Y4Y Québec

Protecting the Respiratory Health of Québec's Youth Population

Policy Brief

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Context

Transportation traffic is one of the main sources of nitrogen dioxide (NO2), whether it emerges from trucks, buses, or car emissions (Government of Québec 2021). NO2 is formed from the "liberation of nitrogen contained in fuel and nitrogen contained in combustion air during combustion processes" (Government of Canada 2013). When released, NO2 has negative effects on human respiratory systems, especially those of teenagers and children (Wing, Sam E. et al 2018, 1-2). Growing evidence demonstrates that systems of asthma, for example, are likely to be aggravated or triggered in this youth segment of the population (Gillespie-Bennett, J. et al 2011, 303).

Why Address Nitrogen Dioxide Pollution Now?

The decrease in road traffic brought about by Québec's COVID-19 first lockdown has led to a dramatic decrease in nitrogen dioxide emissions. During this period, running from March 13 to May 24, 2020, the Québec air quality monitoring network found that NO2 concentrations dropped by 41% in Québec City, 40% in Montréal, 40% in Laval, 48% in Longueuil, and 20% in Gatineau (Government of Québec 2021). These findings demonstrate the ability to radically reduce the emission of a nefarious pollutant.

Call to Action

A global pandemic, of course, is far from the most desirable manner through which to lower nitrogen dioxide levels and protect Québec youth. Instead, the Québec government ought to take inspiration from what a NO2-free transportation system can look like and entrench this shift away from the pollutant through good public policy making. Electric vehicles, for example, are a realistic alternative to the internal combustion engine because these do not emit nitrogen dioxide gases (U.S. Department of Energy n.d.).

Recommendation

Y4Y congratulates the provincial government on its ongoing efforts to electrify Québec's entire transportation system.

As of 30 April 2021, there are 102 380 total hybrid and fully electric personal vehicles in Québec (Ministère de l'Énergie et des Ressources naturelles 2021). In order to keep their sales prices lower, we call on Premier Legault to maintain customer rebates for electric vehicles beyond next year's planned expiration date of March 31, 2022 (Ministère de l'Énergie et des Ressources naturelles 2020). A renewal of these rebates would continue to stimulate electric vehicle demand and thereby reduce NO2 emissions.

Y4Y Québec acknowledges, however, that even with government rebates, personal electric vehicles will be out of reach for many youth. Therefore, we also recommend revising and increasing provincial investment in electrifying public transit by next year's budget. Currently, the government's *2030 Plan for a Green Economy* calls for 217,2 million for electrifying urban buses, 350 million for electrifying school buses, and 59,3 million for electrifying private and interurban buses between 2021 and 2026 (Environnement et Lutte contre les changements climatiques 27).

While these are only two of many possible solutions for reducing N02 emissions and protecting the respiratory health of Québec's youth population, Y4Y believes that it is amongst the easiest ways for the government to do so.

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