

NS LIVE CASE SERIES 2018:

GREENING DEFENCE IN CANADA: ENERGY AS A CRITICAL ENABLER

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NEW SYNTHESIS OF PUBLIC ADMINISTRATION

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The Context

In 1987, the Brundtland Commission report, *Our Common Future*, defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”¹ The concept of sustainable development has evolved over the past quarter-century due to changing societal values regarding economic, environmental and social considerations. However, the comprehensive definition above continues to be the most frequently cited conceptualization of sustainability and/or ‘going green’ initiatives among policymakers, civil society actors, corporate-decision makers and international organizations.

In the Department of National Defence (DND), the largest infrastructure manager and emitter of greenhouse gas emissions in the Government of Canada, the key challenge was to reduce greenhouse gas emissions from its building and non-military vehicle portfolio without compromising operational success.

This case describes the path taken by DND’s Environment and Sustainable Management - Infrastructure and Environment (ESM/IE) Unit to support Canada’s climate change mitigation vision without affecting military capacity.

DND’s core mandate is defending Canada. The real challenge for the Director General of ESM/IE Unit and his team was to find ways to align the Canadian government’s climate change strategy and DND’s core mandate in a manner that would resonate with DND’s leaders and military personnel in order to achieve results of higher value for society². Making progress required getting buy-in from various stakeholders.

The Subcontext: From International to Departmental

In 2015, the United Nations Climate Change Conference (COP 21) was held in Paris. At this Conference, all participating countries reached a historic agreement to combat climate change and to intensify actions and investments needed for a sustainable low-carbon future³. As part of the agreement, Canada adopted the 2030 Agenda on Sustainable Development, including the 17 United Nations Sustainable Development Goals⁴. The Paris

1 World Commission on Environment and Development. 1987. *Our Common Future*. New York: Oxford University Press. p41. Note that the interpretation of sustainability adopted in this case is that of the Brundtland Commission’s report.

2 Bourgon, Jocelyne. 2017. “The New Synthesis of Public Administration Fieldbook”. Copenhagen, Dansk Psykologisk Forlag A/S. p. 78. Bourgon observes that a key question for public sector leaders faced with difficult decisions is: “what principle should guide them? A commitment to serving a broad public purpose means that the choice should be to optimise results of higher value for society”

3 Department of National Defence. 2017. “Defence Energy and Environment Strategy” <https://www.canada.ca/content/dam/dnd-mdn/documents/reports/2017/20171004-dees-en.pdf> Accessed March 20, 2018.

4 Transforming our world: The 2030 Agenda for Sustainable Development”. United Nations - Sustainable Development knowledge platform. <https://sustainabledevelopment.un.org/post2015/transformingourworld> Accessed March 26, 2018. Note that the 2030 agenda sets out the building blocks of a new type of inclusive prosperity creation.

Agreement provided a strong signal that a transition was needed towards a low-carbon government and clean-energy economy⁵.

Shortly after Canada's signing of the Paris Agreement, Treasury Board of Canada and Environment and Climate Change Canada (ECCC) realized that in order to succeed, it was necessary to enroll the contributions of the Government of Canada, including the Department of National Defence. As the largest infrastructure manager in the Government of Canada, including over 20,000 buildings, DND accounts for more than half of the government's greenhouse gas emissions. For instance, the Navy, Army and Air Force operate and train over large areas of land, sea and airspace at home and abroad. In Canada alone, DND is entrusted with managing approximately 2.25 million hectares of land⁶. Therefore, the contributions of DND and CAF were critical for Canada's target of reducing greenhouse gas emissions by 40 percent below 2005 levels by 2030⁷.

In 2016, following extensive consultations with a variety of stakeholders including citizens and federal institutions, the Government of Canada released the *2016-2019 Federal Sustainable Development Strategy (FSDS)*⁸ and the *Pan-Canadian Framework on Clean Growth and Climate Change*⁹. These two documents provided the impetus for all government departments, and DND in particular, to take action in many areas, including reducing greenhouse gas emissions, mitigating climate change, and supporting modern and resilient infrastructure.

In June 2017, DND released Canada's defence policy, *Strong, Secure, Engaged*¹⁰. This high-level document mapped out Canadian defence priorities over a 20-year horizon. It highlighted the need to make fundamental changes to the business of defence in order to improve management practices and reduce greenhouse gas emissions. More specifically, the document stated that "Canada will invest \$225 million by 2020 in a range of infrastructure projects to reduce its carbon footprint, including demolishing outdated buildings with limited operational value"¹¹. The challenge for an organization whose core business mandate is military activities was to find ways to reduce its carbon footprint without affecting operational capability. The FSDS along with *Strong, Secure, Engaged*, Canada's defence policy, was the launching

5 Department of National Defence. 2017. "Defence Energy and Environment Strategy" <https://www.canada.ca/content/dam/dnd-mdn/documents/reports/2017/20171004-dees-en.pdf> Accessed March 20, 2018.

6 Department of National Defence. 2017. *Strong, Secure, Engaged: Canada's Defence Policy*.<http://dgpaapp.forces.gc.ca/en/canada-defence-policy/docs/canada-defence-policy-report.pdf> Accessed March 26, 2018.

7 Note that p.9 of the 2016-2019 Federal Sustainable Development Strategy (FSDS) states: "Over the next three years, we'll work toward a new, more ambitious target of reducing GHG emissions from federal buildings and fleets by 40% below 2005 levels by 2030"

8 Government of Canada, 2016. *2016-2019 Federal Sustainable Development Strategy (FSDS)*. http://www.fdsd-sfdd.ca/downloads/FSDS_2016-2019_Final.pdf Accessed March 26, 2018.

9 Government of Canada, 2016. *Pan-Canadian Framework on Clean Growth and Climate Change*.http://publications.gc.ca/collections/collection_2017/eccc/En4-294-2016-eng.pdf Accessed March 20, 2018.

10 Department of National Defence. 2017. *Strong, Secure, Engaged: Canada's Defence Policy*. <http://dgpaapp.forces.gc.ca/en/canada-defence-policy/docs/canada-defence-policy-report.pdf> Accessed March 26, 2018

11 Department of National Defence. 2017. *Strong, Secure, Engaged: Canada's Defence Policy*. <http://dgpaapp.forces.gc.ca/en/canada-defence-policy/docs/canada-defence-policy-report.pdf> Accessed March 26, 2018.p16.

point for the *Defence Energy and Environment Strategy (DEES)*¹², an integrated DND and CAF strategy for energy and environmental management that was released in October 2017. Led by the ESM/IE Unit, the vision for the DEES was to have DND and CAF recognized for leadership in “contributing to the sustainable development goals of Canada through the effective and innovative integration of environmental considerations into activities supporting the Defence mandate”¹³.

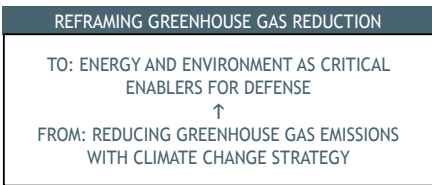
The Challenge and Initial Framing

The most fundamental challenge for DND’s ESM/IE Unit was to reduce greenhouse gas emissions without compromising operational success. DND’s senior management gave ESM/IE Unit the mandate to develop a strategy that aligned with the Government of Canada’s climate change priorities.

The ESM/IE Unit was determined to build an energy and environment strategy that laid out ambitious targets while creating value for stakeholders through an active engagement process. Early discussions were held with the Navy, Army and Air Force as well as other internal stakeholders. ESM/IE quickly discovered that the message about climate change and the need to reduce greenhouse gas emissions was not immediately resonating with military personnel. ESM/IE was struggling to convince internal stakeholders that DND had an important role to play in climate change mitigation.

Reframing for Serving a Higher Public Purpose

Further analysis and consultation persuaded ESM/IE Unit that there was a need to reframe the issue in order to better connect the need for climate change mitigation and DND’s core business of defence. ESM/IE Unit concluded that greenhouse gas reduction was fundamentally an energy challenge.



Energy is a critical enabler of defence activities; it is needed to fulfill the mission of defending Canada at home and abroad. Reframing the issue in a way that gave prominence to DND’s core mission generated a stronger buy-in from stakeholders. The whole

conversation shifted to how CAF could generate forces and conduct military operations with energy that is secure, sustainable, renewable and affordable. As stated by the Director General of ESM/IE Unit, “...the important question was: how do you get an organization whose core mandate is defence to recognize that it has an important role to play in climate change mitigation? Really, it’s about our energy needs”¹⁴.

12 Department of National Defence. 2017. “Defence Energy and Environment Strategy”. <https://www.canada.ca/content/dam/dnd-mdn/documents/reports/2017/20171004-dees-en.pdf>. Accessed March 20, 2018.

13 Ibid. p3.

14 Interview. March 20, 2018. Director General Environment and Sustainable Management - Infrastructure and Environment (DGESM) / ADM(IE).

Defence capability is unquestionably dependent on energy: i) energy fuels the fleets of the Navy, Army and Air Force; ii) energy provides soldier power and sustains military camps, some of which are located in difficult or extreme environments that typically draw heavily on energy resources; iii) energy is required to operate and maintain an extensive range of Defence infrastructure consisting of approximately 20,000 buildings and facilities dispersed across the country, extending as far north as the high Arctic¹⁵. Having access to adequate, reliable, affordable energy, when and where it is needed, strikes at the heart of defence capability and underpins the operational readiness, sustainability and responsiveness of Canada's National Defence¹⁶. All the stakeholders understood that energy is the critical enabler and operational imperative that makes achieving missions possible. This was the starting point of exploring how to fulfill DND's core mandate in a way that also ensured decreasing greenhouse gas emissions. *ESM/IE Unit had found a way to connect DND's mission to achieving results of higher value to society.*

Building Support

Reframing the reduction of greenhouse gas emissions from a climate change perspective to an energy strategy for DND came with distinct challenges. DND and CAF cannot under any circumstance compromise the safety and security of Canadians. ESM/IE Unit had to make a practical choice by selecting areas for reducing greenhouse gas emissions as agreed upon in the FSDS. ESM/IE Unit limited its focus on buildings, the source of over 90 percent of greenhouse gas emissions, and DND's commercial vehicle fleet.

Defence is among the federal government's largest maintainers of equipment and infrastructure. Therefore, an effective and efficient approach to energy conservation and environmental protection could result in significant benefits, including the enhancement of DND's military capability. The focus on greening buildings, the usage of clean fuel and efficient vehicles was supported by available evidence. While less options are available for designing military fleet towards energy conservation, there are several alternatives for buildings.

ESM/IE Unit was familiar with traditional mindset, the 'lowest cost/bid wins'¹⁷. Even so, ESM/IE Unit was encouraging stakeholders to take a step further to promote cost savings by considering the Total Life Cycle of assets. There is a cost to constructing a building and then there is a cost to maintain that building for the life of the asset. Historically at DND, these envelopes were not always considered together. If an incremental investment in construction (i.e. more efficient design) can yield maintenance savings over the life cycle, this can be used to rationalize the upfront investment.

15 Department of National Defence. 2017. "Defence Energy and Environment Strategy" <https://www.canada.ca/content/dam/dnd-mdn/documents/reports/2017/20171004-dees-en.pdf> Accessed March 20, 2018.

16 Department of National Defence. 2017. "Defence Energy and Environment Strategy" <https://www.canada.ca/content/dam/dnd-mdn/documents/reports/2017/20171004-dees-en.pdf> Accessed March 20, 2018.

17 Interview. March 20, 2018. Director General Environment and Sustainable Management - Infrastructure and Environment (DGESM) / ADM(IE).

Institutionalizing Change: Defence Energy and Environment Strategy (DEES)

The development of the *Defence Energy and Environment Strategy (DEES)* involved stakeholder engagement in three stages: i) external stakeholders; ii) internal stakeholders; and iii) an approval process.

The first stage of engagement, external stakeholders, involved getting buy-in from the Department of Environment and Climate Change Canada, the Treasury Board Secretariat and to some extent the Department of Natural Resources. These departments provided feedback and direction in the early stages of the DEES. Considering that the DEES builds on Canada's defence policy, *Strong, Secure, Engaged*, and the 2016-2019 *FSDS*, this engagement was limited. Extensive consultations had already been held with Canadians on the *FSDS* and DND's defence policy.

The second stage, internal engagement, involved people who live and work on the bases as well as military personnel (that is, Navy, Army, Air Force and their leadership). This phase played a key role in reframing the issue.

The third and the most challenging phase, involved getting the necessary approval for the *DEES*. This phase took approximately six to eight months. The *DEES* document required the approval of the Assistant Deputy Minister (Infrastructure and Environment), various internal governance boards, the Deputy Minister, various governance and the Defence Minister. ESM/IE Unit took strategic steps by holding relevant one-on-one meetings with key internal stakeholders. This approach was essential in securing endorsements and forging broad-based consensus for the *DEES*.

Triggering A Ripple Effect

The *DEES* is a strategic document that provides a common vision and goals to help Defence better manage energy and the environment holistically, across the spectrum of Defence activities in the Navy, Army and Air Force. It provides a clear road map and mandate for the department. The *Strategy* seeks to i) improve energy efficiency and reduce greenhouse gas emissions; ii) promote sustainable military operations; iii) use green procurement practices; and iv) implement sustainable real property and land use management practices. The *Strategy* outlines 18 energy and environment targets, performance measures and designated Offices of Primary Interest¹⁸. Implementation of the *DEES* is currently ongoing.

DND intends to continue building detailed implementation plans to further integrate energy and environmental considerations into Canada's military operations. These efforts will include refining results-oriented and measurable performance-based criteria for ongoing efficiency and sustainability improvements¹⁹.

¹⁸ Department of National Defence. 2017. "Defence Energy and Environment Strategy" <https://www.canada.ca/content/dam/dnd-mdn/documents/reports/2017/20171004-dees-en.pdf> Accessed March 20, 2018.

¹⁹ Ibid.

Defence will report each year on its implementation of the DEES, including progress toward meeting its energy and environmental goals. Through the FSDS and departmental results reporting, the DEES “will help to ensure that parliamentarians and Canadians can track the actions Defence is taking and the results being achieved to reduce its energy and environmental footprint. Both this Strategy and implementation plans will be reviewed periodically to ensure current policies, operations, practices and technologies are reflected”²⁰.

²⁰ Ibid. p. 28

Bibliography

Bourgon, Jocelyne. 2017. "The New Synthesis of Public Administration Fieldbook". Copenhagen, Dansk Psykologisk Forlag A/S.

Department of National Defence. 2017. "Defence Energy and Environment Strategy". <https://www.canada.ca/content/dam/dnd-mdn/documents/reports/2017/20171004-dees-en.pdf>. Accessed March 20, 2018.

Department of National Defence. 2017. Strong, Secure, Engaged: Canada's Defence Policy. <http://dgpaapp.forces.gc.ca/en/canada-defence-policy/docs/canada-defence-policy-report.pdf> Accessed March 26, 2018.

Transforming our world: the 2030 Agenda for Sustainable Development". United Nations - Sustainable Development knowledge platform. <https://sustainabledevelopment.un.org/post2015/transformingourworld> Accessed March 26, 2018.

Government of Canada, 2016. 2016-2019 Federal Sustainable Development Strategy (FSDS). http://www.flds-sfdd.ca/downloads/FSDS_2016-2019_Final.pdf Accessed March 26, 2018.

Government of Canada, 2016. Pan-Canadian Framework on Clean Growth and Climate Change. http://publications.gc.ca/collections/collection_2017/eccc/En4-294-2016-eng.pdf Accessed March 20, 2018.

World Commission on Environment and Development. 1987. Our Common Future. New York: Oxford University Press.



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