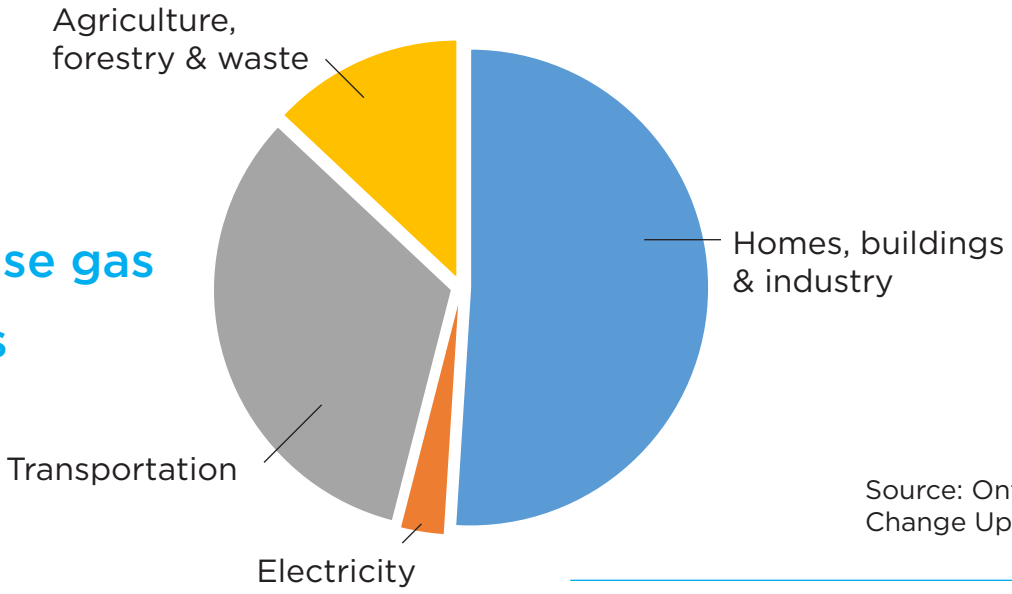
First, by aligning utilities profit motive with maximizing efficiency for their customers. There are already mechanisms in place to "share savings" between utilities and their customers that result from efficiency improvements, but these can be strengthened to make improving efficiency the most profitable course of action for utilities. In particular, utilities must be incented to maximize customer's efficiency savings instead of merely earning bonuses for exceeding modest program targets.

Second, we can also lower the up-front cost of the utilities' efficiency programs by amortizing their costs over the full lifespan of the energy efficiency equipment or measure. This is how the utilities treat their supply-side capital projects (e.g., new pipelines) and it only makes sense to take the same approach for efficiency improvements that will pay off over a decade or more.

Improving the efficiency of our natural gas use is an easy way to tackle the climate crisis. Ontario gas users will actually save money and our businesses will benefit in numerous ways, including through lower input costs and lowering carbon price payments.

New technologies such as smart controls can allow us to get more value from the gas we use

Ontario greenhouse gas emissions



Source: Ontario Climate Change Update

To make this win-win possible, the provincial government should ensure that gas utilities:

- Are given the tools to increase participation rates in conservation and efficiency programs to ensure the widest possible benefit and the deepest gas bill reductions
- Are allowed to amortize program costs over 10-20 years just as we do for pipelines and other capital investments
- Are given incentives to maximize savings that reduce Ontarians' gas bills
- Are required to pursue all achievable and cost-effective efficiency savings (i.e. where the bill savings outweigh the costs)
- Pursue programs to target the least efficient buildings with the most cost effective measures to bring the energy performance in these buildings in line with top performing buildings and to maximize the cost-effectiveness of overall program spending
- Prioritize integrated programs to help consumers reduce gas, electricity and water usage simultaneously

More comfortable homes and job creation are just some of the additional benefits of maximizing energy efficiency

For more information:

Ontario Energy Board Docket No. EB-2017-0127 and EB-2017-0128, *Comments and Recommendations of Environmental Defence and the Green Energy Coalition On the Demand Side Management Mid-Term Review*, (September 28, 2018).

ICF International, *Final Report: Natural Gas Conservation Potential Study*, (July 7, 2016).