

## IESO Engagement

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**From:** Barbara and Ted  
**Sent:** June 2, 2021 4:27 PM  
**To:** IESO Engagement  
**Subject:** Phase-Out Gas Plants

Hello,

I would like to explain my concerns about the Gas Plants as planned by IESO. It is not Gas Plants as such, but rather Greenhouse Gas (GHG) emissions from the Gas Plants that must be avoided. Canada and Ontario both have plans to reduce GHG emissions. Increasing emissions from Gas Plants is going in the wrong direction.

There are two large GHG emissions from Gas Plants that need to be considered: 1) Direct Emissions from burning the Gas, and 2) Fugitive Emissions (from Gas production and leaks during transportation).

It is possible to greatly reduce the direct emissions, for example by Carbon Capture and Storage (CCS). This is not a mature technology as shown in Saskatchewan. There the original plan was to use CCS in all generating stations. This has been scaled back and only one plant is in operation. Significant energy is needed to inject the CO<sub>2</sub> into the ground and there are technical hurdles to overcome. Despite the difficulty, an estimate of the cost of CCS is needed to properly evaluate Gas Plants.

It is possible to reduce the Fugitive emissions but this will increase the cost of Gas. In addition the cost of Gas will be increased by a Carbon Tax on remaining Fugitive emissions which are not practical to eliminate.

These added costs to reduce emissions need to be considered in the plans. They are probably greater than the \$140 per tonne Carbon Tax which is likely to be applied in a few years. As an absolute minimum the \$140 per tonne needs to be considered for both burning the Gas and for fugitive emissions.

This means that electricity from Gas Plants is expensive, but there may still be a role for Gas Plants in an energy mix to ensure a reliable energy supply. For example, Wind energy can be used to supply a portion of the energy mix at a lower cost. There are times when the wind does not blow. Batteries can be used to handle daily cycles but are not suitable for longer time periods. Gas plants are well suited to provide higher cost electricity to cover the remaining gaps. So while electricity from Gas is expensive, it may be needed to ensure a reliable supply. Other sources such as Water power, Wind, Solar should be used first in order to keep the costs down.

So in summary, my concern about the IESO plans for Gas Plants is that they ignore costs which must be included to ensure that the GHG emissions are minimized.

Ted McPherson