

To: the Honourable Jonathan Wilkinson
the Honourable Steven Guilbeault

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Canada has committed to achieving economy-wide net-zero emissions by 2050, but does not yet have an energy scenario that is aligned with achieving that goal. However, the Canada Energy Regulator's upcoming net-zero energy scenario — through which it will deliver its mandate to fully model a net-zero scenario for Canada — can chart that path.

This will be an essential tool in Canada's climate toolbox. A credible net-zero scenario can be used to evaluate government spending and policies, to ensure that the decisions being made today are consistent with a world in which warming is limited to less than 1.5 degree Celsius. This scenario can also provide a basis for developing sector-specific targets, such as the federal government's announced cap on emissions from the oil and gas sector.

The CER's development of this scenario also represents an opportunity to align with the International Energy Agency's landmark *Net Zero by 2050* scenario, which lays out one possible pathway for the global energy sector to meet the 1.5-degree goal. The IEA's recently published *World Energy Outlook 2022*, which includes an updated net-zero scenario, emphasizes that the energy transition continues to accelerate but that globally, we are far from achieving our net-zero goals.

We recommend that the CER:

1. Make the net-zero scenario central to its *Energy Futures* report.

In the past, the central scenario adopted by *Energy Futures* has been the 'Reference' or 'Current' Scenario, which assumes modest uptake of clean energy technology. Instead, the net-zero scenario should be the primary focus of the next *Energy Futures*, as it will offer a landmark pathway to achieving Canada's climate targets and align the CER's flagship report and modeling initiative with goals outlined in the *Net-Zero Emissions Accountability Act*. The central scenario is most often cited by stakeholders and media, and must be consistent with the government's goals and policy targets.

2. Keep the path to net-zero within the global carbon budget, as set out by the IPCC.

While there are many paths to net-zero, there are fewer that are compatible with limiting global temperature increase to 1.5 degrees Celsius. The IPCC has concluded that maintaining a 1.5-degree level of warming remains within reach but requires [early action](#) to ensure that global GHG emissions peak by 2025 and decline by approximately 43% by 2030, on the way to net-zero by 2050. The CER's scenario should therefore be consistent with this global carbon budget and the IEA's net-zero assumptions regarding fossil fuel development.

3. Avoid over-reliance on negative emissions technologies.

The IEA scenario includes limited reliance on negative emissions technologies like carbon capture, utilization and storage (CCUS), and concludes that renewable energies and electrification are most likely to make the largest and most cost-effective contribution to limiting warming to 1.5 degrees. CCUS continues to [face challenges](#), both technical and economic, and is not a replacement for

transitioning away from fossil fuels. The CER scenario should assume realistic and limited deployment of CCUS, and prioritize renewable energies and electrification.

4. Ensure oil and gas sector emissions reductions are consistent with the NDC target of a 45% decline by 2030.

At present, the federal government’s Emissions Reduction Plan models a “projected contribution” from the oil and gas sector of a 31% decline relative to 2005 levels. This falls short of the federal government’s Nationally Determined Contribution of reducing economy-wide emissions by at least 45% below 2005 levels by 2030.¹ As our heaviest-emitting sector (oil and gas emissions increased by almost 19% between 2005 and 2019), oil and gas has the ability to make or break Canada’s climate promises. As such, the CER’s scenario should upgrade oil and gas sector targets to align with Canada’s international commitment of a 45% reduction by 2030.

5. Acknowledge the declining role of fossil fuels globally as countries transition to net-zero, and the impact of that transition on Canadian production.

An increasing number of countries have embedded net-zero into policy or legislation (including Canada’s Net-Zero Emissions Accountability Act), indicating that international climate action will only accelerate over the next few decades. A global decline in oil demand is expected by 2030 if the pace of policy implementation and technology development continues at a post-Paris Agreement pace. A founding assumption of the CER’s net-zero pathway should be that the world collectively meets its Paris Agreement goals and, as such, these demand trends should be incorporated into the CER scenario.

6. Align with emissions models and reporting undertaken by Environment and Climate Change Canada.

CER scenarios are widely used to understand the evolution of Canada’s energy system. A net-zero scenario will provide an important signal to business, investors, and the public. For policy coherence and credibility, this scenario must be aligned with the models used to plan and evaluate policy.

This net-zero scenario comes at a crucial time for Canada’s climate obligations. It is critical that this scenario is released as soon as possible so that it can inform several important policy pieces, like the oil and gas emissions cap, which are currently in development.

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¹ Climate Action Network Canada evaluates that Canada’s fair share of the global effort to limit warming to 1.5C includes reducing emissions by at least 60% below 2005 levels by 2030.