



ATOMIC ENERGY OF CANADA LIMITED

Third Quarter Financial Report

Financial Statements (Unaudited)

**As at and for the three and nine months ended
December 31, 2022**

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MESSAGE FROM THE PRESIDENT AND CHIEF EXECUTIVE OFFICER



AECL continues to deliver on our mandate to drive innovation in the nuclear sector. In doing so, we have been focusing on building partnerships and collaborations, as achieving Canada’s decarbonization and climate change cannot be done in a vacuum. In this quarter, we have solidified partnerships with key academic partners, including McMaster University, Ontario Tech University, and the University of Ottawa. Along with Canadian Nuclear Laboratories (CNL), we have signed memoranda of understanding with each of these three organizations to advance collaborative research in health and environmental sciences, clean energy, and nuclear safety.

Through the Federal Nuclear Science and Technology Work Plan, AECL oversees research and scientific activities that serve the needs of fourteen federal departments and agencies in the areas of health, energy and climate change, the environment, safety and security. Through this important federal science initiative, we forge strong partnerships and linkages within the federal family, and with our national laboratories at Chalk River, led by CNL.

Partnerships and collaboration with Indigenous communities are also vital to the success of nuclear energy in Canada. In December, AECL, CNL and the Sagkeeng First Nation signed an agreement to implement the Sagkeeng Nigan Aki Program, an environmental monitoring program led by the Sagkeeng First Nation. This collaborative and rights-based program will be implemented at the Whiteshell Laboratories site, with financial support from AECL and CNL, and delivered independently by the Sagkeeng First Nation. The program was established to empower Sagkeeng’s ability to monitor and steward its territory and improve understanding of the Whiteshell Laboratories site and operations, which is located in the Sagkeeng’s unceded traditional territory.

This is a tremendous achievement and a milestone in our journey towards reconciliation.

I am particularly pleased with the collaboration that has taken place as we share the common goal of caring for the land. Working together through the Sagkeeng Nigan Aki Program, we will build community awareness and advance the decommissioning and environmental remediation of the Whiteshell Laboratories site. I look forward to more collaborations like this in the future.

A handwritten signature in black ink that reads "F. Dermarkar." The signature is fluid and cursive, with a period at the end.

Fred Dermarkar

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 2022-23 and accompanying notes. Management's Narrative Discussion should therefore be read in conjunction with the unaudited financial statements.

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 21, 2023.

Our Business

As a federal Crown corporation, Atomic Energy of Canada Limited (AECL) is working to advance Canada's interests through leading edge nuclear science and technology initiatives and protection of the environment. This includes combating climate change through clean energy growth and decarbonization strategies, advancing the battle against cancer and other diseases by pioneering new treatment methods, and accelerating Canada's environmental remediation responsibilities related to past nuclear science activities. AECL receives funding from the Government of Canada to enable nuclear science and technology and manage the Government of Canada's radioactive waste liabilities. Since 2015, AECL has been delivering its mandate through a Government-owned, Contractor-operated (GoCo) model, whereby a private-sector organization, Canadian Nuclear Laboratories (CNL), is responsible for managing and operating AECL's sites on its behalf.

Under the GoCo model, AECL retains ownership of the sites, facilities, intellectual property, and liabilities. CNL manages AECL's sites and facilities under contract with AECL. The GoCo model allows AECL to leverage private-sector expertise and experience to accelerate the decommissioning and environmental stewardship program and deliver world-class nuclear science and technology. As an agent of government, AECL brings value to Canada by setting CNL's priorities and providing expert-based oversight of its plans and operations. AECL assesses CNL's performance to advance its objectives in the most effective and efficient manner, while maintaining the highest priority on safety, security, and protection of the environment. Furthermore, AECL supports the government's development of nuclear policy.

The two main areas of focus for activities are:

1. Nuclear Innovation (Nuclear Laboratories)

AECL is focused on leveraging the successes of its past as well as future nuclear innovation to benefit Canada and Canadians. Working with industry, AECL is enabling the development of new technologies to advance small modular reactors (SMRs), clean hydrogen and fusion all with a view to building on the success of the CANDU reactor technology and its already realized and potentially enhanced contributions to climate objectives, energy security and jobs. Advancements in nuclear medicine are being pursued in an effort to further revolutionize the diagnosis and treatment of disease. This includes supporting the research and development of new and promising nuclear health technologies, including new and emerging radiotherapies, diagnostics, and radiotheranostics such as targeted alpha therapy.

Work in these areas is enabled by the vast and unique capabilities that reside at CNL and at the Chalk River Laboratories, Canada's largest science and technology complex and host to nearly 3,000 employees. 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.

Through the work and capabilities of the Chalk River Laboratories, AECL and CNL can act as a conduit between the Government of Canada and private industry by identifying and facilitating opportunities for coordination between the public and private sectors to build support for initiatives that serve federal priorities, commitments, and goals.

2. Environmental Stewardship

The objective is to address safely and responsibly the environmental responsibilities and liabilities which have resulted from legacy activities at AECL sites. These legacy liabilities are the result of decades of significant contributions and advancements in nuclear science which have benefitted Canadians and the world, including the development of the CANDU technology and the production of medical isotopes which are used in the diagnostic and treatment of cancer and other diseases. AECL is now focused on 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 to clean up AECL's sites, protect the environment, and make way for new buildings that will support the ongoing nuclear science and technology mission at the Chalk River site.

Sites under the responsibility of AECL across Canada



Third Quarter Highlights for 2022-23

Nuclear Laboratories

AECL has been leading nuclear science and technology for over seven 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, a technology that today is used at 19 reactors in Canada, providing 15% of Canada's electricity, and 30 (CANDU or CANDU-derivatives) internationally. It also provided the research and facilities for breakthroughs in the life saving 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 and the

provision of nuclear science and technology in the areas of energy, non-proliferation, emergency preparedness, counterterrorism, 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.

The restructuring of AECL and the implementation of the GoCo model have brought new opportunities for building on this important scientific legacy. AECL's mandate has been clearly defined by Government to leverage the capabilities at the Chalk River Laboratories to support the federal government's needs and responsibilities in the area of nuclear science and technology (through the Federal Nuclear Science and Technology Work Plan and work for federal departments and agencies as a federal lab), as well as to provide services to third-parties on a commercial basis. This has been further enabled by an investment of \$1.2 billion over 10 years starting in 2016 for new and renewed science and site support infrastructure at the Chalk River Laboratories, with the objective of building a world-class, state-of-the-art nuclear science and technology campus.

Through the GoCo 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 AECL's 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, AECL has asked CNL to provide technical services and research and development products for third parties on a commercial basis.

CNL will focus on eight strategic initiatives to support the government and help commercial clients to tap into new and expanded markets:

- **Long-term reliability of existing reactors:** CNL will support the CANDU fleet of reactors domestically and internationally through work on life-extension and long-term reliability, and support other reactor designs, advanced nuclear materials, fuels research and nuclear chemistry applications.
- **Advanced fuel fabrication:** CNL will develop advanced nuclear fuel concepts to support long-term reactor reliability and the development of advanced reactors. 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 2030, thereby positioning Canada to take a leadership role in this emerging nuclear technology. The objective is for Canada and CNL to leverage their expertise and facilities to position small modular reactors to provide low-carbon, reliable, load-following, scalable and cost-effective energy options to smaller and remote communities, mining and oil sands applications, and to fill other energy gaps and needs that often have a unique Canadian interest.
- **Decarbonizing the transportation sector:** CNL aims to leverage AECL's recent capital investments 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 for cancer treatment:** Targeted alpha therapy is a new area of research in the battle against cancer and other diseases. This therapy focuses tightly on cancer cells with a precision that spares their healthy neighbours.
- **Nuclear cybersecurity:** Cybersecurity of industrial control systems is a growing concern in all industries. In the nuclear industry, it represents a multibillion-dollar worldwide market. A large commercial industry caters to the cybersecurity of information technology systems. However, most solution providers are focused on conventional hacking and data theft. CNL has established a nuclear cybersecurity test facility in Fredericton, New Brunswick, and is 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 domestically and abroad. There is a growing demand from government departments and agencies for 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.
- **Science and technology for advanced environmental sustainability:** CNL works to expand the understanding of the behaviour of contaminant radionuclides, and further develop safe and economical nuclear waste management technologies. The environmental technology capability will 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 to transform the site into a world-class, state-of-the-art nuclear science and technology campus, and enable a vibrant science and technology mission.

During the third quarter, AECL and CNL pursued activities in this respect, presented below.

AECL and CNL signed a series of Memorandum of Understanding with several Canadian universities, with a view to strengthening research collaboration and enable the development of a talent pipeline in the nuclear sector. During the quarter, Memorandum of Understanding were signed with McMaster University, University of Ottawa, and Ontario Tech University.

To further enable research collaboration, CNL issued the fourth intake and call for proposal under the Canadian Nuclear Research Initiative. This initiative, launched in 2019, was created to accelerate the deployment of new innovations, including small modular reactors and advanced reactor designs, next-

generation on-grid reactors and fusion technologies, by connecting reactor vendors with the facilities and expertise at the Chalk River Laboratories. The Initiative was expanded this year to invite applications from Canadian Universities.

CNL announced two partnerships to advance work on fusion technologies: a collaboration agreement with First Light Fusion, and a Memorandum of Understanding with General Fusion. With General Fusion, CNL will be pursuing a series of joint projects to accelerate the deployment of commercial fusion power in Canada, including feasibility studies, regulatory framework, power plant siting and deployment, infrastructure design, and testing and operations support. With First Light Fusion, CNL announced an agreement for collaboration under the Canadian Nuclear Research Initiative, which includes work on the preliminary design of a system capable of extracting tritium from the First Light reactor, as well as the development of tritium processing and storage options.

In December, AECL and CNL broke ground on the new Advanced Nuclear Materials Research Centre at the Chalk River Laboratories. The Advanced Nuclear Materials Research Centre will be a state-of-the-art research complex that will be one of the largest nuclear research facilities ever built in Canada. It will serve as the backbone of the Chalk River Laboratories' research and development infrastructure. The 10,000-square-metre facility will feature 23 laboratories, can accommodate 160 employees and consolidate key capabilities from aging facilities scheduled for decommissioning at the site. It is scheduled for completion in the spring of 2028.

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 waste. AECL has various types of radioactive waste at its sites, including high-level waste (used 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; these now need to be decontaminated and demolished, sites cleaned up and remediated, and the radioactive waste managed properly and safely.

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. This project is one of the largest and most complex environmental projects in Canada.

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 GoCo model, AECL was given a mandate to accelerate these activities to reduce risks and costs for Canada in a safe manner, consistent with international leading practices. Specifically, AECL has asked CNL to propose long-term radioactive waste disposal solutions and to advance other decommissioning activities to reduce its environmental liabilities.

Work has steadily progressed at the Chalk River Laboratories, with 112 buildings decommissioned since 2015. The contaminated materials, demolition debris, and contaminated soil require disposal in a way that protects the environment. CNL has proposed to build a Near Surface Disposal Facility (NSDF) at the Chalk River site. This purpose-built, engineered facility will enable the responsible and safe disposal of AECL's low-level radioactive waste. This includes contaminated items like gloves, protective shoe covers, clothing, rags, mops, equipment, tools, contaminated building material, debris, and soil. Using an internationally accepted and proven method of disposing of low-level radioactive waste, the NSDF would receive waste stored on site and waste created through ongoing remediation and decommissioning activities at all AECL sites. It would also accept waste to be produced by ongoing activities at the Chalk River site.

Progress in environmental stewardship for the third quarter of 2022-23 is presented below.

In Manitoba, CNL continued its work to decommission the Whiteshell Laboratories site, a former nuclear research laboratory. Specialty waste retrieval equipment was assembled at a manufacturing facility in Ontario in preparation for system testing before it is transferred to Manitoba. At the WL site focus has been on preparing the site grounds and roadways for the arrival of the waste retrieval equipment, preparing decommissioning documentation, and commissioning temporary office trailers for use as buildings are decommissioned. A revised draft Environmental Impact Statement for the proposed in situ decommissioning of WR-1 was submitted to the regulator, addressing information requests from federal and provincial reviewers. In December, AECL, CNL and the Sagkeeng First Nation launched the "Nigan Aki" (meaning "land first") program, an environmental monitoring program for the Whiteshell Laboratories site. Developed and administered by the Sagkeeng First Nation, with resources and support provided by AECL and CNL, the program was established to empower Sagkeeng's ability to monitor and steward its territory, and improve understanding of the Whiteshell site and operations, which is located in the Sagkeeng's unceded traditional territory.

At the Chalk River site, CNL continues to maintain their schedule and make excellent progress in decommissioning four of the highest-risk buildings -- Building 250 and the Building 200 series. This work continues to be the most complex decommissioning activities performed at the site. Through its decommissioning work, CNL is making way for the rejuvenation of the Chalk River Laboratories and enabling AECL to achieve its vision of leading Canadian nuclear innovation.

The proposed NSDF entered a phase of deepened engagement with two First Nations under a procedural review issued by the CNSC in July. The review period has been affording AECL and CNL time to advance dialogue with the Kebaowek First Nation and the Kitigan Zibi Anishinabeg First Nation. At the conclusion of the review, which has now been extended to May 1, 2023, AECL and CNL will submit to the CNSC additional information to support its consideration of issues such as the duty to consult, the environmental assessment, and the Chalk River licence amendment application. Similar submissions are expected from the First Nations and CNSC staff.

The Port Hope Area Initiative continued to advance the cleanup of historic low-level radioactive waste in Port Hope, advancing toward AECL's objective of assuring safe long-term waste management contained in an engineered mound. Following a public hearing, the Canadian Nuclear Safety Commission, Canada's independent nuclear regulator, issued a decision to renew the licence for the

Port Hope Project, as part of Port Hope Area Initiative activities, for ten years. The new, single licence consolidates four previous licences for activities related to the Port Hope Area Initiative, authorizing CNL to continue the safe cleanup and management of historic low-level radioactive waste in Port Hope, and the ongoing monitoring and maintenance of the Port Granby Long-Term Waste Management Facility.

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 three and nine months ended December 31, 2022, 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.

Management of Risks and Uncertainties

AECL carefully anticipates and manages risks using sound practices. AECL's risk-management approach encompasses risks both to itself and to CNL's management and operation of AECL sites and facilities. Through ongoing communication between AECL and CNL, plans and activities are monitored to mitigate risks as necessary.

This section highlights some of the risks to AECL and their potential to affect its financial results.

COVID Pandemic: The pandemic presents risks to the safety and security of personnel and the sites, as well as risk of financial impacts. To mitigate risks, AECL and CNL follow comprehensive recovery plans that reflect government and health authority guidance and eased restrictions nationally and abroad. AECL and CNL continue to monitor closely the effect of COVID on near- and long-term revenue, cash flows, project costs, and schedules.

Human Resources: AECL is a small organization that relies on a small complement of highly trained and experienced personnel, several of whom bring both contractor and government experience in managing similar GoCo arrangements. AECL's goal is to maintain the necessary expertise and capabilities to oversee the GoCo contract and achieve value for money for Canada. AECL's small size presents an ongoing challenge to adapt to fluctuating resourcing requirements across the organization and backfill those on short-term leave where appropriate. AECL uses third-party service contracts to ensure that it is staffed effectively and that its people receive cross-training when opportunities arise. A succession plan is in place and is reviewed regularly. Furthermore, AECL regularly reviews its total

compensation package to remain competitive amongst similar employers nationally and internationally.

Contractor Performance: As AECL relies on a private-sector contractor to execute scope related to its mandate, it faces an inherent risk that the contractor may fail to perform. To mitigate this risk, AECL carefully structured its contract with CNL to include incentives to deliver on its priorities and enable performance. AECL sets annual priorities and achievable stretch targets and, throughout the year, evaluates CNL's and its parent companies' performance to highlight strengths and weaknesses, and to afford the opportunity to correct where needed.

Costs to Operate Chalk River Laboratories: The 2018 shutdown of the National Research Universal reactor resulted in lost revenue, including isotope sales, and diminishing funding for the National Research Universal reactor. This created pressures in funding corporate support and site-operating costs. These must be borne by the remaining programs. CNL continues to look to reduce indirect costs to address the pressures, and to examine all long-term options to enable a sustainable organization that protects the environment, health, and safety.

Major Waste Disposal Projects: AECL's mandate includes environmental stewardship and remediation of sites for the benefit of future generations. Three important projects designed to reduce environmental risks and improve environmental protection are proceeding through environmental assessments:

- Construction of the Near Surface Disposal Facility at the Chalk River Laboratories.
- In situ decommissioning of the WR-1 research reactor at the Whiteshell Laboratories site; and,
- In situ decommissioning of the Nuclear Power Demonstration facility in Rolphton, Ontario.

The regulatory environment, as well as engagement of the public and Indigenous communities, are key to the projects' success. With project schedules being extended, this has allowed CNL with adequate time to consider stakeholders' comments and concerns, and to accommodate requests from the regulator for additional technical studies. These schedule changes have held back plans for large-scale cleanup and remediation activities at the Chalk River Laboratories, but they have also allowed for more public and Indigenous engagement, and for the development of additional safety studies.

Indigenous Engagement and Consultation: AECL faces increasing needs to support capacity development, to conduct traditional knowledge studies, and to participate in regulatory processes and environmental monitoring. CNL also continues its outreach activities across all sites. AECL is engaged with Indigenous communities in building meaningful and mutually beneficial relationships, recognizing that these take time, and that its success depends on the strength of these relationships. AECL and CNL work closely together to increase participation, collaboration and mutual benefit with Indigenous communities. AECL is reinforcing its Indigenous engagement program and oversight activities.

Public Relations: AECL depends on the support of key stakeholders, including government and the public. It looks for relationship-building opportunities, and innovative and effective means to reach its audiences. Working with CNL, AECL uses clear messaging and a variety of communications tools to reach key audiences more effectively.

Cybersecurity: AECL takes a two-fold approach to cybersecurity risk: cybersecurity within its own organization and CNL's cybersecurity efforts to protect AECL's information assets. AECL and CNL work continuously to improve cybersecurity capabilities, with a focus on training and adaptation.

Financial Review

(\$ millions)	Three Months Ended		Nine Months Ended	
	December 31		December 31	
	2022	2021	2022	2021
Revenues				
Parliamentary appropriations	\$ 278	\$ 214	\$ 708	\$ 608
Commercial revenue	30	32	102	98
Interest income	5	1	10	2
Other proceeds	-	-	7	7
	313	247	827	715
Expenses				
Cost of sales	19	21	63	64
Operating expenses	14	38	48	72
Contractual expenses	49	47	196	187
Decommissioning, waste management and contaminated sites expenses	144	309	308	479
	226	415	615	802
Surplus (deficit) for the period	\$ 87	\$ (168)	\$ 212	\$ (87)

Parliamentary Appropriations

The Government of Canada provides funding quarterly for AECL to advance its priorities and deliver on its mandate. AECL recognized \$278 million of Parliamentary appropriations in the third quarter of 2022-23, compared to \$214 million in the same period in 2021-22. On a year-to-date basis, AECL recognized \$708 million in Parliamentary appropriations, compared to \$608 million for the same period in 2021-22. The quarterly and year-to-date variance is due largely to an increase in funding required to execute decommissioning, remediation, and waste management activities, as well as increased spending toward Chalk River infrastructure, as planned.

Commercial Revenue

In the third quarter of 2022-23, \$30 million in revenue was recognized, compared to \$32 million for the same period in 2021-22. On a year-to-date basis, revenues were \$102 million, compared to \$98 million in 2021-22. Revenue included research and development activities performed by CNL for commercial customers, as well as heavy water sales. The year-to-date increase in commercial revenue is a result of increased heavy water sales.

Interest Income

Interest income is earned on cash, short-term investments from appropriations and investments held in trust. Interest income earned has increased compared to the prior periods due to higher market interest rates.

Other Proceeds

Other proceeds relate to a commercial settlement recorded during the first quarter.

Cost of Sales

Cost of sales is consistent with the commercial revenues 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 \$14 million and year-to-date of \$48 million are lower than the same periods in 2021-22 due to an accrual of \$20 million for a commercial settlement in the prior year.

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 the 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 \$49 million, compared to \$47 million in the third quarter of 2021-22. Year-to-date expenses in this category total \$196 million compared to \$187 million in the previous period in 2021-22. The variance is largely a result of increased spending on science and technology activities.

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. Revaluation gains and losses represent changes to the estimates for the reported obligations. Decommissioning, waste

management and contaminated sites expenses in the third quarter of 2022-23 of \$144 million and year-to-date of \$308 million are lower than the same periods in 2021-22 due to approved changes to project estimates recorded in the prior year.

Surplus (Deficit) for the Period

Consistent with AECL's financial reporting framework, appropriations are recognized as revenue when received in a given period, or as deferred funding to the extent they relate to the months following the period end, 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 2022-23 year-to-date expenditures are generally comparable to the planned results. As such, AECL is on track to meet its commitments within budget. Priorities and deliverables have not materially changed in the first nine months of 2022-23.

Cash Flow and Working Capital

<i>(\$ millions)</i>	Nine Months Ended	
	December 31	
	2022	2021
Cash provided by operating transactions	\$ 276	\$ 377
Cash applied to capital transactions	(106)	(70)
Cash applied to investing transactions	(80)	(15)
Increase in cash	90	292
Balance at beginning of the period	262	145
Balance at end of the period	\$ 352	\$ 437

Operating Transactions

Operating transactions generated a net cash inflow of \$276 million in the third quarter of 2022-23, compared to an inflow of \$377 million during the same period of the previous year. The variance is a result of higher appropriations received in the third quarter of 2021-22 for fourth quarter activities as well as amounts receivable from a previous period. Refer to Note 9 of the unaudited financial statements for a reporting on how appropriations received were used during the period.

Capital Transactions

Capital transactions used cash in the third quarter of 2022-23 of \$106 million compared to \$70 million in the same period in the previous year. The variance is a result of increased spending in the current year toward newly built Chalk River site infrastructure.

Investing Transactions

The \$80 million cash used in investing transactions in the third quarter of 2022-23 was higher than the \$15 million in the same period in the prior year. The increase is primarily due to increased investment in short-term investments during the year.

Highlights of the Statement of Financial Position

(\$ millions)	December 31	March 31	Variance	Variance
	2022	2022	In \$	By %
Financial Assets	\$ 716	\$ 597	\$ 119	20%
Liabilities	9,109	9,117	(8)	0%
Non-Financial Assets	930	849	81	10%
Accumulated Deficit	(7,462)	(7,671)	209	-3%

AECL closed the third quarter of 2022-23 with Financial Assets of \$716 million, which represents a \$119 million increase from March 31, 2022. This variance is mainly the result of an increase in cash from receiving the fourth quarter funding before the end of the third quarter.

The decrease in Liabilities of \$68 million can be attributed primarily to a \$222 million decrease in Decommissioning, waste management and contaminated sites liabilities, partly offset by an increase in deferred funding for the fourth quarter.

Use of Parliamentary Appropriations

AECL receives its funding primarily through Parliamentary appropriations. The appropriations are drawn down based on quarterly cash flow projections and may not necessarily match the timing of expenses reported in the Statement of Operations and Accumulated Deficit. AECL records Parliamentary appropriations received in the period as revenue in the Statement of Operations and Accumulated Deficit or as Deferred funding in the Statement of Financial Position to the extent they relate to the months following the period end. Refer to Note 9 of the unaudited financial statements for a reporting on how appropriations received were used during the period.

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's Directive on Accounting Standards: GC 5200 Crown Corporations Quarterly Financial Reports, 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.



Fred Dermarkar

President and Chief Executive Officer

February 21, 2023

Chalk River, Canada



Thomas Assimes

Chief Financial Officer

February 21, 2023

Chalk River, Canada

UNAUDITED FINANCIAL STATEMENTS

Statement of Financial Position

As at

<i>(thousands of Canadian dollars)</i>	Notes	December 31 2022	March 31 2022
Financial Assets			
Cash		\$ 352,157	\$ 262,095
Short-term investments		153,064	71,707
Long-term disposal of waste fund		32,331	29,890
Investments held in trust		72,164	73,858
Trade and other receivables	3	41,087	65,436
Inventories held for resale		65,468	93,893
		716,271	596,879
Liabilities			
Accounts payable and accrued liabilities	4	29,612	38,158
Employee future benefits	5	13,750	14,557
Due to Canadian Nuclear Laboratories		198,077	190,280
Deferred funding	9	214,800	-
Decommissioning and waste management provision	6	7,257,483	7,342,841
Contaminated sites liability	7	1,395,059	1,531,318
		9,108,781	9,117,154
Net Debt		(8,392,510)	(8,520,275)
Non-Financial Assets			
Tangible capital assets	8	930,299	848,730
Prepaid expenses		-	143
		930,299	848,873
Accumulated Deficit		(7,462,211)	(7,671,402)
Accumulated deficit is comprised of:			
Accumulated operating deficit		(7,456,742)	(7,668,887)
Accumulated remeasurement losses		(5,469)	(2,515)
		\$ (7,462,211)	\$ (7,671,402)

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

Statement of Operations and Accumulated Deficit

(thousands of Canadian dollars)	Notes	2023	Three Months Ended		Nine Months Ended	
		Budget	December 31 2022	December 31 2021	December 31 2022	December 31 2021
Revenues						
Parliamentary appropriations	9	\$ 1,326,160	\$ 277,700	\$ 213,800	\$ 707,900	\$ 607,749
Commercial revenue		95,300	30,242	32,692	101,940	98,049
Interest income		4,000	5,174	922	10,279	2,553
Other proceeds		-	-	-	7,000	7,050
		1,425,460	313,116	247,414	827,119	715,401
Expenses						
Cost of sales		66,710	18,927	20,912	62,852	64,269
Operating expenses		68,894	13,761	38,436	47,925	72,186
Contractual expenses	10	219,265	48,985	46,573	196,643	187,177
Decommissioning, waste management and contaminated sites expenses		294,596	144,334	309,442	307,554	479,233
		649,465	226,007	415,363	614,974	802,865
Surplus (deficit) for the period		775,995	87,109	(167,949)	212,145	(87,464)
Accumulated operating deficit, beginning of period		(7,668,887)	(7,543,851)	(6,954,431)	(7,668,887)	(7,034,916)
Accumulated operating deficit, end of period		\$ (6,892,892)	\$ (7,456,742)	\$ (7,122,380)	\$ (7,456,742)	\$ (7,122,380)

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

Statement of Remeasurement Gains and Losses

<i>(thousands of Canadian dollars)</i>	Nine Months Ended	
	2022	December 31 2021
Accumulated remeasurement (losses) gains, beginning of period	\$ (2,515)	\$ 1,621
Remeasurement losses arising during the period		
Unrealized losses on Investments held in trust	(2,966)	(129)
Reclassifications to the Statement of Operations and Accumulated Deficit		
Realized losses on Investments held in trust	12	118
Net remeasurement losses for the period	(2,954)	(11)
Accumulated remeasurement (losses) gains, end of period	\$ (5,469)	\$ 1,610

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

Statement of Change in Net Debt

<i>(thousands of Canadian dollars)</i>	Notes	Nine Months Ended		
		2023 Budget	December 31	
			2022	2021
Surplus (deficit) for the period		\$ 775,995	\$ 212,145	\$ (87,464)
Tangible capital assets				
Acquisition of tangible capital assets	8	(147,000)	(116,435)	(73,915)
Amortization of tangible capital assets	8	49,363	34,757	36,483
Other changes	8	-	109	412
		(97,637)	(81,569)	(37,020)
Non-financial assets				
Changes in prepaid expenses		-	143	444
Net remeasurement losses for the period		-	(2,954)	(11)
Decrease (increase) in net debt		678,358	127,765	(124,051)
Net debt, beginning of period		(8,520,275)	(8,520,275)	(7,820,558)
Net debt, end of period		\$ (7,841,917)	\$ (8,392,510)	\$ (7,944,609)

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

Statement of Cash Flows

	Nine Months Ended December 31	
<i>(thousands of Canadian dollars)</i>	2022	2021
Operating transactions		
Cash receipts from Parliamentary appropriations	\$ 922,700	\$ 1,001,150
Cash receipts from customers and other sources	133,241	103,249
Cash paid to suppliers	(246,041)	(247,135)
Cash paid to employees	(10,257)	(9,116)
Cash paid for decommissioning, waste management and contaminated sites activities	(529,171)	(471,189)
Cash designated for future waste management and disposal activities	(1,800)	(1,463)
Interest received	7,199	1,124
Cash provided by operating transactions	275,871	376,620
Capital transactions		
Acquisition of tangible capital assets	(105,480)	(70,211)
Cash applied to capital transactions	(105,480)	(70,211)
Investing transactions		
Cash invested in short-term investments	(80,329)	(15,000)
Cash applied to investing transactions	(80,329)	(15,000)
Increase in cash	90,062	291,409
Cash, beginning of period	262,095	145,097
Cash, end of period	\$ 352,157	\$ 436,506

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, 2023

(Expressed in thousands of Canadian dollars)

(Unaudited)

1. General Information

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 His Majesty in Right of Canada. As a result, AECL's liabilities are ultimately liabilities of His Majesty in Right of Canada. AECL receives funding from the Government of Canada and is exempt from income taxes in Canada.

AECL's 2022-2023 to 2026-2027 Corporate Plan received Treasury Board approval in the second quarter of the 2022-23 fiscal year. The Corporate Plan is aligned with the direction provided by AECL's sole shareholder, the Government of Canada, and reflects AECL's plans and priorities to be delivered 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, 2022. The accounting policies used in these statements are consistent with those disclosed in the most recent annual audited financial statements dated March 31, 2022.

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 regularly 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 2022-23 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 2022-23 projections and estimates contained within the 2022-23 to 2026-27 Corporate Plan. The 2022-23 budget figures reflect the pandemic's expected impact on AECL's results.

3. Trade and Other Receivables

<i>(thousands of Canadian dollars)</i>	December 31 2022	March 31 2022
Trade receivables	\$ 16,943	\$ 25,159
Unbilled revenue	11,278	13,321
Consumption taxes receivable	12,866	13,956
Other proceeds	-	13,000
	\$ 41,087	\$ 65,436

Other proceeds relate to a commercial settlement.

4. Accounts Payable and Accrued Liabilities

<i>(thousands of Canadian dollars)</i>	December 31	March 31
	2022	2022
Trade payables	\$ 2,018	\$ 1,640
Other payables and accrued expenses	21,346	25,544
Accrued payroll liabilities	1,486	1,960
Amounts due to related parties	544	248
Provisions	165	4,665
Customer advances and obligations	4,053	4,101
	\$ 29,612	\$ 38,158

Provisions are short-term in nature and are not discounted and include estimated costs related to lawsuits and 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:

<i>(thousands of Canadian dollars)</i>	Three Months Ended		Nine Months Ended	
	December 31		December 31	
	2022	2021	2022	2021
Payments by employees	\$ 232	\$ 212	\$ 719	\$ 677
Payments by employer	326	285	1,534	1,131

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 and other post-employment benefits as described in Note 2(h) of the annual audited financial statements dated March 31, 2022. 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 voluntary termination compensation included in the reported Employee future benefits liability is \$5.5 million (March 31, 2022: \$5.7 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 to address its liabilities, reduce risk, and protect the environment. A portion of the liabilities relates to obligations stemming from activities undertaken prior to the creation of AECL in 1952.

	Nine Months Ended December 31 2022	Year Ended March 31 2022
<i>(thousands of Canadian dollars)</i>		
Carrying amount - Beginning of year	\$ 7,342,841	\$ 7,362,192
Liabilities settled	(369,431)	(452,745)
Unwinding of discount	208,023	279,399
Revision in estimate and timing of expenditures	74,247	150,307
Estimates affecting Property, plant and equipment and future disposal costs for waste from ongoing operations	1,803	3,688
Carrying amount - End of year	\$ 7,257,483	\$ 7,342,841

The undiscounted future expenditures, adjusted for inflation, for the planned activities comprising the liability are \$15,481.9 million (March 31, 2022: \$15,840.1 million).

The provision was discounted using a rate of 3.78% as at December 31, 2022 and March 31, 2022.

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.

	Nine Months Ended December 31 2022	Year Ended March 31 2022
<i>(thousands of Canadian dollars)</i>		
Carrying amount - Beginning of year	\$ 1,531,318	\$ 790,190
Liabilities settled	(161,545)	(204,294)
Unwinding of discount	25,286	15,057
Revision in estimate and timing of expenditures	-	930,365
Carrying amount - End of year	\$ 1,395,059	\$ 1,531,318

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 2030-31, with long-term monitoring and maintenance expected to continue for 100 years after implementation.

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.

The liability is discounted using net present value techniques at a rate of 2.20%. The estimated total undiscounted expenditures are \$1,528.0 million (March 31, 2022: \$1,689.5 million).

8. Tangible Capital Assets

(thousands of Canadian dollars)

	Construction in progress	Land and land improvements	Buildings	Machinery and Equipment	Total
Cost at March 31, 2022	\$ 215,455	\$ 153,164	\$ 588,398	\$ 515,098	\$ 1,472,115
Additions and transfers	116,435	961	2,065	8,995	128,456
Disposals and transfers	(12,021)	-	(82)	(1,764)	(13,867)
Cost at December 31, 2022	319,869	154,125	590,381	522,329	1,586,704
Accumulated amortization at March 31, 2022	-	58,003	246,659	318,723	623,385
Increase in amortization	-	4,117	11,258	19,382	34,757
Disposals and transfers	-	-	(82)	(1,694)	(1,776)
Other changes	-	-	39	-	39
Accumulated amortization at December 31, 2022	-	62,120	257,874	336,411	656,405
Net carrying amount at March 31, 2022	215,455	95,161	341,739	196,375	848,730
Net carrying amount at December 31, 2022	\$ 319,869	\$ 92,005	\$ 332,507	\$ 185,918	\$ 930,299

9. Parliamentary Appropriations

	Three Months Ended December 31		Nine Months Ended December 31	
(thousands of Canadian dollars)	2022	2021	2022	2021

Parliamentary appropriations for operating, capital and statutory expenditures

Amount received during the period for operating, capital and statutory expenditures	\$ 492,500	\$ 270,800	\$ 922,700	\$ 1,001,150
Amount receivable from a previous period	-	-	-	(122,601)
Amount deferred from the previous period	-	213,800	-	-
Amount received related to the next period (Deferred funding)	(214,800)	(270,800)	(214,800)	(270,800)
Total Parliamentary appropriations recognized	\$ 277,700	\$ 213,800	\$ 707,900	\$ 607,749

The difference between Parliamentary appropriations received and recognized 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, 2023 total \$1,326.6 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		Nine Months Ended	
	December 31		December 31	
<i>(thousands of Canadian dollars)</i>	2022	2021	2022	2021
Contractual amounts paid or payable	\$ 292,020	\$ 243,601	\$ 875,427	\$ 771,180
Less: Costs charged to Decommissioning and waste management provision and Contaminated sites liability	(175,891)	(156,663)	(528,876)	(470,635)
Less: Costs charged to Construction in progress	(55,204)	(27,743)	(116,435)	(73,915)
Less: Costs classified as Cost of sales	(11,940)	(12,622)	(33,473)	(39,453)
Contractual expenses	\$ 48,985	\$ 46,573	\$ 196,643	\$ 187,177

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

11. Comparative Figures

Certain of the December 31, 2021 comparative figures have been reclassified to conform to the financial statement presentation adopted in the 2022-23 fiscal year.



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