

## **Background Information on Enbridge's Natural Gas Expansion Project - Bobcaygeon**

The Bobcaygeon project is part of Phase 2 of Ontario's Natural Gas Expansion Program, which aims to move natural gas service to areas of the province without gas service. It is funded by a subsidy from existing gas customers through a \$1.00/month surcharge on their gas bill. In addition, new customers are charged a significant monthly surcharge.

In 2020, Enbridge predicted there would be 3,978 customers by the tenth year of the project.

The subsidy for the Bobcaygeon project is estimated at \$68,029,650, or \$17,104 per potential customer. The City of Kawartha Lakes has also committed to financial support, about \$3 million in the form of forgiven property tax on the new natural gas infrastructure for ten years.

### **What is the most affordable energy for Bobcaygeon residents?**

Natural gas is no longer the cheapest way for community residents to heat their homes. All-electric heat pumps outperform gas furnaces. The Ministry of Energy's own research shows that annual home heating costs with heat pumps was \$700 less than gas furnaces in 2023 and predicted to be \$1,300 less in 2030 in gas expansion communities. Enbridge's data shows that average annual savings in year 10 of the Bobcaygeon project would be \$769.31, considerably less than for homes heated with heat pumps.

Enbridge charges customers who sign up for the program an expansion surcharge of \$.23 per cubic meter of gas, over a maximum of 40 years. A typical customer using 200 cubic metres of gas per month will pay an extra \$51.98 per month (including HST) on their gas bill, or \$623.76 per year. Enbridge's advertising tries to minimize this significant expense by comparing it to buying a cup of coffee a day. According to the most recent census, over half of Bobcaygeon residents have an after tax annual income of less than \$40,000.

Those who sign up with Enbridge will also be faced with heating system conversion costs and cost increases from the escalating federal carbon charge on natural gas.

It is important that residents be made aware of the alternatives to signing on with Enbridge. There are a number of incentive programs to purchase heat pumps. The federal government's Oil to Heat Pump Affordability Program, for example, provides grants up to \$10,000 for eligible households, based on income. A two person household with after tax income of \$89,125 or less would qualify. (Enbridge failed to inform residents in gas expansion communities of this federal program and other incentives. Canada's Competition Bureau is investigating complaints of Enbridge's deceptive marketing practices for this program.)

Ontario's Independent Electricity System Operator (IESO) recently announced its Energy Affordability Program, which gives a free cold climate air source heat pump to income eligible households with electric heating. Although the federal Green Homes grant for heat pumps was finished early, it will shortly be replaced by a program directed at lower income households.

Since 2017, when the City first expressed support for natural gas expansion projects, electric heat pump technology has surpassed natural gas as the most energy efficient, least expensive, environmentally cleanest and safest option.

## Heat Pumps and the Healthy Environment Plan

Natural gas is methane gas, a fossil fuel. The combustion of methane accounts for one third of Ontario's greenhouse gas emissions (GhG) . According to Enbridge's own data, the Bobcaygeon program will actually result in an **increase** in GhG emissions of 486 tonnes per year. That is going in the wrong direction. And recent studies have documented the indoor air quality risks from gas-fired home heating and appliance systems.

The energy transition requires significant electrification of current fossil gas use. Why, then, would the Kawartha Lakes encourage greater use of a polluting fuel?

The City of Kawartha Lakes' Healthy Environment Plan (HEP) commits the City to take urgent action to reduce GhG emissions and develop adaptation programs. Conversion of existing buildings and encouraging new builds to all-electric heat pumps, as recommended in the HEP, will not only save money for homeowners, but will also reduce emissions and improve air quality both inside and outside the home.

## **Will we have enough electricity to meet the growing demand?**

With so much electrification - cars, transit, industry, heating, etc., it is fair to ask whether we will have enough electricity to power everything.

The answer is yes, we will, if we do what needs to be done. And we have many exciting, feasible and relatively inexpensive options.

## **Renewable Energy**

Canada agreed to a resolution at COP28 to triple global renewable energy capacity by 2030, as part the effort to keep global warming to 1.5 degrees. Wind and solar power is emission-free and is the cheapest form of new electricity in Canada. Ontario should be tripling down on it.

In a turnaround when it cancelled more than 700 renewable energy contracts, Ontario recently announced it will procure 5000 MW of renewable energy from new projects. This is welcome news, but it will take us only one-tenth of the way to the goal of tripling renewable electricity. Why not more?

## **Wind Power**

Ontario should harness our wind. A report from the Ontario Clean Air Alliance (OCAA) found that with today's improved wind technology, it is possible to supply more than 100% of Ontario's electricity from offshore wind farms in the Great Lakes. The study cites the many improvements in environmentally responsible sourcing and operation of offshore wind farms. It notes the statement on climate change from the National Wildlife Federation and National Audubon Society, that "unless substantial wind power and other renewable energy development occur, in a rapid and timely manner, there will be significant and irreversible impacts to wildlife and biodiversity."

## **Storage**

The OCAA report also addresses the problem of when the wind doesn't blow. Although Ontario is investing in battery storage, a less expensive option is to use Quebec's hydro-electric reservoirs. Ontario would export its excess wind energy to be used in Quebec, letting Hydro Quebec store more water in its reservoirs. And when the wind doesn't blow here, Hydro Quebec can use the extra water to produce electricity to export back to Ontario. The report notes research from the Independent Electricity System Operator of Ontario showing how access to Quebec reservoirs can be achieved with upgrades to existing Hydro One corridors.

Another low cost storage solution comes from the batteries of electric vehicles (EVs). When equipped with a bi-directional charger, EVs can store excess energy and return it to the grid when needed. The OCAA report notes that "(I)n 2030 the total capacity of our EVs' batteries will be more than double the capacity of our gas plants."

Another study from the David Suzuki Foundation, working with the University of Victoria found that "(I)t is possible to meet Canada's needs for clean electricity reliably and affordably through a focus on expanding wind and solar generation capacity, complemented with new transmission connections between provinces, and other grid improvements." The Ontario part of the study found increasing wind power allowed for the phasing out of natural gas capacity and for phasing out and decommissioning of nuclear by 2040.

## **Distributed Energy Resources (DER)**

With smaller-scale technology, such as solar and battery storage, communities can produce and distribute their own electricity. This reduces reliance on the provincial system, lowers energy bills and provides additional security during emergencies.

A landmark study commissioned by the IESO found there is “sufficient economically viable DER potential in Ontario to meet 100% of Ontario’s anticipated growth in seasonal peak demand (under all scenarios).” The IESO has a Grid Innovation Fund to support development of DERS.

## **Efficiency Measures**

A recent study from the Royal Bank found that robust employment of efficiency measures could save enough electricity to power more than half of Ontario’s electricity demand by 2040. This would save Ontario ratepayers about \$500 million annually. Energy efficiency is also a major job creator. In 2019 there were more than twice as many people employed in efficiency careers (construction, professional and business services, manufacturing, etc) than were employed in mining, quarrying and oil and gas extraction.

## **What is Ontario’s Plan?**

The Ontario government’s plan to meet its forecast for growing electricity demand is an unnecessarily slow, expensive and polluting one. A steep price will be paid by all of us, through higher energy bills and the impacts of increasing pollution on health and the environment.

The government’s \$400 billion plan involves massive expenditures over the next two decades to overhaul and expand Ontario’s nuclear generating capacity. This plan includes building four small modular reactors, an unproven technology. It also involves building more gas plants and launching untested hydrogen schemes.

To address shortfalls in supply that may occur when nuclear plants are taken offline for refurbishment, the province is also expanding natural gas plants. This is in spite of the fact that wind and solar power, including the cost of storage, is cheaper to build and operate and creates no carbon emissions. Storage options overcome the problem of no wind or sunshine.

Last year wind and solar provided only about 8 per cent of Ontario’s electricity, hydro supplied 25 percent, and nuclear energy supplied 53 percent. But the electricity powered by gas plants grew to nearly 13 per cent, an increase 26 per cent over the previous year. Ontario’s gas plants are supposed to be used as “peaker plants”, used when the other sources cannot meet demand. But last year the 12 largest gas plants ran for an average of 12 hours per day. Gas plant use has tripled since Doug Ford came to power.

Last year Ontario’s Independent Electricity System Operator (IESO) said that electricity grid emissions would quadruple between 2023 and 2027 and continue to rise. It recently revised its modelling, indicating that emissions would start to decline after 2027 as nuclear production ramps up.

## **Is this the only way ahead?**

The Ontario government's expensive plan is based on a modelling exercise to determine what is needed to meet the anticipated demand. But other models from reputable sources show there are alternative pathways based on renewable energy, which are quickly built, less costly and better for the environment.

## Seniors for Climate Action Now! Kawartha Deputation to City of Kawartha Lakes Meeting of the Committee of the Whole, Regarding the Bobcaygeon Gas Expansion Project

The Bobcaygeon Gas Expansion Project is part of Ontario's Community Natural Gas Expansion Program. It's stated purpose is to "keep the cost of energy low." This program will not accomplish that.

Back in 2017, when the City first decided to support the project, this program may have been the best choice. But because of the many changes that have happened since, we believe it's the wrong choice. It's the wrong choice for residents and for new homeowners. And it will take Kawartha Lakes in the wrong direction on addressing climate change and in improving the lives of our residents.

First is what we know about natural gas. We know it is not 'natural', in the green sense of the word. Natural gas is methane, a potent greenhouse gas. Although it stays in the atmosphere a relatively short time, it traps heat, giving it nearly double the warming potential of carbon dioxide.

Recent research shows that leakage from extraction, transmission, distribution and use of methane is actually twice what had been reported. Scientists say that this higher fugitive emission rate suggests that natural gas is no better than coal, and undermines the notion that it can be seen as a bridge fuel.

Enbridge's own data shows that the Bobcaygeon project will actually **increase** emissions by 486 tonnes per year, by year ten. This is equivalent to the emissions from driving a gas-powered car 1.2 million miles every year. If we were to lock in another generation of fossil fuel equipment in Kawartha Lakes, it would undermine our ability to lower emissions in this sector.

There is also a growing body of research showing serious health risks from using gas stoves for cooking. They emit pollutants such as nitrogen dioxide which have been linked to childhood and lifetime asthma and a recent study shows they can emit benzene, a potent human carcinogen.

What has also changed since 2017 is the realization that we need to act, to shift from fossil fuels to clean energy, to electricity powered by renewables. There was the 2018 Report on Global Warming from the Intergovernmental Panel on Climate Change. It warned that we have only 12 years to keep global warming to 1.5 degrees. It called for rapid and far-reaching transitions in land energy, industry, buildings, transport and cities.

That same year, the City finalized and issued its Healthy Environment Plan. It is a plan focussed on both mitigation, on reducing emissions, and adaptation - protecting residents from the effects of climate change and building resiliency. It notes that small window of time we have to keep emissions below 2 degrees. It expresses the City's commitment to understanding the risks that climate change poses locally, and, more importantly, to taking action. The plan also makes note of the importance of the City's poverty reduction endeavours. The HEP shows that nearly 30 percent of Kawartha Lakes community emissions come from buildings.

But, of course, another major development in 2018 was the election of Doug Ford and his immediate cancellation of more than 700 renewable energy contracts. Ford called Kawartha

Lakes' previous mayor to Queen's Park for a one-on-one meeting, one of just seven such meetings. They talked about a variety of topics, including natural gas.

As climate catastrophes have mounted, and scientists' warnings have become more urgent, there is actually now wider acceptance of the need to switch from fossil fuels to clean electricity. So for example, last year, at COP 28, Canada and 200 other countries agreed to the need to transition from fossil fuels. Canada also agreed to resolutions to triple renewable energy and double energy efficiency by 2030.

Heat pump technology has also changed since 2017. It is so vastly improved that now all-electric heat pumps are now not only less expensive, but the most efficient way for people to heat and cool their homes. Heat pumps are less expensive because they are two to five times more efficient than gas furnaces and provide both heating and cooling with the same appliance. If the goal is to save money, the answer is all-electric heat pumps, not gas furnaces. We also know that gas is going to become even more expensive for consumers. Gas customers are already shifting to heat pumps, and as this trend increases it will leave those remaining to pay for the capital cost...essentially a stranded asset.

The other things that have changed are the demographics of our community. Nearly half our Kawartha Lakes residents are now older than 55. Those over the age of 65 are the fastest growing group. And we know that many people in our community struggle with low income. Elderly people and people living with low incomes are two of the groups most vulnerable to impacts of climate change, especially heat. Our summers are going to get hotter and heat waves will become longer and more frequent.

Given all of these developments, wouldn't the prudent thing, the compassionate thing, be to take another look at the question of whether the city should continue to support the Bobcaygeon project?

We are asking the City to make the decision to put its support for the Bobcaygeon Gas Project on hold. This is not a mandatory project. It is something that the City should decide on, based on an examination of relevant facts, and with the assistance of the Environmental Advisory Committee.

And following that examination, if the City ultimately decides to support the project, we ask that the City puts its resources into ensuring that all Kawartha Lakes residents have all necessary information on home energy, again with the input and assistance of the Environmental Advisory Committee. This includes up-to-date information that compares the cost, efficiency and emissions data of all electric heat pumps compared to other forms of energy such as gas, propane and electric baseboards. And it includes information on the various incentive and rebate programs that exist to help residents switch to cheaper, cleaner and safer forms of home energy.