

Federal impact assessment of high-carbon projects

Recommendations for a GHG threshold for the project list

by Nichole Dusyk | January 14, 2019

Summary

The federal government should adopt a GHG threshold of 50,000 tonnes for the project list and this threshold should decline over time. It is estimated that this will capture 20-25 projects per year that would not otherwise be subject to federal assessment and ensure that GHG emissions reductions are equitably achieved across the country.

As a transboundary pollutant, greenhouse gas (GHG) emissions qualify as an environmental effect that falls within federal jurisdiction. The federal government has indicated in its Consultation Paper on Approach to Revising the Project List that it is considering a GHG threshold for designating projects under the Impact Assessment Act.

A GHG threshold is a critical step toward ensuring that Canada is able to achieve its commitments under the Paris Agreement. Some high-carbon projects will be captured through other entries on the project list; however, as the analysis below illustrates, many will not be subject to federal assessment (and some may not even be assessed by provincial and territorial governments). The opportunity to ensure that climate impacts are considered and mitigated in project design will provide long-term benefits for proponents through reduced operating costs, and will benefit all Canadians by incentivizing low-carbon pathways.

There are three important outcomes from a GHG trigger for federal assessment:

1. **Ensuring the collection of detailed and accurate information on anticipated emissions.** This can aid in carbon regulation and pricing policies. It is also necessary for drawing a complete picture of the cumulative impact of GHG emissions from all projects across the country.
2. **Providing an opportunity for GHG mitigation.** Impact assessments evaluate impacts but also recommend mitigation measures to reduce impact by, for instance, ensuring that the best available technology is utilized. An assessment provides an opportunity to make projects better by minimizing their impacts.
3. **Ensuring that the federal government is at the table to evaluate and decide on all high-carbon projects.** This is necessary to ensure that emissions reductions are

achieved across the country and that all sectors and regions are treated equitably regardless of provincial policies.

Recommended threshold

The threshold should apply to the construction or expansion of a facility whose operations are expected to release more than:

- a. 50,000 tonnes of GHG emissions per year prior to 2030;
- b. 25,000 tonnes of GHG emissions per year from 2030 to 2040; or
- c. 5,000 tonnes of GHG emissions per year after 2040.

A declining threshold is necessary because as Canada's emissions are reduced, the size of projects that have a significant impact on national emissions will also decline.

Impact of a threshold

To estimate the number of projects a GHG threshold might capture, we analyzed historical data from the GHG Reporting Program. Figure 1 illustrates the number of new projects added to the registry yearly from 2012-2016. This provides an estimate for the number of projects that might be assessed based on a GHG threshold. For instance a 50,000 tonne threshold (the lightest bar) shows 20-29 new projects per year while a 500,000 tonne threshold could be expected to capture 0-2 projects per year. This analysis likely overestimates the number of project assessments, in part because new entries on the GHG registry are not necessary newly built projects.

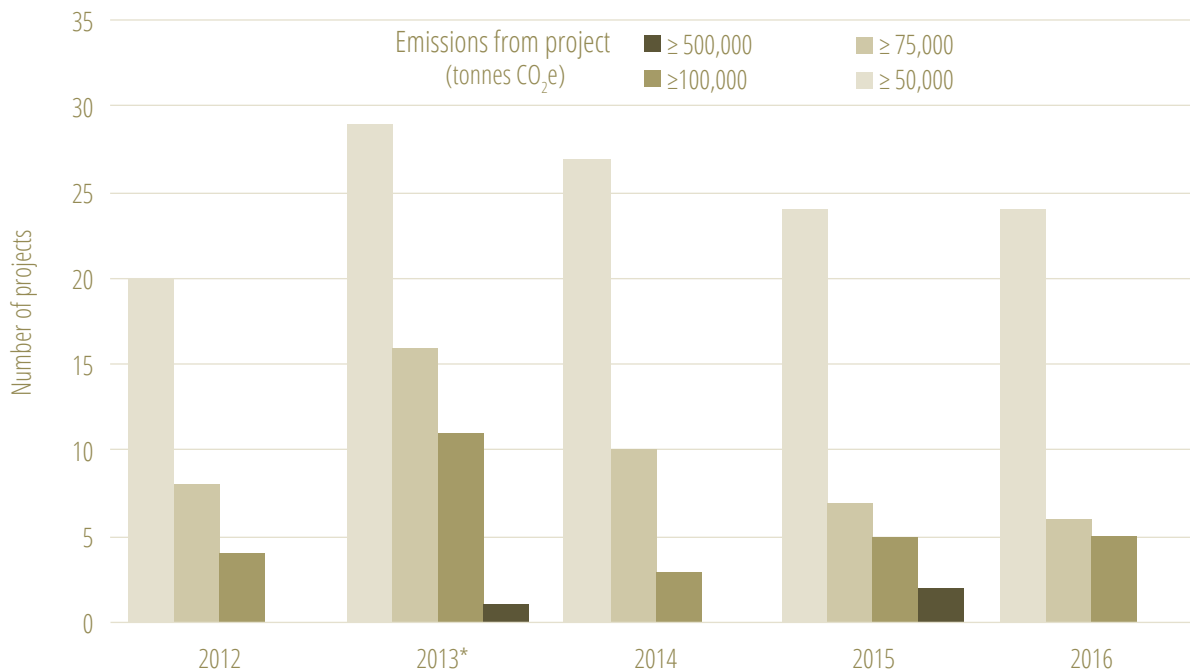


Figure 1. Number of projects with emissions at or above set thresholds

Data source: Environment and Climate Change Canada¹

*Amended reporting requirements in 2013 resulted in a greater number of false positives (projects that are new to the registry but are not newly built) for this year.

In addition, some of the projects would undergo a federal assessment even without a GHG threshold. This analysis shows that depending on the year, 0-6 of the projects were subject to a federal environmental assessment. However, the majority of projects that would have been captured by a 50,000 tonne-threshold would not have been otherwise assessed by the federal government. Projects were triggered in sectors including conventional oil and gas; unconventional oil and gas; fossil fuel electricity generation; cement manufacturing; waste treatment and disposal; mining; mills; forging; and oilseed processing. Our analysis of oilsands development shows 3-10 in situ oilsands projects per year during this time frame, most of which would have triggered a federal assessment with a 50,000 tonne GHG threshold.

To further estimate the impact of a specific GHG threshold, Figure 2 illustrates the amount of emissions that would have not been captured at thresholds higher than 50,000 tonnes. Since this analysis most likely overestimates the number of new projects, and therefore the total emissions, we can anticipate that a 75,000 tonne threshold would miss between 0.5 and 1.0 Mt of GHG emissions each year. Set at 500,000 tonnes, the threshold would fail to capture between 1.5 and 2 Mt of new emissions each year.

¹ Environment and Climate Change Canada, “Greenhouse Gas Reporting Program (GHGRP) - Facility Greenhouse Gas (GHG) Data.” <https://open.canada.ca/data/en/dataset/a8ba14b7-7f23-462a-bdbb-83b0ef629823>

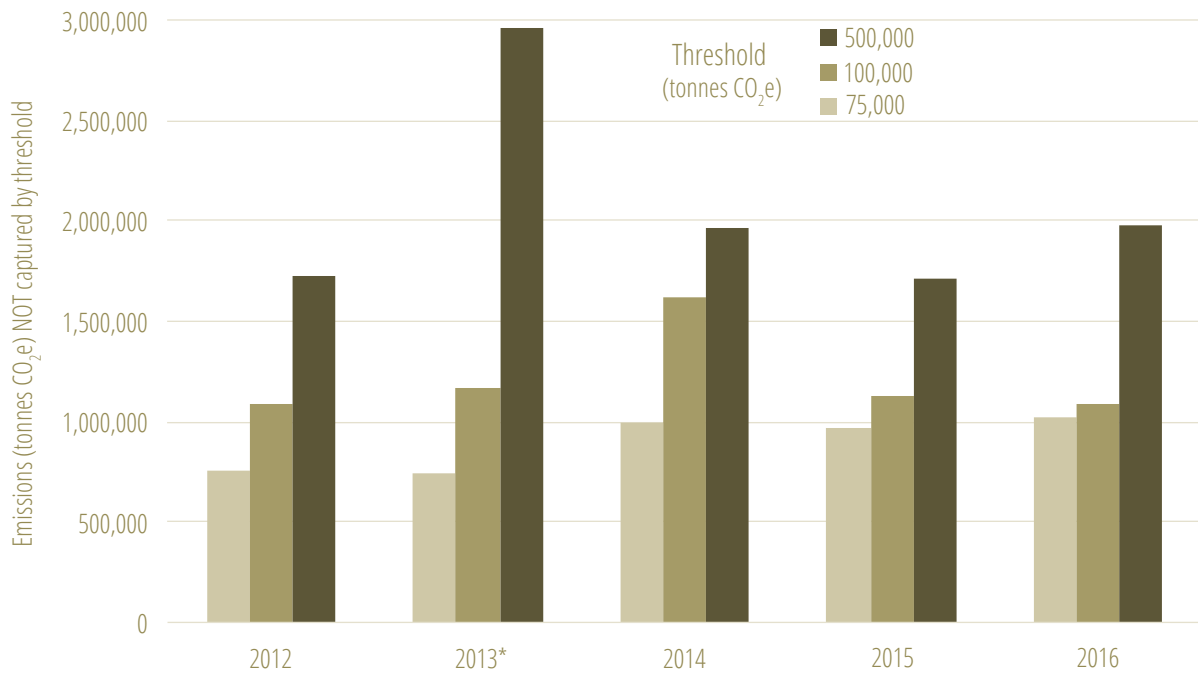


Figure 2. Emissions that would not have been captured at thresholds above 50,000 tonnes

Data source: Environment and Climate Change Canada²

*Amended reporting requirements in 2013 resulted in a greater number of false positives (projects that are new to the registry but are not newly built) for this year.

² Environment and Climate Change Canada, “Greenhouse Gas Reporting Program (GHGRP) - Facility Greenhouse Gas (GHG) Data.” <https://open.canada.ca/data/en/dataset/a8ba14b7-7f23-462a-bdbb-83b0ef629823>