# **III.** Template to facilitate the submission of examples/good practices of strategies, policies and measures employed to implement obligations under any of the Protocols to the Convention

Country:	Sector:
Canada	Environment, Transportation / Fuels
<b>Type of strategy, policy or measure:</b>	Level:
Regulations	National

# What is the main objective of the strategy, policy or measure? When has it been implemented/or will be implemented?

Since the 1970s the federal government has adopted increasingly stringent standards for smog-forming emissions from motor vehicles enabled by cleaner fuels.

Most recently, the Government of Canada took further steps to help ensure cleaner air for Canadians. In July 2015, two sets of regulations were amended to further reduce air pollution by lowering the level of sulphur in gasoline and setting stricter emission standards for new vehicles.

More specifically, the amendments to the *On-Road Vehicle and Engine Emissions Regulations* will include more stringent emission standards to reduce smog-forming emissions from new passenger cars, light-duty trucks and certain heavy-duty vehicles beginning with the 2017 model year. The amendments to the *Sulphur in Gasoline Regulations* will reduce the allowable annual average sulphur content of gasoline to 10 parts per million from the current level of 30 parts per million, beginning in 2017.

## Background and driving forces :

These actions build on a long history of cooperation between Canada and the U.S. in reducing both greenhouse gas (GHG) and air pollutant emissions from the transportation sector.

Given the integrated nature of the North American economy, alignment of Canada-U.S. GHG, air pollutant and fuel quality standards provides significant health and environmental benefits, direct economic benefits to consumers in the form of fuel savings, and supports the competitiveness of Canadian automotive and fuel refining sectors. Alignment also provides regulatory certainty to the industry, and lower costs for Canadian companies and minimizes the administrative and compliance burden.

Maintaining alignment with U.S. fuel quality standards and air pollutant emission standards for vehicles and engines is also consistent with the objectives of the Canada–U.S. Air Quality Agreement (AQA).

### **Description of the strategy, policy or measure:**

The original *On-Road Vehicle and Engine Emission Regulations*, which were published in in 2003, established emission standards for on-road vehicles and engines of the 2004 and later model years, commonly referred to as Tier 2. The Tier 3 emission standards will be introduced with the 2017 model year and increase in stringency until fully implemented in the 2025 model year.

The original *Sulphur in Gasoline Regulations*, which were published in 1999, established a limit for sulphur in gasoline to an average of 30 parts per million (ppm) beginning in 2005. The amendment to the Tier 3 sulphur in gasoline standard will reduce the average annual sulphur limit to 10 ppm beginning in 2017.

At the time of introducing the Tier 3 amendments, the Government of Canada considered two options: maintaining the regulatory status quo or updating the regulatory requirements to align with U.S. Tier 3 standards. Updating to Tier 3 was selected so that the health and environmental benefits associated with maintaining alignment with the stringent U.S. standards would be realized.

Regulatees are required under these regulations to submit Annual Reports to demonstrate compliance with applicable standards.

For vehicles and engines, the department also conducts compliance emissions testing to support enforcement of transportation emissions regulations.

Annual audits are required under the gasoline regulations and enforcement officers do field visits.

## **Costs, Funding and Revenue allocation :**

In support of the gasoline amendments, federal government costs for incremental regulatory compliance promotion and administration over the 2014 to 2019 period were estimated at \$20,000 per year. Additional federal government costs incurred for incremental enforcement and field sampling over the 2015 to 2023 period were estimated at \$10,000 per year.

There are not expected to be any incremental Government costs related to on-going administration, enforcement or emissions verification operations for the *On-Road Vehicle and Engine Emission Regulations* Amendments. The existing strategy for implementing the air pollutant regulatory program for vehicles of model years 2004 to 2016 will be extended to vehicles of the 2017 and later model years. Additional upfront costs of approximately \$1.8 million would be required to expand the Vehicle and Engine Emissions Reporting Registry (VEERR) database in order to render it compatible with the Tier 3 vehicle program. Also, an estimated amount of up to \$180,000 will be needed from 2017 to 2019 to prepare and deliver compliance promotion, and \$110,000 will be required to support emission verification activities.

The present value of these Government costs for the 2014 to 2030 period was thus estimated at approximately \$2.10 million. These measures are funded through the national budget.

The Government of Canada is currently working towards enhancing its compliance verification program to increase opportunities to identify non-compliant regulatees and take enforcement action where required.

#### Effect and impacts on air pollution abatement:

Once fully phased-in, the standards for emissions of smog-forming air pollutants from new vehicles will be up to 80 percent more stringent than the current standards. By 2030, the vehicle and fuel standards are expected to result in reductions in on-road vehicle fleet emissions of sulphur dioxide (43%), carbon monoxide (22%), volatile organic compounds (15%), nitrogen oxides (13%), fine particulate matter (8%), and certain other air pollutants.

By 2030, these air quality improvements are expected to prevent a total of approximately 1,400 premature deaths, nearly 200,000 days of asthma symptoms, and 2.8 million days of acute respiratory problems related to air pollution. Cleaner air will mean fewer hospital and doctor visits and fewer lost days at work and school for Canadians.

From 2015 to 2030, it is estimated that the cumulative health and environmental benefits of these regulations will amount to \$7.5 billion.

## **References/Further information:**

On-Road Vehicle and Engine Emission Regulations: http://www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=65

Sulphur in Gasoline Regulations: <u>http://www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=18</u>

Regulatory Impact Analysis Statement: http://www.gazette.gc.ca/rp-pr/p1/2014/2014-09-27/html/reg1-eng.php

Backgrounder: http://news.gc.ca/web/article-en.do?nid=1009859

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#### Additional comments: