Feedback Form

Gas Phase-Out Impact Assessment – May 27, 2021

Feedback Provided by:

Name: Dr. Lynda Lukasik

Title: Executive Director

Organization: Environment Hamilton

Email: [redacted]

Date: June 14 2021

To promote transparency, feedback submitted will be posted on the Gas Phase-Out Impact Assessment webpage unless otherwise requested by the sender.

Please provide feedback by June 17, 2021 to engagement@ieso.ca. Please use subject:

Feedback - Gas Phase-Out Impact Assessment

Introduction

This feedback is provided by Environment Hamilton. For more than 20 years, **Environment Hamilton** has been the voice of the Hamilton Community in pressing for clean air and clean water. We have led **successful challenges to various pollution sources**, and have been successful in enabling the declaration of a **Climate Emergency by the City of Hamilton** in March 2019.

Questions

Topic	Feedback
Are there additional considerations the IESO has not identified in defining the scope of the assessment to examine the reliability, operability, timing, cost and wholesale market implications of reduced emissions on the electricity system?	Click or tap here to enter text.

General Comments/Feedback

Potential for a flawed assessment

The stated purpose of this Impact Assessment is to examine the reliability, operability, timing, cost and wholesale market issues that would need to be addressed in reducing emissions on the electricity system.

Potential flaw 1 – Failure to consider air quality impacts.

The dramatic improvement in Ontario's air quality that was experienced when Ontario shut down its coal fired generating stations was remarkable in its impact in reducing smog days and the consequent impacts on public health.

The expansion of Ontario's gas plants will result in a 40% loss in air quality from what we gained in retiring coal – nitrous oxide and particulate matter - according to Professor Mark Winfield of York University.

Potential flaw 2 – omitting decarbonization.

In your presentation we note the limitations of scope, particularly that it is not intended to "Assess demand impacts from decarbonization of the economy".

There is a great danger that this limitation will lead to a flawed assessment.
Fact 1. The overriding driver of a gas plant phaseout is to reduce greenhouse gas emissions.
Fact 2. The primary means of reducing emissions will be the decarbonization of the economy.
Fact 3. Decarbonization of the economy requires energy consumption to switch from fossil fuel-based energy to renewable energy.
Fact 4. Energy consumption will largely be in the form of electricity. The alternative of hydrogen requires electricity if it is to be created from non-emitting sources.

The Assessment Report (P5) notes that the primary driver of demand during the forecast period is the pace of economic recovery. This reinforces our concern that the strategic

drivers of demand do not properly consider the impacts in our economy of actions to mitigate climate change.

The May 2021 IEA Report Net Zero by 2050 is blunt; it's opening statement is "As the major source of global emissions, the energy sector holds the key to responding to the world's climate challenge". It continues "Achieving net-zero by 2050 will require nothing short of the complete transformation of the global energy system".

We therefore argue that any assessment that properly evaluates demand for electricity must incorporate changes in demand driven by the required and likely energy switching that must take place within the planning horizon.

Potential flaw 3 – Not informing policy.

We also note that the Assessment limitations states that it is "not intended to provide recommendations to policy decisions". This will lead to flawed determination of the best sources of renewable power.

Energy policy in Ontario has been too much influenced by politics rather than science and economics. The November 2019 cancellation of 759 renewable energy contracts is a prime example, while it is clear that the cost of renewables are declining quickly and now form some of the cheapest power available.

Again, the International Energy Agency notes *"Renewable energy costs have continued to decrease in recent years. With the assumed moderate emission costs of USD 30/tCO2 their costs are now competitive, in LCOE terms, with dispatchable fossil fuel-based electricity generation in many countries."* Note that quoted carbon price of USD30 – less than the current Canadian Federal carbon price, which will reach $170CDN by 2030, well within the Assessment period.

A supply forecast that does not include recommendations on renewable energy policy and incorporate into the medium-term requirements for renewable energy supply is a flawed one.

Other General Comments/Feedback on the Assessment Report

Section 1 – Demand Forecast

1.3.1 Residential Demand: No mention is made of the potential demand from Cold Climate Heat Pumps as an important means of residential heating. The Federal Government has promoted this in its May 27th 2021 announcement "Making homes more energy efficient). While the current planning assumes summer peaks for demand, this could shift with switching to electrically based heating in Ontario.

1.3.3 Industrial demand: No mention is made of the need for the potential for steel sector electricity demand growth to be driven by the need to switch to hydrogen-based technology.

In Hamilton the industrial sector is the largest source of greenhouse gas emissions. The Arcelo Mittal Dofasco (AMD) steel making plant is the largest industrial emitter in Canada - (excluding oil, gas and electricity generation). It produced 4.75 megatonnes of carbon emissions in 2019; AMD company is exploring alternative energy sources – likely hydrogen - for steel making.

These are just two examples of the importance of looking at technology changes that will drive electricity demand as the economy decarbonizes.

Section 6 – Meeting capacity needs

6.2.3 Imports and interconnections; the current firm import agreement with Quebec is for 500Mw. That there is a much larger opportunity for imports from Quebec is demonstrated by the current debates in New England states over the imports from Quebec. Ontario has a forecast shortfall, Quebec has a surplus.

CONCLUSIONS AND RECOMMENDATIONS

The IESO has both the opportunity and responsibility to provide an Assessment which provides leadership in emissions reductions in Ontario. Reducing emissions must take priority over the business goals and profit levels of the privatized portions of the Ontario Electricity supply. This can be achieved through proper collaboration with the OEB and the Government.

1. A **phaseout of gas generation plants** must be targeted by 2030. This should start by reducing gas plant emissions down to 2017 levels and then targeting for complete phaseout by 2030. The IESO has a number of strong levers that can make this happen:
    a. Increase imports from Quebec through long term supply agreements: as necessary make required transmission upgrades to support these imports.
    b. Terminate exports of gas generated electricity which do nothing except increase provincial emissions and pad the profits of the privately owned companies.
    c. Ramp up energy efficiency investment. These cost an order of magnitude less than the proposed additional gas plant investments.
    d. Ramp up investment in wind, solar and storage.
        i. Ontario continues to miss the opportunity for wind power. Compare our wind capacity of 5.4 gigawatts to Scotland, with a population less than half of Ontario but a wind power capacity of 9.4 gigawatts.
        ii. Storage facilities such as the Oneida project, with a target capacity of 1000 MWh, can help to counter intermittency from wind and solar.
        iii. As EV's enter the large scale adoption phase their use in providing connected battery storage should be considered.

2. **Focus on a Fair Plan** that is not driven by the profits of power producers but the long-term interests of the Province. A plan that is fairer to consumers than to large energy generation businesses. Focus on the Points 1a – 1d above in such a plan.

3. **Develop a long-term understanding with Quebec Hydo.** Quebec exports should remain in Canada. The window for this may be closing as Quebec makes long term deals with N.E US States. The Globe and Mail reports that Quebec could develop long term agreements with Newfoundland and Labrador that could result in energy at 3.1c/KwH. Even at twice or three times this price, it represents a bargain. Are we one country or not?