



Approaches and solutions for Canadian Ambient Air Quality Standards achievement in Alberta

PROJECT BACKGROUNDER

Introduction

- The Clean Air Strategic Alliance (CASA) is a multi-stakeholder partnership composed of representatives selected by industry, government, non-government organizations, and participating First Nations and Métis groups. This partnership uses a collaborative consensus process to develop strategies to assess and improve air quality for Albertans.
- The Government of Alberta asked CASA to provide policy options due to anticipated exceedances of nitrogen dioxide (NO₂) Canadian Ambient Air Quality Standards (CAAQS) that may occur if no action is taken to reduce emissions. A CASA project team was struck in late 2020 to undertake this work.
- Nitrogen oxides are one type of air pollution. They are a family of compounds with NO₂ being the most prevalent form generated by human activities and can have a range of negative health and environmental impacts.

Methodology

- The CAAQS are the component of the Air Quality Management System (both national and provincial) used to drive air quality improvement. The project team prepared a background document that outlines Alberta's current policies, management frameworks, and requirements used to manage air emissions. It also summarizes Alberta's nitrogen oxide emission sources from three emission inventories and various research studies.
- CASA hosted a webinar series with eight information sessions on a range of topics related to the NO₂ CAAQS issue from September to December 2021. A total of 34 speakers generated material for the sessions. The speakers were experts from a range of sectors and from across North America and Europe. Participants included a range of stakeholders, including industry, government, non-government organizations, consultants, and other groups. In addition to the webinars, the project team developed an electronic survey to gather initial thoughts from stakeholders on approaches and solutions to the CAAQS issue.

Conclusion

- The project team compiled a list of 53 options to reduce NO₂ emissions based on the webinars, surveys, background document, and project team member input. The options fall into several themes, including emissions modelling and monitoring, industrial emission limits, industrial equipment upgrades, jurisdictional authority, and transportation-related emission limits and regulations.
- Project team participants provided their sectors' perspectives on the options and next steps for CAAQS achievement. While options to reduce emissions were identified, other potential options require more information to fully understand the environmental, social, and economic impacts.

Next steps

- The project team agreed that the next step in an approach to reducing emissions to achieve NO₂ CAAQS is for Alberta Environment and Parks (AEP) to conduct modelling. The modelling could highlight emissions source attribution, impacts assessment, forecasting, and economic evaluation of various policy scenarios.
- One performance indicator CASA can evaluate following the project completion to gauge success of the project: AEP provides an update to the CASA board on the status of preparing for and conducting the modelling work within one year of the final report's public release.

Copies of the report and more information on CASA and the CAAQS Project Team can be found at <https://www.casahome.org/past-projects/canadian-ambient-air-quality-standards-project-team-59/>

The Clean Air Strategic Alliance is a partnership composed of representatives from industry, government, First Nations, non-government organizations, and Métis Settlements. We provide strategies to assess and improve air quality for Albertans using a collaborative consensus process. Every partner is committed to a comprehensive air quality management system for Alberta.

For more information, please contact:

Andre Asselin
Executive Director
Clean Air Strategic Alliance
aasselin@awc-casa.ca
<https://www.casahome.org/>