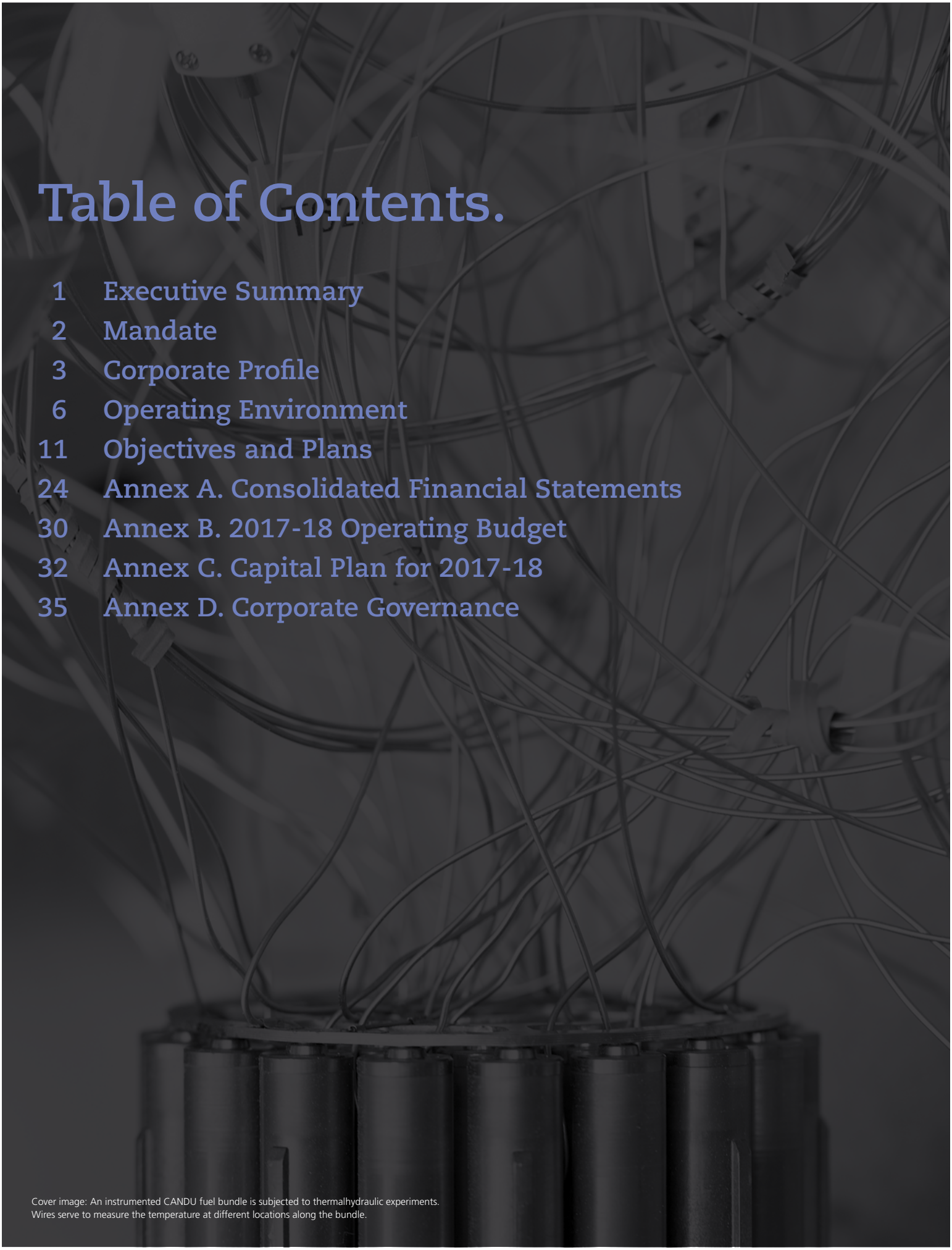
Atomic Energy of Canada Limited

CORPORATE PLAN SUMMARY

2017-18 TO 2021-22

AECL
EACL

Table of Contents.



Cover image: An instrumented CANDU fuel bundle is subjected to thermalhydraulic experiments. Wires serve to measure the temperature at different locations along the bundle.

Executive Summary.

As a federal Crown corporation, AECL has a mandate to enable nuclear science and technology and manage Canada's radioactive waste liabilities. Since 2015, AECL has been delivering its mandate through a Government-owned, Contractor-operated model, whereby a private-sector organization, Canadian Nuclear Laboratories (CNL), is responsible for managing and operating AECL's sites on its behalf.

AECL's operating model allows it to leverage the expertise and experience of the private sector to advance work and drive priorities in two main areas:

1) Decommissioning and Waste Management
   The objective is to safely and efficiently reduce the Government of Canada's radioactive waste liabilities by decontaminating and decommissioning infrastructure which is no longer necessary, remediating sites and safely storing and disposing of radioactive waste in a manner that protects the public, workers and the environment. This is done at AECL sites and other sites for which the government has accepted responsibility.

2) Nuclear Laboratories
   The objective is to enable CNL to leverage the capabilities at the Chalk River Laboratories, Canada's largest science and technology complex, in order to provide nuclear science and technology products and services to the Government of Canada and third parties. Key to this is the ongoing revitalization of the Chalk River Laboratories which is enabled by an $800 million investment in infrastructure to renew basic site infrastructure and science infrastructure over the next five years.

The implementation of the Government-owned, Contractor-operated model presents an opportunity for AECL to drive transformation at CNL in order to increase efficiencies and effectiveness, reduce Canada's radioactive waste liabilities, and build a world-class nuclear science and technology campus at the Chalk River Laboratories which contributes to Canada's clean energy and innovation goals.

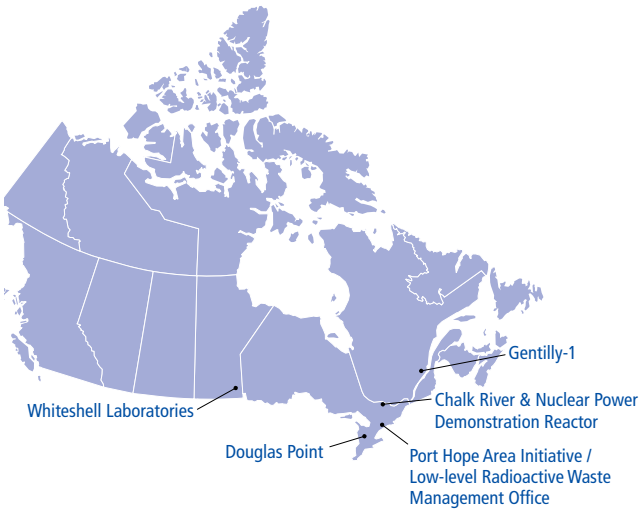
This 2017-18 Corporate Plan presents AECL's vision for achieving these objectives, informed by long-term plans which have been prepared by CNL.

Mandate.

AECL is a federal Crown corporation that has a mandate to enable nuclear science and technology and fulfill Canada's radioactive waste and decommissioning responsibilities. This work is undertaken at several sites across Canada, with headquarters in Chalk River, Ontario. The Chalk River site is AECL's main laboratory campus and Canada's largest research and development complex. This science campus boasts multiple highly-specialized and unique laboratory facilities, testing equipment and a large research reactor, the National Research Universal (NRU), all of which are used to leverage nuclear science and technology for peaceful purposes. Nuclear scientific activities undertaken at the Chalk River Laboratories have important applications that benefit Canada and Canadians in the areas of health, safety, security, energy, non-proliferation, environmental protection and emergency response.

AECL also addresses Canada's radioactive waste and decommissioning responsibilities, which stem from decades of nuclear research and development activities and isotope production at the Chalk River Laboratories, the Whiteshell Laboratories in Manitoba, as well as other sites in Ontario and Quebec. AECL is responsible for the proper and safe clean-up, remediation and long-term management of the radioactive waste at its sites. AECL also oversees similar work at sites where the Government of Canada has assumed responsibility for the cleanup of historic, low-level radioactive waste, for example as per agreements with the municipalities of Port Hope and Clarington, in Ontario.

AECL Sites Across Canada



AECL receives federal funding to deliver on its mandate and reports to Parliament through the Minister of Natural Resources. It leverages the unique capabilities at its sites to support federal priorities in nuclear science and technology, and provides science and technology services to industry and other third parties on a commercial basis.

AECL delivers its mandate through long-term contracts with the private-sector for the management and operation of its sites. This operating model, known as a Government-owned, Contractor-operated (GoCo) model, is described further in the next section of this document and in Annex D.

Corporate Profile.

AECL has been leading nuclear science and technology for over six decades. The organization was the birthplace of Canada's nuclear industry, having hosted the first sustained criticality (controlled nuclear chain reaction) outside of the United States. More importantly, the Chalk River Laboratories were the birthplace of the CANDU reactor technology developed and commercialized by AECL's former CANDU Reactor Division, a technology that today is used at 19 reactors in Canada and 30 (CANDU or CANDU-derivatives) internationally. It also provided the research and facilities for breakthroughs in the application of medical isotopes, including cobalt-60. Work undertaken at the Chalk River Laboratories has led to numerous and important scientific achievements – including two Nobel Prize winners.

Over the years, AECL has played an important role in supporting public policy and in delivering programs for the Government of Canada. This includes the production of medical isotopes, the ongoing remediation of contaminated sites in the municipalities of Port Hope and Clarington in Ontario, the ongoing decommissioning and remediation of its own sites and facilities, as well as the provision of nuclear science and technology in the areas of energy, non-proliferation, emergency preparedness, counter-terrorism, health, and security. AECL's unique facilities have made it an attractive research destination for scientists across Canada and the world, leading to home-grown innovation and the development and retention of highly-qualified nuclear workers and scientists.

Nuclear energy is a low greenhouse gas emitting technology

Nuclear energy provides a reliable, baseload electricity that complements other clean and renewable energy sources.

Nuclear energy's contribution to the stability and sustainability of the grid system, along with its contribution to low-carbon energy production, has been recognized internationally by the G-7, the International Energy Agency and the Intergovernmental Panel on Climate Change.

In Canada alone, the nuclear industry generates $6 billion of gross domestic product, with 60,000 workers engaged in this industry. Canada's large and robust supply chain supplies both domestic and international markets and is a source of highly-qualified employment, most notably in Ontario.

AECL's Operating Model

Over the last few years, AECL has gone through a significant restructuring, the objectives of which were to reduce risks and costs to taxpayers. The outcome of this was twofold: 1) the assets of its CANDU Reactor Division were sold to Candu Energy Inc. (a wholly-owned subsidiary of SNC-Lavalin) in 2011; and 2) the management and operation of its nuclear laboratories, including its decommissioning responsibilities, moved to a GoCo model.

Today, AECL is a small Crown corporation (approximately 40 employees). While the way AECL delivers on its responsibilities has changed, the organization's mandate remains essentially the same: to enable nuclear science and technology to support both the federal government and industry, and to manage Canada's radioactive waste and decommissioning liabilities.

AECL's mandate is now delivered through a long-term contract with the private sector under a GoCo model. Under this model, while AECL retains ownership of the facilities, assets, intellectual property and liabilities, Canadian Nuclear Laboratories (CNL), a private-sector organization,

manages AECL's sites and facilities on a day-to-day basis (details on this model are provided in Annex D). This model has been successfully used both in the United Kingdom and in the United States to bring private-sector rigour and efficiency in order to reduce risks and costs.

Part of this important transformation at AECL has led to a reaffirmation by the federal government of the importance of the Chalk River Laboratories. Today, through the work of Canadian Nuclear Laboratories, AECL delivers on two key areas:

1. Nuclear science and technology, specifically in the area of nuclear energy, material science, health, emergency preparedness, safety, and the environment. This includes the renewal and revitalization of the Chalk River site, supported by a federal infrastructure investment of $800 million beginning in 2016-17.

2. Decommissioning and waste management, with a view to addressing legacy liabilities and making way for new infrastructure that will support the nuclear science and technology mission.

AECL's role is to set priorities for CNL, oversee the contract and assess CNL's performance to ensure value for money for Canada. AECL acts as a 'smart buyer' and plays a challenge function with a view to advancing its priorities in the most effective and efficient manner, while maintaining safety, security and the protection of the environment.

AECL also continues to be responsible for the management of retained liabilities related to AECL's former CANDU Reactor Division (discontinued commercial operations).

AECL accepts CNL's annual work plans, and CNL performance is then systematically monitored and assessed based on established performance measures. AECL relies on a small complement of international experts who bring significant experience in the management of similar arrangements, both from a government and a contractor perspective. The objective is for AECL to have the necessary expertise and capabilities to oversee the GoCo agreements and play an appropriate oversight and challenge function in order to achieve value for money for the Canadian government.

In 2015, following the selection of Canadian National Energy Alliance, a consortium made up of CH2M HILL, WS Atkins, Fluor, SNC-Lavalin and Rolls-Royce, AECL moved from a Government-owned, Government-operated model to a GoCo model.

As a small Crown corporation operating under a GoCo model, AECL focusses its efforts on overseeing CNL's activities in two main areas:

1. Decommissioning and Waste Management
   The objective is to safely and efficiently reduce the Government of Canada's radioactive waste liabilities, including associated risks to health, safety, security and the environment. The focus is on enabling CNL to significantly advance over time infrastructure decommissioning, site remediation and waste management for Canada. In previous years, these activities were funded and overseen by Natural Resources Canada through the Nuclear Legacy Liabilities Program, the Port Hope Area Initiative and the Low-level Radioactive Waste Management Office. Under the GoCo model, AECL is now directly responsible for all of the Government of Canada's radioactive waste management responsibilities, including those related to historic low-level waste for which the Government has accepted responsibility. AECL contracts out the work necessary to deliver on these responsibilities to CNL.

2. Nuclear Laboratories
   The objective is to support: (i) Canada's federal roles, responsibilities and priorities; (ii) commercial services for third parties; and, (iii) capital projects and other corporate activities at the nuclear laboratories. Work in this area includes the renewal and modernization of the Chalk River site to enhance CNL's ability to provide safe and world-class science and technology as well as other services for Canada and commercial clients.

Operating Environment.

Assessment of 2016-17 Results

The previous fiscal year, 2016-17, marked the first full operating year under the GoCo model. With this new beginning, AECL was focused on:

- Fostering a smooth transition for CNL's new management team
- Overseeing CNL's delivery of the short-term commitments laid out in its annual plan
- Overseeing CNL's long-term strategic planning

Overall the 2016-17 year yielded positive results for AECL under the GoCo model. AECL fully assumed its oversight role and established processes and procedures – both formal and informal – to manage its contractual relationship with CNL and assess performance based on established milestones, targets and performance measures. CNL showed positive, early signs of the transformational change that was anticipated under the GoCo model.

The performance measures presented in AECL's 2016-17 Corporate Plan are summarized below, with a particular emphasis on measures which were expected to be delivered during the 2016-17 fiscal year.

DECOMMISSIONING AND WASTE MANAGEMENT		
Priorities	**Measures of Success for 2016-17**	**Results**
Waste management practices are transformed based on a strategic, integrated and cost-effective long-term vision for the management of AECL's liabilities	CNL issues the first comprehensive Integrated Waste Strategy document by March 31, 2017	On Schedule
	AECL's acceptance of CNL's 5- and 10- year plans for decommissioning and waste management by March 31, 2017	On Schedule
	Waste management areas have new accommodation and dedicated crafts are assigned to projects by March 31, 2017	Currently behind schedule. Recent CNL efforts have shown marked progress, however the target is likely to be achieved slightly behind schedule
The decommissioning and waste management program at the Chalk River site is accelerated to reduce AECL's liabilities	CNL engages stakeholders and the regulator in preparation for a near surface disposal facility	On Schedule
	Four structures associated with skyline changes at the Chalk River Laboratories are decommissioned as per CNL's Annual Program of Work and Budget and Performance Evaluation and Measurement Plan	Ahead of schedule. More than 19 structures have been decommissioned as of the third quarter of 2016-17

DECOMMISSIONING AND WASTE MANAGEMENT

Priorities	Measures of Success for 2016-17	Results
The decommissioning and waste management program at the Chalk River site is accelerated to reduce AECL's liabilities *(continued)*	Operate Chalk River's Fuel Packaging and Storage Facility and transfer fuel from 10 tile holes in 2016-17	Ahead of schedule. Fuel transfers were completed for 25 tile holes
	Contract awarded for the design and construction of the Stored Liquid Waste Cementation project by March 31, 2017	The contract was not awarded; however the Stored Liquid Waste Cementation project remains on track following a change in strategy for the project
The Port Hope Area Initiative is delivered efficiently and effectively in order to reduce AECL's liability	Port Hope waste water treatment plant declared in service	On Schedule
	Award contract for construction and operation of the Port Hope long-term waste management facility	On Schedule
Activities associated with the Low-level Radioactive Waste Management Office are delivered efficiently and effectively in order to address AECL's responsibility	CNL completes preliminary historic low-level radioactive waste liability cost estimate for non-Port Hope sites	On Schedule

NUCLEAR LABORATORIES

Priorities	Measures of Success for 2016-17	Results
Federal priorities are met on time and with a high standard of quality	Research projects as set out in the Federal Nuclear Science and Technology Work Plan are delivered on time and with high quality	On schedule/target
Grow commercial opportunities for the laboratories	Revenues from new customers is more than $10M	On Schedule/target
CNL transforms ongoing nuclear operations and prepares for the shutdown of the NRU while maintaining related experimental and production facilities in order to deliver research projects up to the March 2018 shutdown	High quality NRU Shutdown Transition Project Execution Plan developed and submitted to AECL by January 31, 2017	On Schedule
	NRU operates at high power for at least 228 days during 2016-17	On Schedule
Management and operations (including nuclear operations) of CNL are transformed to enhance efficiency and reduce costs	10% reduction in indirect costs in 2016-17 as measured against an agreed upon baseline established from 2015-16 actuals	On Schedule

NUCLEAR LABORATORIES		
Priorities	**Measures of Success for 2016-17**	**Results**
CNL's project and safety performance is improved	Improved health, safety, security and environmental performance relative to good industry practice	On Schedule. CNL has established industry standard statistical methods to establish baseline metrics to monitor progress towards good industry practice
CNL's company-wide security posture and performance is improved	Planned physical security upgrades, IT system upgrades are completed as per milestones established	On Schedule/target
	Annual reduction in security breaches (physical, cyber), reduction in reportable events to the regulator through annual CNSC performance ratings for CNL sites and CNSC ratings of major training exercises	On Schedule/target
CNL delivers 5 and 10 year plans that integrate its vision for the site and enable a revitalization of the Chalk River Laboratories	CNL delivers 5-year Strategic Plan and 10-year Plans* by September 2016	Behind Schedule. Draft plans were delivered by target date and are expected to be finalized by March 31 2017
	CNL delivers an integrated baseline across all missions through the Earned Value Management System by March 31, 2017. The integrated baseline is to be at maturity level III (as per the American National Standards Institute/Electronic Industries Alliance standard 748)	Behind Schedule. Efforts are underway to deliver an integrated baseline, however CNL is currently behind schedule
CNL delivers infrastructure projects in support of a long-term vision for the Chalk River Laboratories	CNL completes infrastructure projects on time and on budget, as set out in its annual plan	On Schedule

* The 10-year Plan is meant to be a high-level and strategic overview of the transformation over the next ten years. The 5-year plan is meant to be more precise as to work and activities required to achieve the transformation over the next five years. Both plans are meant to highlight how the decommissioning and waste management program will progress while continuing and growing the science and technology mission at CNL (i.e. how decommissioning and waste management can progress without impeding on the science and technology work), all the while revitalizing the Chalk River site through capital investments.

Operating Considerations

The governance model for AECL has changed significantly with the implementation of the GoCo model. The delivery of AECL's mandate and priorities through a long-term contract with the private sector has meant opportunities for significant transformation in the way its sites and facilities are managed. The arrival of Canadian National Energy Alliance as the new owner of CNL has meant that expertise from global, experienced firms is being brought to bear at CNL. This provides a powerful catalyst for transformation across all areas of CNL.

Importantly, the GoCo model is allowing AECL to adopt a more prompt decommissioning approach by significantly advancing its radioactive waste and decommissioning activities over the next ten years, an approach which is now common amongst nuclear nations. International best practices show the importance of promptly addressing decommissioning objectives and identifying long term radioactive waste disposal solutions sooner in order to reduce risks. To that effect, AECL has been overseeing CNL's plans to build a proposed Near Surface Disposal Facility at the Chalk River Laboratories. This facility will serve as a final disposal site for a large volume of AECL's low-level radioactive waste, as well as other suitable waste streams. The licensing and construction of this facility is critical to CNL's decommissioning and waste management strategy.

There is also a focus on the acceleration of the decommissioning and closure of the Whiteshell Laboratories and Nuclear Power Demonstration reactor (located in Manitoba and Ontario, respectively), with a view to reducing long-term costs and risks.

AECL is placing an important focus on the renewal of the Chalk River Laboratories. The objective is to leverage existing and potential capabilities at the Laboratories, as well as significant investments in science and site supporting infrastructure, to revitalize the site and transform it into a world-class nuclear science campus. Part of this renewal will be enabled by the acceleration of decommissioning activities on site, allowing for old and often contaminated buildings to come down and making way for new, state-of-the-art science facilities. A better alignment between internal capabilities at CNL and commercial drivers will allow CNL to grow third party revenues to both meet the current and future needs of industry, as well as maintain relevant and targeted expertise at the Chalk River Laboratories.

Chalk River Laboratories Revitalization

$800 million is being invested to renew the science and site supporting infrastructure at the Chalk River Laboratories.

AECL's sphere of influence

AECL's role under the GoCo model is to set strategic direction, oversee the contract and monitor/assess the performance of CNL relative to its contractual obligations. This includes leveraging the expertise and capabilities of CNL, including the new leadership brought to CNL by Canadian National Energy Alliance, to achieve priorities. This is a significantly different role than the one AECL has had for the past decades, where it had been directly responsible for all of the activities, including employees, at its sites and for directing the work to advance its missions.

AECL's new oversight role is fundamentally to direct the 'what', and let CNL manage the 'how'. Indeed, CNL, as the operator of the licenced nuclear facilities and employer of the workforce, is responsible for the day-to-day management of the sites and directly accountable for directing the work.

Through the acceptance of CNL's annual plan, AECL can influence CNL's plans for alignment with AECL's priorities. AECL's role is to challenge CNL's plans to find the right balance between the level of activities that are necessary to achieve AECL's mandate and provide value for money for Canada.

Risks and Opportunities

With a new role comes new challenges and opportunities. AECL has put in place an approach to identify risks and mitigation strategies which includes quarterly reviews by its Executive Committee. The main risks identified in delivering on its mandate and its new role are presented below as based on the most recent review of risks by the organization.

Contractual Risks

The GoCo model represents a new structure that relies on the expertise brought about by Canadian National Energy Alliance as well as proper oversight by AECL to achieve value for money for Canada. The success of the model relies, in part, on the strength of the relationship established, the level of trust and confidence between the two organizations, as well as the proper level of oversight placed on CNL. As the contractual relationship matures, CNL and AECL will be looking to continue to establish work processes based on both contractual requirements and other formal and informal collaboration and communication needs. AECL will continue to work to ensure the right balance between placing sufficient oversight so that it has a line of sight into activities and can play a proper

challenge function, but not too onerous oversight such that unnecessary administrative requirements and processes result. Indeed AECL's role is to direct the 'what', not the 'how'.

To mitigate this risk, protocols and management processes have been established in an effort to ensure proper information is being shared at all levels and to facilitate oversight and collaboration, including a Contractor Assurance System (a system that allows the contractor to manage performance consistent with contractual requirements) and a standard-based Earned Valued Management System (a system to manage projects and track performance) which is available to AECL. AECL has also put in place plans, methods and processes to perform effective contract oversight.

Internal Risks

AECL's operational success, including the provision of effective contractual oversight, depends in large part on the organization's ability to retain its small workforce comprised of highly qualified and specialized employees. In particular, AECL has had to recruit international experts with experience in working under GoCo models in the United States and United Kingdom (where this model has been used specifically at nuclear sites) in order to have the right knowledge and competencies in place to help it implement the GoCo model. The retention of these international experts, along with the on-the-job training of other staff, continues to be critical to enable the organization to continue to sustain operations.

CNL Project Risks

AECL has identified several high-priority projects and is closely tracking CNL's progress in advancing the work. In all cases where AECL has identified such projects, closer oversight of projects is being applied. AECL's oversight includes the requirement that project plans appropriately reflect the identified risks and necessary mitigating actions, engaging with other stakeholders, as required, and monitoring performance.

Opportunities

Canada's expertise and experience in nuclear technology provide a unique commercial opportunity to bring small or very small modular reactor technology to bear. The application of this type of technology could serve a wide variety of potential customers, including the mining and gas industry. It could bring energy to northern, more remote communities, and it provides an opportunity for exports, as supported by our already strong nuclear supply chain.

As one of the challenges facing Small Modular Reactors is the number of designs (there are currently over 100 different designs), AECL believes that expertise at the Chalk River Laboratories could be leveraged to advise both the government and commercial companies on the technology. The Chalk River Laboratories provide a site and the technology and the capabilities to help identify the best and most appropriate technology to meet Canada's domestic and export needs.

CNL has identified an opportunity to play an important role in advancing Small Modular Reactors or very Small Modular Reactors, and is taking steps in 2017-18 to further explore this opportunity.

Objectives and Plans.

AECL is focused on leveraging the GoCo model to deliver on its mandate to enable nuclear science and technology and manage its decommissioning and waste management responsibilities. A key to delivering on this is the alignment of CNL's long-term plans with AECL's objectives, as well as the delivery of short-term commitments as per CNL's annual plan.

Planned budgets for each of the priority areas are presented below. The Consolidated Financial Statements in Annex A provide additional financial details.

Total AECL Federal Funding Requirements for the Planning Period (excluding Discontinued Operations) - Cash

Net of revenues

			Plan					
$ Millions	**Actual 2015-16**	**Budget 2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**5 Year Total**
Funding Requirements								
Decommissioning and Waste Management	235	403	511	666	700	609	541	3,026
Nuclear Laboratories	438	478	488	406	431	360	335	2,020
Total Funding Requirements AECL	**673**	**882**	**999**	**1,072**	**1,131**	**969**	**875**	**5,046**
Funded through Heavy Water Proceeds	49	55	33	16	10	10	10	78
Net Federal Funding Requirements AECL	**624**	**827**	**966**	**1,055**	**1,122**	**959**	**865**	**4,968**

Note: Minor Differences due to rounding.

Decommissioning and Waste Management

Priority: Fulfill Canada's Radioactive Waste and Decommissioning Responsibilities

AECL carries a significant radioactive waste and decommissioning liability, which is the result of decades of nuclear activities at its sites. This liability represents the estimated costs of cleaning-up existing waste areas, as well as safely decontaminating, demolishing and disposing of contaminated buildings and facilities. AECL's objective is to address risks and hazards in order to reduce risks and costs for Canada in a safe manner, consistent with international best practices.

AECL is also responsible for fulfilling Canada's responsibilities with respect to historic low-level waste at sites where the original owner no longer exists or another party cannot be held liable and for which the Government has accepted responsibility. This includes the clean-up and safe long-term management of historic, low-level radioactive waste in the municipalities of Port Hope and Clarington, in Ontario pursuant to an agreement with the municipalities.

The implementation of the GoCo model provides an opportunity for AECL to leverage the experience and expertise of the private-sector to optimize work and increase efficiencies and effectiveness, including taking action to address risks sooner and advancing the commissioning of waste disposal facilities. Such disposal facilities will allow radioactive waste to be safely and permanently disposed of, paving the way for necessary site remediation and building decommissioning. This, in turn, will reduce the long-term costs of maintenance and surveillance of existing buildings which are contaminated but no longer in use. As such, AECL will be relying on the international expertise brought by CNL to advance work with respect to decommissioning and waste management and aligning Canada with international best practices and reducing the Government's liability in a much shorter period of time than what had previously been planned.

Work in this respect started immediately following the implementation of the GoCo model, and will be continuing for the planning period (2017-18 to 2021-22).

Work will be focussed, and budget allocated and tracked, along five project areas:

1. General Decommissioning and Waste Management
   Captures all waste and decommissioning activities to address AECL's legacy waste at its Chalk River Laboratories and two other smaller sites, Gentilly-1 in Quebec and Douglas Point in Ontario. Activities for the planning period will mainly focus on the Chalk River Laboratories, where the majority of AECL's liabilities are located.

   AECL's priorities for the planning period will be twofold: 1) to oversee the continued transformation of CNL's decommissioning and waste management organization, with a focus on increased productivity and continued safety, security and protection of the environment; and 2) the advancement of key decommissioning and waste management activities at the Chalk River site, most notably CNL's proposal for the construction of a Near Surface Disposal Facility.

   Activities in this area include:

   - *Environmental restoration at the Chalk River site*
     For more than 60 years, nuclear science and technology activities at the Chalk River site have led to the production of radioactive and other hazardous wastes. Such wastes have been carefully managed at dedicated areas, otherwise known as waste management areas. While the majority of the Chalk River site remains undisturbed, the waste management areas and other affected lands have been impacted to varying degrees. Remedial actions are required to ensure the long-term protection of human health and the environment. Activities in 2017-18 include developing a framework on cleanup criteria. This will be done in parallel with targeted remedial actions that will improve environmental conditions. That said, larger-scale cleanup will not begin until the Near Surface Disposal Facility is operational and can accept the anticipated wastes.

   - *Waste management and disposal at the Chalk River site*
     As noted above, current radioactive waste is safely stored at the Chalk River site. However final disposal pathways must be developed for various types of wastes. As such CNL is proposing to build a Near Surface Disposal Facility for the permanent disposal of low-level radioactive waste as well as other suitable waste streams. Near surface disposal is an internationally-proven method of disposing of such wastes. The facility

would allow for the permanent disposal of the vast majority of AECL wastes currently in interim storage, as well as waste which will be generated by future decommissioning activities and continued operations of the Chalk River Laboratories. This project is currently undergoing an Environmental Assessment, including engagement of local stakeholders and Aboriginal groups.

CNL also continues to manage existing waste management facilities at the Chalk River site and is responsible for keeping existing waste storage facilities fit for service. Activities in 2017-18 include looking at solutions to manage existing and future volumes based on the anticipated operating date of the Near Surface Disposal Facility.

In addition, CNL manages AECL's inventory of stored liquid waste. A project is in place to safely remove and process the legacy radioactive liquid wastes (240 cubic meters) from existing tanks at the Chalk River site and to decommission the tanks and associated structures.

- *Decommissioning of buildings at the Chalk River site*
  The Chalk River site includes multiple buildings which require decontamination, decommissioning and demolition. Most of these facilities and buildings are outdated, no longer needed to meet operational needs and contribute to high site costs through ongoing maintenance, footprint, energy consumption, etc. CNL will be removing buildings in order to make way for the Chalk River site revitalization and to reduce AECL's liabilities. In 2017-18 activities will be focused on demolition at a few key areas at the site; however large-scale activities will largely commence when the Near Surface Disposal Facility is operational, providing that CNL secures all of the necessary approval for its construction.

- *Management of used fuel and repatriation of highly-enriched uranium*
  Highly enriched uranium originating in the United States has been used at the Chalk River site as reactor driver fuel and in the production of the key medical isotope molybdenum-99. As part of the Global Threat Reduction Initiative (an initiative which aims at reducing proliferation risks by consolidating highly-enriched uranium inventories in fewer locations around the world), AECL is working with the United States Department of Energy and CNL to return (repatriate) this material to the United States for conversion and reuse. This initiative provides for a safe, secure, timely and permanent solution to Canada's long-term management of this material. Any transportation of material is undertaken according to strict regulations, both in Canada and the United States. The highly-enriched uranium is transported in engineered casks that are specifically designed to contain contents under normal and abnormal situations. Furthermore, stringent security plans are in place.

  Finally, CNL continues to manage AECL's used fuel inventory. The Fuel Packaging and Storage facility is used to remove fuel from existing tile holes that show signs of corrosion and place it in an above-ground storage facility. In 2017-18, additional fuel and canisters from AECL's tile holes will be safely retrieved, transferred, remediated, repackaged, stored and monitored.

Measures of success include:

Outcome	Performance measure	Target
Waste management practices are transformed based on a strategic, integrated and cost-effective long-term vision for the management of AECL's liabilities	CNL uses the first comprehensive Integrated Waste Strategy document to drive delivery of decommissioning and waste management goals	2017-18 to 2019-20: High priority characterization needs are identified and undertaken
	Manage interim low-level radioactive waste storage capacity	2017-18: Develop low-level radioactive waste storage capacity (so as not to limit facilities decommissioning objectives before the Near Surface Disposal Facility becomes operational)
The decommissioning and waste management program at the Chalk River site is accelerated to reduce AECL's liabilities	CNL designs, plans, seeks appropriate support and approvals and builds a near surface disposal facility	2017-18: Regulatory approval to begin construction received and construction contract awarded 2020-21: First waste emplacement
	Milestones associated with skyline changes at the Chalk River Laboratories are met as per CNL's Annual Plan	Demolition of structures, systems and components 2017-22: Approximately 65 structures
	Repatriation of highly-enriched uranium: fuel rods and target residue material are repatriated to the US	2021-22: Target residue material shipments completed* 2021-22: Fuel rods shipments completed
	Operate Fuel Packaging and Storage Facility and transfer fuel from tile holes (Chalk River site)	2021-22: Complete transfer of fuel from targeted tile holes to the Fuel Packaging and Storage Facility
	Stored Liquid Wastes are appropriately and safely handled	2023-24: Liquid processing complete 2025-26: Tanks decommissioned

* In the 2016-17 Corporate Plan Summary, the target for completion of the shipment of target-residue material had been presented as being in 2019. The repatriation of this material (liquid highly-enriched uranium) has been delayed due to the United States Department of Energy having voluntarily halted shipments in order to address litigation. Assuming that shipments can start in 2017-18, the current target is based on the US' site ability to receive and process shipments.

2. Port Hope Area Initiative

The Port Hope Area Initiative represents Canada's commitment to clean up and safely manage historic low-level radioactive waste situated in the municipalities of Port Hope and Clarington. The objective is to safely manage roughly 1.7 million cubic metres of historic low-level radioactive waste and contaminated soils. Modern facilities for the long-term management of the wastes are being constructed and will receive waste from existing waste management facilities, as well as other wastes which are dispersed in the local area.

Focus for the 2017-18 fiscal year will be placed on local survey and remediation work and the operationalization of the two long-term waste management facilities (Port Hope Long-Term Waste Management Facility and Port Granby Long-Term Waste Management Facility).

Measures of success include:

Outcome	Performance measure	Target
The Port Hope Area Initiative is delivered efficiently and effectively in order to reduce AECL's liability	Port Hope Area Initiative milestones are completed on or ahead of schedule	2017-18: Port Hope Long Term Waste Management Facility ready to receive off-site waste 2019-20: Port Hope and Port Granby Long-Term Waste Management Facilities operational and major sites remediation completed 2022: Port Granby project complete and in long-term surveillance

3. Low-level Radioactive Waste Management Office

Includes all activities for which the Government has assumed responsibility (excluding the Port Hope Area Initiative) and which are required to address and manage the cleanup of historic low-level radioactive waste at sites in Canada. This includes ongoing interim waste management and remediation projects across Canada. In 2017-18, AECL will be working with local communities and CNL to find safe, suitable, cost-effective and accepted solutions for waste disposal.

Measures of success include:

Outcome	Performance measure	Target
Activities associated with the Low-level Radioactive Waste Management Office are delivered efficiently and effectively in order to address AECL's responsibility	AECL engages with local stakeholders with a view to reaching an agreement for final re-use or disposal of Northern Transportation Route soils	To be determined based on discussions with stakeholders

4. Target-cost project for the closure of the Nuclear Power Demonstration reactor site

Captures the activities to decommission the Nuclear Power Demonstration facility located in Rolphton, Ontario. CNL is proposing to decommission the reactor in situ (i.e. leave it in place). This approach, which involves sealing the below grade structure (including the reactor vessel and systems and components) by grouting it in place, is a decommissioning solution which has been used previously in the United States. The structure will then be capped with concrete and covered with an engineered barrier. In-situ decommissioning will isolate the contaminated systems and components inside the below grade structure. This will allow for continued radioactive decay and minimize hazards to workers and the environment that would be presented through alternative approaches, for example by cutting, removing and transportating the materials off site.

CNL has started preliminary engagement of the regulator and stakeholders on this proposal; in 2017-18 CNL will be advancing its proposal and safety case with local stakeholders and the Canadian Nuclear Safety Commission.

Measures of success include:

Outcome	Performance measure	Target
The Nuclear Power Demonstration reactor is successfully decommissioned and the site is closed in order to reduce AECL's liability	CNL submits application for a licence	September 2017
	CNL's stakeholder engagement leads to the acceptance of the environmental assessment and the issuance of a licence for in situ disposal	April 2019
	Canadian Nuclear Safety Commission issues licence to abandon or otherwise accepts as completed all active decommissioning and waste management activities, with only long-term care activities remaining	2021

5. Target-cost project for the closure of the Whiteshell Laboratories

Includes all activities to decommission and close the Whiteshell Laboratories site located in Pinawa, Manitoba. The Whiteshell site is the second largest of AECL's sites operated by CNL. It was established by the Government of Canada in 1963 as an AECL research laboratory. The focus of research was on the largest organically cooled, heavy water moderated nuclear reactor in the world, the WR-1. Facilities also included a SLOWPOKE reactor as well as shielded hot cell facilities and other nuclear research laboratories. The site also includes a radioactive waste management area which serves to provide interim storage of radioactive waste for the Whiteshell site which was created as a result of the operations of the research reactor and nuclear laboratories.

In 1998, the Government announced the closure of the Whiteshell Laboratories, and decommissioning activities have been underway since then. With the implementation of the GoCo model, CNL has proposed to accelerate and complete the decommissioning of the site by 2024. In particular, CNL is proposing to decommission the research reactor *in situ* (i.e. leave it in place). Similar to the proposal for the Nuclear Power Demonstration reactor discussed above, this approach, which involves sealing the below grade structure (including the reactor vessel and systems and components) by grouting it in place, is a decommissioning solution which has been used previously in the United States. The structure will then be capped with concrete and covered with an engineered barrier. In-situ decommissioning will isolate the contaminated systems and components inside the below grade

structure. This will allow for continued radioactive decay and minimize hazards to workers and the environment that would be presented through alternative approaches, for example by cutting, removing and transportating the materials off site.

CNL has started preliminary engagement of the regulator and stakeholders on this proposal; in 2017-18 CNL will be advancing its proposal and safety case with local stakeholders and the regulator.

Measures of success include:

Outcome	Performance measure	Target
The Whiteshell Laboratories site is successfully decommissioned and the site is closed in order to reduce AECL's liability	Canadian Nuclear Safety Commission issues licence renewal to continue site decommissioning	2018
	CNL's stakeholder engagement leads to the acceptance of the revised environmental assessment which allows for in situ disposal of the WR-1 reactor	2019
	Waste retrieval completed for all the standpipes in the waste management area	2022
	All High Level Waste/Fuel removed and transported to the Chalk River Laboratories	2022
	Canadian Nuclear Safety Commission issues licence to abandon or otherwise accepts as completed all active decommissioning and waste management activities, with only long-term care activities remaining	2024

In addition, CNL will continue to provide services to third parties for the handling, storage and disposal of radioactive waste, for example waste from hospitals and universities. These activities are delivered on a full cost-recovery basis and do not require government funding.

The budget related to the priority 'Fulfill Canada's Radioactive Waste and Decommissioning Responsibilities' is as follows:

Decommissioning and Waste Management Five-Year Projection of Funding Requirements - Cash

			Plan					
$ Millions	**Actual 2015-16**	**Budget 2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**5 Year Total**
Decommissioning and Waste Management								
Total Decommissioning and Waste Management	236	404	512	667	701	610	542	3,031
Revenue	1	1	1	1	1	1	1	5
Federal Funding Requirement	**235**	**403**	**511**	**666**	**700**	**609**	**541**	**3,026**

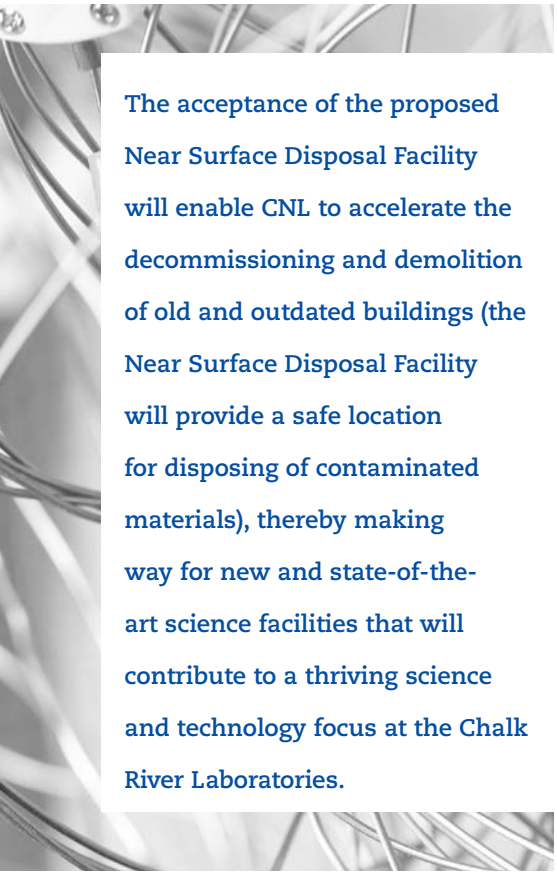
Note: Minor Differences due to rounding.

Nuclear Laboratories

Priority: Grow CNL's Science and Technology Stature

The objective is to provide nuclear science and technology in order to sustain and develop Canada's capabilities in a cost-effective manner. CNL will focus activities under two streams: 1) delivering the Federal Nuclear Science and Technology Work Plan, and 2) providing technical services and research and development for third parties on a commercial basis. CNL will also operate the National Research Universal reactor until March 31, 2018, as announced by the Government in February 2015.

In the near term, AECL will be focussing on the effective and efficient delivery of nuclear science and technology services by CNL. AECL will also look to CNL to leverage partnerships and collaboration with academia, government, industry and the scientific community to maintain the profile and relevance of the laboratories. In particular, linkages with international partners such as the US, China and India, will be strengthened. CNL has developed a long-term plan outlining its strategic approach to delivering an integrated, effective, project-based and customer-focused science and technology mission that serves the needs of the federal government as well as those of external customers.



The acceptance of the proposed Near Surface Disposal Facility will enable CNL to accelerate the decommissioning and demolition of old and outdated buildings (the Near Surface Disposal Facility will provide a safe location for disposing of contaminated materials), thereby making way for new and state-of-the-art science facilities that will contribute to a thriving science and technology focus at the Chalk River Laboratories.

CNL will also take full advantage of the New Technology Initiatives Fund to explore new ideas and leverage capabilities. The New Technology Initiatives Fund was set up to allow CNL to undertake science and technology activities to build expertise and capability at the Chalk River Laboratories, with a long-term view to attracting and retaining world-class expertise and building skills and knowledge that is anticipated to be needed for future or emerging opportunities. Consistent with similar program at national laboratories around the world, providing funding to support work that may be at very early stages, peripheral to current research priorities, high risk, or exploratory, is expected to promote innovative thinking, reward initiative, and balance near-term priorities with long-term vision.

The execution of CNL's integrated, long-term, capital plan will be critical in providing the facilities that will be key to the revitalization of the Chalk River site and the long-term success of the science and technology mission.

1. Federal Nuclear Science and Technology Work Plan

AECL continues to oversee the delivery of the Federal Nuclear Science and Technology Work Plan in order to support the Government's priorities and core responsibilities in areas such as nuclear safety, security, non-proliferation, counter-terrorism, energy, health, environmental protection, and emergency response. AECL has engaged with federal departments and agencies to develop a program of work that meets broad federal needs and priorities while ensuring value for money for Canada.

AECL's Federal Nuclear Science and Technology Work Plan focuses on five research themes and activities:

1) Supporting the development of biological applications and understanding the implications of radiation on living things.
2) Enhancing national and global security by supporting non-proliferation and counter-terrorism.
3) Nuclear preparedness and emergency response.
4) Supporting safe, secure and responsible use and development of nuclear technologies.
5) Supporting environmental stewardship and radioactive waste management.

In 2016-17, the federal interdepartmental committees, representing 14 departments and agencies, worked with CNL on developing medium- and long-term priorities for work at the Chalk River Laboratories. Federal nuclear science and technology priorities were identified in all five theme areas and include:

- understanding the biological effects of low-dose radiation to inform regulation and policy;
- enhancing Canada's nuclear forensics capability;
- improving models to inform nuclear emergency response in Canada;
- advancing the next generation of nuclear technologies; and
- improving techniques for characterizing and treating radioactive waste.

This work will support the Government's priorities in the areas of climate change and a clean environment; informed, science-based policy decision making; innovation for economic growth, and prosperity; and the health, safety and security of Canadians.

Work in 2017-18 and over the planning period (to 2021-22) is consistent with and responsive to AECL's strategic priorities. Work in the near term includes: research to support the potential deployment of Small Modular Reactors in Canada, research to support new alpha therapies for cancer treatment, and developing cyber security technologies for industrial control systems used in nuclear power plants and other critical energy infrastructure. Also of note is the research and development work on the effect of radiation on material and nuclear fuels, to take advantage of the NRU prior to its planned shutdown in March 2018.

As in 2016-17, the measures of success are related to meeting federal priorities through delivering on milestones and targets set out in CNL's annual plan.

Measures of success include:

Outcome	Performance measure	Target
Federal priorities are met on time and with a high standard of quality	Research projects as set out in the Federal Nuclear Science and Technology Work Plan are delivered on time and with high quality	As per milestones and targets included in CNL's annual plan
	Impact of science and technology based on feedback from federal customers	Based on project reviews and assessment or other documents produced by government

2. Science and technology for commercial purposes

CNL will continue to provide commercial services to third parties and is expected to grow commercial margins in order to both build nuclear science and technology stature and to reduce overall site and overhead costs for Government. The objective is to leverage the assets and capabilities of CNL, to undertake commercial work on at least a full cost-recovery basis (covering both the cost of sales as well as indirect and other administrative and site support costs). As CNL grows its revenues, these will serve to further grow CNL's science and technology capabilities, with intended benefits for Government and Canadians.

In particular, AECL will be looking to CNL to grow its commercial revenues, taking into account internal and external factors, market trends, as well as the broader long-term vision for CNL. Following the recent end of routine production of the key medical isotope molybdenum-99 (Mo-99) in October 2016, commercial revenues from isotope sales have dropped, although revenue from other medical and non-medical isotopes, such as cobalt-60, will continue until the shutdown of the NRU in March 2018. Ongoing efforts to grow commercial margin for other products and services (i.e. other than isotopes) will be critical to mitigate the loss of revenues associated with the end of all isotope production in the coming fiscal year.

In 2017-18 specifically, AECL will oversee CNL's activities in engaging and responding to existing customers' requests and tapping into new nuclear markets. These include, for example, commercial science and technology services to federal and industry customers in the areas of health, safety and security, energy, and environment – with energy being the single largest area of current work and the largest growth area. Growth in commercial work is expected to come in the areas of small modular reactors and projects are targeted in each of the health, safety/security and environment program areas.

Measures of success include:

Outcome	Performance measure	Target
Grow commercial opportunities for the laboratories	Increase in commercial revenues	Revenues are more than $60M (not including isotope revenue)

3. National Research Universal Reactor

CNL will continue to safely operate the National Research Universal (NRU) reactor until March 2018. The routine production of the key medical isotope Mo-99 ended in October 2016, consistent with the Government's medical isotope strategy. However, as announced in February 2015, CNL and AECL have undertaken all necessary preparation activities to retain the *capacity* to produce Mo-99 until March 2018, to be used only in the unexpected circumstance where worldwide production is not sufficient to meet demand. After March 2018, the reactor will be put in a safe shutdown state.

The objective for the period leading up to March 2018 is to maximize the use of the NRU, particularly for a variety of science and technology activities and the production of isotopes other than Mo-99. To this end, a significant achievement in 2016-17 was the return to service of the U2 Loop – an important component of the NRU that enables important fuel research and development activities. In 2017-18, AECL will be looking to CNL to continue to operate the reactor in a safe and cost-effective manner, supported by ongoing work to implement its Retain, Retrain and Redeploy program, the objective of which is to retain the appropriate capacity and workforce to operate the reactor safely, while also preparing the workforce to be redeployed in other areas of the organization to meet operational needs and more generally, to retain talent at the laboratories. Significant efforts in 2017-18 will also be placed on preparing for the safe shutdown of the research reactor.

Measures of success include:

Outcome	Performance measure	Target
CNL transforms ongoing nuclear operations and prepares for the shutdown of the NRU	CNL implements NRU Transition and Shutdown Plan	As per milestones defined in the NRU Transition and Shutdown Plan
The NRU reactor and related experimental and production facilities are maintained in order to deliver research projects up to the March 2018 shutdown	NRU operation and related production facilities are maintained and operational in accordance with operating licences	NRU high power operation for 228 days including operation of the U2 loop to meet schedules for science and technology work

Priority: Transform the Operations of CNL

The objective is to leverage the expertise and global experience brought about by Canadian National Energy Alliance to transform CNL's operations to increase efficiencies and value for money. This includes reviewing existing processes and procedures to ensure safety, efficiency and effectiveness in day-to-day operations. AECL will be looking to CNL's new management to right-size the organization so that resources are properly allocated, with resources retrained and redeployed to priority areas as required.

CNL's vision is to achieve a cost-effective, modern campus-like site with new and refurbished facilities to support the future growth of CNL. CNL's long-term plans for targeted and strategic capital investments will allow the laboratories to grow the unique complement of science and technology capabilities, while remaining flexible to quickly adapt to the evolutionary opportunities of nuclear and energy-related, leading edge innovation. In 2017-18, AECL will be looking to CNL to deliver on important capital projects that are already underway, and to significantly advance planning activities for new projects as part of their larger strategy to revitalize the site as per its long-term plans. For more details on the Capital Plan for 2017-18, please refer to Annex C.

As much as 2016-17 was an important year for many transformation initiatives at CNL, 2017-18 will see the continuation of this transformation, including the important shift in culture and behavior that underpins it.

Measures of success include:

Outcome	Performance measure	Target
Management and operations (including nuclear operations) of CNL are transformed to enhance efficiency and reduce costs	Strategic reduction in CNL indirect costs	2017-18: Delivery of a detailed plan outlining CNL's long-term indirect cost projections
	CNL provides a revised Management System Manual submitted to Canadian Nuclear Safety Commission	2019-20
CNL's project and safety performance is improved	Improved health, safety, security and environmental performance and reporting relative to good industry practice	2017-18: Benchmarked and measurable improvements in health, safety, security and environmental industry-standard metrics (including weighted indices which are underpinned by statistically-based analyses)
CNL's company-wide security posture and performance is improved	Planned physical and programmatic security upgrades, IT system upgrades are completed	2017-18: As per milestones and targets included in CNL's annual plan
	Implementation of Security Program improvement recommendations identified in two independent assessments	2017-18: Measurable improvement in the Security Program performance as measured by industry-standard Security Program weighted index, and through annual performance ratings from the Canadian Nuclear Safety Commission for CNL sites, and ratings from the Canadian Nuclear Safety Commission of major training exercises, etc.
CNL delivers infrastructure projects in support of a long-term vision for the Chalk River Laboratories	CNL completes infrastructure projects on time and on budget	2017-18: Completion of milestones defined in CNL's annual plan

Nuclear Laboratories Five-Year Projection of Federal Funding Requirements - Cash

$ Millions	Actual 2015-16	Budget 2016-17	Plan 2017-18	2018-19	2019-20	2020-21	2021-22	5 Year Total
Nuclear Laboratories								
Nuclear Laboratories	538	548	557	481	504	437	414	2,393
Revenue	100	70	69	75	73	77	79	374
Federal Funding Requirements AECL	**438**	**478**	**488**	**406**	**431**	**360**	**335**	**2,020**

Note: Minor Differences due to rounding.

The anticipated decreased revenue from 2015-16 levels shown in the above table is due, in part, to the ongoing decline in sales of isotopes given the end of the routine production of Mo-99 from the NRU reactor in October 2016, and the permanent shutdown of the reactor in March 2018. As noted above, this is consistent with the Government's medical isotope strategy, and the reactor will retain the capacity to produce Mo-99 until March 2018, to be used only in the unexpected circumstance where worldwide production is not sufficient to meet demand. Projected moderate increases in revenues starting in 2018-19 are due to CNL's anticipated growth in commercial work other than isotopes sales, particularly as it works to diversify and broaden its customer base.

Other Areas of Focus

Heavy Water

AECL currently owns heavy water assets which can be used either in a CANDU reactor or for non-nuclear purposes. Activities associated with this are limited to managing the existing inventory and selling the assets. Through the GoCo model, CNL acts as an agent for AECL for the marketing, sale and distribution of AECL's heavy water inventory. CNL also manages AECL's inventory of heavy water at AECL's facility in Laprade, Québec. In 2017-18, AECL will be looking to CNL to optimize the management and sales of heavy water.

Wrap-Up Office (retained liabilities from former CANDU Reactor Division)

AECL will also continue to address outstanding obligations arising from its CANDU Reactor Division (discontinued commercial operations), the assets of which were sold in October 2011. This includes the commercial and legal work required to defend, assert and settle outstanding claims as delivered by the Wrap-up Office.

Annex A.
Consolidated Financial Statements.

This section presents AECL's financial statements reflective of AECL's role under the GoCo model. Under the new GoCo model, AECL receives funding from the Government of Canada to deliver on commitments, priorities and objectives related to nuclear science and technology, decommissioning and waste management, as well as the revitalization of the Chalk River Laboratories site. CNL manages and operates AECL's sites and undertakes the necessary activities to respond to AECL priorities as per its contractual arrangement with AECL. Any third-party revenues that CNL generates accrue to AECL.

Important and notable changes during the planning period are the planned shutdown of the NRU reactor in March 2018 as well as the associated expected decrease in revenues from isotope production. Most notably, the end of the routine production of the key medical isotope Mo-99 in October 2016 and the planned shutdown of the NRU in 2018 have important impacts on revenue levels.

Effective April 1, 2016, AECL adopted the Public Sector Accounting Standards (PSAS). The actual numbers presented in the tables below for 2015-16 have been restated to PSAS. These numbers were original prepared under International Financial Reporting Standards (IFRS). As such, the 2015-16 actuals presented in this Corporate Plan will not match the AECL Annual Report and may also differ from previous years' Corporate Plans as those documents were prepared under IFRS.

Government of Canada Funding

As presented in the previous section, AECL delivers on important priorities of the Government with respect to nuclear science and technology and decommissioning and waste management. The Government is also investing in the renewal of the Chalk River Laboratories to ensure safe and reliable operations, as well as infrastructure that is necessary to sustain, develop, apply and build science and technology capabilities in a cost effective manner.

Furthermore, the Government provides funding to AECL to address outstanding obligations arising from its CANDU Reactor Division (discontinued commercial operations). Revenue from third-party work performed by CNL is recognized by AECL as principal. Revenue generated comes from work to support the nuclear energy industry, isotope production, the sale or lease of heavy water, and research and development services provided to third-parties.

Consolidated Statements of Operations and Accumulated Deficit

$ Millions		Actual 2015-16	Budget 2016-17	Plan 2017-18	2018-19	2019-20	2020-21	2021-22	5 Year Total
Revenues									
Parliamentary appropriations	[1]	491	827	966	1,055	1,122	959	865	4,968
Commercial revenue	[2]	117	87	78	83	82	85	88	415
Interest income		6	6	4	3	3	3	3	16
Other funding	[3]	100	-	-	-	-	-	-	-
		714	919	1,048	1,142	1,206	1,047	956	5,399
Expenses									
Cost of sales		65	48	43	46	45	47	48	228
Operating expenses	[4]	212	46	52	52	53	52	51	261
Contractual expenses	[5]	176	331	339	303	275	219	205	1,340
Finance expenses	[6]	265	287	284	277	266	254	244	1,324
Revaluation (gain) loss on DWM provision and other		241	-	-	-	-	-	-	-
Revaluation (gain) loss on contaminated site liabilities		6	-	-	-	-	-	-	-
Wrap-Up Office activities		9	8	12	-	-	-	-	12
		974	720	730	678	638	571	548	3,165
Surplus (deficit) for the period		(260)	199	318	464	568	476	408	2,234
Accumulated deficit, beginning of period		**(5,936)**	**(7,337)**	**(7,173)**	**(6,878)**	**(6,425)**	**(5,861)**	**(5,391)**	
Transfer to deferred DWM funding		(25)	(25)	(18)	(6)	-	-	-	
Transfer to repayable contributions		(10)	(10)	(5)	(5)	(5)	(5)	(5)	
Contributed liability		(1,106)	-	-	-	-	-	-	
Accumulated deficit, end of period		**(7,337)**	**(7,173)**	**(6,878)**	**(6,425)**	**(5,861)**	**(5,391)**	**(4,988)**	

Note: Minor Differences due to rounding.

[1] Parliamentary appropriations include funding requirements less capital.

[2] Revenue for the 5 year plan has been adjusted for heavy water cash proceeds (China and Bruce lease) as these sales have been recorded previously.

[3] Commencing with FY15/16, Other funding will be provided directly to AECL through Parliamentary appropriations.

[4] These amounts represent AECL's operating expenses.

[5] Contractual expenses include payments to CNL and the contractor.

[6] Finance expenses represent the accretion expense on the decommissioning and waste management provision.

The projected decrease in revenues is related to the decline of sales of medical isotopes given that the National Research Universal reactor ceased routine production of the key medical isotope Mo-99 in October 2016, and will subsequently shut down in March 2018. As CNL develops its business development and commercial operations, future years' planned revenues may be adjusted. This will be reflected in subsequent Corporate Plan Summaries, as appropriate.

Parliamentary appropriations are expected to increase in line with expenditures. The appropriations will be used to cover additional spending that is planned in Decommissioning and Waste management.

As of September 13, 2015, AECL took over responsibility for fulfilling the Government's obligations with respect to legacy obligations associated with AECL sites as well as historic low-level radioactive wastes. Prior to this date, AECL received funding from Natural Resources Canada to undertake work with respect to legacy waste and historic low-level waste, which was recognized as Other funding. After September 13, 2015, funding for those activities was provided directly to AECL through Parliamentary appropriations.

Operating expenses are comprised of AECL oversight operations and amortization of Tangible capital assets. With the implementation of the Government-owned, Contractor-operated model, AECL now delivers its mandate through a long-term contract with CNL and the private sector for the management and operation of its sites. Prior to that date, Contractual expenses were reported as Operating expenses as CNL was at the time a wholly-owned subsidiary of AECL. Subsequent to that date, CNL-related expenditures have been reported by AECL as Contractual expenses.

Reported Contractual expenditures are expected to decrease over the planning period as a result of decreased spending for the NRU reactor.

Finance expenses include the increase in the net present value of the Decommissioning and waste management provision. As the provision decreases, the finance expenses will decrease as well.

The deficit in 2015-16 is a result of revaluation losses on the Decommissioning and waste management provision. In future years, projected large surpluses are a result of Capital and Decommissioning and waste management funding received for which there are smaller corresponding accrual expenses.

Consolidated Statements of Financial Position - Accrual

$ Millions	Actual 2015-16	Budget 2016-17	Plan 2017-18	2018-19	2019-20	2020-21	2021-22
Financial Assets							
Cash	85	77	65	65	65	65	65
Long-term disposal of waste fund	4	13	23	35	55	69	78
Investments held in trust	49	51	53	55	57	59	61
Trade and other receivables	54	40	40	40	40	40	40
Long-term receivables	69	36	7	-	-	-	-
Inventory	7	6	5	4	3	2	1
Heavy Water Inventory	213	202	196	190	184	178	172
	481	425	389	389	404	413	417
Liabilities							
Accounts payable and accrued liabilities	63	49	51	48	51	51	50
Employee future benefits	28	25	22	18	15	12	9
Due to Canadian Nuclear Laboratories	114	125	125	140	155	170	180
Deferred decommissioning and waste management funding	245	270	288	294	294	294	294
Decommissioning and waste management provision	6,763	6,731	6,605	6,419	6,255	6,139	5,957
Contaminated sites liability	1,109	1,033	941	750	499	272	166
Customer advances and obligations	1	1	1	1	1	1	1
	8,323	8,234	8,033	7,670	7,270	6,939	6,657
Net Financial Debt	(7,842)	(7,809)	(7,644)	(7,281)	(6,866)	(6,526)	(6,240)
Non-Financial Assets							
Tangible capital assets	505	635	765	855	1,004	1,134	1,250
Prepaid expenses	-	1	1	1	1	1	1
	505	636	766	856	1,005	1,135	1,251
Accumulated Deficit	**(7,337)**	**(7,173)**	**(6,878)**	**(6,425)**	**(5,861)**	**(5,391)**	**(4,988)**

Note: Minor Differences due to rounding.

The long-term disposal of waste fund will increase as AECL sets aside funding to account for future liabilities arising from the ongoing operation of the site which create radioactive waste and/or decommissioning liabilities.

Long-term receivables primarily relate to the Qinshan heavy water sale-type lease, which is payable to AECL over the lease period. AECL will, consistent with past practice, continue to utilize heavy water proceeds received throughout the plan period to fund operations and to report the proceeds as deferred decommissioning funding.

The decommissioning and waste management provision and contaminated sites liability represent the future obligation to address waste management and decommissioning liabilities. The liability is expressed in terms of the net present value of future expenditures required to discharge the obligation. AECL's decommissioning and waste management provision and contaminated sites liability are adjusted annually to reflect progress to date, new estimates as they become available and new waste liabilities arising from ongoing CNL operations. The year-over-year change in these accounts represents the increase in the net present value with the passage of time offset by the reduction in the liability from the spending incurred each year.

Changes to the liability may occur in future years as CNL advances decommissioning activities. The assessment and planning of projects, which are undertaken into more detail as projects are undertaken, could result in adjustments to expected cost estimates, which would impact the value of the liability, including the net present value. However, as work is undertaken, which is expected at a higher rate in the coming years, the liability will be decreasing commensurate with the liabilities being settled. As the Decommissioning and waste management provision and Contaminated sites liability decrease, so will AECL's overall negative Accumulated Deficit. The above projections do not attempt to capture the impact of potential future changes in the interest rate used to derive the net present value changes of the reported liability.

Furthermore, starting in 2015-16, funding related to new waste liabilities arising from ongoing operations (e.g. ongoing operations such as nuclear science and technology activities) is set aside to fund the future dispositioning of those liabilities.

Deferred decommissioning and waste management funding represents the proceeds of the long-term receivable pertaining to the heavy water lease, as noted above.

Tangible capital assets are expected to increase in line with increased investment in infrastructure at the Chalk River site, as reflected by the important funding provided for revitalizing the Chalk River Laboratories in the coming years.

Accumulated deficit changes are largely reflective of changes in comprehensive income.

Consolidated Statements of Cash Flows - Accrual

$ Millions	Actual 2015-16	Budget 2016-17	Plan 2017-18	2018-19	2019-20	2020-21	2021-22	5 Year Total
Operating Activities								
Net Cash Flow Before Revenue and Funding	(445)	(793)	(904)	(1,023)	(1,020)	(882)	(806)	(4,635)
Revenue	117	126	102	93	84	88	91	457
Funding/Parliamentary Appropriations	491	827	966	1,055	1,122	959	865	4,968
Discontinued Operations Net Cash Flow Before Funding	(9)	(8)	(12)	-	-	-	-	(12)
	154	**152**	**153**	**125**	**185**	**165**	**150**	**778**
Investing Activities								
Acquisition of Capital Assets	(145)	(160)	(165)	(125)	(185)	(165)	(150)	(790)
	(145)	**(160)**	**(165)**	**(125)**	**(185)**	**(165)**	**(150)**	**(790)**
Net Cash Flow	**9**	**(8)**	**(12)**	**-**	**-**	**-**	**-**	**(12)**
Beginning Cash	**76**	**85**	**77**	**65**	**65**	**65**	**65**	
Ending Cash	**85**	**77**	**65**	**65**	**65**	**65**	**65**	

Note: Minor Differences due to rounding.

The difference between the revenues presented in the 'Consolidated Statements of Operations and Accumulated Deficit' statement on page 25 and the above 'Consolidated Statements of Cash Flow' relate to differences in heavy water revenues. As noted in the comprehensive income table, income related to China and Bruce Power heavy water leases have been excluded due to the fact that the revenue for the sales has been recorded in prior periods. However, the cash proceeds are recognized by AECL as a cash inflow for the year.

The overall negative net cash flow is the result of the activities related to AECL's discontinued operations, which are drawing down on their existing cash balance.

Annex B.
2017-18 Operating Budget.

Revenue and Net Income - Accrual

$ Millions	**Actual 2015-16**	**Budget 2016-17**	**Plan 2017-18**
Revenues			
Parliamentary appropriations	491	827	966
Commercial revenue	117	87	78
Other funding	100	-	-
Interest income	6	6	4
	714	919	1,048
Expenses			
Cost of sales	65	48	43
Operating expenses	212	46	52
Contractual expenses	176	331	339
Finance expenses	265	287	284
Revaluation gain (loss) on DWM provision and other	241	-	-
Revaluation gain (loss) on contaminated site liabilities	6	-	-
Wrap-Up Office activities	9	8	12
	974	720	730
Surplus (deficit) for the period	(260)	199	318
Accumulated deficit, beginning of period	**(5,936)**	**(7,337)**	**(7,173)**
Transfer to deferred DWM funding	(25)	(25)	(18)
Transfer to repayable contributions	(10)	(10)	(5)
Contributed liability	(1,106)	-	-
Accumulated deficit, end of period	**(7,337)**	**(7,173)**	**(6,878)**

Note: Minor Differences due to rounding.

Government of Canada Planned Funding - Operating - Cash

$ Millions	Actual 2015-16	Budget 2016-17	Plan 2017-18	2018-19	2019-20	2020-21	2021-22	5 Year Total
AECL								
Decommissioning and waste management	235	403	511	666	700	609	541	3,026
Nuclear Laboratories	290	318	323	281	246	195	185	1,230
Total Government Funding AECL - Operating	**525**	**722**	**834**	**947**	**946**	**804**	**725**	**4,256**
Funded through Heavy Water Proceeds	49	55	33	16	10	10	10	78
Consolidated Government Funding	**476**	**667**	**801**	**930**	**937**	**794**	**715**	**4,178**

Note: Minor Differences due to rounding.

Decommissioning and waste management funding is expected to increase initially due to increased spending concentrating mostly on the Port Hope Area Initiative and decommissioning and waste management at the Chalk River Laboratories. Science and Technology funding is expected to decline as a result of the planned shutdown of the NRU reactor in March 2018.

Cash Flows - Cash

$ Millions	Actual 2015-16	Budget 2016-17	Plan 2017-18
Operating Activities			
Net Cash Flow Before Revenue and Funding	(445)	(793)	(904)
Revenue	117	126	102
Funding/Parliamentary Appropriations	491	827	966
Discontinued Operations Net Cash Flow Before Funding	(9)	(8)	(12)
Discontinued Operations Parliamentary Appropriations	-	-	-
	154	**152**	**153**
Investing Activities			
Acquisition of Capital Assets	(145)	(160)	(165)
	(145)	**(160)**	**(165)**
Net Cash Flow	**9**	**(8)**	**(12)**

Note: Minor Differences due to rounding.
Numbers are presented on a cash flow basis.

The 2017-18 Net Cash Flow before Revenue and Funding is approximately $111 million lower than budgeted for 2016-17. This is due mostly to an increase in the Decommissioning and Waste Management program related to the Port Hope Area Initiative ($15 million) and general decommissioning and waste management ($90 million). Cash flow from Funding/parliamentary appropriations is expected to increase in line with the above-mentioned increased expenditures.

Annex C.
Capital Plan for 2017-18.

AECL's Capital Plan is based on CNL's 2017-18 Capital Plan, which has been developed based on CNL's long-term plans and as per its assessment of infrastructure needs, including consideration for health, safety, security and environmental risks, current facility conditions, regulatory requirements and business needs. As a result, all investments are meant to renew and revitalize the Chalk River site to address deficiencies created by reduced level in capital investment from previous years, as assessed by CNL and approved by AECL.

In 2017-18, CNL will be undertaking detailed planning to prepare for the delivery of its long-term plans, with a view to revitalizing the Chalk River Laboratories.

The Capital Plan is meant to address two main areas of focus:

1. Site Revitalization – These investments are part of a longer-term plan to revitalize the Chalk River Laboratories and transform it into a world-class nuclear science and technology campus.

2. Site Infrastructure – Immediate investments required to renew existing and ageing municipal-like infrastructure systems and facilities at the Chalk River Site, such as potable water, storm sewer, sewage and electrical. These are necessary to respond to regulatory and health, safety, security and environmental requirements, as well as to maintain overall site operational capability.

The Capital Plan does not include infrastructure which directly supports decommissioning and waste management activities. Such infrastructure (for example the Near Surface Disposal Facility) is captured under the decommissioning and waste management mission, with funding provided by this mission.

Further details on specific projects for 2017-18 are presented below.

Government of Canada Funding - Capital - Cash

			Plan					
$ Millions	**Actual 2015-16**	**Budget 2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**5 Year Total**
AECL								
Capital	148	160	165	125	185	165	150	790
Total Government Funding - Capital	**148**	**160**	**165**	**125**	**185**	**165**	**150**	**790**

Note: Minor Differences due to rounding.

Site Revitalization

Projects in this category include science and technology facilities and infrastructure to enable delivery of CNL's commitments. The projects to be undertaken are aligned with the strategy to revitalize the Chalk River site and include:

- Advanced Nuclear Materials Research Centre
  The objective is to combine the capabilities of existing but outdated facilities into a modern shielded facility and laboratory research complex. This new facility will allow further advancements in the nuclear science and technology program, including on alpha research, small modular reactors, advanced fuels fabrication, nuclear forensics and response, as well as ongoing work in support of utilities as they look at reactor life extension and reliability.

- Harriet Brooks Laboratory Complex (Building 350)
  This complex will provide important infrastructure to the execution of CNL science and technology work and provide the Government of Canada, universities, and industries with access to unique facilities for testing a variety of materials and processes. Following substantial completion and occupancy of the facility in 2016-17, speciality science and technology equipment installation will continue in 2017-18 with a view for the building to be fully operational by August 2017. Commissioning of the Harriet Brooks Laboratory Complex and installation of key science and technology equipment is part of the overall strategy to exit Building 250, which is well beyond its useful lifespan.

- Building 215 Tritium Laboratory
  The Tritium Laboratory is important to the science and technology activities undertaken at the Chalk River Laboratories. Due to the use of heavy water in Canadian-based reactor technologies, tritium issues may arise. As these reactors, including prototype reactors for which CNL has a responsibility, are decommissioned, there will be an increasing need for expertise in tritium handling and management in order to deal with the high levels of tritium in the reactors.

  Furthermore, several international organizations, including national laboratories in the United States, United Kingdom and Japan, have utilized CNL's tritium expertise and capabilities. Therefore maintaining and enhancing this capability will be important to grow CNL's science and technology stature going forward. It is expected that CNL's tritium capabilities will continue to be used to serve commercial customers and government priorities for public safety.

  Work related to Building 215 Tritium Laboratory involves re-purposing Building 215 to accommodate the Tritium Laboratory that are currently housed in Building 250. This is the final element of a multi-pronged strategy to permanently re-locate staff and facilities out of Building 250, prior to its safe turnover to the decommissioning and waste management program. Although the fire alarm system and automatic sprinkler systems are in service and maintained monthly, with other fire hazard upgrades proceeding as necessary, Building 250 represents an important fire risk at the Chalk River Laboratories.

  Construction was initiated in 2015-16 and will continue through 2017-18. Key elements of the scope of work to be completed in 2017-18 include substantial completion of the building, final commissioning and turnover to Operations.

- Office Building
  A new office building, or "business hub" is being planned at the Chalk River Laboratories to enable CNL to deliver on its long-term plan and vision for the site. Conceptual design is currently underway and will consider current and future staffing projections at CNL over the next 10 years and beyond, efficiencies of work processes, external collaboration/conference requirements, and potential future expansion based on business requirements. It is also anticipated that the office building would house the data centre, the library, and the health and wellness centre.

- Logistics/Warehouse Building
  The purpose of this project is to design and build a logistics building that will facilitate shipping and receiving at the Chalk River site. The building will be located at the outer gate area, with an attached security entrance, thereby increasing security at the outer precinct of the site and reducing the need for non-CNL staff to be on site. This will reduce administrative costs, improve logistics productivity and efficiency, improve inventory efficiency and turnover, and reduce site traffic and congestion.

- Maintenance Building
  The objective of the maintenance building is to consolidate maintenance resources, work management resources and equipment into a single, centralized location at the Chalk River site. This includes the consolidation of 32 maintenance shops into 3, which will allow CNL to achieve efficiencies and provide safer, more cost-effective support to the programs on site which require maintenance support services.

- Refurbishments
  Numerous facilities at the Chalk River site require refurbishment to enable long-term reliability or upgrades to enable short-term serviceability until the facilities are replaced by new builds. This includes activities to ensure continued compliance with regulatory and licensing requirements, for example upgrades to HVAC units, upgrades to the waste treatment centre and associated facilities, fumehood compliance upgrades and a site-wide fire hazard assessment.

Services and Utilities

Part of the revitalization of the Chalk River site includes the implementation of new utilities and services as a key enabler to the site's transformation. These are necessary to address years of underfunding in basic site infrastructure and to respond to regulatory requirements, address risks and hazards and reduce overall site operating costs. Projects include: the construction of a domestic water system to enable the supply of potable water to site, the continuation of the installation of a natural gas pipeline and distribution system, the construction of a new sanitary sewage treatment facility, improvements to drainage system for storm water management and upgrades to the switch yard to improve reliability and reduce operational costs.

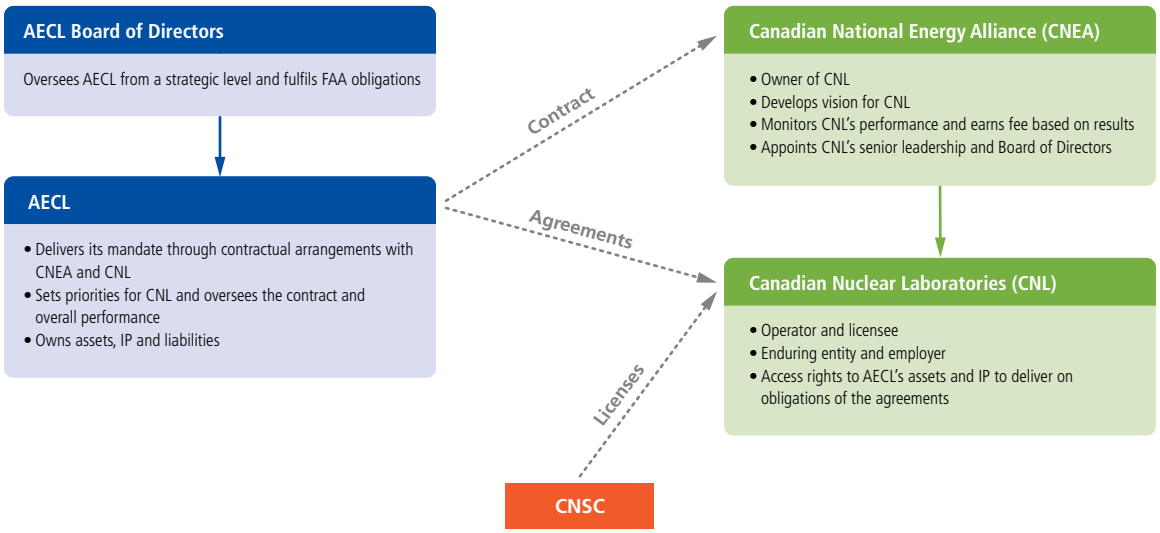
Annex D.
Corporate Governance.

The GoCo model fundamentally changed the governance structure of AECL. Whereas it used to be directly responsible for all of the activities at its sites and for directing the work to advance its missions, AECL is now providing oversight of a long-term contractual arrangement with a private-sector contractor for the management and operation of CNL. As was noted above, AECL's sphere of influence and main means of driving performance is by ensuring that CNL's plans are appropriate and by applying proper financial incentives to achieve priorities.

Following a procurement process led by Natural Resources Canada with support from Public Works and Government Services Canada, Canadian National Energy Alliance was selected as the preferred bidder to manage and operate CNL. Once AECL transferred the shares of CNL to Canadian National Energy Alliance, CNL became a private-sector organization. AECL then assumed its new oversight role, being responsible to ensure value for money and the achievement of its priorities through the contractual arrangements with Canadian National Energy Alliance and CNL.

The figure below illustrates the roles and responsibilities under the GoCo model.

Government-owned, Contractor-operated Governance Overview



AECL's Internal Governance Structure

Board of Directors

AECL is governed by a Board of Directors, which provides strategic direction and advice to the President and Chief Executive Officer. The Board, through its Chair, receives direction from the Corporation's single Shareholder, the Government of Canada, as represented by the Minister of Natural Resources. It is accountable to Parliament through the Minister of Natural Resources.

As of January 2017, the Board consists of four Directors who represent the Canadian business and science and technology communities. AECL's Directors, the Chair of the Board and the President and CEO (position currently vacant) are appointed by the Governor-in-Council by Order-in-Council. A list of Board members, along with their term expiry date, is presented below.

Dr. Claude Lajeunesse
Appointed to Board, March 2005
Appointed Chair of the Board August 2016

Member, Council of the Canadian Academies Expert Panel on the State of S&T and IR&D in Canada. Former Chair of the Board for the Green Aviation Research & Development Network; former President and CEO of the Aerospace Industries Association of Canada and the Association of Universities and Colleges of Canada; former President and ViceChancellor of Concordia University in Montreal and Ryerson University in Toronto. Past Board member of TD Insurance, Canada Science and Technology Museums Corporation Foundation, SOFINOV (Caisse de dépôt et placement du Québec) and of the Toronto East General Hospital. Holds a PhD in nuclear engineering from Rensselaer Polytechnic Institute in New York.

Committees: Human Resources & Governance (Chair), Audit

Mr. Bob Hamilton
Appointed to Board December 2014 – ending December 2015 (incumbent directors continue in office until their successors are appointed)

Commissioner of the Canada Revenue Agency. Former Deputy Minister, Natural Resources Canada; Former Deputy Minister of the Environment; Former Senior Associate Secretary of the Treasury Board and Lead on the Canada-United States Regulatory Cooperation Council; Former Associate Deputy Minister of the Environment; Former Associate Secretary of the Treasury Board. Occupied senior positions at Finance Canada, including Senior Assistant Deputy Minister of the Tax Policy Branch and Assistant Deputy Minister of Financial Sector Branch. Holds a Bachelor of Arts (Economics) and Masters of Economics from the University of Western Ontario.

Committees: Human Resources & Governance, Audit

Mr. James Hall

Appointed to Board August 2013
Reappointed December 2014 – ending December 2015 (incumbent directors continue in office until their successors are appointed)

Vice President of Callidus Capital Corporation. President and CEO of James Hall Advisors Inc. Current governance – a director of Immunovaccine Inc. and a trustee of an OMERS Trust. Former Chairman and Chief Executive Officer of Journal Register Company, Senior Vice President & Chief Investment Officer of Working Ventures Canadian Fund Inc., and Senior Vice President of Lloyds Bank Canada. A Chartered Accountant, Mr. Hall holds an H.B.A. from the Richard Ivey School of Business at Western University.

Committees: Human Resources & Governance and Audit (Chair)

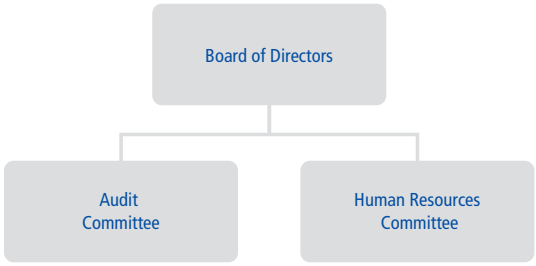
Ms. Martha Tory

Appointed to Board October 2016

Former Partner, Assurance Services, Ernst & Young. Board member; Chair, Finance, Audit and Risk Committee; and member, Governance and Human Resources Committee: MaRS Discovery District. Board Chair: Institute of Competiveness and Prosperity. Board Chair: PREVNet (a Network of Centres of Excellence). Board member; Vice-Chair, Business and Human Resources Committee; Governance and Nominating Committee member; and Chair, Chief of the Emergency Department Search Committee: Sunnybrook Health Sciences Centre. Board member and Chair, Finance, Audit and Property Committee: George Brown College. Board member; Treasurer and Finance and Audit Committee Chair, Governance and Nominating Committee Member and Member, CEO Search Committee: Dixon Hall Neighbourhood Services. Board member, GBSP Centre Corp. (Young Centre for the Performing Arts). Member, Standards Council and Finance Committee, Imagine Canada. Member, Finance Committee, Shaw Festival. Member, Audit and Risk Committee, Bermuda Hospital Board.

Committees: Human Resources & Governance and Audit

Board of Directors and its Committee Structure



There are two committees that support the Board: the Audit Committee and the Human Resources and Governance Committee. The Audit Committee has a mandate to oversee the external and internal auditors, direct the internal audit function and assess the adequacy of AECL's business systems, practices and financial reporting, in accordance with the *Financial Administration Act*. The Audit Committee meets with management, the internal auditor and independent auditors on a regular basis to discuss significant issues and audit findings, in accordance with their mandate. The independent auditors and internal auditor have unrestricted access to the Audit Committee, with or without management's presence.

Among other things, the Audit Committee oversees the development of the Corporate Plan for alignment with the direction provided by the Board, and reviews the Plan before it is reviewed and approved by the Board of Directors and submitted to the Minister of Natural Resources.

Among other things, the Human Resources and Governance Committee oversees the areas of human resources, organizational health and safety, including nuclear safety, security, environment and corporate governance.

Executive Management

To lead AECL during the transition period to and implementation of the GoCo model, a Chief Transition Officer has been appointed by the Board. The Chief Transition Officer is directly accountable to the Board of Directors. Once the Governor-in-Council appoints a President and CEO, he or she will lead AECL in its new role and the position of Chief Transition Officer will subside. All direct reports to the CEO/Chief Transition Officer of AECL are appointed by the Board through the Human Resources and Governance Committee on the recommendation of the Chief Transition Officer or, once a President and CEO is appointed, by him or her. Each of the CEO direct reports is accountable for specific areas of business and operations as approved by the Chief Transition Officer (and President and CEO, as appropriate) endorsed by the Board's Human Resources and Governance Committee.

AECL'S Executive Management Structure