



National
Defence

Défense
nationale

CANADIAN
ARMED FORCES



FORCES ARMÉES
CANADIENNES

Canada

ADM(IE) & STRONG SECURE ENGAGED

CANADA'S DEFENCE POLICY

SMA(IE) & PROTECTION SÉCURITÉ ENGAGEMENT

LA POLITIQUE DE DÉFENSE DU CANADA





SSE Initiative 101

Goal: Reduce DND greenhouse gas emissions by 40% from 2005 levels

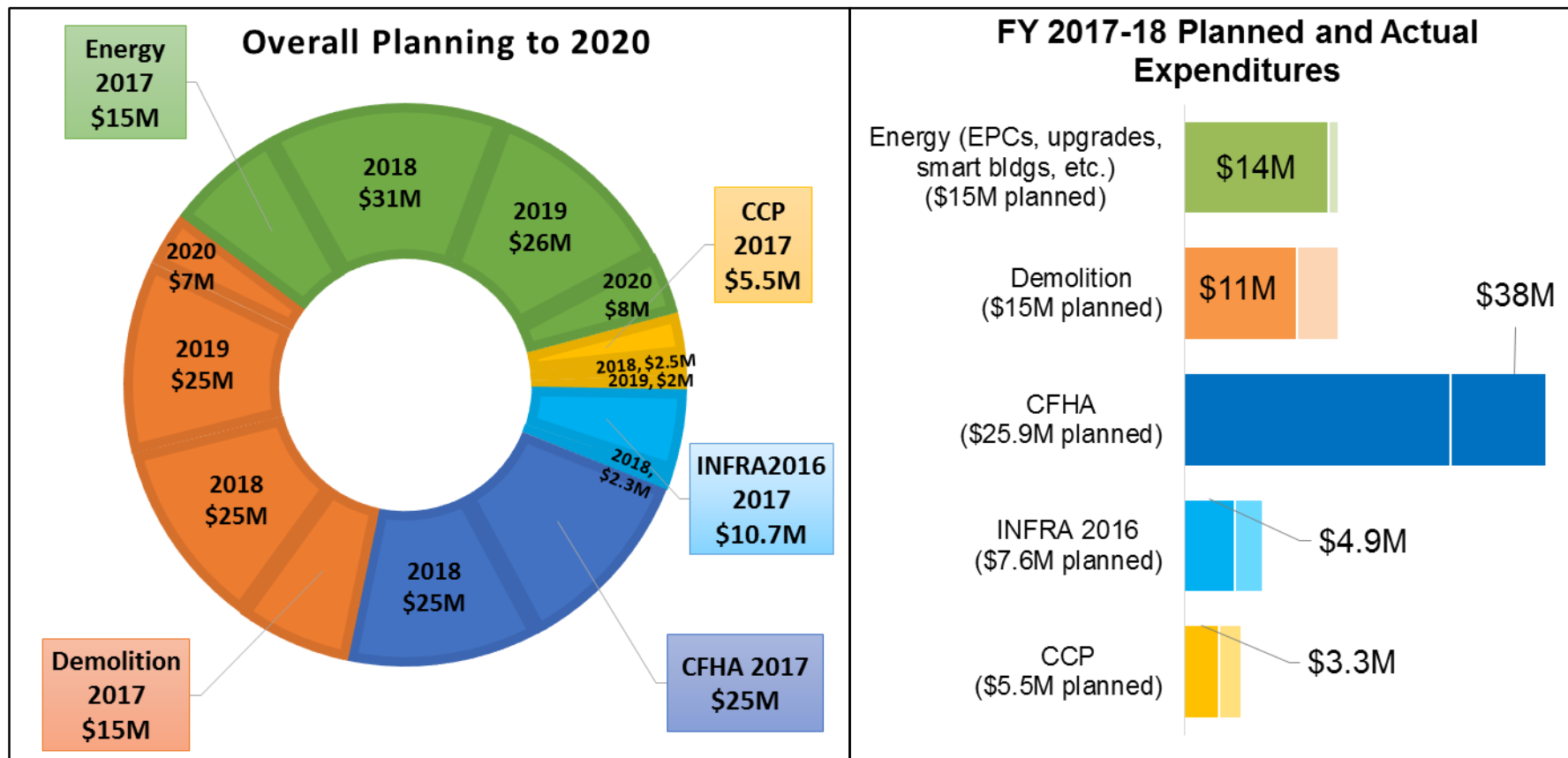
Deadline: 2030

Challenges with Implementation:





101a – Invest \$225M in infrastructure projects



2017-18 total planned infrastructure expenditures = \$69M

2017-18 total actual infrastructure expenditures = \$71.3M



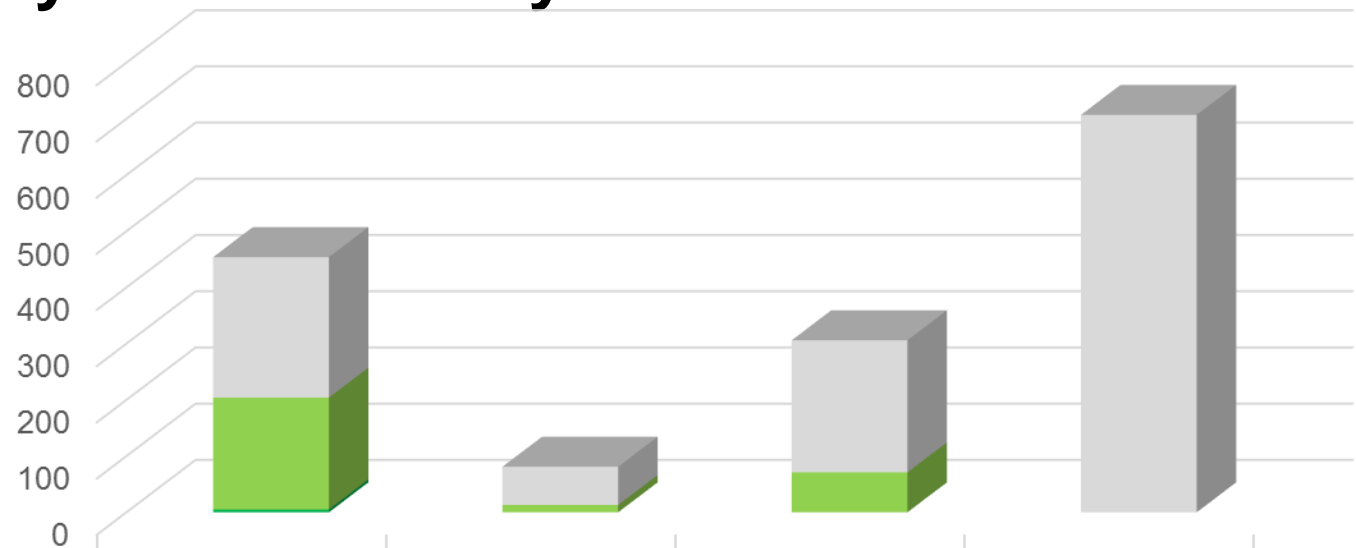
101A - \$225M for Infrastructure Projects

Projects intended to improve overall condition and the energy efficiency DND's infrastructure:

- **INFRA2016:** projects such as lighting, heating and other energy efficiency upgrades at bases and wings.
- **Canadian Forces Housing Agency (CFHA) Lifecycle:** minor capital and construction projects invested across the country on the recapitalization of the housing portfolio including exterior retrofits, whole house renovations, and the construction of new residential housing units (RHUs).
- **Energy:** capital funding to maximize benefits from some energy performance contracts.
- **Demolition:** projects to take down old and/or obsolete infrastructure.
- **Halifax HMSU:** major heating plant upgrade at the Halifax base.



101b – Transition 20% of non-military vehicle fleet to hybrid/electric by 2020

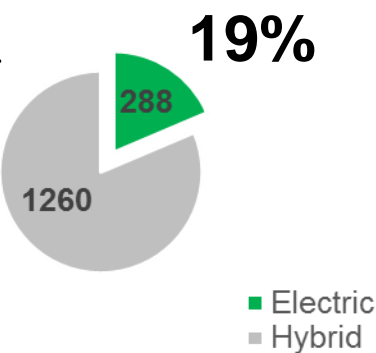


Fuel	250	68	235	707
Hybrid	199	13	71	0
Electric	5	0	0	0



45% 16% 23% 0%

Vehicles (1548)





101C - Requiring Higher Infrastructure Design Standards

Milestone	Anticipated Completion Date
Draft Green Building Directive released for stakeholder review	August 2017
Stakeholder review comments received	October 2017
Rework and amplification as required	November 2017 – March 2018
Final Green Building Directive circulated for sign-off	May 2018
Green Building Directive translation and publication	July 2018



101c – Require new projects to meet Silver LEED standard or equivalent

- In 2017-18, three buildings designed/built to Silver LEED standard
- Since 2011, DND designed/built 28 buildings to Silver LEED standard or equivalent
- DND pursues LEED Certification





101d – Expand energy performance contracts

Procurements since 2015-16		Planned EPCs	
Contracts Awarded	Procurements Launched	2018-19	2019-20
Petawawa	Greenwood	Kingston (DCC)	North Bay (DCC)
Esquimalt	Trenton	Montreal (DCC)	Toronto (DCC)
DRDC Valcartier	Cold Lake	St-Jean (DCC)	Edmonton (DCC)
Target progress for 2017-18: 9% of bases/wings have EPCs implemented	Shilo	Halifax (DCC)	Meaford (PSPC)
	Bagotville	Gagetown (DCC)	Winnipeg (PSPC)
	Alert	Comox (DCC)	EPCs for 11 remaining sites to be implemented by 2020-25.
	Borden	Goose Bay (PSPC)	



101E - Installing electric charging stations



- Several electric charging stations already exist at Defence establishments
- A portion of the light duty commercial fleet is being replaced with electric or plug-in hybrid vehicles



SSE Initiative 102

Goal:

Examine alternative energy options and their potential use for operations

Deadline:

2030





102 – Examine alternative energy options and their potential use for operations

- DND is exploring options in three areas:
 - Use of cleaner fuels for military fleet, where possible
 - Better energy efficiency of soldier equipment and kits
 - More fuel-efficient power solutions for equipment such as field heaters and generators
- DND is pursuing energy efficiency at deployed camps
 - CJOC target to reduce petroleum-generated electrical energy consumption by 50% at deployed camps by 2030
 - Progress hindered in FY 2017-18 by use of inefficient electrical heating in Latvian winter





Researching Alternative Energy Uses

- Looking into the possible use of more efficient field heaters and generators
- Examining cleaner fuel options for military platforms (i.e. ships, aircraft)
- Collaborating with NATO on camp initiatives to help lower fuel and electricity consumption



SSE Initiative 103

Goal:

Dispose of underutilized or obsolete buildings to improve the efficiency of the infrastructure portfolio and accelerate the reduction of greenhouse gas emissions





Divestment Program

- Multi-year program to identify and divest surplus properties.
- Program Activities
 - Conducting divestment activities (appraisals, surveys, environmental site assessments, heritage recordings)
 - Indigenous consultations,
 - Work with Canada Lands Company to dispose of strategic properties
- Effect
 - Reduction in Payment in Lieu of Taxes (PILT) and Operations and Maintenance (O&M) costs
 - Proceeds of sale reinvested to further projects that support Initiative 103.



Demolition Program

- The Demolition Program aims to dispose of property that no longer has an operational requirement
-
- Work
 - Collaborate with RP Ops to identify and demolish obsolete infrastructure.
- Effect
 - Reduction in Payment in Lieu of Taxes (PILT) and Operations and Maintenance (O&M) costs
 - Reductions in greenhouse gasses (GHGs)
 - Replacement of inefficient infrastructure with new structures and updated technology



Capital Assistance Program (Vote 10)

- The Capital Assistance Program (CAP) provides contribution funding to local governments to upgrade or construct shared use municipal-type infrastructure in support of CAF operations, infrastructure divestment and CF members' Quality of Life.
- Work
 - Development and implementation of Vote 10 Grants and Contributions Agreements to support local infrastructure
 - Under resourced – Major transfers of water/wastewater treatment plants in Gagetown and Wainwright
- Effect
 - Shared use infrastructure reduces operations expenditures and capital investment requirements.
 - Allows DND to divest or demolish out of date infrastructure.



SSE Initiative 104

Goal:

Improve infrastructure on bases and wings including housing for CAF personnel

Deadline:
2027





104 - Capital Project Delivery

- ADM(IE) manages a major construction program annually valued at \$650M.
 - Annually manages over 100 projects through options analysis, definition and implementation phases of infrastructure development
 - Also supports infrastructure associated with equipment projects (i.e. Interim Fighter Capability Project, Future Fighter Capability Project, CSC)

To complement the Capital Construction Program, the Maintenance and Repair Program annually valued at \$250M delivers maintenance and repairs across Canada to support the existing infrastructure.



104 - Improving Housing for CAF Personnel

CFHA is developing a long term portfolio investment and service delivery plan to:

- Deliver services via a modernized housing portfolio
- Examine alternate solutions for housing (e.g. leasing and private sector partnerships)
- Recapitalize existing housing portfolio

The long term portfolio and service delivery plan will link the CFHA's OAG response (due Dec 19) to SSE 104



104 - Improving Housing for CAF Personnel

CFHA is undertaking a comprehensive DND living accommodation feasibility study to assess the centralization of the management of all DND living accommodations (quarters)

- Real property requirements validation
- Operational management of living accommodations
- Option analysis for delivery