Paula Vieira (Director, Transportation and Alternative Fuels Division, Natural Resources Canada):

Thank you, Mr. Chair.
I am pleased to have this opportunity to talk to you about Natural Resources Canada's programming in support of greening the Federal fleet.

I have with me Dr. Aaron Hoskin, who is the Senior Manager for Intergovernmental Initiatives, which includes our Greening Government Fleets program.

BACKGROUND
The Pan Canadian Framework on Clean Growth and Climate Change includes a strategy to reduce emissions from Transportation, based on four pillars: more stringent emissions and efficiency standards; putting more Zero-Emission vehicles on the road; shifting from higher to lower emitting transportation modes and infrastructure; and using cleaner fuels.

Natural Resources Canada is delivering a number of programs to support the transition to a lower carbon economy, including several related to lowering emissions from on-road

transportation, including the Greening the Government Fleets program, targeting government fleet vehicles.

In 2017-18, over 380,000 Canadians joined a national dialogue on Canada's energy future to 2050 and beyond. Through the Generation Energy dialogue, we heard that electrification of transportation will play a key role in moving to a low carbon economy.

Accordingly, Government is also looking at its own operations, to see where we can reduce emissions. Under the PCF, Canada committed to reducing emissions from government buildings and fleets by setting reduction targets for government operations, and scaling up green procurement.

Canada is not alone in these efforts. Globally, governments are committing to reducing emissions from government operations, and implementing actions to ensure these commitments are met. Recognizing the importance of this, in 2016 at COP22 and in coordination with the Clean Energy Ministerial - Electric Vehicle Initiative, Canada joined 7 other nations, including China, France, Japan, Norway, Sweden, the United Kingdom and the US, pledging to increase the share of electric vehicles in their government fleets and calling for other governments to join them.

THE GOVERNMENT'S STRATEGY

As you have already heard from previous witnesses, in December 2017, the Greening Government Strategy was launched. This Strategy commits the government to a 40% cut in greenhouse gas emissions from all government operations, (including facilities and fleets) by 2030 or earlier, and an 80% cut by 2050, as well as using 100% clean electricity by 2025.

Specific fleets targets include:
- 75% of new light-duty administrative fleet vehicle purchases will be zero-emission vehicles (ZEVs) or hybrid, starting in fiscal year 2019-20, with the objective that the government's administrative fleet comprises at least 80% ZEVs by 2030. Priority is to be given to purchasing ZEVs.
- All new executive vehicle purchases will be ZEVs or hybrids starting this fiscal year.
- Fleet management will be optimized including by applying telematics to collect and analyze vehicle usage data on vehicles scheduled to be replaced.
- Alternative energy options (fuel switching) and their potential use in fleet operations related to national safety and security will be examined.

These are ambitious targets but we are already working to implement them.

THE PROGRAM

NRCan has more than 25 years of experience providing information and tools to inform the vehicle purchasing decisions of Canadians, and enabling lower carbon transportation options through tools such as the enerGUIDE label for vehicles, and the Fuel Consumption Guide. Most recently, we have been delivering programming to deploy infrastructure to support electric and alternative fuel vehicles.

Soon after these commitments were made, we leveraged our long-standing relationship with vehicle manufacturers to encourage them to provide greater variety and availability of lower-carbon vehicles for the federal fleets, through the Government Motor Vehicle Ordering Guide, managed by Public Services and Procurement Canada.

We developed and implemented a program, which provides real world data and analysis to departments to support and inform their decision making on the lowest emitting options for fleet vehicles which meet operational needs.

NRCan program services include:
- Installing telematics devices;

- Benchmarking current vehicle use and duty-cycles;
- Acquiring accurate vehicle use data to assist departments with TBS reporting requirements;
- Fleet right-sizing analysis including asset repurposing and decommissioning advice;
- Assessing opportunities for low-carbon vehicle replacement (fuel switching);
- Identifying opportunities for behavioural change (driver training);
- Collecting GHG reduction potential;
- Advising on refuelling/ recharging infrastructure requirements; and
- Sharing best practices/ lessons learned with Provinces.

NRCan also played an important role in providing technical advice and guidance on the development of PSPC's standing offer for electric vehicle chargers and establishing a network of chargers in the National Capital Region.

Recognizing the need for coordination of efforts across three main departments: TBS - as leads on Greening Government, PSPC – as leads on procurement and NRCan as technical experts, we established the Green Fleet Solutions Team.

Co-chaired by NRCan and TBS, and composed of expert departments in low-carbon mobility solutions, and major fleet-owning departments, the role of this team is to:

- share relevant information, best practices, tools and ideas on activities relevant to greening government fleet.
- report on progress to share success stories and to keep all departments and agencies informed and engaged.

This coordination continues through the Treasury Board Fleet Managers Working Group, which acts as a conduit for us to keep fleet managers informed of our services and expertise, specific initiatives, and results to date. It also provides an opportunity for us to understand the operational needs, and concerns of fleet managers, ensuring our program continuously evolves to meet the ever-changing needs of departments.

RESULTS

So, what have we done so far?

The Program is currently logging over 1500 fleet vehicles within 10 different departments. That represents approximately one-third of the administrative fleet.

Electric vehicle suitability assessments have been completed and submitted for 3 fleets (Transport Canada, Dept. of National Defence – western fleet, and Parks Canada) comprising 568 total vehicles.

Initial results are promising. For example, last November, we presented the findings to Transport Canada, which showed that of 276 vehicles assessed, 165 were suitable for electrification and some for decommissioning, for a potential $1.4M in total cost of ownership savings.

My colleague from Transport Canada will provide greater details on the full analysis, results and implementation plans.

We have also recently begun the assessment of Canada Border Service Agency, and Canada Food Inspection Agency fleets and will be expanding our activities with Environment Canada and Climate Change and Department of National Defence in the coming months.

INTERNATIONAL
Getting back to the international commitment we made to deploy greater numbers of EVs in government fleets, and to encourage governments at all levels to do so, we are leveraging our expertise to assist governments at all levels in greening their fleets as well.

In August 2018, at the Energy Mines and Ministers conference we released the Best Practice Guide for Greening Government Fleets, which was developed in collaboration with Provinces and Territories. The guide provides information to help fleet

managers at all levels of government implement a comprehensive, cost-effective, step-by-step process for reducing their environmental impacts and operating costs by deploying new low carbon vehicle technologies and fuels.

Understanding that fleet managers need assurances that any new technology will not impact the day-to-day operations of their fleet, the guide also provides an overview of the types of low carbon vehicles and refuelling infrastructure which is currently available. An overview of global efforts for electric vehicle deployment is also included, to put government efforts into perspective.

We have shared this Best-Practices Guide domestically, through the Federation of Canadian Municipalities, and internationally, through the Clean Energy Ministerial - Electric Vehicle Initiative, which I co-chair with China. Several countries, including Chile and New Zealand are looking to use this guide to implement similar practices in their fleets.

So, what does success look like?

As mentioned, we are well on our way to tracking government fleets, and we are seeing early results. In fiscal year 2017 to 2018, GHG emissions from the federal fleet were down by 19%

compared with fiscal year 2005/06 (against a target of 40% by 2030)

According to colleagues at PSPC:
- 22 executive vehicles were purchased so far this fiscal year, 17 hybrid and 5 Plug-in Hybrid Electric Vehicles, in full compliance of the strategy targets.
- The number of green vehicles procured by Federal Departments and Agencies has consistently increased in recent years, from 3% in 2015 and reaching 13% of vehicles procured this fiscal year.

We see that behaviours are changing. But achieving deep decarbonisation requires continuous improvement across the federal fleet.

We are also working to develop a suite of products and services focussed on all categories of vehicles, including medium and heavy trucks. Though electrification may not currently be an option for all these vehicles, switching to lower carbon fuels like hydrogen and natural gas offers a technically feasible alternative – one that will still lead to lower emissions.

Our analysis and expertise will continue to evolve, as new technologies and greater or more varied electric vehicle models

enter the market. We will continue to work with TBS, and PSPC to ensure the policies and programs are in place to support the transition to lower carbon fleets, and we will continue to work with all departments and agencies to affect transformational change within the government and across the economy.

Thank you,