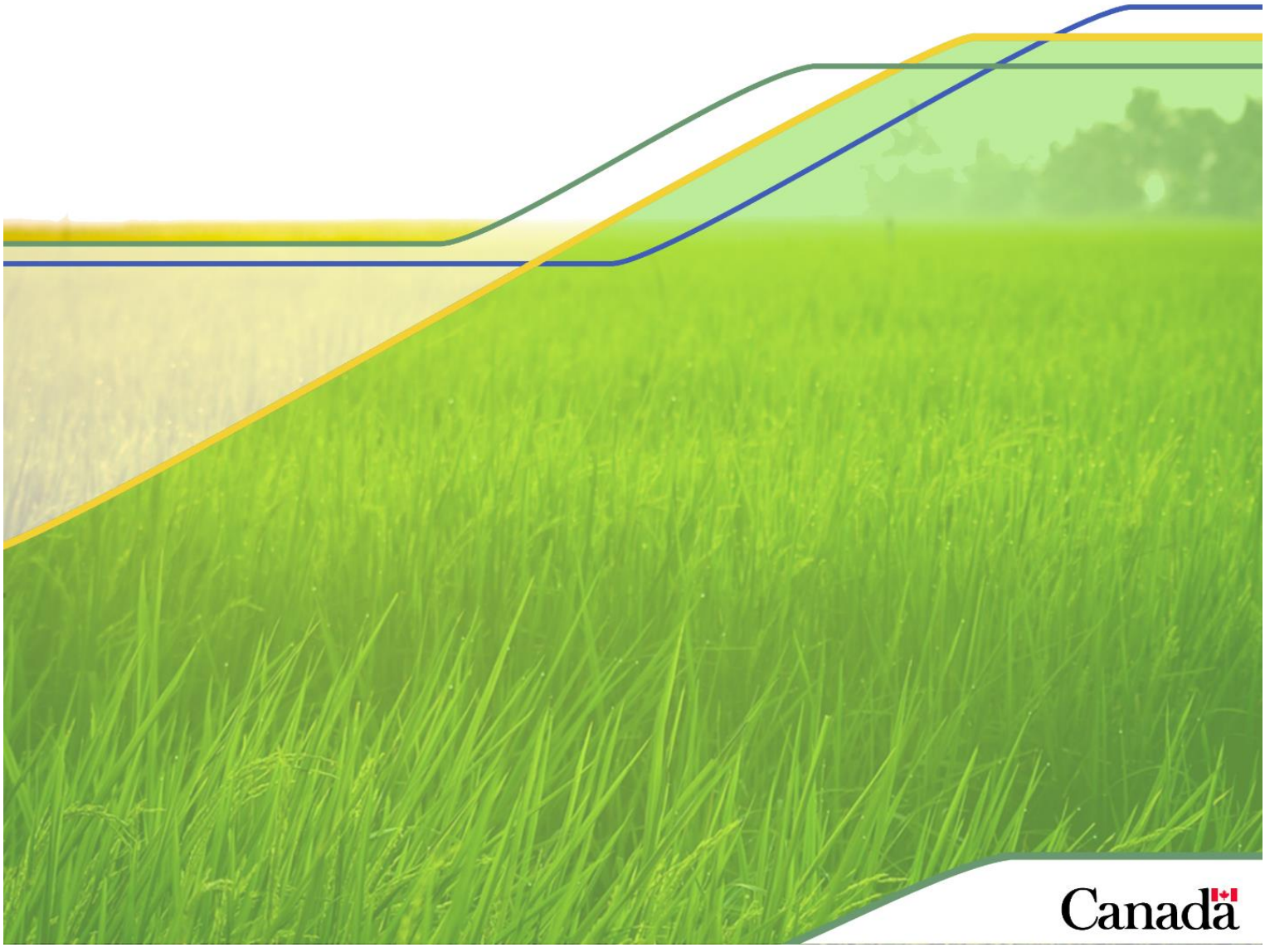
Correctional Service Canada | Service correctionnel Canada

SUSTAINABLE DEVELOPMENT STRATEGY

2018-2020



Canada

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Message from the Interim Commissioner

Correctional Service of Canada's (CSC) 2018-2020 Sustainable Development Strategy (SDS), our seventh voluntary SDS since 1997, commits to numerous energy conservation targets that demonstrate institutional ownership to reduce greenhouse gas (GHG) emissions.

Since 2005, CSC has achieved a 14% reduction in GHG emissions from its facilities by replacing outdated amenities and equipment with new buildings and technologies that are more energy efficient. However, the time has come to take an even more robust corporate approach to meet or surpass the Government of Canada commitment to *reduce GHG emissions from federal buildings and fleets by 40% below 2005 levels by 2030, with an aspiration to achieve it by 2025*. In order to meet these expectations, CSC will increase its efforts on energy efficiency measures, including the use of cleaner energy sources and renewable energy applications such as solar, wind and geothermal.

The Government of Canada has recently committed to more stringent reductions of GHG emissions, and accordingly, have forthcoming legislative amendments to the Federal Sustainable Development Act (FSDA) which will precisely define expectations and set specific targets for all federal departments. The CSC will be subject to the FSDA, and therefore to the next Federal Sustainable Development Strategy (FSDS). As CSC is the third largest GHG emitter amongst all federal Departments and Agencies (from the real property perspective), our organization has a very important role in the fight against climate change and GHG reduction.

We need to be responsible and further adjust our organizational activities to support environmental sustainability. Our actions to reinforce the greening government agenda, are critical to ensure social, economical and environmental stability, as well as prosperity, for generations to come.

Anne Kelly
Interim Commissioner

Executive Summary

Environmental Protection Division has been preparing and publishing a corporate Sustainable Development Strategy (SDS) every three years since its first edition in 1997. For this SDS, The Correctional Service of Canada's seventh edition, we have placed the priority on energy saving initiatives, energy performance contracts, clean energy technologies and modernizing vehicle fleet in an effort to lower greenhouse gas emissions and to reduce consumption costs. Since there are proposed amendments underway to include CSC as a department requiring to fully comply with the *Federal Sustainable Development Act* (FSDA) and in order to align with the Federal Sustainable Development Strategy schedule, CSC has chosen to follow a two-year cycle for its next SDS (2018-2020).

The main goal of SDS 2018-2020 is to "**Reduce greenhouse gas emissions (GHG) and promote conservation of energy and water from CSC operations**" and there are two commitments CSC has set out to achieve:

1. Reduce GHG emissions that are responsible for global warming and climate change; and
2. Reduce waste and water consumption to help preserve the quality of natural ecosystems.

With the creation of the Centre for Greening Government in late 2016 at the Treasury Board Secretariat (TBS), an ambitious target was set to: "Reduce GHG from federal buildings and fleets by 40% below 2005 levels by 2030 (with an aspiration goal to reach by 2025)". CSC is considered as a significant GHG emitter outside of the current FSDA bound departments and we will be expected to appreciably contribute to the overall government goal.

At the present time, although CSC is not legally bound by the *Federal Sustainable Development Act*, we have agreed to support the contributing action of the FSDS 2016-2019: "Demonstrate leadership on assessing and remediating contaminated sites" by assessment and remediation of federal contaminated sites through the Federal Contaminated Sites Action Plan. Each year, CSC will provide a status report on the contaminated sites located on CSC properties undergoing remediation or those being risk managed.

Introduction

Since CSC's first corporate SDS voluntarily developed and published in 1997, a significant effort towards sustainable development and environmental performance has been achieved. Each strategy had its successes and lessons learned which were used and adapted in subsequent editions. Furthermore, over the years, the strategies adopted various approaches and shifted in priorities, however, the emphasis has continued to remain on the overarching goal of reducing CSC's adverse impacts on the natural environment.

The first SDS focused primarily on increasing human resources in the regions and developing environmental management tools to help bring forward the environmental agenda. For the next several editions, the number of targets became more modest and had better defined scopes and dedicated resources which led to more achievable and successful strategies.

For the SDS 2015-2018, there was an important shift on how targets/commitments were developed and a new approach was adopted. This significant shift transformed corporately driven targets to commitments based upon specific and realistic targets at the institutional level. The priorities for SDS 2015-2018 placed emphasis upon conserving energy by implementing alternative energy projects and by converting to LED lighting, as well as conserving water by installing water saving devices. There were 40 institutionally developed and focused targets established and 32 of which were related to energy reduction. Currently, the results of implementing the targets are as follows: 19 targets were fully achieved; six targets were considered as partially met; ten targets are expected to be achieved by March 31, 2018; and an additional five targets will not be realized within the proposed timelines.

LED lighting upgrade at Mission-Medium Institution, Mission, BC.

Since there are proposed amendments underway to include CSC as a department requiring to comply with the *Federal Sustainable Development Act* (FSDA) and in order to align with FSDA schedule, CSC has chosen to follow a two-year cycle for its next SDS (2018-2020) instead of the typical strategy spanning three years. As the previous SDS, emphasis will be on energy saving initiatives and alternative energy projects while recognizing that the time frame to achieve the set goals will be significantly reduced.

With the creation of the Centre for Greening Government in late 2016 at the Treasury Board Secretariat (TBS), an ambitious target was developed for which all departments are subject to: "Reduce GHG from federal buildings and fleets by 40% below 2005 levels by 2030 (with an aspiration goal to reach by 2025)". According to TBS, CSC is considered as a significant GHG emitter outside of the current FSDA bound departments. It will be expected that CSC will appreciably contribute to the overall government goal by implementing specific initiatives to lower emissions such as replacing older assets with more efficient assets, engaging in energy performance contracts, adopting clean energy technologies, modernizing vehicle fleet, improving green procurement policies and so forth.

Risk Analysis

CSC Environment and SDS Programs are fundamentally composed of two main portfolios: Environmental Compliance and Environmental Performance. Both environmental portfolios fall under the strategic corporate priority "*Efficient and effective management practices that reflect values-based leadership in a changing environment*".

Environmental Compliance

The Environmental Compliance portfolio relates to aspects that are federally legislated and therefore has the most significant risk. The level of risk is evaluated based on the likelihood of non-compliance events and the potential environmental impacts associated with such events. In order to assess the risk level from an environmental compliance perspective, the following environmental acts/regulations that impact CSC's operations were considered:

- *Canadian Environmental Protection Act, 1999* (CEPA)
  - *Storage Tank Systems for Petroleum and Allied Petroleum Products Regulations, 2008*
  - *Federal Halocarbon Regulations, 2003*
  - *Monetary Penalties Regulation, 2017*
- *Canadian Environmental Assessment Act, 2012* (CEAA)
- *Fisheries Act, 1985* (Section 36)
  - *Wastewater Systems Effluent Regulations, 2012*
- *Species at Risk Act, 2002* (SARA)

It should be noted that the potential environmental impacts (and potential violations of the CEPA and/or the *Fisheries Act*) associated with the presence of contaminated sites, potentially contaminated areas or areas of environmental concerns on CSC sites, are risk managed separately, case by case, as per the approach established by the Federal Contaminated Site Action Plan (FCSAP).

Environmental Performance

The Environmental Performance portfolio relates to aspects that are not legislated and consequently, the risk level is typically less significant. In CSC, environmental performance refers to SDS commitments and targets for the most part and involve initiatives on energy efficiency (greenhouse gases reduction), water conservation and solid waste reduction. Risk level is evaluated based on the likelihood of not meeting commitments and the potential adverse environmental impact associated with such results.

Furthermore, given that CSC is currently not bound by the *Federal Sustainable Development Act* and the Federal Sustainable Development Strategy, all of its SDS commitments and targets should be considered as "self-imposed" under a "volunteered approach". Consequently, the risk level for not meeting SDS commitments is evaluated as not significant.

Controls to Mitigate Environmental Risks and Impacts

To manage and mitigate the environmental compliance risk aspects of its operations and facilities, CSC has published and enforced Internal Services Directives (ISDs) per regulated aspect under the Commissioner's Directive (CD) 318 on Environmental Protection and Sustainable Development, 2016. The internal policies related to environmental compliance are:

- ISD 318-4 – Environmental Management of Halocarbons
- ISD 318-6 – Management of Wastewater and Wastewater Treatment Systems
- ISD 318-8 – Environmental Management of Petroleum Storage Tank Systems
- ISD 318-11 – Federal Environmental Assessment of Projects

In addition, regular inspections, capital investments (upgrade/replacement projects), monitoring and internal compliance review activities (such as the Compliance and Operational Risk Report, (CORR)) are regularly conducted on site in an effort to constantly control and maintain the risk at an acceptable level. These mitigation measures have been sufficient to alleviate direct negative ecological impacts associated with the environmental compliance aspects of CSC's operations. However, there are still some challenges to be addressed regarding administrative issues (such as record keeping and preventive maintenance practices) linked to the environmental compliance aspects.

To manage and mitigate the risks and impacts of the environmental performance aspects of its operations and facilities, CSC has published Guidelines and ISDs for its main performance aspects under the CD 318 Environmental Protection and Sustainable Development. The internal policies related to environmental performance are:

- ISD 318-2 – Energy and Water Conservation
- ISD 318-7 – Environmental Management of Waste[1]
- Guidelines 318-10 – Drinking Water Quality Management (DWQM)

Finally, in order to mitigate risks associated with the SDS, CSC conducts regular internal consultations to identify needs, plans for the required funding and schedules timelines for the implementation of approved environmental initiatives and projects. Over the last two SDS cycles, this process has proven to be efficient to reduce the risk of not meeting SDS commitments while enhancing the possibilities of achieving or surpassing CSC's environmental performance objectives.

Replacement of underground storage tank with aboveground storage tank at Kent Institution, Agassiz, BC.

[1] 318-7 PCBs are federally regulated, however, all other aspects are performance based.

The Correctional Service of Canada's (CSC) Profile and Priorities

The Correctional Service Canada (CSC) is the federal government agency responsible for administering sentences of a term of two years or more, as imposed by the courts. CSC is responsible for managing institutions of various security levels and supervising offenders under conditional release in the community.

CSC manages approximately 2000 buildings, with a total building area of more than 1,400,000 square metres.

43 institutions (including 4 healing lodges)

- 6 maximum security;
- 9 medium security;
- 5 minimum security;
- 12 multilevel security; and
- 11 clustered institutions.

CSC also manages:

- 92 parole offices and sub-parole offices; and
- 14 community correctional centres.

In addition, CSC has partnerships with non-government organizations. These partner agencies operate approximately 200 community residential facilities across the country, providing accommodation, 24-hour supervision, counseling and programming to help offenders who have been released under supervision to successfully reintegrate into the community.

Electric vehicle and charging station at Collins Bay Institution, Kingston, ON.

Our Priorities

In response to requirements to manage a changing offender profile and contribute to public safety, CSC focuses on six strategic priorities:

- Safe management of eligible offenders during their transition from the institution to the community, and while on supervision
- Safety and security of the public, victims, staff and offenders in institutions and the community
- Effective, culturally appropriate interventions and reintegration support for First Nations, Métis and Inuit offenders
- Effective and timely interventions in addressing mental health needs of offenders
- Efficient and effective management practices that reflect values-based leadership in a changing environment
- Productive relationships with diverse partners, stakeholders' victims' groups, and others involved in support of public safety.

Summary of Results: SDS 2015-2018

CSC's performance on the 40 institutionally driven targets of the SDS 2015-2018 will be evaluated in this chapter. The timeline to reach achievement for all of the commitments was set at March 31, 2018, although implementation was staggered over the three years. The following table summarizes the results of progress made towards the extensive set of targets. As shown, most of the targets were achieved in the three-year cycle, several have been partially met and will reach full achievement within the next year and one target was integrated into a construction project.

The overarching main goal for the 2015-2018 strategy was "To reduce the ecological impacts of Correctional Service of Canada operations". In addition, the strategy was subdivided into two goals and two objectives:

Contribute to the protection of the atmosphere and reduce gaseous emissions that are responsible for global warming/climate change.

i. Reduce the negative environmental impacts of pollutants and conserve energy.

Contribute to the protection of natural habitats and reduce pollution to aquatic ecosystems.

ii. Preserve the quality of the natural environment and conserve water.

Over the next few pages, each target will be presented and analysed in greater detail by Region.

The progress status for each commitment falls under one of the following categories:

= target was achieved
= target was partially achieved
= target was not achieved by March 31, 2018

Electric vehicle charging stations at Regional Headquarters, Laval, QC.

Atlantic Region

Target #	SDS Commitment	Status
1.1	Complete the design phase to convert buildings 18 and 25 from electric heat to district hot water heating system (central heating plant) at Springhill Institution	
1.2	Connect the Structured Living Environment to the Building Management System at Nova Institution for Women	
1.3	Replace all masts and fence lights with LEDs at Atlantic Institution	
1.4	Replace flood lights with LEDs in the medium sector at Dorchester Penitentiary	
2.1	Improve waste sorting capabilities at Dorchester Penitentiary	

Target 1.1 Complete the design phase to convert buildings 18 and 25 from electric heat to district hot water heating system (Central Heating Plant - CHP) at Springhill Institution.

Achieved

The initiative to convert the existing heating system from electric to district hot water was proposed in order to decrease costs and save on energy. The first step prior to designing such a system is to conduct an option analysis and provide recommendations. The option analysis was completed for conversion of the two buildings from electric heat to district hot water heating system at the central heating plant. According to the analysis, it was determined that the conversion was simply not feasible.

Target 1.2 Connect the Structured Living Environment (SLE) to the Building Management System at Nova Institution for Women.

Achieved

Building Management Systems provide monitoring and control of a building's infrastructure which will help with energy efficiency, decrease operating costs, and ultimately conserve natural resources. The connection was completed in 2016-2017.

Target 1.3 Replace all masts and fence lights with LEDs at Atlantic Institution.

Achieved

Target 1.4 Replace flood lights with LEDs in the medium sector at Dorchester Penitentiary.

Partially achieved

LED lighting is extremely energy efficient and long lasting, which in return reduces maintenance and operation costs. LEDs are made of non toxic materials and are recyclable. The forecasted completion date is June 2018.

Target 2.1 Improve waste sorting capabilities at Dorchester Penitentiary

Achieved

Quebec Region

Target #	SDS Commitment	Status
1.5	Establish a regional automation program to optimize energy consuming systems for all institutions in Quebec Region	
1.6	Initiate a project to upgrade the centralized heating system at Cowansville Institution	
1.7	Reduce electrical consumption by gradually replacing the perimeter lighting at Drummond Institution	
1.8	Replace the perimeter lighting systems with LEDs at La Macaza Institution	
1.9	Implement a renewable energy project at the Federal Training Centre	
2.2	Reforest the access road at Donnacona Institution	
2.3	Replace water-cooled air conditioning systems at Port-Cartier Institution	
2.4	Replace water-cooled air conditioning systems at Sainte-Anne-des-Plaines complex	

Target 1.5 Establish a regional automation program to optimize energy consuming systems for all institutions in Quebec Region.

Achieved

A software program called IntelliWEB was installed at seven institutions/complexes. The on-site staff was trained on how to operate the program and it has been successful in saving energy.

Target 1.6 Initiate a project to upgrade the centralized heating system at Cowansville Institution.

Achieved

An option analysis was conducted and recommendations were provided. The recommended option has been selected and further investments to implement the upgrades have begun.

Target 1.7 Reduce electrical consumption by gradually replacing the perimeter lighting at Drummond Institution.

Not achieved

This commitment had been postponed for the foreseeable future since there is a fencing upgrade project scheduled. The project is to include eco-energy lighting.

Target 1.8 Replace the perimeter lighting systems with LEDs at La Macaza Institution.

Not achieved

The initiative was not started, however plans and specifications will be prepared next fiscal year for implementation.

Target 1.9 Implement a renewable energy project at the Federal Training Centre.

Achieved

Two double electric vehicle charging stations have been installed at the Federal Training Centre (building F-32).

Target 2.2 Reforest the access road at Donnacona Institution.

Achieved

By planting trees air quality is improved by filtering harmful dust and pollutants such as ozone, carbon and sulphur dioxides and gives off oxygen. Trees reduce the amount of storm water runoff, which reduces erosion and pollution into waterways and may reduce the effects of flooding. In addition, many species of wildlife depend on trees for habitat, food, protection and shelter.

Target 2.3 Replace water-cooled air conditioning systems at Port-Cartier Institution.

Achieved

Replacing water-cooled air conditioning systems with air-cooled systems have several benefits including a significant reduction in potable water consumption and water treatment requirements.

Target 2.4 Replace water-cooled air conditioning systems at Sainte-Anne-des-Plaines complex.

Partially achieved

Five large systems and several smaller water-cooled air conditioning systems were upgraded to air-cooled systems.

Ontario Region

Target #	SDS Commitment	Status
1.10	Implement a solar energy project at Collins Bay Institution	
1.11	Replace all street lighting with LEDs at Bath Institution	
1.12	Install motion detection sensors and LED lighting in the tunnels at Millhaven Institution	
1.13	Install LEDs on all lighting fixtures inside the compound at Grand Valley Institution for Woman	
1.14	Install new building automation systems at Ontario Regional Headquarters and Joyceville Institution	
2.5	Install automatic shower shut-off in three living units at Beaver Creek Institution	
2.6	Install low-flush toilets and urinals in the administration building at Joyceville Institution	
2.7	Establish an effluent reuse system at the wastewater treatment plant at Warkworth Institution	

Target 1.10 Implement a solar energy project at Collins Bay Institution.

Not achieved

The institution has been corresponding with the local utilities regarding a first stage authorization for initial consultation & MicroGenerator connection for a 100 kW ground mounted solar photovoltaic array. The Environmental group are currently working with NRCan to assist in the submission of the Connection Impact Assessment application.

Target 1.11 Replace all street lighting with LEDs at Bath Institution.

Partially achieved

The design phase was completed by March 31, 2018.

Target 1.12 Install motion detection sensors and LED lighting in the tunnels at Millhaven Institution.

Achieved

Target 1.13 Install LEDs on all lighting fixtures inside the compound at Grand Valley Institution for Woman.

Not achieved

The statement of work was planned to be completed and work to commence prior to March 31, 2018. Unfortunately, this did not materialize.

Target 1.14 Install new building automation systems at Regional Headquarters and Joyceville Institution.

Partially achieved

The building automation system was installed and functional at the Regional Headquarters by March 31, 2018. The upgrades to the building automation systems at Joyceville Institution should be included in the Energy Performance Contract.

Target 2.5 Install automatic shower shut-off in three living units at Beaver Creek Institution.

Achieved

Target 2.6 Install low-flush toilets and urinals in the administration building at Joyceville Institution.

Partially achieved

The installation of low-flush toilets and urinals is 50% completed.

Target 2.7 Establish an effluent reuse system at the wastewater treatment plant at Warkworth Institution.

Not achieved

The design phase was not completed by March 31, 2018.

Prairie Region

Target #	SDS Commitment	Status
1.15	Install solar panels to existing buildings at Willow Cree Healing Lodge	
1.16	Install ozone system in the main laundry at Drumheller Institution	
1.17	Replace all street lighting with LEDs at Okimaw Ochi Healing Lodge	
1.18	Retrofit existing infrastructure to increase energy efficiency in the administration building at Bowden Institution	
1.19	Replace all street lighting with LEDs at Stony Mountain Institution	
1.20	Replace a boiler unit to a higher energy efficiency system at Grierson Institution	
1.21	Upgrade an energy inefficient air conditioning system at Edmonton Institution	
1.22	Replace all perimeter lighting to LEDs at Pê Sâkâstêw Centre	
1.23	Replace all outdoor lighting on housing units with LEDs at Edmonton Institution for Women	
1.24	Implement a solar array system at Saskatchewan Penitentiary	
1.25	Install a heat recovery system on an existing unit at the Regional Psychiatric Center	

Target 1.15 Install solar panels to existing buildings at Willow Cree Healing Lodge.

Achieved

Target 1.16 Install ozone system in the main laundry at Drumheller Institution.

Not achieved

The ozone system could not be installed, however, this may be included as a recommendation in the Energy Performance Contract at Drumheller Institution.

Target 1.17 Replace all street lighting with LEDs at Okimaw Ochi Healing Lodge.

Partially achieved

All the LED lights have been purchased and the installation is progressively being completed.

Target 1.18 Retrofit existing infrastructure to increase energy efficiency in the administration building at Bowden Institution.

Not achieved

Boilers will be replaced with higher efficient systems for fiscal year 2018-2019.

Target 1.19 Replace all street lighting with LEDs at Stony Mountain Institution.

Achieved

Target 1.20 Replace a boiler unit to a higher energy efficiency system at Grierson Institution.

Achieved

Target 1.21 Upgrade an energy inefficient air conditioning system at Edmonton Institution.

Achieved

Target 1.22 Replace all perimeter lighting to LEDs at Pê Sâkâstêw Centre.

Partially achieved

All the LED lights have been purchased and the installation is progressively being completed.

Target 1.23 Replace all outdoor lighting on housing units with LEDs at Edmonton Institution for Women.

Achieved

Target 1.24 Implement a solar array system at Saskatchewan Penitentiary.

Not achieved

This initiative was not realized due several unforeseen issues, however there may be a renewed effort to include a solar array installation in the Energy Performance Contract for the penitentiary.

Target 1.25 Install a heat recovery system on an existing unit at Regional Psychiatric Center.

Achieved

Pacific Region

Target #	SDS Commitment	Status
1.26	Integrate meters into DDC[2] controls and set up digital energy recording at Mission Institution	
1.27	Convert existing lighting systems to LEDs at William Head Institution	
1.28	Integrate electrical and gas meters into DDC controls and set up digital energy recording at Mountain Institution	
1.29	Install occupancy sensors in all boardrooms and staff washrooms at Kwìkwèxwelhp Healing Village	
1.30	Replace all road lighting to LEDs at Matsqui Institution	
1.31	Replace all perimeter and road access lighting to LEDs at Fraser Valley Institution for Women	
1.32	Replace all road and parking lot lighting to LEDs at Pacific Institution	
2.8	Conduct a kitchen water use study following the cook chill implementation at Mission Institution	

Target 1.26 Integrate meters into DDC controls and set up digital energy recording at Mission Institution. **Achieved**

Target 1.27 Convert existing lighting systems to LEDs at William Head Institution.

Achieved

Target 1.28 Integrate electrical and gas meters into DDC controls and set up digital energy recording at Mountain Institution.

Partially achieved

Project was completed, however it was determined that the electrical and gas meters could not be integrated.

Target 1.29 Install occupancy sensors in all boardrooms and staff washrooms at Kwìkwèxwelhp Healing Village.

Achieved

Target 1.30 Replace all road lighting to LEDs at Matsqui Institution.

Achieved

Target 1.31 Replace all perimeter and road access lighting to LEDs at Fraser Valley Institution for Woman.

Partially achieved

Road access lighting replacement has been completed, however the perimeter lighting was not replaced due to technical concerns.

[2] DDC: refers to Direct Digital Controls.

Target 1.32 Replace all road and parking lot lighting to LEDs at Pacific Institution.

Achieved

Target 2.8 Conduct a kitchen water use study following the cook chill implementation at Mission Institution.

Achieved

LED roadway lighting upgrades at Matsqui Institution, Abbotsford, BC.

Pitch-In Event for Earth Day 2017 where CSC employees participated in Kingston, ON.

SDS 2018-2020 Commitments

The targets for this SDS focused on the conservation of energy and the reduction of GHGs in line with the GoC commitment to reduce 40% of GHG emissions by 2030. The same approach from the previous SDS was used, in so far that the targets were proposed from the regional/institutional levels rather than from national headquarters. This approach promotes ownership by many different offices of primary interest and drives results by CSC employees. The shorter than typical three year SDS cycle was followed in order to align with the next Federal Sustainable Development Strategy to be published for 2019. There are amendments to the *Federal Sustainable Development Act* being proposed as this SDS is being written, the final results are not yet known, however it will be most likely that CSC will be added as a mandated department. And as such, CSC will require to develop a departmental SDS that supports the commitments established in FSDS that will be published in 2019.

The principal goal of SDS 2018-2020 is to "Reduce greenhouse gas emissions and promote conservation of energy and water from CSC operations". There are two commitments CSC has set out to achieve:

Commitment 1

Reduce greenhouse gas (GHG) emissions that are responsible for global warming and climate change.

Commitment 2

Reduce waste and water consumption to help preserve the quality of natural ecosystems.

The following tables summarizes all of the actions, activities or projects, referred to as targets, that are planned to be implemented within the two years at institutions. These targets are grouped by Region under one of the two commitments. Sustainable Development suggests a long term planning process, all of the targets set out in the SDS 2018-2020 have a proposed timeline of **March 31, 2020**.

Commitment 1: Reduce greenhouse gas (GHG) emissions that are responsible for global warming and climate change.

Atlantic Region					
Target 1	**Target 2**	**Target 3**	**Target 4**	**Target 5**	**Target 6**
Retrofit building #27 to improve energy efficiency at Springhill Institution.	Upgrade lighting throughout the institution at Springhill Institution.	Implement clean energy for domestic hot water in row houses at Nova Institution for Women.	Upgrade flood light at various buildings at Nova Institution for Women.	Implement clean energy for heating PFV units at Atlantic Institution.	Conduct an energy audit at NFLD and Labrador CCC[3].

Quebec Region			
Target 7	**Target 8**	**Target 9**	**Target 10**
Improve some lighting hubs at the Regional Reception Centre.	Optimize HVAC systems at Drummond Institution.	Replace inefficient lighting systems with LED at Port-Cartier Institution.	Leave grassy areas as is or reforest certain grassy parcels at all institutions.

Ontario Region			
Target 11	**Target 12**	**Target 13**	**Target 14**
Replace inefficient furnaces and electric hot water heaters at Collins Bay Institution.	Replace lighting with LED in the Central Heating Plant at Joyceville Institution.	Initiate replacement of high wattage perimeter lighting with LED at one institution in Ontario Institution.	Integrate indoor and outdoor lighting into Energy Management System and install daylight sensors at Regional Headquarters.

Prairie Region				
Target 15	**Target 16**	**Target 17**	**Target 18**	**Target 19**
Convert courtyard lighting to LED at Regional Psychiatric Centre.	Replace inefficient boiler at Willow Cree Healing Lodge.	Upgrade perimeter lighting to LED at Stony Mountain Institution.	Design alternative energy source for the greenhouse at Bowden Institution.	Implement a solar array to the greenhouse at Drumheller Institution.

[3] CCC: Correctional Community Centre.

Prairie Region				
Target 20	**Target 21**	**Target 22**	**Target 23**	**Target 24**
Upgrade to LED at Okimaw Ochi Healing Lodge.	Upgrade interior lighting to LED at Grand Cache Institution.	Upgrade lighting to LED at EIFW[4].	Upgrade lighting to LED at Edmonton Institution - Maximum.	Replace HVAC system at Grierson Institution.

Pacific Region						
Target 25	**Target 26**	**Target 27**	**Target 28**	**Target 29**	**Target 30**	**Target 31**
Upgrade lighting to LED at Matsqui Institution.	Upgrade lighting to LED at Mission Institution - Minimum .	Replace hot water tanks with on demand system at Mission Institution - Minimum.	Install occupancy sensors in all boardrooms and staff washrooms at Mountain Institution.	Purchase an electric vehicle for RHQ staff fleet and install EV charging station at Regional Headquarters.	Upgrade lighting to LED at William Head Institution.	Upgrade lighting to LED at Kwìkwèxwelhp Healing Lodge.

National Headquarters						
Target 32						
Initiate Energy Performance Contracts (EPC)						
Dorchester and Springhill Institutions	Federal Training Centre Complex	Archambault Complex	Bath, Millhaven and Joyceville Institutions	Saskatchewan Penitentiary	Drumheller Institution	Matsqui Complex

[4] EIFW: Edmonton Institution for Women.

Commitment 2: Reduce waste and water consumption to help preserve the quality of natural ecosystems.

Atlantic Region		Pacific Region		
Target 33	**Target 34**	**Target 35**	**Target 36**	**Target 37**
Install automatic shut-off showers in living unit B-7 at Dorchester Institution - Minimum	Plant trees along main and access roads at Dorchester Institution - Minimum	Convert a grassy area to drought resistant landscaping at Mission Institution - Minimum.	Install two self-contained commercial composters at William Head Institution.	Install eight low-flush toilets at Kwìkwèxwelhp Healing Lodge.

Tree planting at the wastewater lagoon at SADP Institution, Sainte-Anne-des-Plaines, QC.

Other Environmental Initiatives

Further to those targets established in this SDS cycle, supplementary and complimentary environmental initiatives will be explored, where feasible, such as more vegetarian dishes from Food Services, cold water use for laundry services, solid waste reduction and use of environmentally-friendly controls for invasive species. CSC will also assess the possibility to enhance its capacity to monitor energy consumption using new information management technologies which should facilitate the preparation of progress reports on various environmental initiatives.

In addition, activities associated with the following environmental aspects will also be implemented.

Contaminated Sites

With the Federal Contaminated Sites Action Plan (FSCAP), CSC provides an annual status report on the contaminated sites located on our properties undergoing a remediation project or those being risk managed as per the FSDS contributing action: “Demonstrate leadership on assessing and remediating contaminated sites” under the long term goal “All Canadians live in clean, sustainable communities that contribute to their health and well-being”. Furthermore, NHQ-Environmental Protection Division will continue to assess any potentially contaminated sites by conducting Environmental Site Assessments (ESA) as required.

Wastewater Treatment Systems (WWTS)

To further improve the quality of its wastewater effluents and to efficiently address the additional flow requirements, CSC had invested significant capital funding in the upgrading of its WWTS, namely at the following sites:

- New lagoons were constructed and the old system was decommissioned at Sainte-Anne-des-Plaines complex, Quebec
- Construction improvements to the WWTS had commenced in fall of 2017 at Springhill Institution, Nova Scotia and will be tentatively completed by 2020
- Improvements to the WWTS is ongoing at Atlantic Institution, New Brunswick and will be tentatively completed by 2020
- A new lagoon system, in with collaboration with the Regional Municipality of Rockwood, is being built at Stony Mountain Institution, Manitoba
- Expected completion date in 2021 of a new WWTS at Mountain/Kent complex, British Columbia.

Vehicle Fleet

CSC has implemented a number of electric vehicle pilot-projects namely in Quebec and Ontario Regions. The projects included acquisition of several electric and pluggable hybrid vehicles, replacing conventional cars, as well as the installation of electric charging stations. The results of these pilot-projects has demonstrated as a viable solution as an alternative fuel source for specific vehicles of CSC's fleet. There are plans for the purchase of additional vehicles and charging stations in various provinces based on operational needs and budget availabilities.

Energy Performance Contracts

Energy Performance Contracts (EPC) is one proven method to reduce unnecessary energy wastage and cut GHG emissions from buildings. Private-sector energy saving companies (ESCo) provide a comprehensive set of energy efficient recommendations and implement those recommendations that are financed in part, with the savings created from reduced building operating costs. Several other CSC institutions and complexes will be targeted for EPCs above and beyond those mentioned in this SDS, based upon their energy consumption and GHG emissions.

In Closing

CSC will continue to make strides towards operating in a sustainable manner in order to reduce our impact on the air, land and water. NHQ Environmental Protection Division will gather information from all of the institutions biannually. The progress made on the SDS targets and other environmental initiatives will be evaluated and the results will be reported to senior management. Finally, as the Federal Sustainable Development Act is amended to include all departments, CSC is prepared to work closely with the Centre of Greening Government now and in the coming years to ensure compliance and reach beyond the set commitments.

Invasive species control with goats at Mountain Institution, Aggasiz, BC.

List of Acronyms

CCC: Correctional Community Centre

CD: Commissioner's Directive

CEAA: Canadian Environmental Assessment Act

CEPA: Canadian Environmental Protection Act

CHP: Central Heating Plant

CSC: Correctional Service of Canada

CORR: Compliance Operational Risk Report

DDC: Direct Digital Controls

DWQM: Drinking Water Quality Management

EIFW: Edmonton Institution for Woman

EPC: Energy Performance Contract

ESA: Environmental Site Assessment

ESCo: Energy Service Company

FSCAP: Federal Contaminated Sites Action Plan

FSDA: Federal Sustainable Development Act

FSDS: Federal Sustainable Development Strategy

GoC: Government of Canada

ISD: Internal Services Directive

NHQ-EP: National Headquarters Environmental Protection Division

PFV: Private Family Visit

RHQ: Regional Headquarters

SADP: Ste-Anne-des-Plaines

SARA: Species at Risk Act

SLE: Structured Living Environment

SDS: Sustainable Development Strategy

TBS: Treasury Board of Canada Secretariat

WWTS: Wastewater Treatment System

Technical Abbreviations

EV: Electric Vehicles

GHG: Greenhouse Gas

HVAC: Heating, Ventilation, Air-conditioning

LED: Light-Emitting Diode

PCB: Polychlorinated Biphenyl