Sustainable aviation fuels can help Canada meet its climate goals, but leadership is needed

Investment in SAF production in Canada has so far proceeded at a very slow pace that is at odds with its potential breakthrough impact on the aviation sector's carbon footprint.

Energy and Natural Resources Minister Jonathan Wilkinson. The main reason Canada is falling behind on sustainable aviation fuel development is that there is no federal policy in place designed to support it, unlike other clean fuels such as electricity or hydrogen, write Jeff Morrison and Geoff Tauvette. *The Hill Times photograph by Andrew Meade*

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Canada has some of the most ambitious climate targets of any country in the world. Meeting these goals will require collaboration from a cross-section of industries that are willing to step up to the plate. The good news: many sectors have already made a commitment to take the actions necessary to address

climate change and sustainability, meaning prospective partners are at the ready.

Among these willing partners are Canada's airlines, who have all committed to achieving the objective of net-zero emissions by 2050. Over the past several years, airlines have invested billions of dollars in new fuel-efficient aircraft, and adopted procedures to continuously improve operating efficiency and lower fuel consumption. Canada's airlines have also stepped up to engage in policy and regulatory development that supports carbon-neutral growth in international aviation, and have worked with the federal government to adopt initiatives such as the Greenhouse Gas Pollution Pricing Act, and the Clean Fuel Standard. Airlines, along with key aviation and aerospace stakeholders, are also signatories to Canada's Aviation Climate Action Plan.

However, the most impactful means for aviation to achieve its net-zero commitments is the development and adoption of sustainable aviation fuels (SAF). The federal government's own plan suggests that roughly 70 per cent of fuel used by 2050 would be SAF. Simply put, Canada cannot reach net zero without the use of SAF to generate significant carbon emission reductions in commercial aviation. Sustainable aviation fuels are functionally equivalent to petroleum jet fuel but made from various renewable feedstock including forestry, agricultural, and municipal waste, and can reduce aviation carbon emissions by as much as 80 per cent.

Canada has important natural advantages in SAF development, including sustainable feedstocks, commercially available production technologies, and an engaged, committed, and world-leading airline and aerospace industry. Still, investment in SAF production in Canada has so far proceeded at a very slow pace that is at odds with its potential breakthrough impact on the aviation sector's carbon footprint, and that of many other countries, including the United States. Moreover, given that low carbon fuel standards tend to favour liquid renewable ground transportation fuels, SAF investment is penalized, which prevents scaling to commercial production capacity and a level of consistent use.

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The main reason Canada is falling behind is that there is no federal policy in place designed to support SAF, unlike other clean fuels such as electricity or hydrogen. Meanwhile, the Inflation Reduction Act in the United States is serving as a significant catalyst to develop and grow a SAF market in the U.S., putting Canada at a competitive disadvantage in an emerging net-zero

industrial market in which it could potentially be a world leader. Elected officials must move quickly to seize the opportunity to introduce concrete and comprehensive measures that will help incentivize and stimulate the creation of a domestic SAF market in Canada.

Last month, the Canadian Council for Sustainable Aviation Fuel released Canada's first SAF roadmap, which provides a clear path to meet the ambitious goal of a 10 per cent SAF usage by 2030, as set out in Canada's Aviation Climate Action Plan. The roadmap is there, and now we need federal leadership to make sure it can be achieved.

Canada's airlines and SAF stakeholders want to work with the federal government to build a decarbonized country, and this starts with creating the conditions to build a domestic SAF supply chain that will help achieve lower GHG emissions in the aviation industry.

To mitigate the carbon impact of air travel and rebuild the economy in a sustainable way, the time to act is now.

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