ATOMIC ENERGY OF CANADA LIMITED

Third Quarter Financial Report

Financial Statements (Unaudited)

As at and for the three and nine months ended December 31, 2019

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MESSAGE FROM THE PRESIDENT AND CHIEF EXECUTIVE OFFICER

Now well into the fourth year of the Government-owned, Contractor-operated (GoCo) model, I am encouraged by the significant work that has been accomplished on behalf of Canadians. Whether it is inroads to strengthen our engagement with Indigenous communities and stakeholders, or breakthroughs in scientific research that have the potential to save lives, Atomic Energy of Canada Limited (AECL) is working closely with Canadian Laboratories Limited (CNL) on paths forward. Our Chalk River Laboratories are a flourish of activity, with research, new construction and environmental remediation. The site is transforming before our eyes, with many old buildings down, some new buildings nearing completion and others getting started – all of which truly position Chalk River as a world-class destination for research. Of course, hard work remains, and continued efforts are needed to ensure we are delivering for Canadians.

To help us build momentum and to tap into the wealth of knowledge we have in the nuclear sector in Canada, AECL hosted a workshop for the Federal Nuclear Science and Technology Work Plan, with the objective to disseminate the results of research and development activities conducted by CNL in the areas of health, safety and security, energy and the environment. More than 400 participants, from a host of organizations, including federal departments and agencies, academia, global research institutions and industry, came together to learn about recent science and technology advances, and to create new opportunities for collaboration to advance science and innovation for the benefit of Canada and Canadians.

A good example is the innovative research being done in close collaboration with leading Canadian research organizations and universities across the country on new cutting-edge alpha-therapies, which have the potential to fight a variety of cancers. Also, work is on-going to advance Small Modular Reactors (SMRs) technology. Our facilities, and CNL's expertise and know-how, offer unique opportunities to enable research and the development of SMR technology and to make Canada an important player in this burgeoning field.

AECL is also responsible for the Government of Canada's radioactive waste liabilities, and we are working hard to clean up our sites to protect our environment and the health and safety of Canadians. We are continuing our efforts in this area and are working closely with Indigenous communities, municipalities and other interested parties to take into account many views and perspectives. In particular, CNL's revised draft Environmental Impact Statement for the proposed Near Surface Disposal Facility has changed in notable ways from the original draft and is better for the input from Indigenous communities and stakeholders.

This is an exciting time for AECL –but, there is still more work that needs to be accomplished. We will continue to work with CNL, our partners, stakeholders and Indigenous communities, and leverage the Government-owned, Contractor-operated model that continues to provide good value to Canadians.

Richard J. Sexton
President and Chief Executive Officer

MANAGEMENT'S NARRATIVE DISCUSSION

Introduction

Management's Narrative Discussion is intended to provide the reader with a greater understanding of AECL's business, its business strategy and performance, its expectations for the future, and its management of risk and capital resources. It is also intended to enhance the understanding of the unaudited financial statements for the third quarter of 2019-20 and accompanying notes. Management's Narrative Discussion should therefore be read in conjunction with this document.

Unless otherwise indicated, all financial information presented in Management's Narrative Discussion, including tabular amounts, is in Canadian dollars and is prepared in accordance with Canadian Public Sector Accounting Standards (PSAS).

Management's Narrative Discussion was authorized for issuance by the Board of Directors on February 26, 2020.

Our Business

AECL is a federal Crown corporation that has a mandate to enable nuclear science and technology and to protect the environment by fulfilling the Government of Canada's radioactive waste management and decommissioning responsibilities. AECL receives funding from the Government of Canada and also earns commercial revenues through the activities of CNL at the Chalk River Laboratories to deliver on its mandate. As a federal Crown corporation, AECL reports to Parliament through the Minister of Natural Resources.

AECL delivers its mandate through a long-term, contractual arrangement with CNL for the management and operation of its sites under a Government-owned, Contractor-operated model. Under this model, AECL retains ownership of the sites, facilities, intellectual property and liabilities. CNL, a private-sector organization, manages AECL's sites and facilities under a contract with AECL.

The Government-owned, Contractor-operated model allows AECL to leverage the expertise and experience of the private sector to accelerate the decommissioning and radioactive waste management program and build a world-class nuclear laboratory at Chalk River. As an agent of Government, AECL brings value to Canada by bringing to bear its own expert-based oversight of the Government-owned, Contractor-operated arrangements and supporting the Government's development of nuclear policy. AECL plays a challenge function with a view to advancing its priorities in the most effective and efficient manner, while maintaining the highest priority on safety, security and protection of the environment.

A key element of AECL's role under the Government-owned, Contractor-operated model is to set priorities for CNL, and to oversee and assess its performance in order to provide value for Canada. In other words, AECL sets out "what" needs to be achieved with CNL deciding "how" it is best executed. This is achieved by AECL having a small organization, staffed by experts who provide oversight of the Government-owned, Contractor-operated agreements.

There are two main areas of focus:

1. **Environmental Stewardship**
   The objective is to safely and responsibly address the environmental responsibilities and liabilities which have resulted from legacy activities at AECL sites. This requires the decontamination and decommissioning of redundant structures and buildings, the remediation of contaminated lands and the management and disposal of radioactive waste at AECL sites, primarily at the Chalk River Laboratories and the Whiteshell Laboratories in Manitoba. AECL is also responsible for the remediation and long-term management of sites contaminated with historic, low-level radioactive waste where the Government of Canada has accepted responsibility, most notably as part of the Port Hope Area Initiative. Responsible decommissioning and radioactive waste management is necessary in order to remediate AECL's sites to modern standards, protect the environment, and make way for new buildings that will support the ongoing nuclear science and technology mission at the Chalk River site.

CNL manages and operates several AECL sites across Canada including the Chalk River Laboratories

2. **Nuclear Laboratories**
   The Chalk River Laboratories are Canada's largest science and technology complex and host to more than 2,800 CNL employees, including a large number of engineers, scientists and technical staff. The work undertaken at the laboratories supports Canada's federal roles, responsibilities and priorities in the areas of health, energy and climate change, the environment, safety and security. Services are also provided to industry and other third parties on a commercial basis. The Chalk River site is currently undergoing an important renewal that will transform the site into a modern, world-class nuclear science and technology campus, thanks to an investment of $1.2 billion over ten years by the federal government, beginning in 2016.

Third Quarter Highlights for 2019-20

Environmental Stewardship

AECL has been conducting nuclear science and technology activities for decades. While these activities have had important benefits for Canada and Canadians – for example the production of medical isotopes used in the detection and treatment of cancer – they also produced radioactive facilities and waste. AECL has various types of radioactive waste at its sites, including high-level waste (such as used reactor fuel), intermediate-level waste and low-level waste. Several sites and/or buildings have also been contaminated as a result of nuclear science and technology activities and past waste management practices that do not meet modern standards; these now need to be decontaminated and demolished, sites cleaned up and remediated, and the radioactive waste managed based on modern standards.

AECL's objective is to protect the environment by advancing key decommissioning, remediation and waste management projects in order to address risks and hazards. With the implementation of the Government-owned, Contractor-operated model, AECL was given a mandate to accelerate these activities, in order to reduce risks and costs for Canada, in a safe manner, consistent with international leading practices. Specifically, AECL has asked CNL to propose projects to dispose of radioactive wastes and to advance other decommissioning activities in order to reduce its environmental liabilities and protect the environment.

Work is underway at the Chalk River Laboratories, with significant progress having been made. More than 84 structures and facilities have been demolished since 2015. This not only reduces AECL's environmental liabilities and overall site maintenance costs, but it also provides the required space for new facilities to be built as part of the site's revitalization.

The resulting contaminated materials, demolition debris, and waste from contaminated lands will need to be disposed of in a purpose-built, engineered facility. CNL has proposed to build a Near Surface Disposal Facility at the Chalk River site, to responsibly and safely dispose of AECL's low-level radioactive waste. Near surface disposal is an internationally accepted and proven method of permanently disposing of low-level radioactive waste. The radioactive waste intended for the disposal facility includes waste currently stored on site and that which will be created as a result of remediation and decommissioning activities at AECL sites and continuing nuclear science and technology activities.

Notable accomplishments in the area of environmental stewardship for the third quarter of 2019-20 are presented below.

As per previous quarters, CNL continued its engagement activities with stakeholders on the proposed Near Surface Disposal Facility at the Chalk River site, in order to provide information and obtain input. This included site tours, technical information sessions in the community, webinars, as well as engagement of Indigenous groups. In particular, CNL has been working with Indigenous groups to support traditional knowledge studies which will inform the overall understanding of Indigenous practices, as well as specific project details, for example modelling and environmental monitoring. CNL also submitted to the Canadian Nuclear Safety Commission (CNSC) a revised draft Environmental Impact Statement for the proposed Near Surface Disposal Facility Project to respond to all federal,

provincial information requests and comments and, reflects the input and feedback received from the public and Indigenous groups.

In the interim, CNL continued to expand temporary storage of low-level radioactive waste in order to allow for the ongoing building decommissioning to proceed at the Chalk River site. Work also continued to expand one of the waste management areas in preparation for waste which will be received from other AECL sites. The objective is to consolidate waste in one location in order to reduce risks, as well as site monitoring, including security costs.

Building demolition and overall hazard reduction also continued at the Chalk River site. Decommissioning work began on building 250, a former tritium laboratory, with work to progress over the next few years to decontaminate and demolish the building, starting with asbestos abatement. Furthermore, construction on the site was flourishing, with work nearly completed on the Logistics and Warehouse facility and construction beginning on the support facility, using innovative building technology, in partnership with Natural Resources Canada.

Another key project currently underway concerns the repatriation of highly-enriched uranium to the United States. The material was used at the Chalk River Laboratories, most notably in the production of the medical isotope Molybdenum-99. This material requires high levels of security, as well as costly and complicated storage. 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. Shipments continued during the third quarter of 2019-20.

In Manitoba, work continued to decommission the **Whiteshell site**, which was previously an active nuclear research laboratory. Work includes the decontamination and demolition of structures and planning for the in situ decommissioning (i.e. immobilizing and leaving in place) of the WR-1 research reactor. The proposal to decommission the research reactor in situ is based on other such international projects which have safely been completed and provides a safe, environmentally sound, and more cost effective approach to address AECL's liability, when compared with the removal and disposal of contaminated reactor components. The proposal, led by CNL, is currently undergoing an Environmental Assessment. During the third quarter of 2019-20, CNL continued to engage with stakeholders, the public and Indigenous groups on its proposal through site tours and meetings. Similar to the Near Surface Disposal Facility Project, CNL has been working with Indigenous groups to further engage them through traditional knowledge studies and participation in environmental monitoring, with a view of integrating Indigenous knowledge and input into the project.

Other work required to decommission the Whiteshell site includes removal of the fuel from the site and addressing waste that is currently stored in trenches and bunkers which are located at or below ground level. CNL is currently developing solutions for the decommissioning and remediation, where appropriate, of these areas. In some cases, the retrieval process is presenting challenges, as storage facilities and the waste contained therein may have degraded over time. As a result, alternative solutions are being developed to remediate areas while ensuring the safety and security of workers. This is creating pressures in terms of the schedule for the project with the planned date to achieve the

closure of the Whiteshell site having moved from 2024 to 2027, which has had impacts on the overall cost of the project.

During the third quarter, the Canadian Nuclear Safety Commission renewed CNL's nuclear research and test establishment decommissioning licence for the Whiteshell Laboratories, in Pinawa, Manitoba for an additional 5 years, thus, until December 31, 2024.

Similarly, CNL continued to advance its proposal for the in situ decommissioning of the **Nuclear Power Demonstration reactor**. During the third quarter, CNL continued to engage with stakeholders, the public and Indigenous groups on its proposal through site tours, webinars, technical meetings with community members and meetings. It also updated some key technical safety documents, for example on groundwater modelling.

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 cleanup 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 between Canada and the municipalities. Two near surface facilities (engineered containment mounds) have been built for this purpose, with waste continuing to be emplaced in both of them.

As part of the **Port Hope Area Initiative**, where historic low-level radioactive waste in the municipalities of Port Hope and Clarington (Ontario) is being remediated, CNL continued with municipal and residential property remediation. Based on site characterization results, the number of small scale sites (residential properties) needing remediation is increasing compared to the original plans. While progress has been made in remediating residential properties, it has been slower than expected due to technical issues which CNL is working to address. Some remediations near the Lake Ontario waterfront have been delayed due to historically high lake levels and rain which has resulted in additional scope. CNL continues to work closely with the municipalities and local residents to listen to and seek to address concerns and advance work in a manner that is least disruptive to the community.

In the third quarter, the construction of Cell 2A of the Long-Term Waste Management Facility (LTWMF) at Port Hope was completed. This maintains the ability for CNL to receive waste from the remediation projects in Port Hope until November 2020, by which time the commissioning of Cell 2B will complete the construction of the Port Hope LTWMF. The total volume of low-level radioactive waste emplaced in the Port Hope facility is over 675,000 cubic meters (or 47,000 truckloads). Low-level radioactive waste also continued to be emplaced in the near surface facility located in the Municipality of Clarington, as part of the Port Granby project with over 780,000 cubic meters (or 51,000 truckloads) of waste being emplaced to date. It is expected that waste remediation will be completed during this fiscal year, with the facility being capped and the site closed and ready for long-term monitoring in the coming years.

The Port Hope Area Initiative is delivering on Canada's long-term commitment to clean up low-level radioactive waste in the community, remediate historically contaminated lands and safely manage radioactive waste. The waste facilities which are being filled as part of the Port Hope Area Initiative share many of the same design features as the Near Surface Disposal Facility being proposed to be built at the Chalk River Laboratories.

Nuclear Laboratories

AECL has been leading innovations in nuclear science and technology for over six decades. 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 design of the CANDU reactor, production of medical isotopes and 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.

Through the Government-owned, Contractor-operated model, AECL's objective is to leverage the vast experience and expertise at the Chalk River Laboratories to contribute to the government's science, innovation and clean energy objectives. Nuclear science and technology activities at the Chalk River Laboratories support the Federal Nuclear Science and Technology Work Plan, which helps the Government of Canada deliver on its responsibilities in the areas of health, nuclear safety and security, energy and the environment.

To further grow the science expertise and capabilities at Chalk River, CNL also uses AECL facilities to provide technical services and research and development products on a commercial basis.

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. Based on an assessment of existing capabilities, external environment and market opportunities, CNL has identified eight strategic initiatives that it will focus on during the planning period, which support the needs of the federal government and third-party customers to tap into new and expanded markets:

- **Long-term reliability of existing reactors**: Support for Canada's fleet of existing reactors through work on life extension and long-term reliability of the existing fleet of CANDU reactors domestically and internationally, and expansion to include support for other reactor designs, advanced nuclear materials, fuels research and nuclear chemistry applications.
- **Advanced fuel fabrication**: Development of advanced nuclear fuel concepts in order to support the long-term reliability of existing reactors and the development of advanced reactors. These advanced fuels offer higher performance, improved failure tolerance, increased safety, proliferation resistance and accident tolerance, and are recycled or recyclable.
- **Small modular reactors**: CNL's goal is to demonstrate the commercial viability of small modular reactors by 2026, with a view to positioning Canada to take a leadership role in this emerging nuclear technology. The objective is for Canada and CNL to best leverage their expertise and facilities to position small modular reactors to provide low-carbon, reliable, load-following, scalable and cost-effective energy options to remote communities, mining and oil sand applications, and to fill other energy gaps and needs that often have unique Canadian interest.
- **Decarbonizing the transportation sector**: CNL aims to build on existing capabilities, and leverage recent capital investments by AECL in modern hydrogen laboratories, to support hydrogen safety and heavy water and tritium management in CANDU reactors. As hydrogen

technologies have matured, costs have dropped to the point that hydrogen solutions are financially competitive with similar energy conversion technologies. Hydrogen technology offers low-carbon options for the energy and transportation sectors, which supports Canada's international commitments for carbon reduction.

- **Targeted alpha therapy research**: Targeted alpha therapy is a new area of research in the battle against cancer and other diseases. The benefit of this therapy is that the radiation is targeted at the cancer cell, unlike existing treatments that often involve irradiation of all cells in the vicinity of a tumor, healthy and cancerous.
- **Nuclear cyber security**: Cyber security of industrial control systems is a growing concern in all industries, and particularly in the nuclear industry where it represents a multibillion-dollar worldwide market. While a large commercial industry caters to the cyber security of information technology systems, most solution providers are focused on conventional hacking and data theft. CNL has already commissioned a nuclear cyber security test facility located in New Brunswick, and is now working to develop, commercialize and deploy a nuclear industrial control cyber intrusion detection and mitigation system.
- **Nuclear forensics, detection and response**: The need for science and technology activities in nuclear security continues to grow in Canada, as evidenced by the government's renewed commitments to nuclear threat reduction, both domestically and abroad. There is a growing demand from government departments and agencies for nuclear science and technology expertise to inform their response to emergent national and international issues concerning nuclear safeguards, safety and security. CNL is working to establish a facility for government agencies and commercial partners to develop, test, calibrate and validate nuclear forensics technologies and materials. Furthermore, CNL is supporting work to safeguard and secure nuclear material and improve Canada's border security.
- **Environmental remediation management science and technology**: CNL is working to expand the understanding of the behaviour of contaminant radionuclides, and further develop safe, economical nuclear waste management technologies. The environmental technology capability will also continue to support the government in monitoring for the presence and spread of low levels of contamination. CNL is also growing its commercial work in this area.

As part of its long-term vision for the Chalk River Laboratories, CNL's plans, approved by AECL, entail the revitalization of the site through the demolition of old and outdated buildings and the construction of new facilities that will transform the site into a world-class, state-of-the-art nuclear science and technology campus and enable a vibrant science and technology mission going forward.

During the third quarter, CNL pursued activities in this respect, including:

- Following the launch of the Canadian Nuclear Research Initiative (CNRI), a program that enables research and development to accelerate the deployment of small modular reactors in Canada, CNL announced in November that there had been a strong response to the call for proposals launched in July, and that Terrestrial Energy, Ultra Safe Nuclear Corporation, Kairos and Moltex would be the first recipients under CNRI. The next call for proposals is anticipated in the first half of 2020.

- Planning and design work for an important new science facility to be built at the Chalk River Laboratories, the Advanced Nuclear Materials Research Centre, continued during the third quarter. The facility will consolidate key capabilities from a number of aging facilities that are scheduled for decommissioning, and will enable world-class research in nuclear energy, public health, environmental stewardship and global security.
- A new Logistics Warehouse to improve logistics, materials management and reduce site traffic nears completion. It will also serve to upgrade the visitor reception area at the outer gate as well as security control for site access.
- Construction of a Site Support facility to house all site maintenance services and mechanical fabrication shops commenced in Q3. The new facility will enable consolidation of existing buildings and facilities in support of the site revitalization plan.
- Canada hosted the sixth plenary meeting for the International Partnership for Nuclear Disarmament Verification (IPNDV) in December 2019 in Ottawa, Ontario followed by a technical demonstration at CNL. The technology demonstration was well attended with 35 international participants visiting the Chalk River site and highlighted the unique capabilities at CNL.

Forward-Looking Statements

This Management's Narrative Discussion has been reviewed by AECL's Audit Committee and approved by AECL's Board of Directors. It provides comments on the performance of AECL for the nine months ended December 31, 2019, and should be read in conjunction with the unaudited financial statements and accompanying notes.

The Management's Narrative Discussion contains forward-looking statements with respect to AECL based on assumptions that Management considers reasonable at the time of preparation. These forward-looking statements, by their nature, necessarily involve risks and uncertainties that could cause future results to differ materially from current expectations. We caution the reader that the assumptions regarding future events, many of which are difficult to predict, may ultimately require revision.

Financial Review

	Three Months Ended December 31,		Nine Months Ended December 31,	
($ millions)	**2019**	2018	**2019**	2018
Revenues				
Parliamentary appropriations	**$ 197**	$ 197	**$ 540**	$ 551
Commercial revenue	**25**	24	**84**	83
Interest income	**2**	2	**4**	4
	224	223	**628**	638
Expenses				
Cost of sales	**16**	18	**58**	55
Operating expenses	**17**	16	**53**	48
Contractual expenses	**53**	57	**188**	195
Decommissioning, waste management and contaminated sites expenses	**66**	232	**518**	368
	$ 152	$ 323	**817**	666
Surplus (deficit) for the period before the following	**$ 72**	$ (100)	**(189)**	(28)
Gain from elimination of reported obligation related to government funded heavy water proceeds	**-**	333	**-**	333
Surplus (Deficit) for the period	**$ 72**	$ 233	**$ (189)**	$ 305

Parliamentary Appropriations

The Government of Canada provides funding quarterly for AECL to advance its priorities and deliver on its mandate. AECL recognized $197 million of Parliamentary appropriations in the third quarter of 2019-20 and 2018-19. On a year-to-date basis, AECL recognized $540 million of Parliamentary appropriations, compared to $551 million for the same period in 2018-19. The year-to-date variance is primarily related to a decrease in funding required for the NRU reactor consistent with the shutdown of the reactor in March, 2018.

Commercial Revenue

In the third quarter of 2019-20, $25 million in revenue was recognized, compared to $24 million for the same period in 2018-19. On a year-to-date basis, revenues were $84 million, compared to $83 million in 2018-19. Revenue included isotope sales, commercial technology sales, and research and development activities performed by CNL for commercial customers. Decreased sales of the cobalt isotope (due to exhaustion of inventory now that NRU has been shuttered) were offset by an increase in heavy water sales in both the quarter and the year-to-date.

Interest Income

Interest income is earned on cash, short-term investments from appropriations and investments held in trust. Income earned in the quarter and year-to-date is comparable to the prior period.

Cost of Sales

Cost of sales is consistent with the commercial revenue noted above.

Operating Expenses

Operating expenses are largely comprised of AECL's oversight expenses and amortization of tangible capital assets. Operating expenses in the third quarter of $17 million and year-to-date of $53 million are comparable to that of the same periods in 2018-19, with a slight increase due to increased amortization on tangible capital assets.

Contractual Expenses

AECL delivers its mandate through a long-term contract with CNL for the management and operation of its sites. CNL expenditures (excluding costs charged to Decommissioning and waste management provision and Contaminated sites liability, Construction in progress and Cost of sales) are reported by AECL as Contractual expenses. Expenses in this category for the third quarter total $53 million, compared to $57 million in the third quarter of 2018-19. Year-to-date expenses in this category total $188 million compared to $195 million in the previous period in 2018-19.

Decommissioning, Waste Management and Contaminated Sites Expenses

Decommissioning, waste management and contaminated sites expenses consist of financial expenses and the revaluation (gain) loss, if any, on these reported liabilities. Financial expenses reflect the increase in the net present value (accretion of discount) of these reported liabilities. Decommissioning, waste management and contaminated sites expenses in the third quarter of 2019-20 of $66 million are lower than expenses in the same period of 2018-19 due to project estimate increases recorded in the comparable period. Decommissioning, waste management and contaminated sites expenses for the year-to-date of $518 million are higher than the same period in 2018-19 as a result of approved increases to project estimates, primarily related to waste management and the Whiteshell Laboratories closure project recorded in the second quarter.

Elimination of Reported Obligation Related to Government Funded Heavy Water Proceeds

During the third quarter of 2018-19, the Government of Canada confirmed to AECL that there is no obligation associated with past government funded heavy water proceeds. As a result of this new information from the Government of Canada, AECL eliminated these balances, totalling $333 million, as at December 31, 2018.

Surplus (Deficit) for the Period

Consistent with AECL's financial reporting framework, appropriations are recognized as revenue when received in a given period and may be greater or less than the reported expenditures for the same period. For instance, amounts received to fund decommissioning, waste management and contaminated sites expenditures are recorded as Parliamentary appropriations revenue in the current period while the related expenditures are drawn down from the associated liabilities previously recorded on the Statement of Financial Position. With respect to tangible capital assets, Parliamentary appropriations revenue includes amounts received in the period to fund the purchase and construction of these assets while the related expenditures are capitalized; therefore, the reported operating expenses include only the amortization of existing tangible capital assets.

Outlook

AECL's planned activities are set out in its Corporate Plan. The 2019-20 year-to-date expenditures are trending behind plan due to delays in decommisioning and waste management activites and capital projects. Priorities and deliverables have not materially changed in the first nine months of 2019-20.

Cash Flow and Working Capital

($ millions)	Three Months Ended December 31, 2019	Three Months Ended December 31, 2018	Nine Months Ended December 31, 2019	Nine Months Ended December 31, 2018
Cash provided by operating transactions	**$ 32**	$ 28	**$ 87**	$ 311
Cash applied to capital transactions	**(34)**	(16)	**(69)**	(56)
(Decrease) increase in cash	**(2)**	12	**18**	255
Balance at beginning of the period	**82**	281	**62**	38
Balance at end of the period	**$ 80**	$ 293	**$ 80**	$ 293

Operating Transactions

Operating transactions generated a net cash inflow of $32 million in the third quarter of 2019-20, compared to a $28 million inflow during the same period in 2018-19. On a year-to-date basis, operating activities resulted in a net cash inflow of $87 million compared to $311 million during the same period the previous year. The variance is a result of Parliamentary appropriations received in the third quarter of 2018-19 for fourth quarter activities. In the current year, the fourth quarter funding was not received before the end of the third quarter.

Capital Transactions

Capital transactions used cash of $34 million in the third quarter of 2019-20 compared to $16 million in the same period in 2018-19. On a year-to-date basis, capital activities used cash of $69 million compared to $56 million in the same period in the previous year. The variance is a result of increased spending in the current year toward new Chalk River site infrastructure.

Highlights of the Statement of Financial Position

($ millions)	December 31, 2019	March 31, 2019	Variance In $	Variance By %
Financial Assets	**$ 371**	$ 435	$ (64)	-15%
Liabilities	**7,982**	7,822	160	2%
Non-Financial Assets	**700**	665	35	5%
Accumulated Deficit	**(6,910)**	(6,721)	(189)	3%

AECL closed the third quarter of 2019-20 with Financial Assets of $371 million, which represents a $64 million decrease from March 31, 2019. This variance is mainly the result of a decrease in the appropriations receivable that were accrued at the end of the previous fiscal year.

The increase in Liabilities of $160 million can be attributed primarily to the increase in the Decommissioning and waste management provision due to the change in estimate described above, partially offset by a decrease in the Contaminated sites liability as a result of spending on decommissioning activities.

Management of Risks and Uncertainties

Risks and uncertainties are described in AECL's 2018-19 Annual Report under the section "Management's Discussion and Analysis." Risks and uncertainties and risk management practices as noted in the 2018-19 Annual Report have not materially changed in the first nine months of 2019-20.

MANAGEMENT'S RESPONSIBILITY

Management is responsible for the preparation and fair presentation of these quarterly financial statements in accordance with the Treasury Board of Canada "Standard on Quarterly Financial Reports for Crown Corporations," and for such internal controls as Management determines are necessary to enable the preparation of quarterly financial statements that are free from material misstatement. Management is also responsible for ensuring all other information in this quarterly financial report is consistent, where appropriate, with the quarterly financial statements.

Based on our knowledge, these unaudited quarterly financial statements present fairly, in all material respects, the financial position, results of operations and cash flows of the Corporation, as at the date of and for the periods presented in the quarterly financial statements.

Richard J. Sexton
President and Chief Executive Officer
February 25, 2020
Chalk River, Canada

David J. Smith
Chief Financial Officer
February 25, 2020
Chalk River, Canada

UNAUDITED FINANCIAL STATEMENTS

Statement of Financial Position

As at

(thousands of Canadian dollars)	Notes	**December 31, 2019**	March 31, 2019
Financial Assets			
Cash		**$ 80,286**	$ 61,833
Long-term disposal of waste fund		**42,301**	31,000
Investments held in trust		**54,548**	53,573
Trade and other receivables	3	**38,769**	42,851
Appropriations receivable	9	**-**	69,276
Inventories held for resale		**155,480**	176,511
		371,384	435,044
Liabilities			
Accounts payable and accrued liabilities	4	**37,086**	32,684
Employee future benefits	5	**19,090**	19,779
Due to Canadian Nuclear Laboratories		**126,805**	100,400
Decommissioning and waste management provision	6	**6,846,328**	6,613,955
Contaminated sites liability	7	**952,431**	1,054,978
		7,981,740	7,821,796
Net Debt		**(7,610,356)**	(7,386,752)
Non-Financial Assets			
Tangible capital assets	8	**699,972**	665,003
Prepaid expenses		**-**	464
		699,972	665,467
Accumulated Deficit		**(6,910,384)**	(6,721,285)
Accumulated deficit is comprised of:			
Accumulated operating deficit		**(6,911,373)**	(6,722,172)
Accumulated remeasurement gains		**989**	887
		$ (6,910,384)	$ (6,721,285)

The accompanying notes are an integral part of these financial statements.

Statement of Operations and Accumulated Deficit

(thousands of Canadian dollars)	Notes	2020 Budget	Three Months Ended December 31, **2019**	2018	Nine Months Ended December 31, **2019**	2018
Revenues						
Parliamentary appropriations	9	$ 1,197,282	**$ 197,400**	$ 196,743	**$ 539,690**	$ 550,657
Commercial revenue		75,700	**24,581**	23,966	**84,232**	82,594
Interest income		3,000	**1,653**	1,501	**4,486**	3,742
		1,275,982	**223,634**	222,210	**628,408**	636,993
Expenses						
Cost of sales		52,990	**16,033**	17,787	**58,450**	54,901
Operating expenses		66,016	**17,321**	16,124	**52,977**	48,484
Contractual expenses	10	251,200	**53,289**	57,331	**188,052**	195,430
Decommissioning, waste management and contaminated sites expenses		262,754	**66,222**	232,127	**518,130**	368,381
		632,960	**152,865**	323,369	**817,609**	667,196
Surplus (deficit) for the period before the following		643,022	**70,769**	(101,159)	**(189,201)**	(30,203)
Gain from elimination of reported obligation related to government funded heavy water proceeds		-	**-**	333,384	**-**	333,384
Surplus (Deficit) for the period		643,022	**70,769**	232,225	**(189,201)**	303,181
Accumulated operating deficit, beginning of period		(6,722,172)	**(6,982,142)**	(6,805,717)	**(6,722,172)**	(6,868,978)
Transfer to deferred decommissioning and waste management funding		-	**-**	-	**-**	(5,930)
Transfer to repayable contributions		-	**-**	-	**-**	(1,765)
Accumulated operating deficit, end of period		$ (6,079,150)	**$ (6,911,373)**	$ (6,573,492)	**$ (6,911,373)**	$ (6,573,492)

The accompanying notes are an integral part of these financial statements.

Statement of Remeasurement Gains and Losses

(thousands of Canadian dollars)	Three Months Ended December 31, 2019	Three Months Ended December 31, 2018	Nine Months Ended December 31, 2019	Nine Months Ended December 31, 2018
Accumulated remeasurement gains (losses), beginning of period	**$ 1,885**	$ (707)	**$ 887**	$ (120)
Remeasurement (losses) gains arising during the period				
Unrealized (losses) gains on Investments held in trust	**(896)**	306	**21**	(281)
Reclassifications to the Statement of Operations and Accumulated Deficit				
Realized losses on Investments held in trust	**-**	-	**81**	-
Net remeasurement (losses) gains for the period	**(896)**	306	**102**	(281)
Accumulated remeasurement gains (losses), end of period	**$ 989**	$ (401)	**$ 989**	$ (401)

The accompanying notes are an integral part of these financial statements.

Statement of Change in Net Debt

(thousands of Canadian dollars)	Notes	2020 Budget	Three Months Ended December 31, **2019**	2018	Nine Months Ended December 31, **2019**	2018
Surplus (Deficit) for the period		$ 643,022	**$ 70,769**	$ 232,225	**$ (189,201)**	$ 303,181
Tangible capital assets						
Acquisition of tangible capital assets	8	(200,000)	**(29,395)**	(19,434)	**(71,908)**	(46,947)
Amortization of tangible capital assets	8	45,826	**12,264**	11,351	**36,831**	32,194
Other changes	8	-	**-**	(1)	**108**	61
		(154,174)	**(17,131)**	(8,084)	**(34,969)**	(14,692)
Non-financial assets						
Changes in prepaid expenses		-	**1,405**	1,511	**464**	1,881
Net remeasurement (losses) gains for the period		-	**(896)**	306	**102**	(281)
Decrease (increase) in net debt		488,848	**54,147**	225,958	**(223,604)**	290,089
Net debt, beginning of period		(7,386,752)	**(7,664,503)**	(7,459,000)	**(7,386,752)**	(7,515,436)
Transfer to deferred decommissioning and waste management funding		-	**-**	-	**-**	(5,930)
Transfer to repayable contributions		-	**-**	-	**-**	(1,765)
Net debt, end of period		$ (6,897,904)	**$ (7,610,356)**	$ (7,233,042)	**$ (7,610,356)**	$ (7,233,042)

The accompanying notes are an integral part of these financial statements.

Statement of Cash Flows

(thousands of Canadian dollars)	Three Months Ended December 31, 2019	Three Months Ended December 31, 2018	Nine Months Ended December 31, 2019	Nine Months Ended December 31, 2018
Operating transactions				
Cash receipts from Parliamentary appropriations	**$ 197,400**	$ 212,300	**$ 608,966**	$ 863,782
Cash receipts from customers	**31,096**	24,477	**87,786**	87,196
Cash paid to suppliers	**(43,995)**	(79,534)	**(204,401)**	(249,218)
Cash paid to employees	**(2,216)**	(2,382)	**(8,453)**	(10,322)
Cash paid for decommissioning, waste management and contaminated sites activities	**(150,011)**	(127,030)	**(388,304)**	(378,624)
Cash invested for waste management and disposal activities	**(1,308)**	(532)	**(10,699)**	(4,078)
Interest received	**922**	1,130	**2,821**	2,804
Cash provided by operating transactions	**31,888**	28,429	**87,717**	311,540
Capital transactions				
Acquisition of tangible capital assets	**(33,889)**	(16,265)	**(69,264)**	(56,133)
Cash applied to capital transactions	**(33,889)**	(16,265)	**(69,264)**	(56,133)
(Decrease) increase in cash	**(2,001)**	12,164	**18,453**	255,407
Cash, beginning of period	**82,287**	280,823	**61,833**	37,580
Cash, end of period	**$ 80,286**	$ 292,987	**$ 80,286**	$ 292,987

The accompanying notes are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS
For the three and nine months ended December 31, 2019

(Expressed in thousands of Canadian dollars)

(Unaudited)

1. The Corporation

Atomic Energy of Canada Limited (AECL) is a federal Crown corporation whose mandate is to enable nuclear science and technology and protect the environment by managing the Government of Canada's radioactive waste and decommissioning activities. Since 2015, AECL has been delivering its mandate through a Government-owned, Contractor-operated model, whereby Canadian Nuclear Laboratories (CNL), a private-sector organization, operates and manages AECL's sites on its behalf pursuant to a contractual arrangement.

AECL was incorporated in 1952 under the provisions of the *Canada Corporations Act* (and continued in 1977 under the provisions of the *Canada Business Corporations Act*), pursuant to the authority and powers of the Minister of Natural Resources under the *Nuclear Energy Act*.

AECL is a Schedule III Part I Crown corporation under the *Financial Administration Act* and an agent of Her Majesty in Right of Canada. As a result, AECL's liabilities are ultimately liabilities of Her Majesty in Right of Canada. AECL receives funding from the Government of Canada and is exempt from income taxes in Canada.

AECL's 2019-20 to 2023-2024 Corporate Plan received Treasury Board approval in the first quarter of the 2019-20 fiscal year. The Corporate Plan is aligned with the direction provided by AECL's sole shareholder, the Government of Canada, and reflects AECL's priorities under the Government-owned, Contractor-operated model.

2. Significant Accounting Policies

Basis of Accounting

These quarterly financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards (PSAS) established by the Public Sector Accounting Board (PSAB), and should be read in conjunction with the annual audited financial statements dated March 31, 2019.

Both financial and non-financial assets are reported on the Statement of Financial Position. Non-financial assets are normally employed to provide future services, and, are charged to expense through amortization or upon utilization. Non-financial assets are not taken into

consideration when determining the net debt (or net financial assets), but rather are added to the net debt (or net financial assets) to determine the accumulated surplus (deficit).

Measurement Uncertainty

The preparation of the quarterly financial statements in accordance with PSAS requires management to make estimates and assumptions that affect the reported amounts of financial assets, liabilities and non-financial assets at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Items requiring the use of significant estimates and assumptions include those related to the fair value of financial instruments, useful life and write-down of tangible capital assets, employee future benefits, contingent liabilities and provisions including the decommissioning and waste management provision and contaminated sites liability. Estimates and assumptions are based on the best information available at the time of preparation of the quarterly financial statements and are reviewed annually to reflect new information as it becomes available. Where actual results differ from these estimates and assumptions, the impact will be recorded in future periods when the difference becomes known.

Budget Figures

The 2019-20 budget is reflected in the Statement of Operations and Accumulated Deficit and the Statement of Change in Net Debt. Budget data presented in these financial statements is based upon the 2019-20 projections and estimates contained within the 2019-20 to 2023-24 Corporate Plan.

3. Trade and Other Receivables

(thousands of Canadian dollars)	**December 31, 2019**	March 31, 2019
Trade receivables	**$ 13,259**	$ 17,848
Unbilled revenue	**13,080**	10,514
Consumption taxes receivable	**12,430**	14,489
	$ 38,769	$ 42,851

4. Accounts Payable and Accrued Liabilities

(thousands of Canadian dollars)	**December 31, 2019**	March 31, 2019
Trade payables	**$ 6,771**	$ 8,423
Other payables and accrued expenses	**21,191**	14,493
Accrued payroll liabilities	**1,723**	1,812
Amounts due to related parties	**205**	172
Provisions	**5,580**	5,640
Customer advances and obligations	**1,616**	2,144
	$ 37,086	$ 32,684

Amounts due to related parties represent royalty revenues earned that are payable to the Government. Provision amounts are short-term in nature, are not discounted and include estimated costs related to lawsuits, legal claims and disputes with suppliers.

5. Employee Future Benefits

a) Pension Plan

Employees of AECL participate in the Public Service Pension Plan (PSPP). The PSPP is a contributory defined benefit plan established through legislation and sponsored by the Government of Canada. Contributions are required by both the employees and the employer to cover current service cost. The President of the Treasury Board of Canada sets the required employer contributions based on a multiple of the employees' required contribution.

Total contributions made on account of current service are as follows:

	Three Months Ended December 31,		**Nine Months Ended December 31,**	
(thousands of Canadian dollars)	**2019**	2018	**2019**	2018
Payments by employees	**$ 158**	$ 166	**$ 585**	$ 618
Payments by employer	**232**	225	**1,104**	1,056

The Government of Canada holds a statutory obligation for the payment of benefits relating to the PSPP. Pension benefits generally accrue up to a maximum period of 35 years at an annual rate of two per cent of pensionable service, multiplied by the average of the best five consecutive years of earnings. The benefits are coordinated with Canada/Québec Pension Plan benefits and are indexed to inflation.

b) Other Employee Future Benefits

AECL provides certain voluntary termination compensation (VTC) and other post-employment benefits as described in Note 2(g) of the annual audited financial statements dated March 31, 2019. The defined benefit obligation is not funded, as funding is provided when benefits are paid. Accordingly, there are no plan assets and the defined plan deficit is equal to the defined benefit obligation.

The VTC included in the reported Employee future benefits liability is $7.1 million (March 31, 2019: $7.2 million) and is payable in instances of future voluntary resignations and retirements.

6. Decommissioning and Waste Management Provision

AECL has an obligation to decommission its nuclear facilities and other assets in order to address its liabilities, reduce risk, and protect the environment. A portion of the liabilities relate to obligations stemming from activities undertaken prior to the creation of AECL in 1952.

(thousands of Canadian dollars)	**Nine Months Ended December 31, 2019**	Year Ended March 31, 2019
Carrying amount, beginning of period	**$ 6,613,955**	$ 6,473,301
Liabilities settled	**(256,414)**	(353,292)
Unwinding of discount	**190,622**	251,132
Revision in estimate and timing of expenditures	**298,165**	242,814
Carrying amount, end of period	**$ 6,846,328**	$ 6,613,955

The undiscounted future expenditures, adjusted for inflation, for the planned activities comprising the liability are $15,859.0 million (March 31, 2019: $15,901.1 million).

The provision was discounted using a rate of 3.84% as at December 31, 2019 and March 31, 2019.

7. Contaminated Sites Liability

AECL has the responsibility for the implementation of the Government of Canada's commitments with respect to the Port Hope Area Initiative and Low-level Radioactive Waste Management Office.

(thousands of Canadian dollars)	**Nine Months Ended December 31, 2019**	Year Ended March 31, 2019
Carrying amount, beginning of period	**$ 1,054,978**	$ 988,243
Liabilities settled	**(142,589)**	(156,905)
Unwinding of discount	**17,042**	21,377
Revision in estimate and timing of expenditures	**23,000**	202,263
Carrying amount, end of period	**$ 952,431**	$ 1,054,978

The nature of the Port Hope Area Initiative is the clean-up and local, long-term, safe management of historic low-level radioactive waste in the municipalities of Port Hope and Clarington, in Ontario. This waste consists mainly of past process residues containing uranium and radium, and associated contaminated soils, the result of activities of a former federal Crown corporation and its private-sector predecessors. The implementation phase is forecasted to be complete in 2023-24, with long-term monitoring and maintenance expected to continue for 30 years after implementation. The liability is discounted using net present value techniques at a rate of 2.15%. The estimated total undiscounted expenditures are $1,044.1 million (March 31, 2019: $1,161.7 million).

AECL also has responsibility for the Low-level Radioactive Waste Management Office which includes all activities to address and manage historic low-level waste at sites in Canada for which the Government has assumed responsibility (excluding the Port Hope Area Initiative). Historic low-level radioactive waste is material contaminated with low levels of radioactivity resulting from the processing and shipment of uranium and radium.

8. Tangible Capital Assets

(thousands of Canadian dollars)

	Construction in progress	Land and land improvements	Buildings	Reactors, Machinery and Equipment	Total
Cost at March 31, 2019	**$ 104,153**	**$ 100,536**	**$ 506,852**	**$ 475,662**	**$ 1,187,203**
Additions and transfers	71,908	17,916	4,844	10,509	105,177
Disposals and transfers	(33,269)	-	54	(1,223)	(34,438)
Cost at December 31, 2019	**142,792**	**118,452**	**511,750**	**484,948**	**1,257,942**
Accumulated amortization at March 31, 2019	-	**42,316**	**210,189**	**269,695**	**522,200**
Increase in amortization	-	3,290	10,193	23,348	36,831
Disposals and transfers	-	-	705	(1,766)	(1,061)
Accumulated amortization at December 31, 2019	**-**	**45,606**	**221,087**	**291,277**	**557,970**
Net carrying amount at March 31, 2019	**104,153**	**58,220**	**296,663**	**205,967**	**665,003**
Net carrying amount at December 31, 2019	**$ 142,792**	**$ 72,846**	**$ 290,663**	**$ 193,671**	**$ 699,972**

9. Parliamentary Appropriations

	Three Months Ended December 31,		Nine Months Ended December 31,	
(thousands of Canadian dollars)	**2019**	2018	**2019**	2018
Parliamentary appropriations for operating, capital and statutory expenditures				
Amount received during the period for operating, capital and statutory expenditures	**$ 197,400**	$ 212,300	**$ 608,966**	$ 863,782
Amount receivable from a previous period	**-**	-	**(69,276)**	(103,825)
Amount deferred from the previous period	**-**	193,743	**-**	-
Amount received related to the next period (Deferred funding)	**-**	(209,300)	**-**	(209,300)
Total Parliamentary appropriations recognized	**$ 197,400**	$ 196,743	**$ 539,690**	$ 550,657

The difference between received and recognized Parliamentary appropriations relates to amounts received but related to either a previous or subsequent quarter. The appropriations approved for operating and capital expenditures for the year ending March 31, 2020 total $1,197 million.

10. Contractual Arrangement

Since 2015, AECL has been delivering its mandate through a Government-owned, Contractor-operated model whereby the assets, sites and facilities continue to be owned by AECL, but are being contractually managed and operated by a private-sector company. As such, AECL makes payments to CNL and its parent company, Canadian National Energy Alliance (CNEA), as per the terms of the contractual arrangement.

The following contractual expenses were incurred:

	Three Months Ended December 31,		Nine Months Ended December 31,	
(thousands of Canadian dollars)	**2019**	2018	**2019**	2018
Contractual amounts paid or payable	**$ 245,057**	$ 216,644	**$ 693,666**	$ 664,708
Less: Costs charged to Decommissioning and waste management provision and Contaminated sites liability	**(150,675)**	(126,916)	**(397,078)**	(380,952)
Less: Costs charged to Construction in progress	**(29,395)**	(19,434)	**(71,908)**	(46,947)
Less: Costs classified as Cost of sales	**(11,698)**	(12,963)	**(36,628)**	(41,379)
Contractual expenses	**$ 53,289**	$ 57,331	**$ 188,052**	$ 195,430

Contractual amounts paid or payable include fees paid to CNEA, in accordance with the long-term contractual arrangement between AECL and CNEA and CNL.

11. Comparative Figures

Certain of the December 31, 2018 comparative figures have been reclassified to conform to the financial statement presentation adopted in the 2019-20 fiscal year.

Atomic Energy of Canada Limited
Chalk River Laboratories
Chalk River, Ontario
Canada K0J 1J0
Tel: 613.589.2085

Inquiries
Public requests for information
Email: communications@aecl.ca

Visit Our Website
www.aecl.ca

Canada