2022

ANNUAL REPORT

BWX Technologies, Inc.

Financial Highlights

($ in millions, except per share amounts)	2020	2021	2022
Revenue	$2,124	$2,124	$2,233
Net Income			
GAAP	$279	$306	$239
Non-GAAP*	$290	$290	$288
EPS			
GAAP	$2.91	$3.24	$2.60
Non-GAAP*	$3.03	$3.06	$3.13
Adjusted EBITDA*	$427	$418	$439
Cash Returned to Shareholders			
Dividends	$73	$80	$81
Share Repurchases	$22	$226	$20

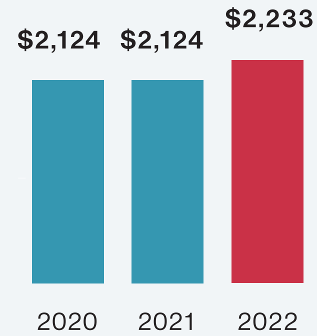
TOTAL SHAREHOLDER RETURN INCREASE IN 2022

23.3% 1-year increase from 2021

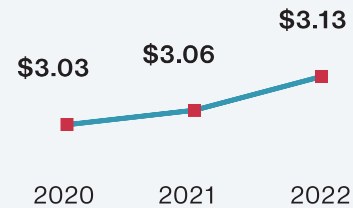
At BWX Technologies, Inc. (NYSE: BWXT), we are People Strong, *Innovation Driven*.® Headquartered in Lynchburg, Virginia, BWXT is a Fortune 1000 and Defense News Top 100 manufacturing and engineering innovator that provides safe and effective nuclear solutions for global security, clean energy, environmental restoration, nuclear medicine and space exploration. With approximately 7,000 employees, BWXT has 14 major operating sites in the U.S., Canada and the U.K. In addition, BWXT joint ventures provide management and operations at a dozen U.S. Department of Energy and NASA facilities.

BWXT®
BWX Technologies, Inc.

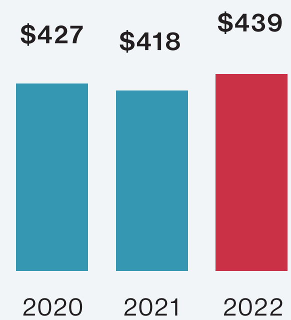
* Non-GAAP figures exclude any mark-to-market adjustment for pension and postretirement benefits recognized and other one-time items. A reconciliation of non-GAAP to comparable GAAP figures can be found at the end of this annual report.



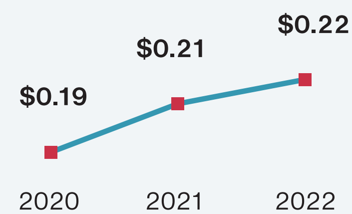
Revenue
In millions



Non-GAAP EPS*



Adjusted EBITDA*
In millions



Quarterly Dividend Per Share

Performance Highlights

Awarded third TRISO fuel contract, valued at $4.9 million, to manufacture TRISO nuclear fuel

JAN

- Announced $1 billion in Naval Nuclear Propulsion Program options
- Streamlined reporting segment structure to better reflect operations, improve efficiency and position ourselves for strategic growth

FEB

Awarded CA$73 million contract in support of Bruce Power's Major Component Replacement (MCR) Project

MAR

Selected to participate in the U.S. Department of Energy's (DOE) Advanced Reactor Demonstration Program

APR

Selected as one of the world's top 100 most transparent companies by Transparency Global

MAY

- Selected by the U.S. Department of Defense Strategic Capabilities Office to build the first advanced nuclear microreactor in the United States
- BWXT Medical executed agreements to manufacture and supply high purity actinium-225

JUNE

Sharon H. Smoot appointed as president of BWXT Nuclear Operations Group

JULY

Awarded CA$130 million component manufacturing contract in support of Bruce Power's MCR Project

AUG

BWXT Medical submitted Tc-99m generator new drug application to the U.S. Food and Drug Administration

SEPT

Virginia Governor highlighted BWXT as a crucial nuclear company during rollout of new energy plan

OCT

John MacQuarrie, President of Commercial Operations, was awarded the Ally of the Year Award by Women in Nuclear (WiN) Canada

NOV

Hosted officials from the U.S. Department of Defense Strategic Capabilities Office, Idaho National Laboratory, U.S. DOE and NASA to celebrate our advances in the production of TRISO and other specialty nuclear fuels

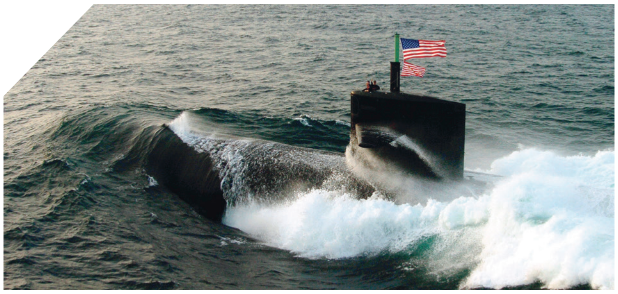
DEC

Dear Shareholders

We have just completed a remarkable year characterized by accelerating growth and the achievement of key strategic milestones. We reported full-year 2022 revenue at a record $2.23 billion while reducing capital expenditures to under $200 million even as we sustained critical investments to lay the foundations for future organic growth.

GLOBAL SECURITY, DEFENSE AND SPACE MISSIONS

We announced about $1 billion in option orders for the core Navy nuclear franchise. We certified and shipped some of the first items for the Columbia program and continued steady production for Virginia-class and Ford-class components. We also announced a strategic acquisition that expands our global security mission. It consists of two businesses, Dynamic Controls Ltd. and Cunico, which specialize in naval component manufacturing. The acquisition enables BWXT to participate more fully in the U.S. and U.K. Navy supply chains. On a related topic, we eagerly anticipate the announcement of decisions for the AUKUS trilateral security agreement, as those decisions could lead to new growth in our core naval nuclear propulsion business.



BWXT was selected by the U.S. Department of Defense (DOD) Strategic Capabilities Office (SCO) to build the first advanced microreactor in the U.S. under Project Pele. The contract, valued at about $300 million, is for the fabrication of a full-scale microreactor prototype that can provide a power source to the DOD for various operational needs. We plan to deliver the reactor prototype to Idaho National Laboratory in 2025, where it will be fueled and tested.

We also celebrated the landmark production of TRISO nuclear fuel that will power this next-generation microreactor, downblended from high-enriched uranium, at one of our two U.S. NRC Category 1 licensed facilities.

Interest is growing in the long-duration exploration of the moon and eventual travel to Mars. We continued to invest in space nuclear power and propulsion. Our team is strategically positioned to meet the performance objectives for lunar and deep-space applications. Partnered with Lockheed Martin, BWXT was one of three groups awarded a 12-month contract to develop a preliminary design for a fission power system for the lunar surface.

NASA and the Defense Advanced Research Projects Agency (DARPA) announced their collaboration to demonstrate a nuclear thermal rocket engine in cislunar space and to enable an eventual crewed mission to Mars. We have been performing manufacturing development and testing for this application and are well-positioned to compete in the demonstration mission and beyond.

A CLEAN ENERGY FUTURE

Sentiments around commercial nuclear power are improving significantly owing to decarbonization efforts and the increasing focus on energy security in light of geopolitical instabilities. In 2022, we received a new contract from GE-Hitachi to design the BWRX-300 small modular reactor pressure vessel. This reactor has broad interest from around the globe.

We also received a contract valued at approximately $100 million for major component replacements for five of Bruce Power's reactors. Production manufacturing is expected to complete in 2031.

BWXT continues to be a leading provider of environmental management services to the U.S. Department of Energy (DOE) and is a leading company in cleaning up cold war legacy sites across the United States. We completed the transition and began normal operations in a remediation contract for the Savannah River Site in South Carolina. Leveraging our unique nuclear knowledge and site management capabilities, we look forward to executing this critical mission for the DOE. We have also submitted an offer to manage waste tank operations at the Hanford DOE site in Richland, Washington.

GROWING NUCLEAR MEDICINE PORTFOLIO

We have positioned our nuclear medicine business as a leading global manufacturer of isotopes, and 2022 has been an exciting year of growth and portfolio expansion. We announced an agreement to supply Bayer with high-purity actinium-225, a radioisotope for targeted cancer therapies that improve patient outcomes. We partnered with Fusion Pharmaceuticals for the same isotope to be paired with other new cancer therapeutic drugs. We are also making substantial progress on other prominent therapeutic isotopes, including lutetium-177.

We submitted a new drug application to the U.S. Food and Drug Administration (FDA) for our technetium-99m (Tc-99m) generator for diagnostic imaging to detect illnesses like cancer and heart disease. In a related matter, we installed the Target Delivery System at Ontario Power Generation’s Darlington site. This system will produce large quantities of irradiated molybdenum-99 (Mo-99), which decays to Tc-99m for use in our generators.

Looking to the near future, we see our nuclear medicine business growing rapidly and expect to expand our portfolio to more than a dozen products.

FUTURE-FOCUSED

BWXT remains uniquely positioned to deliver on our global security, clean energy, and other nuclear technology-driven missions because of our unparalleled history, unique and existential capabilities, and our highly-skilled and credentialed workforce. All our markets are growing as the demand for nuclear solutions strengthens.

Despite challenging macroeconomic conditions and increasing competitive pressure, I am highly energized about our entire business and confident about our future. In 2023, we project another year of top-line growth as we expect to move through inflection points in free cash flow and returns on invested capital.

Furthermore, we expect 2023 to be another milestone year for BWXT as we capture key programs, establish new product lines and build upon our core businesses.

REX D. GEVEDEN

PRESIDENT AND CHIEF EXECUTIVE OFFICER

Top: Savannah River Site, Saltstone Production Facility.

Middle: BWXT Medical hot cell facility.

Bottom: BWXT Canada component manufacturing facility.

“All our markets are growing as the demand for nuclear solutions strengthens.”

Corporate Information

BOARD OF DIRECTORS

Jan A. Bertsch (4)
Independent Board Chair

Rex D. Geveden
President, CEO and Director

Gerhard F. Burbach (2)*
Director

James A. Jaska (1) (3)*
Director

Kenneth J. Krieg (2)
Director

Leland D. Melvin (2)
Director

Robert L. Nardelli (1) (3)
Director

Barbara A. Niland (1)* (3)
Director

John M. Richardson (1) (2)
Director

(1) **Audit and Finance Committee**
(2) **Compensation Committee**
(3) **Governance Committee**
(4) ***Ex officio* member of each Committee**

* **Committee Chair**

OFFICERS

Rex D. Geveden
President and
Chief Executive Officer

Robb A. LeMasters
Senior Vice President
and Chief Financial Officer

Robert (Bob) L. Duffy
Senior Vice President
and Chief Administrative Officer

Omar F. Meguid
Senior Vice President
and Chief Digital Officer

Suzanne (Suzy) C. Sterner
Senior Vice President and
Chief Corporate Affairs Officer

Ronald (Chip) O. Whitford, Jr.
Senior Vice President,
General Counsel,
Chief Compliance Officer and
Corporate Secretary

Kevin M. McCoy
President
Government Operations

John R. MacQuarrie
President
Commercial Operations

Jonathan W. Cirtain, Ph.D.
Senior Vice President
and Chief Development Officer
and President and CEO
BWXT Medical Ltd.

Sharon H. Smoot
President
Nuclear Operations Group

Heatherly H. Dukes
President
Technical Services Group

Joseph K. Miller
President
BWXT Advanced Technologies LLC,
Cunico, Dynamic Controls Ltd.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2022.
OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from __________ to __________.

Commission File Number 001-34658

BWX TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)

Delaware	**80-0558025**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
800 Main Street, 4th Floor **Lynchburg, Virginia**	**24504**
(Address of principal executive offices)	**(Zip Code)**

Registrant's Telephone Number, Including Area Code: (980) 365-4300

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value	BWXT	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the registrant's common stock held by nonaffiliates of the registrant on the last business day of the registrant's most recently completed second fiscal quarter (based on the closing sales price on the New York Stock Exchange on June 30, 2022) was approximately $5.0 billion.

The number of shares of the registrant's common stock outstanding at February 21, 2023 was 91,282,718.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the 2023 Annual Meeting of Stockholders to be held on May 3, 2023 are incorporated by reference into Part III of this Form 10-K.

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BWX TECHNOLOGIES, INC.
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PART III

PART IV

Statements we make in this Annual Report on Form 10-K ("Report"), which express a belief, expectation or intention, as well as those that are not historical fact, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to various risks, uncertainties and assumptions, including those to which we refer under the heading "Cautionary Statement Concerning Forward-Looking Statements" in Item 1 and throughout Item 1A of this Report. In this Report, unless the context otherwise indicates, "we," "us" and "our" mean BWX Technologies, Inc. ("BWXT" or the "Company") and its consolidated subsidiaries.

PART I

Item 1. BUSINESS

General

BWX Technologies, Inc. is a specialty manufacturer of nuclear components, a developer of nuclear technologies and a service provider with an operating history of more than 100 years. Our core businesses focus on the design, engineering and manufacture of precision naval nuclear components, reactors and nuclear fuel for the U.S. Government. We also provide special nuclear materials processing, environmental site restoration services, products and services to customers in the nuclear power industry, critical medical radioisotopes and radiopharmaceuticals and other advanced nuclear technologies. While we provide a wide range of products and services, our business segments are heavily focused on major projects. At any given time, a relatively small number of projects can represent a significant part of our operations.

Business Segments

We operate in two reportable segments: Government Operations and Commercial Operations. Our reportable segments reflect changes we made during the first quarter of 2022 to better align our businesses by their government and commercial nature, which reflects the manner in which our operating segment information is reported for purposes of assessing operating performance and allocating resources. Prior to 2022, we reported three segments: Nuclear Operations Group, Nuclear Power Group and Nuclear Services Group.

Our Government Operations segment consists of our legacy Nuclear Operations Group and Nuclear Services Group segments with certain research and development activities in the areas of advanced reactors and advanced manufacturing. Our Commercial Operations segment consists of our legacy Nuclear Power Group segment with certain research and development and commercialization activities in the areas of medical and industrial radioisotopes and radiopharmaceuticals. Both segments now include research and development and certain commercialization activities associated with new technologies previously reported outside of our reportable segments. The change in our reportable segments had no impact on our previously reported consolidated results of operations, financial condition or cash flows. We have applied the change in reportable segments to previously reported historical financial information and related disclosures included in this Report.

For financial information regarding each of our segments and financial information regarding geographic areas, see Note 15 and Note 3 to our consolidated financial statements included in this Report. For further details regarding each segment's facilities, see Item 2 of this Report. In general, we operate in capital-intensive industries and rely on large contracts for a substantial amount of our revenues. We are currently exploring growth strategies across our segments through strategic investments and acquisitions to expand and complement our existing businesses. We would expect to fund these opportunities with cash generated from operations or by raising additional capital through debt, equity or some combination thereof.

Government Operations

Through this segment, we engineer, design and manufacture precision naval nuclear components, reactors and nuclear fuel for the U.S. Department of Energy ("DOE")/National Nuclear Security Administration's ("NNSA") Naval Nuclear Propulsion Program. In addition, we perform fabrication activities for missile launch tubes for U.S. Navy submarines and supply proprietary and sole-source valves, manifolds and fittings to global naval and commercial shipping customers.

Our Government Operations segment specializes in the design and manufacture of close-tolerance and high-quality equipment for nuclear applications. In addition, we are a leading manufacturer of critical nuclear components, fuels and assemblies for government and limited other uses. We have supplied nuclear components for DOE programs since the 1950s and are the largest domestic supplier of research reactor fuel elements for colleges, universities and national laboratories. We also downblend Cold War-era government stockpiles of high-enriched uranium. In addition, we have over 100 years of experience in supplying components for defense applications.

We work closely with the DOE-supported nuclear non-proliferation program. Currently, this program is assisting in the development of a high-density, low-enriched uranium fuel required for high-enriched uranium test reactor conversions. We have also been a leader in the receipt, storage, characterization, dissolution, recovery and purification of a variety of uranium-bearing materials. All phases of uranium downblending and uranium recovery are performed at our Lynchburg, Virginia and Erwin, Tennessee sites.

The demand for nuclear components by the U.S. Government determines a substantial portion of this segment's backlog. We expect that orders for nuclear components will continue to be a significant part of backlog for the foreseeable future. In April 2022, the U.S. Navy issued its 30-year shipbuilding plan containing three alternative procurement profiles based upon varied funding assumptions. All three indicate growth in the total number of ships and a sustained, or increased, procurement profile for nuclear-powered submarines and aircraft carriers. While the current presidential administration may make further changes with its fiscal year 2024 budget submission, we have made additional capital expenditures and investments in personnel to meet the current demand requirements and we expect to continue making such expenditures and investments.

This segment also provides various services to the U.S. Government by managing and operating high-consequence operations at U.S. nuclear weapons sites, national laboratories and manufacturing complexes. The revenues and equity in income of investees under these types of contracts are largely a function of spending by the U.S. Government and the performance scores we and our consortium partners earn in managing and operating these sites. With our specialized capabilities of full life-cycle management of special materials, facilities and technologies, we believe this segment is well-positioned to continue participating in the ongoing cleanup, operation and management of critical government-owned nuclear sites, laboratories and manufacturing complexes maintained by the DOE, NASA and other federal agencies.

The Government Operations segment is also a leader in the development of advanced nuclear reactors for a variety of power and propulsion applications in the space and terrestrial domains. U.S. Government customers for these applications include NASA, the U.S. Department of Defense ("DoD") and the DOE. We offer complete advanced nuclear fuel and reactor design and engineering, licensing, and manufacturing services for these programs.

Commercial Operations

Through this segment, we design and manufacture commercial nuclear steam generators, heat exchangers, pressure vessels, reactor components and other auxiliary equipment, including containers for the storage of spent nuclear fuel and other high-level nuclear waste. We have supplied the nuclear industry with more than 1,300 large, heavy components worldwide and are the only commercial heavy nuclear component manufacturer in North America. This segment is also a leading supplier of nuclear fuel, fuel handling systems, tooling delivery systems, nuclear-grade materials and precisely machined components, and related services for CANDU nuclear power plants. This segment also provides a variety of engineering and in-plant services and is a significant supplier to nuclear power utilities undergoing major refurbishment and plant life extension projects. Our in-depth knowledge comes from over 50 years of experience in the design, manufacturing, commissioning and service of nuclear power generation equipment.

Our Commercial Operations segment specializes in performing full-scope, prototype design work coupled with manufacturing integration. This segment's capabilities include:

- steam generation and separation equipment design and development;
- thermal-hydraulic design of reactor plant components;
- in-plant inspection, maintenance and modification services;
- nuclear component modification and replacement;
- commercial nuclear fuel manufacturing and design;
- nuclear fuel handling system design, manufacturing, delivery, installation and commissioning;
- containers for the storage of spent nuclear fuel and other high-level waste;
- structural and thermal-hydraulic design and vibration analysis for heat exchangers;
- structural component design for precision manufacturing;
- materials expertise in high-strength, low-alloy steels and nickel-based materials;

- material procurement of tubing, forgings and weld wire; and
- metallographic and chemical analysis.

This segment also manufactures and supplies products for diagnostic imaging and radiotherapeutic treatments. It is also a partner for contract development and manufacturing services for life science and pharmaceutical companies. Among its offerings is the manufacture of medical radioisotopes, radiopharmaceuticals and medical devices, as well as partnerships with life science and pharmaceutical companies developing new drugs.

Our Commercial Operations segment's overall activity primarily depends on the demand and competitiveness of nuclear energy and the demand for critical medical radioisotopes and radiopharmaceuticals. A significant portion of our Commercial Operations segment's operations depends on the timing of maintenance outages and the cyclical nature of capital expenditures and major refurbishments for nuclear utility customers, principally in the Canadian market, which could cause variability in our financial results.

Acquisitions and Divestitures

Acquisition of Dynamic Controls Limited and Citadel Capital Corporation

On April 11, 2022, our subsidiary BWXT Government Group, Inc. acquired all of the outstanding stock of U.K.-based Dynamic Controls Limited ("Dynamic") and U.S.-based Citadel Capital Corporation, along with its wholly-owned subsidiary, Cunico Corporation ("Cunico"). Dynamic and Cunico are suppliers of highly-engineered, proprietary valves, manifolds and fittings for global naval nuclear and diesel-electric submarines, surface warfare ships and commercial shipping vessels. These companies are reported as part of our Government Operations segment.

Acquisition of Laker Energy Products Ltd.

On January 2, 2020, our subsidiary BWXT Canada Ltd. acquired Laker Energy Products Ltd., which was renamed BWXT Precision Manufacturing Inc. ("Precision Manufacturing"). Precision Manufacturing is a global supplier of nuclear-grade materials and precisely machined components for CANDU nuclear power utilities and is reported as part of our Commercial Operations segment.

Divestiture of U.S.-Based Commercial Nuclear Services Business

On May 29, 2020, our subsidiary BWXT Nuclear Energy, Inc. divested its U.S.-based commercial nuclear services business, a component of our Government Operations segment. In a cashless transaction, we exchanged net assets totaling $18.0 million, consisting primarily of property, plant and equipment and certain warranty obligations, for a manufacturing facility and the associated land of approximately the same value. The acquired assets are reported as part of the Government Operations segment.

See Note 2 to our consolidated financial statements included in this Report for additional information on acquisitions and divestitures.

Contracts

We execute our contracts through a variety of methods, including fixed-price incentive fee, cost-plus, cost-reimbursable, firm fixed-price or some combination of these methods. We generally recognize our contract revenues and related costs on an over time basis. Accordingly, we review contract price and cost estimates regularly as the work progresses and reflect adjustments in profit proportionate to the percentage of completion in the period when we revise those estimates. To the extent that these adjustments result in a reduction or an elimination of previously reported profits with respect to a project, we would recognize a charge against current earnings, which could be material.

We have contracts that extend beyond one year. Most of our long-term contracts have provisions for progress payments. We attempt to cover anticipated increases in labor, material and service costs of our long-term contracts either through an estimate of such changes, which is reflected in the original price, or through risk-sharing mechanisms, such as escalation or price adjustments for items including labor and material prices.

In the event of a contract deferral or cancellation, we generally would be entitled to recover costs incurred, settlement expenses and profit on work completed prior to deferral or cancellation. Significant or numerous contract deferrals or cancellations could adversely affect our business, financial condition, results of operations and cash flows.

Government Operations

The majority of the revenue generated by this segment is from long-term contracts with the U.S. DOE/NNSA's Naval Nuclear Propulsion Program. Unless otherwise specified in a contract, allowable and allocable costs are billed to contracts with the U.S. Government in accordance with the Federal Acquisition Regulation (the "FAR") and the related U.S. Government Cost Accounting Standards ("CAS"). Examples of costs that may be incurred by us and not billable to the U.S. Government in accordance with the requirements of the FAR and CAS regulations include, but are not limited to, unallowable employee compensation and benefit costs, lobbying costs, interest, certain legal costs and charitable donations.

Most of our contracts in this segment are fixed-price incentive fee contracts that provide for reimbursement of allowable costs incurred plus a fee and generally require that we use our best efforts to accomplish the scope of the work within some specified time and stated dollar limitation. Fees can be established in terms of dollar value or percentage of costs. Award and incentive fees are determined and earned based on customer evaluation of our performance against negotiated criteria, primarily related to cost, and are intended to provide motivation for excellence in contract performance. Incentive fees that are based on cost provide for an initially negotiated fee to be adjusted later, typically using a formula to measure performance against the associated criteria, based on the relationship of total allowable costs to total target costs. Award and incentive fees represent variable consideration that we include in revenue when there is sufficient evidence to determine that the variable consideration is not constrained.

Certain of our U.S. Government contracts span one or more base years and multiple option years. The U.S. Government generally has the right not to exercise option periods and may not exercise an option period for various reasons including, but not limited to, annual funding determinations. In addition, contracts between the U.S. Government and its prime contractors usually contain standard provisions for termination at the convenience of the U.S. Government or the prime contractor. As a U.S. Government contractor, we are subject to federal regulations under which our right to receive future awards of new federal contracts would be unilaterally suspended or barred if we were convicted of a crime or indicted based on allegations of a violation of specific federal statutes. In addition, some of our contracts with the U.S. Government require us to provide advance notice in connection with any contemplated sale or shut down of the relevant facility. In each of those situations, the U.S. Government has an exclusive right to negotiate a mutually acceptable purchase of the facility.

Our Government Operations segment also enters into contracts that include the management and operation of nuclear production facilities, environmental management sites and the management of spent nuclear fuel and transuranic waste for the U.S. Government, primarily the DOE. These activities are primarily accomplished through our participation in joint ventures with other contractors as further discussed under the caption "Joint Ventures" below. The contracts for the management and operation of U.S. Government facilities are awarded through a complex and protracted procurement process. These contracts are generally structured as five-year contracts with options for up to five additional years, which are exercisable by the customer, or include provisions whereby the contract durations can be extended as a result of the achievement of certain performance metrics. These are generally cost-reimbursable contracts that include an award fee that is primarily based on annual performance, with monthly provisional fee payments and annual true-up payments. Depending on the type of contract, the contractor may be required to supply working capital, which is reimbursed by the U.S. Government through regular invoicing.

This segment also serves customers of our advanced technology platforms primarily through the use of fixed-price contracts that are awarded following a competitive bid process, primarily in the early design and development phases of the underlying program. Fixed-price contracts entail more risk to us because the price has been pre-determined and is generally not subject to adjustment, regardless of costs incurred, unless authorized by the customer. We expect to transition these programs to cost-reimbursable contracts which will minimize our overall risk as the underlying projects increase in scale.

Commercial Operations

Contracts in this segment are usually awarded through a competitive bid process. Factors that customers may consider include price, plant or equipment availability, technical capabilities of equipment and personnel, efficiency, safety record and reputation. Certain of these contracts are fixed-price contracts in which the specified scope of work is agreed to for a pre-determined price that is generally not subject to adjustment, regardless of costs incurred by the contractor, unless changes in scope are authorized by the customer. Fixed-price contracts entail more risk to us because they require us to predetermine both the quantities of work to be performed and the costs associated with executing the work. Remaining contracts are primarily time-and-materials contracts, under which the customer pays a fixed hourly rate for direct labor and generally reimburses us for the cost of materials. Our profit may vary under time-and-materials contracts if actual labor-hour rates vary significantly from the negotiated rates. Additionally, because time-and-materials contracts can provide little or no fee for managing material costs, the content mix can have an impact on profitability.

Our arrangements with customers may require us to provide letters of credit, bid and performance bonds or guarantees to secure bids or performance under contracts, which may involve significant amounts for contract security.

Backlog

Backlog represents the dollar amount of revenue we expect to recognize in the future from contracts awarded and in progress. Not all of our expected revenue from a contract award is recorded in backlog for a variety of reasons, including that some projects are awarded and completed within the same reporting period.

Our backlog is equal to our remaining performance obligations under contracts that meet the criteria in Financial Accounting Standards Board ("FASB") Topic *Revenue from Contracts with Customers*, as discussed in Note 3 to our consolidated financial statements included in this Report. It is possible that our methodology for determining backlog may not be comparable to methods used by other companies.

We are subject to the budgetary and appropriations cycle of the U.S. Government as it relates to our Government Operations segment. Backlog may not be indicative of future operating results, and projects in our backlog may be cancelled, modified or otherwise altered by customers.

Our backlog at December 31, 2022 and 2021 was as follows:

	December 31, 2022		December 31, 2021	
	(In approximate millions)			
Government Operations	$ 3,515	85 %	$ 4,532	88 %
Commercial Operations	629	15 %	644	12 %
Total Backlog	$ 4,144	100 %	$ 5,176	100 %

We do not include the value of our unconsolidated joint venture contracts in backlog. These unconsolidated joint ventures are included in our Government Operations segment. See Note 4 to our consolidated financial statements included in this Report for financial information on our equity method investments.

At December 31, 2022, our ending backlog was $4,144.3 million, which included $88.7 million of unfunded backlog related to U.S. Government contracts. We expect to recognize approximately 42% of the revenue associated with our backlog by the end of 2023, with the remainder to be recognized thereafter.

Major new awards from the U.S. Government are typically received following Congressional approval of appropriations for the U.S. Government's next fiscal year, which starts October 1, and may not be awarded to us before the end of the calendar year. Due to the fact that most contracts awarded by the U.S. Government are subject to these annual funding approvals, the total values of the underlying programs are significantly larger.

The value of unexercised options excluded from backlog as of December 31, 2022 was approximately $200 million, which is expected to be awarded in annual installments through 2024, subject to annual Congressional appropriations.

Competition

The competitive environments in which each segment operates are described below.

Government Operations

We have specialized technical capabilities that have allowed us to be a valued supplier of nuclear components and fuel for the U.S. Government's naval nuclear fleet since the 1950s. Because of the technical and regulatory standards required to meet U.S. Government contracting requirements for nuclear components and fuel and the barriers to entry present in this type of environment, competition is limited. The primary bases of limited competition are price, high capital investment, technical capabilities, high regulatory licensing costs and quality of products and services. In addition, significant portions of the designs, processing and final product are classified by the U.S. Government, requiring applicable personnel to obtain and maintain U.S. Government security clearances.

This segment also engages in the management and operation of U.S. Government facilities and the delivery of environmental remediation services (decontamination and decommissioning) associated with U.S. Government-owned nuclear facilities. Many of our government contracts in this area are bid as a joint venture with one or more companies, in which we have a majority or a minority position. The performance of our joint venture partners can impact our reputation and our future competitive position with respect to that particular project and customer. Our primary competitors in the delivery of goods and services to the U.S. Government and the operation of U.S. Government facilities include, but are not limited to, Bechtel National, Inc., Amentum, Fluor Corporation, Jacobs Engineering Group, Inc., Northrop Grumman Corporation, Huntington Ingalls Industries, Inc., Honeywell International, Inc., Leidos, Inc., Westinghouse Electric Corporation and Atkins (a member of SNC-Lavalin Group, Inc.). The primary bases of competition for this segment are experience, past performance, availability of key personnel and technical capabilities.

Commercial Operations

Our Commercial Operations segment supplies heavy nuclear components, specialized engineering and maintenance services, nuclear fuel, fuel handling systems and tooling delivery systems for CANDU reactors. This segment competes with a number of companies specializing in nuclear capabilities including, but not limited to, Framatome, Cameco Corporation, Doosan Heavy Industries & Construction Co., Ltd., E.S. Fox Limited, AECON Group Inc., Bechtel National, Inc., Westinghouse Electric Corporation and SNC-Lavalin Group, Inc. The primary bases of competition for this segment are price, technical capabilities, quality, timeliness of performance, breadth of products and services and willingness to accept project risks.

This segment also manufactures medical radioisotopes, radiopharmaceuticals and medical devices, and partners with life science and pharmaceutical companies developing new drugs. This segment competes with a number of nuclear medicine companies which include, but are not limited to, Curium, Lantheus Holdings, Inc. and Jubilant DraxImage Inc. The primary bases of competition in this area are quality, distribution capabilities, price and reliability.

Joint Ventures

We share in the ownership of a variety of entities with third parties, primarily through corporations, limited liability companies and partnerships, which we refer to as "joint ventures." Through these joint venture arrangements, our Government Operations segment primarily manages and operates nuclear facilities and associated plant infrastructure, constructs large capital facilities, provides safeguards and security for inventory and assets, supports and conducts research and development for advanced energy technology and manages environmental programs for the DOE, the NNSA and NASA. We generally account for our investments in joint ventures under the equity method of accounting. Certain of our Government Operations segment unconsolidated joint ventures are described below.

- **Los Alamos Legacy Cleanup Contract.** Newport News Nuclear BWXT – Los Alamos, LLC, a limited liability company formed in 2017 by Stoller Newport News Nuclear, Inc., a subsidiary of Huntington Ingalls Industries, Inc.'s Technical Solutions division, and BWXT Technical Services Group, Inc. ("BWXT TSG"), was awarded a contract to perform environmental monitoring and remediation, waste management and disposition, and decontamination and decommissioning at the Los Alamos National Laboratory site and surrounding private and government-owned lands.
- **Lawrence Livermore National Laboratory.** Lawrence Livermore National Security, LLC, a limited liability company formed in 2006 by the University of California, Bechtel National, Inc., Amentum and BWXT Government Group, Inc., manages and operates Lawrence Livermore National Laboratory located in Livermore, California. The laboratory serves as a national resource in science and engineering, focused on national security, energy, the environment and bioscience, with special responsibility for nuclear devices.
- **Savannah River Liquid Waste Disposition Program.** Savannah River Remediation LLC, a limited liability company formed in 2009 by Amentum, Bechtel National, Inc., CH2M Hill Constructors, Inc. and BWXT TSG, became the liquid waste contractor for the DOE's Savannah River Site located in Aiken, South Carolina. This contract ended in February 2022 and was replaced by the Savannah River Integrated Mission Completion contract, which was awarded to another BWXT joint venture in October 2021, as described below.
- **Savannah River Integrated Mission Completion Contract.** In October 2021, Savannah River Mission Completion LLC, a limited liability company formed by BWXT TSG, Amentum and Fluor Federal Services, Inc. was awarded a contract to reduce environmental and financial liabilities for the DOE at the Savannah River Site located in Aiken, South Carolina. This contract began on February 27, 2022, the primary objective of which is to receive, store, treat and dispose of radioactive liquid waste.

- **Portsmouth Gaseous Diffusion Plant D&D.** Fluor-BWXT Portsmouth LLC is a limited liability company formed by Fluor Federal Services, Inc. and BWXT TSG to provide nuclear operations, decontamination and decommissioning services at the Portsmouth Gaseous Diffusion Plant in Portsmouth, Ohio. A request for proposal was issued by the DOE in 2022 as a follow on to this contract. An award is expected in the first half of 2023.
- **West Valley Demonstration Project Phase I Decommissioning and Facility Disposition.** CH2M Hill-BWXT West Valley, LLC is a limited liability company formed by CH2M Hill Constructors, Inc., BWXT TSG and Environmental Chemical Corporation. Services provided include project management and support services, site operations, maintenance, utilities, high-level waste canister relocation, facility disposition, waste tank farm management, U.S. Nuclear Regulatory Commission ("NRC") licensed disposal area management, waste management and nuclear materials disposition, and safeguards and security.
- **Waste Isolation Pilot Plant.** Nuclear Waste Partnership, LLC is a limited liability company formed by Amentum, BWXT TSG and Areva Federal Services, LLC as the major subcontractor that manages and operates the DOE's Waste Isolation Pilot Plant in Carlsbad, New Mexico. A follow on contract was awarded by the DOE to a competitor in the fourth quarter of 2022. Transition to the new contractor was completed in February 2023.
- **Synergy Achieving Consolidated Operations & Maintenance (SACOM).** Syncom Space Services, LLC is a limited liability company formed by PAE Applied Technologies, LLC (acquired by Amentum in 2022) and BWXT Nuclear Operations Group, Inc. to provide facility operations and maintenance services for institutional and technical facilities, and perform test and manufacturing support services at two NASA facilities – the Stennis Space Center in Hancock County, Mississippi and the Michoud Assembly Facility in New Orleans, Louisiana.
- **Paducah Gaseous Diffusion Plant Deactivation and Remediation Project.** Four Rivers Nuclear Partnership, LLC is a limited liability company formed by CH2M Hill Constructors, Inc., BWXT TSG and Fluor Federal Services, Inc. to provide nuclear operations, deactivation and remediation services at the Paducah Gaseous Diffusion Plant in Paducah, Kentucky.

Customers

We provide our products and services to a diverse customer base, including the U.S. Government, utilities and other customers in the nuclear power and radiopharmaceutical industries. Our largest and primary customer of our Government Operations segment is the U.S. Government. During the years ended December 31, 2022, 2021 and 2020, the U.S. Government represented approximately 76%, 76% and 77% of our total consolidated revenues, respectively. No individual non-U.S. Government customer accounted for more than 10% of our consolidated revenues in the years ended December 31, 2022, 2021 or 2020.

Raw Materials and Suppliers

Our operations use raw materials, such as carbon and alloy steels in various forms and components and accessories for assembly, which are available from numerous sources. We generally purchase these raw materials and components as needed for individual contracts. Although shortages of some raw materials have existed occasionally, no serious shortage exists at the present time.

Our Government Operations and Commercial Operations segments rely on a limited number of suppliers, including single-source suppliers, for certain materials used in its products; however, we believe the suppliers of these materials are reliable. Additionally, we and the U.S. Government expend significant effort to monitor and maintain the supplier base for our Government Operations segment.

Human Capital Management

People Strong, Innovation Driven

Our employees are responsible for providing safe and effective nuclear solutions for global security, clean energy, environmental restoration, nuclear medicine and space exploration. Through their hard work, dedication and innovation, we have developed new technologies that benefit our customers, build our business and enhance our lives.

Our goal is to be the employer of choice within our industry and the communities in which we operate. We focus on maintaining a solid pipeline of talent throughout our organization and continually developing the capabilities and skills needed for the future of our business. We strive to maintain a highly-skilled and diverse workforce where employees are recruited, compensated, retained and promoted based on their performance and contribution to the Company.

Employees

At December 31, 2022, we employed approximately 7,000 persons worldwide, predominantly in the U.S. (5,600 employees) and Canada (1,400 employees). Many of our operations are subject to union contracts, which we customarily negotiate periodically. At December 31, 2022, approximately 2,000 of our employees were members of labor unions. We consider our relationships with our employees to be satisfactory.

Employee Compensation and Benefits

Our compensation plans are designed to reward our employees for achieving and exceeding objectives that create long-term value for shareholders. The success and growth of our business is attributable to our ability to attract, develop, and retain talented and high-performing employees at all levels in our Company. Our compensation programs are designed to ensure we remain competitive relative to the markets in which we operate; provide meaningful value to employees and those they care for; incentivize the short- and long-term success of BWXT and its stakeholders through programs with consistent performance measures throughout the organization; and recognize employees who make outstanding contributions to the organization.

Providing comprehensive, competitive, and affordable retirement, health, income protection and other benefits is also central to our attraction and retention strategy. We offer health benefits which include various medical/pharmacy plan options, health savings accounts for those in high deductible health plans, and flexible spending accounts for both health care and dependent care are also available to employees. Our income protection plans provide coverage for employees in the event of an unexpected illness or injury. We also offer retirement, investment, and tax savings/deferral opportunities to our employees.

Employee Development

The professional development of our employees is critical to our success. We offer online and in-person professional development and training, as well as mentoring programs, to enhance the knowledge, skills and advancement opportunities for our employees. To further our employee development goals, we partner with a number of educational institutions for accredited, vocational and technical upskilling programs. We provide tuition reimbursement to employees pursuing job-related, career enhancing courses and provide full tuition grants for the completion of undergraduate and graduate degree programs through an accredited university partner. For employees identified with high potential for promotion to leadership roles, we routinely offer leadership development programs focused on preparing future leaders for their next career steps.

We established the BWXT Technical Fellow program which honors and celebrates some of our most talented employees for their contributions to driving innovation and inspiring creativity. Our Technical Fellows offer a breadth of knowledge and diversity of technical expertise that can be focused on developing creative solutions to numerous challenges we face in our industry.

Diversity, Equity and Inclusion

We value the diversity of our employees and are committed to providing an engaging and inclusive atmosphere for all employees that promotes productivity and encourages creativity and innovation. We maintain a Diversity and Inclusion ("D&I") Committee comprised of a rotating group of employees representing various job functions, levels and backgrounds. The D&I Committee works to identify and implement changes to promote awareness and foster a culture of diversity and inclusion throughout the workforce. In addition, we participate in numerous conferences and career fairs each year that focus on diversity, including those hosted by the National Society of Black Engineers and the Society of Women Engineers.

Health and Safety

The safety of our employees is critical to our success as a specialty manufacturer of nuclear fuel, nuclear components, nuclear medicine products and an operator of high-consequence nuclear and national security facilities for the U.S. Government. As such, we are committed to maintaining the highest safety, security, ethical and environmental standards. We maintain comprehensive safety programs focused on identifying risks and eliminating hazards that could lead to personnel injuries or environmental impacts. We provide our employees upfront and ongoing training to ensure that environmental, health and safety policies and procedures are effectively communicated and implemented.

We take pride in the fact that we operate NRC Category 1 and Canadian Nuclear Safety Commission ("CNSC") licensed facilities and have instilled as a core value a culture that prioritizes safety with a vision of zero injuries and incidents at all of our work locations. In pursuit of an injury-free workplace, we constantly monitor and assess all injuries and "near misses" for any lessons we can learn and leverage to reduce the risk inherent in occupational activities. In addition to providing regular safety training to our employees, we routinely conduct safety culture surveys to identify employee concerns. We use this information to further improve our safety culture and programs in an effort to prevent future occupational and environmental incidents.

Ethics and Integrity

We believe that maintaining a work environment that recognizes effort and teamwork, values mutual respect and open communication, and demonstrates care and concern for our employees' well-being is essential to retaining an engaged and productive workforce. Our Code of Business Conduct ("Code") establishes the principles and standards that we expect our employees to follow. Each officer, director and employee is required to use good ethical judgment when conducting business; be respectful of colleagues, business partners, customers and others in their interactions; and comply with applicable laws, rules, and regulations. The Code describes what is appropriate behavior and guides ethical business decisions that maintain a commitment to integrity. In furtherance of this objective, we provide regular training on the Code for our employees to identify and prevent misconduct, and the Code requires that employees report situations that violate our policies and/or negatively impact our work environment. In addition, we maintain the BWXT Ethics Helpline to allow employees to report any concerns relating to ethics or other concerns confidentially and, if they choose, anonymously. We investigate and take prompt action to correct conduct that is inconsistent with our Code and other policies.

Patents and Technology Licenses

We currently hold a large number of U.S. and foreign patents and have patent applications pending in certain technologies, including nuclear reactor systems, components and fuel, advanced and additive manufacturing, space nuclear propulsion, and radioisotope production. We acquire patents and technology licenses and grant licenses to others when we consider it advantageous for us to do so. Although in the aggregate our patents and technology licenses are important to us, we do not regard any single patent or license or group of related patents or licenses as critical or essential to our business as a whole. In general, we depend on our technological capabilities and the application of know-how, rather than patents and technology licenses, in the conduct of our various businesses.

Research and Development Activities

Our research and development activities are related to the development and improvement of new and existing products and equipment, as well as conceptual and engineering evaluation for translation into practical applications. These activities include the development of isotope production, medical radiochemical and radiopharmaceutical production and a variety of advanced technologies in the areas of additive and autonomous manufacturing, space nuclear power and propulsion, and high-temperature gas-cooled reactors, among others. These projects are sponsored and funded through internal research and development and by a number of commercial and government customers.

We charge the costs of research and development unrelated to specific contracts as incurred. Excluding customer-sponsored research and development, the majority of our activities in this area for the years ended December 31, 2022, 2021 and 2020 related to the development of technologies in the area of medical and industrial radioisotopes, radiopharmaceuticals, additive and autonomous manufacturing and advanced reactors. Contractual arrangements for customer-sponsored research and development can vary and include contracts, cost-sharing arrangements, cooperative agreements and grants.

See Note 1 to our consolidated financial statements included in this Report for further information on research and development.

Hazard Risks and Insurance

Our operations present risks of injury to or death of people, loss of or damage to property and damage to the environment. We have created loss control systems and processes to assist us in the identification and treatment of the hazard risks presented by our operations, and we endeavor to make sure these systems are effective.

As loss control measures will not always be successful, we seek to establish various means of funding losses and transferring financial liability related to incidents or occurrences. We primarily seek to do this through contractual protections, including waivers of consequential damages, indemnities, caps on liability, liquidated damages provisions and access to the insurance of other parties. We also procure insurance, operate our own captive insurance company or establish funded and/or unfunded reserves. However, none of these methods will eliminate all risks.

Depending on competitive conditions, the nature of the work, industry custom and other factors, we may not be successful in obtaining adequate contractual protection from our customers and other parties against losses and liabilities arising out of or related to the performance of our work. The scope of the protection may be limited, may be subject to conditions and may not be supported by adequate insurance or other means of financing. In addition, we may have difficulty enforcing our contractual rights with others following a material loss.

Similarly, insurance for certain potential losses or liabilities may not be available or may only be available at a cost or on terms we consider not to be economical. Insurers frequently react to market losses by ceasing to write or severely limiting coverage for certain exposures. Risks that we have frequently found difficult to cost-effectively insure against include, but are not limited to, property losses from wind, flood and earthquake events, nuclear hazards and war, pollution liability, liabilities related to occupational health exposures (including asbestos), professional liability/errors and omissions coverage, the failure, misuse or unavailability of our information technology systems, the failure of security measures designed to protect our information technology systems from security breaches and liability related to risk of loss of our work in progress. In cases where we purchase insurance, we are subject to the creditworthiness of the relevant insurer(s), the available limits of the coverage, our retention under the relevant policy, exclusions in the policy and gaps in coverage.

Our operations in designing, engineering, manufacturing, constructing and servicing nuclear power equipment and components for our commercial nuclear utility customers subject us to various risks, including, without limitation, damage to our customers' property and third-party claims for personal injury, environmental liability, death and property damage. To protect against liability for damage to a customer's property, we endeavor to obtain waivers of liability and subrogation from the customer and its insurer. We also attempt to cap our overall liability in our contracts. To protect against liability from claims brought by third parties, we seek to be insured under the utility customer's nuclear liability policies and have the benefit of the indemnity and limitation of any applicable liability provision of the Price-Anderson Act. The Price-Anderson Act limits the public liability of U.S. manufacturers and operators of licensed nuclear facilities and other parties who may be liable in respect of, and indemnifies them against, all claims in excess of a certain amount. This amount is determined by the sum of commercially available liability insurance plus certain retrospective premium assessments payable by operators of commercial nuclear reactors. For those sites where we provide environmental remediation services, we seek the same protection from our customers as we do for our other nuclear activities. The Price-Anderson Act, as amended, includes a sunset provision and requires renewal each time that it expires. Contracts that were entered into during a period of time that the Price-Anderson Act was in full force and effect continue to receive the benefit of the Price-Anderson Act's nuclear indemnity. The Price-Anderson Act is set to expire on December 31, 2025. We also provide nuclear fabrication and other services to the nuclear power industry in Canada. Canada's Nuclear Liability and Compensation Act ("NLCA") generally conforms to international conventions and is conceptually similar to the Price-Anderson Act in the U.S. Accordingly, indemnification protections and the possibility of exclusions under Canada's NLCA are similar to those under the Price-Anderson Act in the U.S.

Our Commercial Operations Segment supplies commercial nuclear equipment and services to certain customers in countries other than the U.S. and Canada that are party to international treaties and in countries that are not signatory to international treaties but have their own nuclear liability laws that, in general, have regulations in place whereby nuclear operators are solely liable for nuclear damage claims, which would exclude nuclear suppliers from any such exposure. BWXT does retain some level of risk in the event of future changes to the legal landscape in these countries regarding international third-party nuclear liability.

In 2008, the U.S. ratified the Convention on Supplementary Compensation for Nuclear Damage ("CSC") with the International Atomic Energy Agency. The CSC is an international treaty developed to create a global legal framework for allocating responsibility and assuring prompt and equitable compensation in the unlikely event of certain nuclear incidents. The ratification by the U.S. authorizes the Secretary of Energy to issue regulations establishing a retrospective risk pooling program whereby, in the event that the U.S. must make a contribution to the CSC international fund, U.S. nuclear suppliers, including BWXT, would pay the full cost of this contribution by the U.S.

Although we do not own or operate any nuclear reactors, we have some coverage under commercially available nuclear liability and property insurance for our facilities that are currently licensed to possess special nuclear materials. Substantially all of our Government Operations segment contracts involving nuclear materials are covered by and subject to the nuclear indemnity provisions of either the Price-Anderson Act or Public Law 85-804, which, among other things, authorizes the DOE to indemnify certain contractors when such acts would facilitate national defense. However, to the extent the value of the nuclear materials in our care, custody or control exceeds the commercially available limits of our insurance, we potentially have underinsured risk of loss for such nuclear material.

Our Government Operations segment participates in the management and operation of various U.S. Government facilities. This participation is customarily accomplished through the participation in joint ventures with other contractors for any given facility. These activities involve, among other things, handling nuclear devices and their components. Insurable liabilities arising from these sites are rarely protected by our or our partners' corporate insurance programs. Instead, we rely on government contractual agreements and insurance purchased specifically for a site. The U.S. Government has historically fulfilled its contractual agreement to reimburse its contractors for covered claims, and we expect it to continue this process during our participation in the management and operation of these facilities. However, in most of these situations in which the U.S. Government is contractually obligated to pay, the payment obligation is subject to the availability of authorized government funds. The reimbursement obligation of the U.S. Government is also conditional, and provisions of the relevant contract or applicable law may preclude reimbursement.

Our wholly owned captive insurance subsidiary provides primary workers' compensation, employer's liability, commercial general liability, automotive liability and property insurance to support our operations. Liabilities include provisions for estimated losses incurred but not reported (“IBNR”), as well as estimated provisions for known claims. IBNR reserve estimates are primarily based upon historical loss experience, industry data and other actuarial assumptions. Reserve estimates are adjusted in future periods as actual losses differ from experience. Through our insurance subsidiary, we also have reinsurance coverage with third parties for certain losses above a per occurrence and/or aggregate retention. Receivables for reinsurance coverage are recognized when realization is deemed probable. We may also have business reasons in the future to have our insurance subsidiary accept other risks that we cannot or do not wish to transfer to outside insurance companies. These risks may be considerable in any given year or cumulatively. Our insurance subsidiary does not provide insurance to unrelated parties. Claims as a result of our operations could adversely impact the ability of our insurance subsidiary to respond to all claims presented.

Additionally, upon the February 22, 2006 effectiveness of the settlement relating to the Chapter 11 proceedings involving several of our former subsidiaries, most of our subsidiaries contributed substantial insurance rights to the asbestos personal injury trust, including rights to (1) certain pre-1979 primary and excess insurance coverages and (2) certain of our 1979-1986 excess insurance coverage. These insurance rights provided coverage for, among other things, asbestos and other personal injury claims, subject to the terms and conditions of the policies. The contribution of these insurance rights was made in exchange for the agreement on the part of the representatives of the asbestos claimants, including the representative of future claimants, to the entry of a permanent injunction, pursuant to Section 524(g) of the U.S. Bankruptcy Code, to channel to the asbestos trust all asbestos-related general liability claims against our subsidiaries and former subsidiaries arising out of, resulting from or attributable to their operations, and the implementation of related releases and indemnification provisions protecting those subsidiaries and their affiliates from future liability for such claims. Although we are not aware of any significant, unresolved claims against our subsidiaries and former subsidiaries that are not subject to the channeling injunction and that relate to the periods during which such excess insurance coverage related, with the contribution of these insurance rights to the asbestos personal injury trust, it is possible that we could have underinsured or uninsured exposure for non-derivative asbestos claims or other personal injury or other claims that would have been insured under these coverages had the insurance rights not been contributed to the asbestos personal injury trust. On June 30, 2015, we completed the spin-off of our former Power Generation business (the "spin-off") into an independent, publicly traded company named Babcock & Wilcox Enterprises, Inc. ("BWE"). In conjunction with the spin-off, claims and liabilities associated with the asbestos personal injury, property damage and indirect property damage claims mentioned above have been expressly assumed by BWE pursuant to the master separation agreement between us and BWE.

Governmental Regulations and Environmental Matters

Governmental Regulations

Many aspects of our operations and properties are affected by political developments and are subject to both domestic and foreign governmental regulations, including those relating to:

- possessing and processing special nuclear materials;
- workplace health and safety;
- constructing and equipping electric power facilities;
- currency conversions and repatriation;
- taxation of earnings; and
- protecting the environment.

We are required by various governmental and quasi-governmental agencies to obtain certain permits, licenses and certificates with respect to our operations. The kinds of permits, licenses and certificates required in our operations depend upon a number of factors.

We cannot determine the extent to which new legislation, new regulations or changes in existing laws or regulations may affect our future operations.

Environmental

Our operations and properties are subject to a wide variety of increasingly complex and stringent federal, foreign, state and local environmental laws and regulations, including those governing discharges into the air and water, the handling and disposal of solid and hazardous wastes, the remediation of soil and groundwater contaminated by hazardous substances and the health and safety of employees. Sanctions for non-compliance may include revocation of permits, corrective action orders, administrative or civil penalties and criminal prosecution. Some environmental laws provide for strict, joint and several liability for remediation of spills and other releases of hazardous substances, as well as damage to natural resources. In addition, companies may be subject to claims alleging personal injury or property damage as a result of alleged exposure to hazardous substances. Such laws and regulations may also expose us to liability for the conduct of or conditions caused by others or for our acts that were in compliance with all applicable laws at the time such acts were performed.

These laws and regulations include the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act and similar laws that provide for responses to, and liability for, releases of hazardous substances into the environment. These laws and regulations also include similar foreign, state or local counterparts to these federal laws, which regulate air emissions, water discharges, hazardous substances and waste and require public disclosure related to the use of various hazardous substances. Our operations are also governed by laws and regulations relating to workplace safety and worker health, including the U.S. Occupational Safety and Health Act and regulations promulgated thereunder.

We are currently in the process of investigating and remediating some of our current and former operating sites. Although we have recorded reserves in connection with certain of these environmental matters, due to the uncertainties associated with environmental remediation, there can be no assurance that the actual costs resulting from these remediation matters will not exceed the recorded reserves.

Our compliance with federal, foreign, state and local environmental control and protection regulations resulted in pre-tax charges of approximately $20.0 million, $17.5 million and $16.3 million in the years ended December 31, 2022, 2021 and 2020, respectively. In addition, compliance with existing environmental regulations necessitated capital expenditures of $1.6 million, $3.1 million and $1.2 million in the years ended December 31, 2022, 2021 and 2020, respectively. We expect to spend another $3.3 million on such capital expenditures over the next five years. We cannot predict all of the environmental requirements or circumstances that will exist in the future, but we anticipate that environmental control and protection standards will become increasingly stringent and costly. Based on our experience to date, we do not currently anticipate any material adverse effect on our business or consolidated financial condition as a result of future compliance with existing environmental laws and regulations. However, future events, such as changes in existing laws and regulations or their interpretation, more vigorous enforcement policies of regulatory agencies or stricter or different interpretations of existing laws and regulations, may require additional expenditures by us, which may be material. Accordingly, we can provide no assurance that we will not incur significant environmental compliance costs in the future.

We have been identified as a potentially responsible party at various cleanup sites under CERCLA. CERCLA and other environmental laws can impose liability for the entire cost of cleanup on any of the potentially responsible parties, regardless of fault or the lawfulness of the original conduct. Generally, however, where there are multiple responsible parties, a final allocation of costs is made based on the amount and type of wastes disposed of by each party and the number of financially viable parties, although this may not be the case with respect to any particular site. We have not been determined to be a major contributor of wastes to any of these sites. On the basis of the relative contribution of waste to each site by potentially responsible parties, as well as the financial solvency of other potentially responsible parties, we expect our share of the ultimate liability for the various sites will not have a material adverse effect on our consolidated financial condition, results of operations or cash flows in any given year.

Environmental remediation projects have been and continue to be undertaken at certain of our current and former facilities. In 2002, Congress directed the U.S. Army Corps of Engineers ("Army Corps") to clean up radioactive waste at the Shallow Land Disposal Area located in Parks Township, Armstrong County, Pennsylvania (the "SLDA"), consistent with the Memorandum of Understanding between the Nuclear Regulatory Commission and the United States Army Corps of Engineers for Coordination on Cleanup and Decommissioning of the Formerly Utilized Sites Remedial Action Program Sites with NRC-Licensed Facilities, dated July 5, 2001 (the "MOU"). From 1961 to 1970, the SLDA was operated by the Nuclear Materials and Equipment Corporation ("NUMEC") pursuant to Atomic Energy Commission ("AEC") License SNM-145. The AEC was the predecessor to the NRC. The SLDA was used for the disposal of waste from NUMEC's nuclear fuels fabrication facility in Apollo, Pennsylvania. Both radioactive and non-radioactive waste was disposed in a series of trenches at the SLDA. NUMEC, a former subsidiary of Atlantic Richfield Company ("ARCO") was acquired by BWXT in November 1971. Shortly after the Army Corps' contractor commenced cleanup operations in 2011, the Army Corps ceased excavation activities because the contractor deviated from accepted field procedures, and the excavated material was found to be complex and beyond the Army Corps' characterization and management procedures. The MOU was modified in late 2014 to add the DOE and the NNSA as parties to deal with "special nuclear materials." In December 2014, the Army Corps issued a Proposed Record of Decision Amendment, which reflects a revised cost estimate of $350 million, in addition to the $62 million expended through September 2014, to implement the selected remedy. In October 2018, the Army Corps confirmed award of the previously protested remediation contract as amended to the original contractor. In March 2019, the Army Corps issued a notice-to-proceed to this contractor. The federal legislation directing the Army Corps to clean up the SLDA also directs the Army Corps to seek to recover response costs from appropriate responsible parties in accordance with CERCLA. In connection with BWXT's acquisition of NUMEC from ARCO in November 1971, ARCO assumed and agreed to indemnify and hold harmless BWXT with respect to claims and liabilities arising as a result of transactions or operations of NUMEC prior to the acquisition date. Although this ARCO indemnity would cover claims by the Army Corps to seek recovery from BWXT for SLDA cleanup costs, no assurance can be given that this indemnity will be available or sufficient in the event such claims are asserted. For additional discussion of environmental matters, see Note 10 to our consolidated financial statements included in this Report.

We perform significant amounts of work for the U.S. Government under both prime contracts and subcontracts and operate certain facilities that are licensed to possess and process special nuclear materials. As a result of these activities, we are subject to continuing reviews by governmental agencies, including the U.S. Environmental Protection Agency and the NRC. We are also involved in manufacturing activities at licensed facilities in Canada that are subject to continuing reviews by governmental agencies in Canada, including the CNSC.

The NRC's decommissioning regulations require our Government Operations segment to provide financial assurance that it will be able to pay the expected cost of decommissioning its two licensed facilities at the end of their service lives. We provided financial assurance totaling $68.1 million and $61.8 million during the years ended December 31, 2022 and 2021, respectively, with surety bonds for the ultimate decommissioning of these licensed facilities. These facilities have provisions in their government contracts pursuant to which substantially all of our decommissioning costs and financial assurance obligations are covered by the DOE, including the costs to complete the decommissioning projects underway at the facility in Erwin, Tennessee. The surety bonds noted above are to cover decommissioning required pursuant to work not subject to this DOE obligation.

In Canada, the CNSC's decommissioning regulations require our Commercial Operations segment to provide financial assurance that it will be able to pay the expected cost of decommissioning its CNSC-licensed facilities at the end of their service lives. We provided financial assurance totaling $43.3 million and $46.4 million during the years ended December 31, 2022 and 2021, respectively, with letters of credit and surety bonds for the ultimate decommissioning of these licensed facilities.

At December 31, 2022 and 2021, we had total environmental accruals, including asset retirement obligations, of $101.8 million and $102.4 million, respectively. Of our total environmental accruals at December 31, 2022 and 2021, $10.8 million and $9.8 million, respectively, were included in current liabilities. Inherent in the estimates of these accruals are our expectations regarding the levels of contamination, decommissioning costs and recoverability from other parties, which may vary significantly as decommissioning activities progress. Accordingly, changes in estimates could result in material adjustments to our operating results, and the ultimate loss may differ materially from the amounts we have provided for in our consolidated financial statements.

Cautionary Statement Concerning Forward-Looking Statements

From time to time, our management or persons acting on our behalf make forward-looking statements to inform existing and potential security holders about our Company. Statements and assumptions regarding expectations and projections of specific projects, our future backlog, revenues, income and capital spending, strategic investments, acquisitions or divestitures, return of capital activities or margin improvement initiatives are examples of forward-looking statements. Forward-looking statements are generally accompanied by words such as "estimate," "project," "predict," "believe," "expect," "anticipate," "plan," "seek," "goal," "could," "intend," "may," "should" or other words that convey the uncertainty of future events or outcomes. In addition, sometimes we will specifically describe a statement as being a forward-looking statement and refer to this cautionary statement.

Statements in this Report, including those that express a belief, expectation or intention, as well as those that are not statements of historical fact, are forward-looking statements. Those forward-looking statements appear in Item 1, Item 3, Item 7 and in the notes to our consolidated financial statements in Item 8 of this Report and elsewhere in this Report.

We have based our forward-looking statements on information currently available to us and our current expectations, estimates and projections about our industries, business environment and our Company. We caution that these statements are not guarantees of future performance, and you should not rely unduly on them as they involve risks, uncertainties and assumptions that we cannot predict. In addition, we have based many of these forward-looking statements on assumptions about future events that may prove to be inaccurate. While our management considers these statements and assumptions to be reasonable, they are inherently subject to numerous factors, including potentially the risk factors described in the section labeled Item 1A of this Report, most of which are difficult to predict and many of which are beyond our control. Accordingly, our actual results may differ materially from the future performance that we have expressed or forecast in our forward-looking statements.

We have discussed many of these factors in more detail elsewhere in this Report. These factors are not necessarily all the factors that could affect us. Unpredictable or unanticipated factors we have not discussed in this Report could also have material adverse effects on actual results of matters that are the subject of our forward-looking statements. We do not intend to update or review any forward-looking statement or our description of important factors, whether as a result of new information, future events or otherwise, except as required by applicable laws.

Available Information

Our website address is *www.bwxt.com*. We make available through the Investors section of this website under "SEC Filings," free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, our proxy statement, statements of beneficial ownership of securities on Forms 3, 4 and 5 and amendments to those reports as soon as reasonably practicable after we electronically file those materials with, or furnish those materials to, the Securities and Exchange Commission (the "SEC"). The SEC maintains a website at *www.sec.gov* that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. We have also posted on our website our: Corporate Governance Principles; Code of Business Conduct; Code of Ethics for our Chief Executive Officer and Senior Financial Officers; Board of Directors Conflicts of Interest Policies and Procedures; Amended and Restated Bylaws; and charters for the Audit and Finance, Governance and Compensation Committees of our Board of Directors.

Item 1A. RISK FACTORS

Industry Risks

We rely on U.S. Government contracts for a substantial percentage of our revenue, and some of those contracts are subject to continued appropriations by Congress and may be terminated or delayed if future funding is not made available. In addition, the U.S. Government may not renew or may seek to modify or terminate our existing contracts.

For the year ended December 31, 2022, U.S. Government contracts comprised approximately 76% of our total consolidated revenues. Government contracts are subject to various uncertainties, restrictions and regulations, including oversight audits, which could result in withholding or delaying payments to us, and termination or modification at the U.S. Government's convenience. In addition, some of our large, multi-year contracts with the U.S. Government are subject to annual funding determinations and the continuing availability of Congressional appropriations. Although multi-year operations may be planned in connection with major procurements, Congress generally appropriates funds on a fiscal-year basis even though a program may continue for several years. Consequently, programs often are only partially funded initially and additional funds are committed only as Congress makes further appropriations.

In addition, our Government Operations segment depends on U.S. Government funding, particularly funding levels at the DOE. Significant reductions in the level of funding (for example, the annual budget of the DOE) or specifically mandated levels for individual programs that are important to our business could have an unfavorable impact on us. Any reduction in the level of U.S. Government funding, particularly at the DOE, may result in, among other things, a reduction in the number and scope of projects put out for bid by the U.S. Government or the curtailment of existing U.S. Government programs, either of which may result in a reduction in the number of contract award opportunities available to us, a reduction of activities at DOE sites and an increase in costs, including the costs of obtaining contract awards.

The U.S. Government typically can terminate or modify any of its contracts with us either for its convenience or if we default by failing to perform under the terms of the applicable contract. A termination arising out of our default could expose us to liability and have an adverse effect on our ability to compete for future contracts and orders. If any of our contracts reflected in backlog are terminated by the U.S. Government, our backlog would be reduced by the expected value of the remaining work under such contracts. In addition, on those contracts for which we are teamed with others and are not the prime contractor, the U.S. Government could terminate a prime contract under which we are a subcontractor, irrespective of the quality of our products and services as a subcontractor. Furthermore, certain of our U.S. Government contracts span one or more base years and multiple option years. The U.S. Government generally has the right not to exercise option periods and may not exercise an option period for various reasons.

We also have several significant contracts with the U.S. Government that are subject to periodic renewal and rebidding through a competitive process. If the U.S. Government fails to renew these contracts or modifies key terms, our results of operations and cash flows would be adversely affected.

As a result of these and other factors, the termination of one or more of our significant government contracts, our suspension from government contract work, the failure of the U.S. Government to renew our existing contracts or the disallowance of the payment of our contract costs could have a material adverse effect on our financial condition, results of operations and cash flows.

Federal budget delays, federal debt ceiling limitations, or reductions in government spending could adversely impact government spending for the products and services we provide.

Federal government spending reductions could adversely impact U.S. Government programs for which we provide products or services. While we believe many of our programs are well-aligned with national defense and other strategic priorities, government spending on these programs can be subject to negative publicity, political factors and public scrutiny. The risk of future budget delays or reductions is uncertain and it is possible that spending cuts may be applied to U.S. Government programs across the board, regardless of how programs align with those priorities. There are many variables in how budget reductions could be implemented that will determine its specific impact; however, reductions in federal government spending could adversely impact programs in which we provide products or services. In addition, these cuts could adversely affect the viability of the suppliers and subcontractors under our programs. We may also be required to maintain operations of our joint ventures if the U.S. Government can no longer meet its debt obligations.

Demand for our products and services is vulnerable to economic downturns, the competitiveness of alternative energy sources and industry conditions. In addition, unfavorable economic conditions may lead customers to delay, curtail or cancel proposed or existing projects, which may decrease the overall demand for our products and services and adversely affect our results of operations.

Demand for our products and services has been, and we expect that demand will continue to be, subject to significant fluctuations due to a variety of factors beyond our control, including economic and industry conditions. These factors include, but are not limited to, inflation, geopolitical issues, the availability and cost of credit, the demand for and competitiveness of nuclear power with other energy sources, the cyclical nature of the power generation industry, low business and consumer confidence, high unemployment, energy conservation measures and decisions of utilities that operate nuclear power plants.

Our customers may find it more difficult to raise capital in the future due to limitations on the availability of credit, increases in interest rates and other factors affecting the federal, municipal and corporate credit markets. Additionally, our customers may demand more favorable pricing terms and find it increasingly difficult to timely pay invoices for our products and services, which would impact our future cash flows and liquidity. Inflation or significant changes in interest rates could reduce the demand for our products and services. Any inability to timely collect our invoices may lead to an increase in our accounts receivables and potentially to increased write-offs of uncollectable invoices. If the economy weakens, or customer spending declines, then our backlog, revenues, net income and overall financial condition could deteriorate. As a result, we may find it more difficult to raise capital in the future due to limitations on the availability of credit, increases in interest rates, changes in regulatory requirements, new investor requirements, such as stakeholder expectations regarding environmental, social and governance matters, and other factors affecting our access to the capital markets.

Our future business prospects in Canada are dependent upon the continued operation of Canadian nuclear plants and refurbishment of the majority of the plants in Ontario to extend their operating lives. Unfavorable economic conditions, competition from other forms of power generation, increased competition for refurbishment contracts, changes in government policy or operational or project execution issues may lead nuclear plant operators in Canada to cease operations or delay, curtail or cancel proposed or existing life-extension projects, which may decrease the overall demand for our products and services in Canada and adversely affect our financial condition, results of operations and cash flows.

We are subject to risks associated with contractual pricing in our industries, including the risk that, if our actual costs exceed the costs we estimate on our fixed-price contracts, our profitability will decline and we may suffer losses.

We are engaged in a number of highly competitive industries and we have priced a number of our contracts on a fixed-price basis. Our actual costs could exceed our projections, which may result in reduced profit or loss. We attempt to cover the increased costs of anticipated changes in labor, material and service costs of long-term contracts, either through estimates of cost increases, which are reflected in the original contract price, or through price escalation clauses. Despite these attempts, the cost and gross profit we realize on a fixed-price contract have and could vary materially from the estimated amounts because of supplier, contractor and subcontractor performance, execution issues, changes in job conditions, variations in labor and equipment productivity, inflation and increases in the cost of labor and raw materials, particularly steel, over the term of the contract.

These variations and the risks generally inherent in our industries may result in actual revenues or costs being different from those we originally estimated and may result in reduced profitability or losses on projects. Some of these risks include:

- difficulties encountered on our large-scale projects related to the procurement of materials or due to schedule disruptions, equipment performance failures, unforeseen site conditions, rejection clauses in customer contracts or other factors that may result in additional costs to us, reductions in revenue, claims or disputes;
- our inability to obtain compensation for additional work we perform or expenses we incur as a result of our customers providing deficient design, engineering information, equipment or materials;
- requirements to pay liquidated damages upon our failure to meet schedule or performance requirements of our contracts; and
- difficulties in engaging third-party subcontractors, equipment manufacturers or materials suppliers or failures by third-party subcontractors, equipment manufacturers or materials suppliers to perform could result in project delays and cause us to incur additional costs.

Operational Risks

Our business could be negatively impacted by security threats, including physical and cybersecurity threats, and other disruptions.

We face various security threats, including cyber threats, threats to the physical security of our facilities and infrastructure (including those that we manage and operate for our customers), and threats from terrorist acts, as well as the potential for business disruptions associated with these threats. Although we utilize a combination of tailored and industry standard security measures and technology to monitor and mitigate these threats, we cannot guarantee that these measures and technology will be sufficient to prevent security threats from materializing.

We have been, and will likely continue to be, subject to cyber-based attacks and other attempts to threaten our information technology systems, including attempts to gain unauthorized access to our proprietary and sensitive information and attacks from computer hackers, viruses, malicious code, internal threats and other security problems. As a U.S. Government contractor, we may be prone to a greater number of those threats than companies in other industries. These threats range from attacks common to most industries to more advanced and persistent threats from highly-organized adversaries targeting us because we are a U.S. Government contractor. We are required to maintain minimum security standards for handling information under our government contracts and failure to do so could result in termination of those contracts. From time to time, we experience system interruptions and delays; however, prior cyber-based attacks directed at us have not had a material adverse impact on our results of operations. Due to the evolving nature of these security threats, the impact of any future incident cannot be predicted. If we are unable to protect our proprietary and sensitive information, our customers could question the adequacy of our threat mitigation and detection processes and procedures, which could negatively impact our reputation and present and future business.

The costs related to cyber or other security threats or disruptions may not be fully insured or indemnified by other means. Occurrence of any of these events could adversely affect our internal operations, the services we provide to customers, the value of our investment in research and development efforts and other intellectual property, our future financial results, our reputation or our stock price.

In addition, we maintain, replace and/or upgrade current financial, human resources and other information technology systems. These activities subject us to inherent costs and risks associated with replacing and updating these systems, including potential disruption of our internal control structure, substantial capital expenditures, demands on management time and other risks of delays or difficulties in transitioning to new systems or of integrating new systems into our current systems. Our systems implementations and upgrades may not result in productivity improvements at the levels anticipated, or at all. In addition, the implementation of new technology systems may cause disruptions in our business operations. Such disruptions and any other information technology system disruptions, and our ability to mitigate those disruptions, if not anticipated and appropriately mitigated, could have a material adverse effect on our business.

Actual or threatened public health epidemics or outbreaks, such as COVID-19, could have a material adverse effect on our business and results of operations.

Actual or threatened public health epidemics or outbreaks, such as the global outbreak of COVID-19, could have a material adverse effect on our business and results of operations. Any public health epidemic poses the risk that we or our employees, contractors, suppliers, customers and other partners may be prevented from conducting business activities for an indefinite period of time, including due to shutdowns that may be requested or mandated by governmental authorities. Our business could be materially adversely impacted by employee illness, quarantines, government actions, facility closures, other actions to contain the impact of such diseases and/or potential responses to such actions by our customers, suppliers, contractors and employees. If our operations or the operations of our customers or our suppliers are restricted, we may be unable to perform fully on our contracts and our costs may increase as a result of a public health epidemic or outbreak. These cost increases may result in unfavorable changes in estimates which may not be fully recoverable or adequately covered by insurance or through government assistance programs such as the Coronavirus Aid, Relief and Economic Security Act in the U.S. (the "CARES Act") or the Canada Emergency Wage Subsidy (the "CEWS") in the case of COVID-19.

A public health epidemic or outbreak and mitigation measures may also have an adverse impact on global economic conditions, which could have an adverse effect on our business. The extent to which such an epidemic impacts our business will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of a public health epidemic or outbreak and the actions to contain its impact.

Additionally, government agencies may review and/or audit the benefits received under applicable government assistance programs, such as the CEWS in the case of COVID-19, and could disallow benefits which we have previously received. If these subsidies are reduced, disallowed or repealed due to changes in law or determination by the underlying government agency, it could have a material adverse effect on our financial condition, results of operations and cash flows. Moreover, there may be public scrutiny of government aid beneficiaries and as a result, our reputation could be harmed by participating in such programs.

We rely on intellectual property law and confidentiality agreements to protect our intellectual property. We also rely on intellectual property we license from third parties. Our failure to protect our intellectual property rights, our infringement of third-party intellectual property or our inability to obtain or renew licenses to use intellectual property of third parties, could adversely affect our business.

Our success depends, in part, on our ability to protect our proprietary information and other intellectual property. Our intellectual property could be stolen, challenged, invalidated, circumvented or rendered unenforceable. In addition, effective intellectual property protection may be limited or unavailable in some foreign countries where we operate.

Our failure to protect our intellectual property rights may result in the loss of valuable technologies or adversely affect our competitive business position. We rely significantly on proprietary technology, information, processes and know-how that are not subject to patent or copyright protection. We seek to protect this information through trade secret or confidentiality agreements with our employees, consultants, subcontractors or other parties, as well as through other security measures. These agreements and security measures may be inadequate to deter or prevent misappropriation of our confidential information. In the event of an infringement of our intellectual property rights, a breach of a confidentiality agreement or divulgence of proprietary information, we may not have adequate legal remedies to protect our intellectual property. In addition, third parties may allege that we have infringed their intellectual property rights, which could result in litigation. Litigation to protect, defend or determine the scope of intellectual property rights, even if ultimately successful, could be costly and could divert management's attention away from other aspects of our business. In addition, our trade secrets may otherwise become known or be independently developed by competitors.

In some instances, we have augmented our technology base by licensing the proprietary intellectual property of third parties. In the future, we may not be able to obtain necessary licenses on commercially reasonable terms, which could have a material adverse effect on our operations.

Our operations are subject to disruption caused by severe weather, environmental and natural disasters, pandemics and other natural and manmade events that could adversely affect our manufacturing facilities or the infrastructure necessary to support them. Our ability to operate or operate profitability could be significantly impacted, which could have a material adverse effect on our business, financial condition and results of operations.

We operate a number of large manufacturing facilities in the U.S. and Canada, including NRC Category 1 and CNSC-licensed nuclear manufacturing and fuel facilities. While we take steps to mitigate the impact of severe weather, environmental and natural disasters, the frequency and severity of which may be impacted by climate change, pandemics and other natural and manmade events, such events could result in severe disruption to our business operations at these facilities. Similar events impacting the facilities of our customers, suppliers and other subcontractors could also impact our business or disrupt our operations. If insurance or other risk mitigating mechanisms are insufficient for us to recover our costs and resume operations in a timely fashion, it could have a material adverse effect on our business, financial condition and results of operations.

Additionally, increased concern regarding global climate change may result in state, federal or international requirements to reduce or mitigate global warming, such as the imposition of stricter limits on greenhouse gas emissions or carbon pricing mechanisms. If environmental or climate-change laws or regulations are adopted or changed, they could necessitate the need for substantial capital and other expenditures and have further negative impacts on our financial condition, results of operations and cash flows.

Our operations are subject to operating risks, which could expose us to potentially significant professional liability, product liability, warranty and other claims. Our insurance coverage may be inadequate to cover all of our significant risks or our insurers may deny coverage of material losses we incur, which could adversely affect our profitability and overall financial condition.

We operate large manufacturing facilities and perform services in large commercial power plants where accidents or system failures can have significant consequences. Risks inherent in our operations include:

- accidents resulting in injury or the loss of life or property;
- environmental or toxic tort claims, including delayed manifestation claims for personal injury or loss of life;
- pollution or other environmental mishaps;
- natural disasters;
- adverse weather conditions;
- mechanical or design failures;
- property losses;
- business interruption due to political action in foreign countries or other reasons; and
- labor stoppages.

Any accident or failure at a site where we have provided products or services could result in significant professional liability, product liability, warranty and other claims against us, regardless of whether our products or services caused the incident. We have been, and in the future we may be, named as defendants in lawsuits asserting large claims as a result of litigation arising from events such as those listed above.

We endeavor to identify and obtain, in established markets, insurance agreements to cover significant risks and liabilities. Insurance against some of the risks inherent in our operations is either unavailable or available only at rates or on terms that we consider uneconomical. Also, catastrophic events customarily result in decreased coverage limits, more limited coverage, additional exclusions in coverage, increased premium costs and increased deductibles and self-insured retentions. Risks that we have frequently found difficult to cost-effectively insure against include, but are not limited to, business interruption, property losses from wind, flood and earthquake events, nuclear hazards and war, pollution liability, liabilities related to occupational health exposures (including asbestos), professional liability/errors and omissions coverage, the failure, misuse or unavailability of our information systems, the failure of security measures designed to protect our information systems from security breaches, and liability related to risk of loss of our work in progress and customer-owned materials in our care, custody and control. Depending on competitive conditions and other factors, we endeavor to obtain contractual protection against certain uninsured risks from our customers. When obtained, such contractual indemnification protection may not be as broad as we desire or may not be supported by adequate insurance maintained by the customer. Such insurance or contractual indemnity protection may not be sufficient or effective under all circumstances or against all hazards to which we may be subject. A successful claim for which we are not insured or for which we are underinsured could have a material adverse effect on us. Additionally, disputes with insurance carriers over coverage may affect the timing of cash flows and, if litigation with the carrier becomes necessary, an outcome unfavorable to us may have a material adverse effect on our results of operations.

We are also involved in management and operating activities for the U.S. Government. These activities involve, among other things, handling nuclear devices and their components for the U.S. Government. Most insurable liabilities arising from these sites are not protected in our corporate insurance program. Instead, we rely on government contractual agreements, some insurance purchased specifically for the sites and certain specialized self-insurance programs funded by the U.S. Government. The U.S. Government has historically fulfilled its contractual agreement to reimburse for insurable claims, and we expect it to continue this process. However, it should be noted that, in most situations, the U.S. Government is contractually obligated to pay subject to the availability of authorized government funds. The reimbursement obligation of the U.S. Government is also conditional, and provisions of the relevant contract or applicable law may preclude reimbursement.

We have a captive insurance company subsidiary that provides us with various insurance coverages. Claims, as a result of our operations, could adversely impact the ability of our captive insurance company subsidiary to respond to all claims presented.

Although we have product liability insurance coverage, with policy limits that we believe are customary for the medical radioisotope industry, such coverage may not be adequate, requiring that we pay judgments or settlement amounts in excess of policy limits. We may not be able to maintain insurance coverage at adequate levels. Any product liability claims could be costly to defend, time-consuming and result in adverse judgments, which could result in a material adverse effect on our business, reputation and results.

Additionally, upon the February 22, 2006 effectiveness of the settlement relating to the Chapter 11 proceedings involving several of our former subsidiaries, most of our subsidiaries contributed substantial insurance rights providing coverage for, among other things, asbestos and other personal injury claims, to an asbestos personal injury trust. With the contribution of these insurance rights to the asbestos personal injury trust, we may have underinsured or uninsured exposure for non-derivative asbestos claims or other personal injury or other claims that would have been insured under these coverages had the insurance rights not been contributed to the asbestos personal injury trust. In conjunction with the spin-off, claims and liabilities associated with the asbestos personal injury, property damage and indirect property damage claims mentioned above have been expressly assumed by BWE pursuant to the master separation agreement between us and BWE.

The loss of, or the inability to attract and retain, qualified personnel could have a material adverse effect on our business.

Our business depends upon the recruitment and continued service of our highly skilled, educated and trained employees. Our ability to attract, motivate, compensate, and retain highly qualified and diverse employees is necessary to support our customers and achieve business objectives. Competition for skilled and diverse employees in our industry can be intense, and any uncertainty surrounding future employment opportunities, facility locations, organizational and reporting structures, acquisitions and divestitures, and related concerns may impair our ability to attract and retain qualified employees. In addition, certain parts of our business, including in the Government Operations segment, involve designs, processing and final products that are classified by the U.S. Government and require applicable personnel to obtain and maintain U.S. Government security clearances. These additional employee qualifications often limit the pool of available candidates and extend the time necessary to recruit and qualify new employees. The loss of the services of qualified employees and any inability to recruit effective replacements or to otherwise attract, motivate, train or retain highly qualified and diverse employees could have a material adverse effect on our business, financial condition and results of operations.

We also have established leadership development and succession planning programs throughout our business. Any significant leadership change and accompanying senior management transition involves inherent risk, and any failure to ensure a smooth transition could hinder our strategic planning, execution and future performance. While we strive to mitigate the negative impact associated with changes to our senior management team, such changes may cause uncertainty among investors, employees, customers, creditors, and others concerning our future direction and performance. If we fail to effectively manage any leadership changes, including organizational and strategic changes, such failure could have a material adverse effect on our ability to successfully attract, motivate and retain highly qualified employees, as well as our business, financial condition and results of operations.

Negotiations with labor unions and possible work stoppages and other labor problems could divert management's attention and disrupt operations. In addition, new collective bargaining agreements or amendments to agreements could increase our labor costs and operating expenses.

A significant number of our employees are members of labor unions. If we are unable to negotiate acceptable new contracts with our unions from time to time, we could experience strikes or other work stoppages by the affected employees. If any such strikes or other work stoppages were to occur, we could experience a significant disruption of operations. In addition, negotiations with unions could divert management attention. New union contracts or the organization of nonunion employees could result in increased operating costs, as a result of higher wages or benefit expenses, for both union and nonunion employees.

We rely on a limited number of suppliers, including single-source suppliers, which could, under certain circumstances, adversely affect our revenues and operating results.

We rely on a limited number of suppliers, including several single-source suppliers, for materials used in our products in both our Government Operations and Commercial Operations segments. If the supply of a single-sourced or limited-sourced material is delayed or ceases, we may not be able to produce the related product in a timely manner or in sufficient quantities, if at all, which could adversely affect our revenues and operating results. In addition, a single-source or limited-source supplier of a key component could potentially exert significant bargaining power over price, quality, warranty claims or other terms relating to these materials, which could have a material adverse effect on our financial condition, results of operations and cash flows.

Maintaining adequate bonding and letter of credit capacity is necessary for us to successfully bid on and win various contracts.

In line with industry practice, we are often required to post standby letters of credit and surety bonds to support contractual obligations to customers as well as other obligations. These letters of credit and bonds generally indemnify customers should we fail to perform our obligations under the applicable contracts. If a letter of credit or bond is required for a particular project and we are unable to obtain it due to insufficient capacity or other reasons, we will not be able to pursue that project. We utilize bonding facilities, but, as is typically the case, the issuance of bonds under each of those facilities is at the surety's sole discretion. In addition, we have capacity limits under our credit facility for letters of credit. Moreover, due to events that affect the insurance and bonding and credit markets generally, bonding and letters of credit may be more difficult to obtain in the future or may only be available at significant additional cost. There can be no assurance that letters of credit or bonds will continue to be available to us on reasonable terms. Our inability to obtain adequate letters of credit and bonding and, as a result, to bid on new work could have a material adverse effect on our business, financial condition and results of operations. As of December 31, 2022, we had $37.5 million in letters of credit and $113.5 million in surety bonds outstanding.

Our business strategy includes acquisitions and strategic investments to support our growth, which can create certain risks and uncertainties.

We intend to pursue growth through the acquisition of, or strategic investments in, businesses or assets that we believe will enable us to strengthen our existing businesses and expand into adjacent industries. We may be unable to execute this growth strategy if we cannot identify suitable businesses or assets, reach agreement on potential strategic transactions on acceptable terms or for other reasons.

Acquisitions may be funded by the issuance of additional equity or debt financing, which may not be available on attractive terms. Our ability to secure such financing will depend in part on prevailing capital market conditions, as well as conditions in our business and operating results. Moreover, to the extent an acquisition transaction financed by non-equity consideration results in goodwill, it will reduce our tangible net worth, which might have an adverse effect on potential credit and bonding capacity.

Additionally, an acquisition may bring us into businesses we have not previously conducted and expose us to additional business risks that are different than those we have historically experienced.

Our business strategy also includes development and commercialization of new technologies to support our growth, which requires significant investment and involves various risks and uncertainties. These new technologies may not achieve desired commercial or financial results.

Our future growth will depend on our ability to continue to innovate by developing and commercializing new product and service offerings. Investments in new technologies involve varying degrees of uncertainties and risk. Commercial success depends on many factors, including the levels of innovation, the development costs and the availability of capital resources to fund those costs, the levels of competition from others developing similar or other competing technologies, our ability to obtain or maintain government permits or certifications, the effectiveness of production, distribution and marketing efforts, market demand, market growth or shrinkage, market acceptance and the costs to customers to deploy and provide support for the new technologies. We may not achieve significant revenue from new product and service investments for a number of years, if at all. Additionally, there can be no assurance that the current technologies that our businesses rely upon will remain competitive, or that competing technologies will not disrupt our business. Moreover, new products and services may not be profitable, and, even if they are profitable, our operating margins from new products and services may not be as high as the margins we have experienced historically. Lastly, new technologies may not be patentable and, as a result, we may face increased competition.

Among our opportunities involving new technologies, we are developing new medical radioisotope technology. The costs to develop and commercialize this technology require a substantial amount of investment over a period of years, and commercialization of this technology also requires authorizations from government agencies, including the U.S. Food and Drug Administration ("FDA"), Health Canada and the CNSC. There can be no assurance that we will be successful in addressing all of the technological challenges to developing and commercializing this technology or in obtaining the required authorizations from the FDA, Health Canada or the CNSC. In addition, commercialization of the medical radioisotope technology could subject us to product liability claims. The potential also exists for competitors to emerge with alternative technologies. We can provide no assurance that those competitors will not develop and commercialize similar or superior technologies sooner than we can or at a significant cost or price advantage.

We conduct a portion of our operations through joint venture entities, over which we may have limited ability to influence.

We currently have equity interests in several joint ventures and may enter into additional joint venture arrangements in the future. Our influence over some of these entities may be limited. Even in those joint ventures over which we do exercise significant influence, we are often required to consider the interests of our joint venture partners in connection with major decisions concerning the operations of the joint ventures. In any case, differences in views among the joint venture participants may result in delayed decisions or disputes. We also cannot control the actions of our joint venture partners. We sometimes have joint and several liabilities with our joint venture partners under the applicable contracts for joint venture projects and we cannot be certain that our partners will be able to satisfy any potential liability that could arise. These factors could potentially harm the business and operations of a joint venture and, in turn, our business and operations.

Operating through joint ventures in which we are minority holders results in us having limited control over many decisions made with respect to projects and internal controls relating to projects. These joint ventures may not be subject to the same requirements regarding internal controls and internal control over financial reporting that we follow. As a result, internal control problems may arise with respect to the joint ventures that could adversely affect our ability to respond to requests or contractual obligations to customers or to meet the internal control requirements to which we are otherwise subject.

In addition, our arrangements involving joint ventures may restrict us from gaining access to the cash flows or assets of these entities. In some cases, our joint ventures have governmentally imposed restrictions on their abilities to transfer funds to us.

If our co-venturers fail to perform their contractual obligations on a project or if we fail to coordinate effectively with our co-venturers, we could be exposed to legal liability, loss of reputation and reduced profit on the project.

We often perform projects jointly with third parties. For example, we enter into contractual arrangements to bid for and perform jointly on large projects. Success on these joint projects depends in part on whether our co-venturers fulfill their contractual obligations satisfactorily. If any one or more of these third parties fail to perform their contractual obligations satisfactorily, we may be required to make additional investments and provide added services in order to compensate for that failure. If we are unable to adequately address any such performance issues, then our customer may exercise its right to terminate a joint project, exposing us to legal liability, loss of reputation and reduced profit.

Under these arrangements, participating parties may disagree on business decisions and strategies. These disagreements could result in delays, additional costs and risks of litigation. Our inability to successfully maintain existing relationships or enter into new agreements could have a material adverse effect on our results of operations.

Accounting and Financial Reporting Risks

We recognize a large portion of our revenue on an over time basis which could result in volatility in our results of operations.

We generally recognize revenues and profits under our long-term contracts on an over time basis. Accordingly, we review contract price and cost estimates regularly as the work progresses and reflect adjustments proportionate to our progress made towards completion in income in the period when we revise those estimates. To the extent these adjustments result in a reduction or an elimination of previously reported profits with respect to a project, we would recognize a charge against current earnings, which could be material. Our current estimates of our contract costs and the profitability of our long-term projects, although reasonably reliable when made, could change as a result of the uncertainties associated with these types of contracts, and if adjustments to overall contract costs are significant, the reductions or reversals of previously recorded revenue and profits could be material in future periods.

Our backlog is subject to unexpected adjustments and cancellations and may not be a reliable indicator of future revenues or earnings.

There can be no assurance that the revenues projected in our backlog will be realized or, if realized, will result in profits. Because of project cancellations or changes in project scope and schedule, we cannot predict with certainty when or if backlog will be performed. In addition, even where a project proceeds as scheduled, it is possible that contracted parties may default and fail to pay amounts owed to us or poor project performance could increase the cost associated with a project. Delays, suspensions, cancellations, payment defaults, scope changes and poor project execution could materially reduce or eliminate the revenues and profits that we actually realize from projects in backlog.

Reductions in our backlog due to cancellation or modification by a customer or for other reasons may adversely affect, potentially to a material extent, the revenues and earnings we actually receive from contracts included in our backlog. Many of the contracts in our backlog provide for cancellation fees in the event customers cancel projects. These cancellation fees usually provide for reimbursement of our out-of-pocket costs, revenues for work performed prior to cancellation and a varying percentage of the profits we would have realized had the contract been completed. However, we typically have no contractual right upon cancellation to the total revenues reflected in our backlog. Projects may remain in our backlog for extended periods of time. If we experience significant project terminations, suspensions or scope adjustments to contracts reflected in our backlog, our financial condition, results of operations and cash flows may be adversely impacted.

Pension and medical expenses associated with our retirement benefit plans may fluctuate significantly depending on changes in actuarial assumptions, future market performance of plan assets, future trends in health care costs and legislative or other regulatory actions.

A substantial portion of our current and retired employee population is covered by pension and postretirement benefit plans, the costs and funding requirements of which depend on our various assumptions, including estimates of rates of return on benefit-related assets, discount rates for future payment obligations, rates of future cost growth, mortality assumptions and trends for future costs. Variances from these estimates could have a material adverse effect on us. In addition, our policy to recognize these variances annually through mark to market accounting could result in volatility in our results of operations, which could be material. Service accruals for salaried participants ceased as of December 31, 2015. As of December 31, 2022, we had underfunded defined benefit pension and postretirement benefit plans with obligations totaling approximately $(80.5) million. A substantial portion of our postretirement benefit plan costs are recoverable on our U.S. Government contracts. See Note 7 to our consolidated financial statements included in this Report for additional information regarding our pension and postretirement benefit plan obligations.

Legal, Regulatory and Compliance Risks

We are involved in a number of legal proceedings. We cannot predict the outcome of litigation and other contingencies with certainty.

Our business may be adversely affected by the outcome of legal proceedings, investigations, disputes and other contingencies that cannot be predicted with certainty. As required by GAAP, we estimate loss contingencies and establish reserves based on our assessment of contingencies where liability is deemed probable and reasonably estimable in light of the facts and circumstances known to us at a particular point in time. Subsequent developments in legal proceedings may affect our assessment and estimates of the loss contingency recorded as a liability or as a reserve against assets in our financial statements. For a description of current legal proceedings, see Note 10 to our consolidated financial statements included in this Report.

If we fail to comply with government procurement laws and regulations, we could lose business and be liable for various penalties or sanctions.

We must comply with laws and regulations relating to the formation, administration, and performance of U.S. Government contracts. These laws and regulations include the FAR, Defense Federal Acquisition Regulations, the Truth in Negotiations Act, CAS, and laws, regulations, and orders restricting the use and dissemination of classified information under the U.S. export control laws and the export of certain products and technical information. Certain government contracts provide audit rights by government agencies, including with respect to performance, costs, internal controls and compliance with applicable laws and regulations. In complying with these laws and regulations, we may incur significant costs, and non-compliance may result in the imposition of fines and penalties, including contractual damages. If we fail to comply with existing or future laws and regulations or if a government audit, review, or investigation uncovers improper or illegal activities, we may be subject to civil penalties, criminal penalties, or administrative sanctions, including suspension or debarment from contracting with the U.S. Government. Changes in environmental and climate change laws or regulations, including laws relating to greenhouse gas emissions, could lead to new or additional investment in facilities and could increase environmental compliance expenditures, including increased energy, raw material and other costs. For example, changes to the FAR requirements for federal contractors proposed in November 2022 would require companies to make annual greenhouse gas emissions and other disclosures in order to be deemed a responsible bidder on future government contracts. Such additional requirements could result in additional expense and, if we are unable to comply with such regulatory changes, could have a material adverse effect on our business, financial condition and results of operations. Further, our reputation could suffer harm if allegations of impropriety were made or found against us, which could adversely affect our operating performance and may result in additional expenses and possible loss of revenue.

Employee, agent or partner misconduct or our overall failure to comply with laws, regulations or government contracts could weaken our ability to win contracts, lead to the suspension of our operations and result in reduced revenues and profits.

Misconduct, fraud, or other improper activities by one or more of our employees, agents or partners, as well as our failure to comply with applicable laws and regulations, could have a significant negative impact on our business and reputation. Such misconduct could include the failure to comply with government procurement regulations, regulations regarding the protection of classified and other information, regulations regarding the pricing of labor and other costs in government contracts, regulations on lobbying or similar activities, regulations pertaining to the internal controls over financial reporting and various other applicable laws or regulations. For example, we regularly provide services that may be highly sensitive or that are related to critical national security matters. If a security breach were to occur, our ability to procure future government contracts could be severely limited. The precautions we take to prevent and detect these activities may not be effective, and we could face unknown risks or losses.

We are routinely audited and reviewed by the U.S. Government and its agencies. These agencies review our performance under our contracts, our cost structure and our compliance with applicable laws, regulations and standards, as well as the adequacy of, and our compliance with, our internal control systems and policies. Systems that are subject to review include our purchasing systems, billing systems, property management and control systems, cost estimating systems, compensation systems and management information systems. Any costs found to be improperly allocated to a specific contract will not be reimbursed or must be refunded if already reimbursed. If an audit or review uncovers improper or illegal activities, we could be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines, loss of security clearance and suspension or debarment from contracting with the U.S. Government. In addition, we could suffer serious reputational harm if allegations of impropriety were made against us.

Our nuclear operations subject us to various environmental, regulatory, financial and other risks.

Our operations in designing, engineering, manufacturing, supplying, constructing and maintaining nuclear fuel and nuclear power equipment and components subject us to various risks, including:

- potential liabilities relating to harmful effects on the environment and human health resulting from nuclear operations and the storage, handling and disposal of radioactive materials;

- unplanned expenditures relating to maintenance, operation, security, defects, upgrades and repairs required by the NRC, CNSC and other government agencies;
- limitations on the amounts and types of insurance commercially available to cover losses that might arise in connection with nuclear operations; and
- potential liabilities arising out of a nuclear, radiological or criticality incident, whether or not it is within our control.

Our nuclear operations are subject to various safety-related requirements imposed by the U.S. Government, the DOE, the NRC and the CNSC. In the event of non-compliance, these agencies might increase regulatory oversight, impose fines or shut down our operations, depending upon the assessment of the severity of the situation. Revised security and safety requirements promulgated by these agencies could necessitate substantial capital and other expenditures. In addition, we must comply with and are affected by laws and regulations relating to the award, administration and performance of U.S. Government contracts. Government contract laws and regulations affect how we do business with our customers and, in some instances, impose added costs on our business. A violation of specific laws and regulations could result in the imposition of fines and penalties or the termination of our contracts or debarment from bidding on contracts.

Limitations or modifications to indemnification regulations of the U.S. or foreign countries could adversely affect our business.

The Price-Anderson Act partially indemnifies the nuclear industry against liability arising from nuclear incidents in the U.S., while ensuring compensation for the general public. The Price-Anderson Act comprehensively regulates the manufacture, use and storage of radioactive materials, while promoting the nuclear industry by offering broad indemnification to commercial nuclear power plant operators and DOE contractors. Because we provide nuclear fabrication and other services to the DOE relating to its nuclear devices, facilities and other programs and the nuclear power industry in the ongoing maintenance and modifications of its nuclear power plants, including the manufacture of equipment and other components for use in such nuclear power plants, we may be entitled to some of the indemnification protections under the Price-Anderson Act against liability arising from nuclear incidents in the U.S. The indemnification authority under the Price-Anderson Act was extended through December 2025 by the Energy Policy Act of 2005. We also provide nuclear fabrication and other services to the nuclear power industry in Canada and other countries. Canada's NLCA generally conforms to international conventions and is conceptually similar to the Price-Anderson Act in the U.S. Accordingly, indemnification protections and the possibility of exclusions under Canada's NLCA are similar to those under the Price-Anderson Act in the U.S.

The Price-Anderson Act and Canada's NLCA indemnification provisions may not apply to all liabilities that we might incur while performing services as a contractor for the DOE and the nuclear power industry. If an incident or evacuation is not covered under the Price-Anderson Act's or Canada's NLCA's indemnification provisions, we could be held liable for damages, regardless of fault, which could have an adverse effect on our financial condition and results of operations. In connection with the international transportation of toxic, hazardous and radioactive materials, it is possible for a claim to be asserted that may not fall within the indemnification provided by the Price-Anderson Act or Canada's NLCA. If such indemnification authority is not applicable in the future, our business could be adversely affected if the owners and operators of nuclear power plants fail to retain our services in the absence of commercially adequate insurance and indemnification.

Moreover, because we manufacture nuclear components for the U.S. Government's defense program, we may be entitled to some of the indemnification protections afforded by Public Law 85-804 for certain of our nuclear operations risks. Public Law 85-804 authorizes certain agencies of the U.S. Government, such as the DOE and the DoD, to indemnify their contractors against unusually hazardous or nuclear risks when such action would facilitate the national defense. However, because the indemnification protections afforded by Public Law 85-804 are granted on a discretionary basis, situations could arise where the U.S. Government elects not to offer such protections. In such situations, our business could be adversely affected by either our inability to obtain commercially adequate insurance or indemnification or our refusal to pursue such operations in the absence of such protections.

Our operations involve the handling, transportation and disposal of radioactive and hazardous materials, and environmental laws and regulations and civil liability for contamination of the environment or related personal injuries may result in increases in our operating costs and capital expenditures and decreases in our earnings and cash flows.

Our operations involve the handling, transportation and disposal of radioactive and hazardous materials, including nuclear devices and their components. Failure to properly handle these materials could pose a health risk to humans or wildlife and could cause personal injury and property damage (including environmental contamination). If an accident were to occur, its severity could be significantly affected by the volume of the materials and the speed of corrective action taken by us and others, including emergency response personnel, as well as other factors beyond our control, such as weather and wind conditions. Actions taken in response to an accident could result in significant costs.

Governmental requirements relating to the protection of the environment, including solid waste management, air quality, water quality, the decontamination and decommissioning of nuclear manufacturing and processing facilities and cleanup of contaminated sites, have had a substantial impact on our operations. These requirements are complex and subject to frequent change. In some cases, they can impose liability for the entire cost of cleanup on any responsible party without regard to negligence or fault and impose liability on us for the conduct of others or conditions others have caused, or for our acts that complied with all applicable requirements when we performed them. Our compliance with amended, new or more stringent requirements, stricter interpretations of existing requirements or the future discovery of contamination may require us to make material expenditures or subject us to liabilities that we currently do not anticipate. Such expenditures and liabilities may adversely affect our business, financial condition, results of operations and cash flows. In addition, some of our operations and the operations of predecessor owners of some of our properties have exposed us to civil claims by third parties for liability resulting from alleged contamination of the environment or personal injuries caused by releases of hazardous substances into the environment. See the heading "Governmental Regulations and Environmental Matters" in Item 1 of this Report.

In our contracts, we seek to protect ourselves from liability associated with accidents, but there can be no assurance that such contractual limitations on liability will be effective in all cases or that our or our customers' insurance will cover all the liabilities we have assumed under those contracts. The costs of defending against a claim arising out of a nuclear incident or precautionary evacuation, and any damages awarded as a result of such a claim, could adversely affect our financial condition and results of operations.

We maintain insurance coverage as part of our overall risk management strategy and due to requirements to maintain specific coverage in our financing agreements and in many of our contracts. These policies do not protect us against all liabilities associated with accidents or for unrelated claims. In addition, comparable insurance may not continue to be available to us in the future at acceptable prices, or at all.

Our business requires us to obtain, and to comply with, federal, state and local government permits and approvals.

Our business is required to obtain, and to comply with, federal, state and local government permits and approvals. Any of these permits or approvals may be subject to denial, revocation or modification under various circumstances. Failure to obtain or comply with the conditions of permits or approvals may adversely affect our operations by temporarily suspending our activities or curtailing our work and may subject us to penalties and other sanctions. Although existing licenses are routinely renewed by various regulators, renewal could be denied or jeopardized by various factors, including:

- failure to provide adequate financial assurance for decommissioning or closure;
- failure to comply with environmental and safety laws and regulations or permit conditions;
- local community, political or other opposition;
- executive action; and
- legislative action.

We are also subject to regulatory oversight by the FDA and Health Canada for our medical isotope business. The commercialization of our medical radioisotope technology will require the review and approval of these and other government agencies. Any delay or denial of such approvals could have a material adverse effect on our medical isotope business.

In addition, if new legislation or regulations are enacted or implemented, or if existing laws or regulations are amended or are interpreted or enforced differently, we may be required to obtain additional operating permits or approvals. Our inability to obtain, and to comply with, the permits and approvals required for our business could have a material adverse effect on us.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

The following table provides the segment name, location and general use of each of our principal properties at December 31, 2022 that we own or lease:

Business Segment and Location	Principal Use	Owned/Leased (Lease Expiration)
Government Operations		
Lynchburg, Virginia	Manufacturing facility (1) (4)	Owned
Barberton, Ohio	Manufacturing facility	Owned
Euclid, Ohio	Manufacturing facility	Owned
Mount Vernon, Indiana	Manufacturing facility	Owned
Erwin, Tennessee	Manufacturing facility (2) (4)	Owned
Lynchburg, Virginia	Administrative office	Leased (2023)
Commercial Operations		
Cambridge, Ontario, Canada	Manufacturing facility	Owned
Peterborough, Ontario, Canada	Manufacturing facility (3) (4)	Leased (2036)
Toronto, Ontario, Canada	Manufacturing facility (3) (4)	Leased (2036)
Kanata, Ontario, Canada	Manufacturing facility (3) (4)	Leased (2038)
Vancouver, British Columbia, Canada	Manufacturing facility (3) (4)	Leased (2031)
Oakville, Ontario, Canada	Manufacturing facility	Leased (2029)
Corporate		
Lynchburg, Virginia	Administrative office	Leased (2025)
Washington, District of Columbia	Administrative office	Leased (2033)
Charlotte, North Carolina	Administrative office	Leased (2025)

(1) This facility is our Government Operations segment's primary manufacturing plant and is the nation's largest commercial high-enriched uranium processing facility. The site is also the largest commercial International Atomic Energy Agency certified facility in the U.S.

(2) Nuclear Fuel Services, Inc. ("NFS") operates this facility, which manufactures fuel for naval nuclear reactors and downblends Cold War-era government stockpiles of high-enriched uranium. NFS is the sole provider of nuclear fuel for the U.S. Navy.

(3) These facilities are licensed by the CNSC in order to allow us to fabricate natural uranium fuel and produce medical radioisotopes.

(4) This site is subject to review by either the NRC or the CNSC for licensee performance. The performance reviews determine the safe and secure conduct of operations of the facility.

We consider each of our significant properties to be suitable and adequate for its intended use. For further details regarding our properties, see Item 1 of this Report.

Item 3. LEGAL PROCEEDINGS

The information set forth under the heading "Investigations and Litigation" in Note 10 to our consolidated financial statements included in Item 8 of this Report is incorporated by reference into this Item 3.

Item 4. MINE SAFETY DISCLOSURES

None.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the New York Stock Exchange under the symbol BWXT. As of February 21, 2023, there were approximately 1,356 holders of record of our common stock.

Since November 2012, we have periodically announced that our Board of Directors has authorized share repurchase programs. The following table provides information on our purchases of equity securities during the quarter ended December 31, 2022. Any shares purchased that were not part of a publicly announced plan or program are related to repurchases of common stock pursuant to the provisions of employee benefit plans that permit the repurchase of shares to satisfy statutory tax withholding obligations.

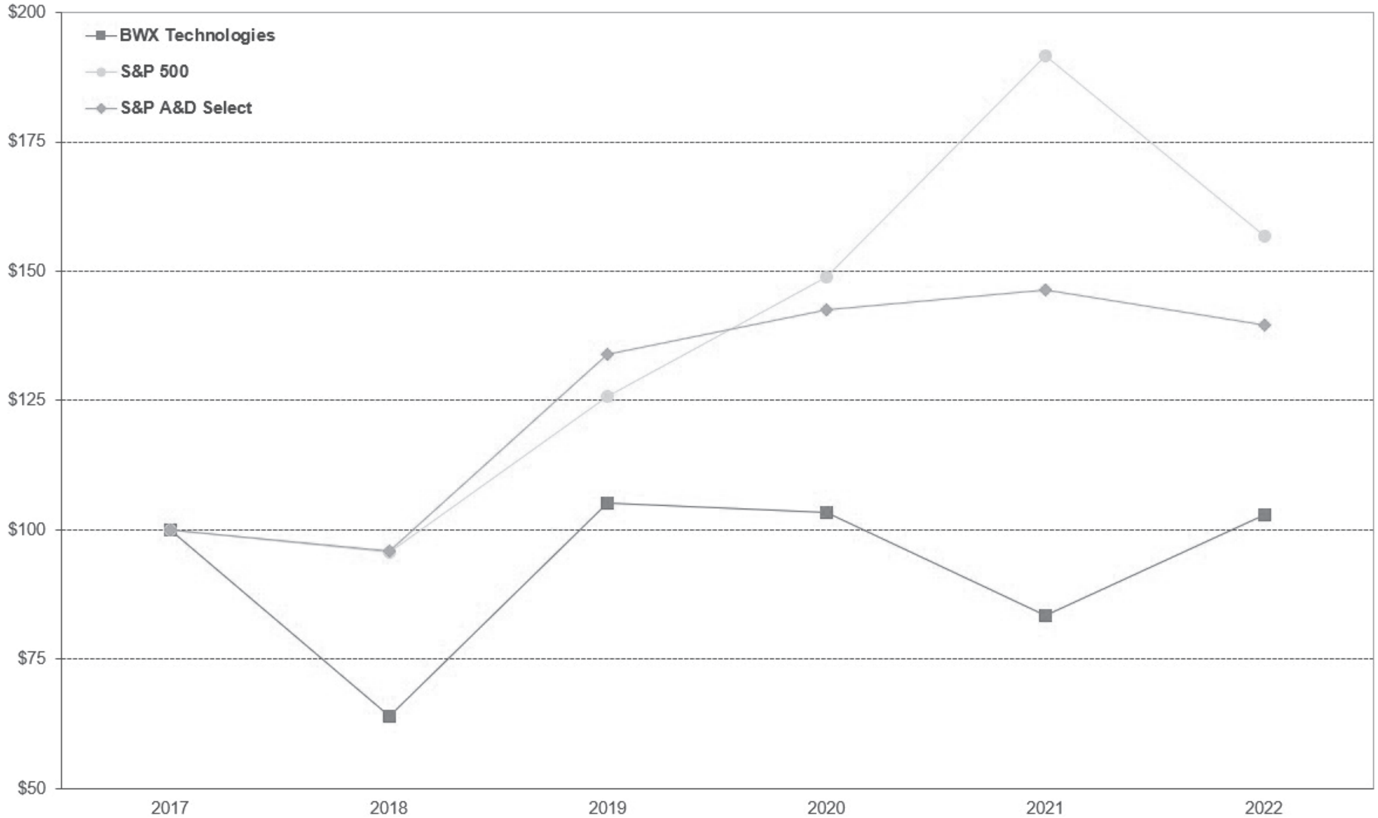
Issuer Purchases of Equity Securities

Period	Total number of shares purchased (1)	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Approximate dollar value of shares that may yet be purchased under the plans or programs (in millions) (2)
October 1, 2022 – October 31, 2022	7	$ 55.45	—	$ 397.6
November 1, 2022 – November 30, 2022	—	—	—	$ 397.6
December 1, 2022 – December 31, 2022	—	—	—	$ 397.6
Total	7	$ 55.45	—	

(1) Includes 7 shares repurchased during October pursuant to the provisions of employee benefit plans that permit the repurchase of shares to satisfy statutory tax withholding obligations.

(2) On April 30, 2021, our Board of Directors authorized us to repurchase an indeterminate number of shares of our common stock at an aggregate market value of up to $500 million with no expiration date.

The following graph provides a comparison of our cumulative total shareholder return over five years to the return of the S&P 500 Composite Index ("S&P 500") and the return of the S&P Aerospace and Defense Select Index ("S&P A&D Select"). *The following graph shall not be deemed to be "soliciting material" or "filed" with the SEC or be subject to Regulation 14A or 14C (other than as provided in Item 201 of Regulation S-K) or to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that BWXT specifically incorporates it by reference into such filing.*



(1) Assumes initial investment of $100 on December 31, 2017 and reinvestment of dividends.

Item 6. [RESERVED]

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Statements we make in the following discussion, which express a belief, expectation or intention, as well as those that are not historical fact, are forward-looking statements that are subject to risks, uncertainties and assumptions. Our actual results, performance or achievements, or industry results, could differ materially from those we express in the following discussion as a result of a variety of factors, including the risks and uncertainties we have referred to under the heading "Cautionary Statement Concerning Forward-Looking Statements" in Item 1 and throughout Item 1A of this Report.

General

We are a leading supplier of nuclear components and fuel to the U.S. Government; provide technical, management and site services to support governments in the operation of complex facilities and environmental remediation activities; supply precision manufactured components, nuclear fuel and services for the commercial nuclear power industry; supply critical medical radioisotopes and radiopharmaceuticals; and develop nuclear technologies for a variety of applications, including medical radioisotopes, advanced nuclear power sources and advanced nuclear reactors. In general, we operate in capital-intensive industries and rely on large contracts for a substantial amount of our revenues. We are currently exploring growth strategies across our segments through strategic investments and acquisitions to expand and complement our existing businesses. We would expect to fund these opportunities with cash generated from operations or by raising additional capital through debt, equity or some combination thereof.

We operate in two reportable segments: Government Operations and Commercial Operations. Our reportable segments reflect changes we made during the first quarter of 2022 to better align our businesses by their government and commercial nature, which reflects the manner in which our operating segment information is reported for purposes of assessing operating performance and allocating resources. Prior to 2022, we reported three segments: Nuclear Operations Group, Nuclear Power Group and Nuclear Services Group.

Our Government Operations segment consists of our legacy Nuclear Operations Group and Nuclear Services Group segments with certain research and development activities in the areas of advanced reactors and advanced manufacturing. Our Commercial Operations segment consists of our legacy Nuclear Power Group segment with certain research and development and commercialization activities in the areas of medical and industrial radioisotopes and radiopharmaceuticals. Both segments now include research and development and certain commercialization activities associated with new technologies previously reported outside of our reportable segments. The change in our reportable segments had no impact on our previously reported consolidated financial condition, results of operations or cash flows. We have applied the change in reportable segments to previously reported historical financial information and related disclosures included in this Report.

Outlook

We expect to recognize approximately 42% of the revenue associated with our backlog by the end of 2023, with the remainder to be recognized thereafter.

Government Operations

The revenues of our Government Operations segment are largely a function of national security spending by the U.S. Government. As a supplier of major nuclear components for certain U.S. Government programs, we are a significant participant in the defense industry and have not been negatively impacted by federal budget reductions to date. We believe many of our programs are well-aligned with national defense and other strategic priorities as we supply high-end equipment for submarines and aircraft carriers for the U.S. Navy and participate in the continuing cleanup, operation and management of critical government-owned nuclear sites, laboratories and manufacturing complexes maintained by the DOE, NASA and other federal agencies. However, it is possible that reductions in federal government spending could have an adverse impact on the operating results and cash flows of this segment in the future.

A portion of this segment's operations is also conducted through joint ventures, which typically earn fees, and we account for them following the equity method of accounting. See Note 4 to our consolidated financial statements included in this Report for financial information on our equity method investments. This segment also specializes in the development of advanced technologies. The nature, timing and duration of any related contracts are dependent on the demand and funding availability for such technologies.

Commercial Operations

The revenues in this segment primarily depend on the demand and competitiveness of nuclear energy. The activity of this segment depends on the timing of maintenance and refueling outages, the cyclical nature of capital expenditures and major refurbishment and plant life extension projects, as well as the demand for nuclear fuel and fuel handling equipment primarily in the Canadian market, which could cause variability in our financial results.

Our Commercial Operations segment's offerings also include medical radioisotope products, radiopharmaceuticals and medical devices for use in diagnostic imaging and radiotherapeutic treatments. The medical isotope business will be the platform from which we plan to launch our Molybdenum-99 product line and a number of future radioisotope-based imaging, diagnostic and therapeutic products.

Critical Accounting Estimates

Our financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). Preparing financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. These estimates and assumptions are affected by management's application of accounting policies. We believe the following are our most critical accounting policies that we apply in the preparation of our financial statements. These policies require our most difficult, subjective and complex judgments, often as a result of the need to make estimates of matters that are inherently uncertain, and the impact of these policies have had or are reasonably likely to have a material impact on our financial condition or results of operations.

See Note 1 to our consolidated financial statements included in this Report for further discussion of significant accounting policies.

Contracts and Revenue Recognition

We generally recognize estimated contract revenue and resulting income over time based on the measurement of the extent of progress toward completion using total costs incurred as a percentage of the total estimated project costs for individual performance obligations. We review contract price and cost estimates periodically as the work progresses and reflect adjustments proportionate to the percentage-of-completion in income in the period when those estimates are revised. If a current estimate of total contract costs indicates a loss on a contract, the projected loss is recognized in full when determined. It is possible that current estimates could materially change for various reasons, including, but not limited to, fluctuations in forecasted labor productivity or raw material prices. We routinely review estimates related to our contracts, and revisions to profitability are reflected in the quarterly and annual earnings we report. In the years ended December 31, 2022, 2021 and 2020, we recognized net favorable changes in estimates related to long-term contracts that increased operating income by approximately $24.4 million, $26.5 million and $42.8 million, respectively.

Although we continually strive to improve our ability to estimate our contract costs and profitability, adjustments to overall contract costs due to unforeseen events could be significant in future periods. We recognize contract change orders or changes in scope of work in contract revenues, to the extent of costs incurred, when we believe collection is probable and can be reasonably estimated. We recognize income from claims when formally agreed with the customer. We regularly assess the collectability of contract revenues and receivables from customers.

Pension Plans and Postretirement Benefits

We utilize actuarial and other assumptions in calculating the cost and benefit obligations of our pension and postretirement benefits. The assumptions utilized in the determination of our cost and obligations include assumptions regarding discount rates, expected returns on plan assets, mortality and health care cost trends. The assumptions utilized represent our best estimates based on historical experience and other factors.

We calculate the majority of our pension costs under both financial accounting standards ("FAS") in accordance with GAAP and CAS in accordance with the FAR. We have prepared our consolidated financial statements and segment reporting disclosures utilizing pension costs calculated under FAS. Pension costs calculated under CAS are utilized as the basis for recovery of pension costs on our U.S. Government contracts. For the years ended December 31, 2022, 2021 and 2020, our CAS pension costs attributed to U.S. Government contracts totaled $11.7 million, $29.0 million and $43.6 million, respectively. The amount of recoverable CAS pension costs recognized as revenue on an annual basis may differ from the amounts noted above. See further discussion of our accounting for contracts and revenue recognition above and in Note 1 to our consolidated financial statements included in this Report.

Actual experience that differs from these assumptions or future changes in assumptions will affect our recognized benefit obligations and related costs. We immediately recognize net actuarial gains and losses in earnings in the fourth quarter as a component of net periodic benefit cost. Net actuarial gains and losses occur when actual experience differs from any of the various assumptions used to value our pension and postretirement benefit plans or when assumptions, which are revisited annually through our update of our actuarial valuations, change due to current market conditions or underlying demographic changes. The primary factors contributing to net actuarial gains and losses are changes in the discount rate used to value the obligations as of the measurement date each year and the difference between the actual return on plan assets and the expected return on plan assets. The effect of changes in the discount rate and expected rate of return on plan assets assumptions in combination with the actual return on plan assets can result in significant changes in our estimated pension and postretirement benefit cost and our consolidated financial condition.

The following sensitivity analysis shows the impact of a 25 basis point change in the assumed discount rate and return on plan assets on our FAS pension benefit plan obligations and expense for the year ended December 31, 2022:

	.25% Increase	.25% Decrease
	(In millions)	
Discount Rate:		
Effect on ongoing net periodic benefit cost [1]	$ 1.3	$ (1.4)
Effect on projected benefit obligation	$ (23.2)	$ 24.3
Return on Plan Assets:		
Effect on ongoing net periodic benefit cost	$ (2.8)	$ 2.8

(1) Excludes effect of annual mark to market adjustment.

Goodwill and Intangible Assets

Each year, we evaluate goodwill at each reporting unit to assess recoverability, and impairments, if any, are recognized in earnings. We perform a qualitative analysis when we believe that there is sufficient excess fair value over carrying value based on our most recent quantitative assessment, adjusted for relevant facts and circumstances that could affect fair value. Deterioration in macroeconomic, industry and market conditions, cost factors, overall financial performance, share price decline or entity and reporting unit specific events could cause us to believe a qualitative test is no longer appropriate.

When we determine that it is appropriate to test goodwill for impairment utilizing a quantitative test, we compare the fair value of a reporting unit to its carrying amount, including goodwill. We utilize both the income and market valuation approaches to provide inputs into the estimate of the fair value of our reporting units, which would be considered by market participants.

Under the income valuation approach, we employ a discounted cash flow model to estimate the fair value of each reporting unit. This model requires the use of significant estimates and assumptions regarding future revenues, costs, margins, capital expenditures, changes in working capital, terminal year growth rate and cost of capital. Our cash flow models are based on our forecasted results for the applicable reporting units. Actual results could differ materially from our projections. Some assumptions, such as future revenues, costs and changes in working capital are company driven and could be affected by a loss of one or more significant contracts or customers, failure to control costs on certain contracts, a decline in U.S. Government funding or a decline in demand based on changing economic or regulatory conditions. Changes in external market conditions may affect certain other assumptions, such as the cost of capital. Market conditions can be volatile and are outside of our control.

Under the market valuation approach, we employ the guideline publicly traded company method, which indicates the fair value of the equity of each reporting unit by comparing it to publicly traded companies in similar lines of business. After identifying and selecting guideline companies, we analyze their business and financial profiles for relative similarity. Factors such as size, growth, risk and profitability are analyzed and compared to each of our reporting units. Assumptions include the selection of our peer companies and use of market multiples, which could increase or decrease based on the profitability of our competitors and performance of their stock, which is often dependent on the performance of the stock market and general economy as a whole.

Adverse changes in the assumptions utilized in our impairment test could cause a reduction or elimination of excess fair value over carrying value, resulting in potential recognition of impairment. If the carrying value of a reporting unit exceeds its fair value, an impairment charge is recorded to goodwill in the amount by which the carrying value exceeds fair value.

We completed our annual review of goodwill for each of our reporting units for the year ended December 31, 2022, which indicated that we had no impairment of goodwill. The fair value of our reporting units was substantially in excess of carrying value.

Each year, we evaluate indefinite-lived intangible assets to assess recoverability, and impairments, if any, are recognized in earnings. We perform a qualitative assessment when testing indefinite-lived intangible assets for impairment to determine whether events or circumstances that could affect the significant inputs used in determining fair value have occurred that indicate that it is more likely than not that the indefinite-lived intangible asset is impaired. Deterioration in macroeconomic, industry and market conditions, cost factors or overall financial performance could cause us to believe a qualitative test is no longer appropriate. When quantitative assessments are performed, we primarily utilize income-based valuation approaches. Under the income-based valuation approach, we employ a relief from royalty method of valuation. This method requires significant assumptions, including assumed royalty rate, future revenues and cost of capital. Assumptions related to operating performance, such as future revenues, could be affected by loss of a customer contract, a decline in U.S. Government funding or a decline in demand based on changing economic or regulatory conditions. Changes in external market conditions may affect certain other assumptions, such as the cost of capital. Market conditions can be volatile and are outside of our control.

Adverse changes in these assumptions utilized within our indefinite-lived intangible asset impairment test could cause a reduction or elimination of excess fair value over carrying value, resulting in potential recognition of impairment.

We have completed our annual review of our indefinite-lived intangible assets for the year ended December 31, 2022, which indicated that we had no impairment. The fair value of our indefinite-lived intangible assets was substantially in excess of carrying value.

Asset Retirement Obligations and Environmental Cleanup Costs

We accrue for future decommissioning of our nuclear facilities that will permit the release of these facilities to unrestricted use at the end of each facility's service life, which is a requirement of our licenses from the NRC and the CNSC. In estimating fair value, we use present value of cash flows expected to be incurred in settling our obligations. To the extent possible, we perform a marketplace assessment of the cost and timing of performing the retirement activities. We apply a credit-adjusted risk-free interest rate to our expected cash flows in our determination of fair value. Actual costs incurred to decommission our facilities may differ from the accreted liability. For environmental liabilities associated with assets that we no longer operate, we have accrued amounts based on the estimated costs of cleanup activities, net of the anticipated effect of any applicable cost-sharing arrangements. We adjust the estimated costs as further information develops or circumstances change. Given the long-lived nature of these facilities, we are required to estimate retirement costs that will be incurred in the future, which may extend up to 40 years at the time the asset retirement obligation is established. Due to the significance of the remaining useful life of these facilities, the timing of retirement and future costs for material components of the asset retirement obligations, such as labor and waste disposal fees, could differ from our estimates. An exception to this accounting treatment relates to the work we perform for two facilities for which the U.S. Government is obligated to pay substantially all the decommissioning costs.

Government Assistance

In response to the COVID-19 pandemic, on March 27, 2020, the U.S. Government enacted the CARES Act, which among other things, provided employers an option to defer payroll tax payments for a limited period. As of December 31, 2022, we deferred $10.7 million of payroll taxes, which was subsequently paid in January 2023. Additionally, on April 11, 2020, the Canadian Government enacted the CEWS under the COVID-19 Economic Response Plan to prevent large layoffs and help employers offset a portion of their employee salaries and wages for a limited period. During the years ended December 31, 2022, 2021 and 2020, we recognized subsidies under the CEWS as offsets to operating expenses of $0.6 million, $5.4 million and $20.4 million, respectively. The timeframe for submitting new claims under the CEWS ended in May 2022, and we do not expect to qualify for further assistance under this program.

Results of Operations – Years Ended December 31, 2022, 2021 and 2020

Selected financial highlights are presented in the table below:

	Year Ended December 31, 2022	2021	2020
		(In thousands)	
REVENUES:			
Government Operations	$ 1,808,483	$ 1,725,097	$ 1,763,127
Commercial Operations	427,358	407,082	371,269
Eliminations	(3,007)	(8,105)	(10,880)
	$ 2,232,834	$ 2,124,074	$ 2,123,516
OPERATING INCOME:			
Government Operations	$ 336,501	$ 329,549	$ 345,250
Commercial Operations	27,418	35,243	36,915
	$ 363,919	$ 364,792	$ 382,165
Unallocated Corporate	(15,348)	(18,944)	(23,613)
Total Operating Income	$ 348,571	$ 345,848	$ 358,552

Consolidated Results of Operations

Year Ended December 31, 2022 vs. 2021

Consolidated revenues increased 5.1%, or $108.8 million, to $2,232.8 million in the year ended December 31, 2022 compared to $2,124.1 million in 2021, due to increases in our Government Operations and Commercial Operations segments of $83.4 million and $20.3 million, respectively.

Consolidated operating income increased $2.7 million to $348.6 million in the year ended December 31, 2022 compared to $345.8 million in 2021. Operating income in our Government Operations segment increased $7.0 million, and we also experienced lower Unallocated Corporate expenses of $3.6 million. These increases were partially offset by lower operating income in our Commercial Operations segment of $7.8 million when compared to the prior year.

Year Ended December 31, 2021 vs. 2020

Consolidated revenues increased slightly to $2,124.1 million in the year ended December 31, 2021 compared to $2,123.5 million in 2020, due to an increase in our Commercial Operations segment of $35.8 million which was partially offset by a decrease in revenues in our Government Operations segment of $38.0 million.

Consolidated operating income decreased $12.7 million to $345.8 million in the year ended December 31, 2021 compared to $358.6 million in 2020. Operating income in our Government Operations and Commercial Operations segments decreased by $15.7 million and $1.7 million, respectively. These decreases were partially offset by lower Unallocated Corporate expenses of $4.7 million in 2021 when compared to the prior year.

Government Operations

	Year Ended December 31, 2022	2021	$ Change	Year Ended December 31, 2021	2020	$ Change
			(In thousands)			
Revenues	$ 1,808,483	$ 1,725,097	$ 83,386	$ 1,725,097	$ 1,763,127	$ (38,030)
Operating Income	$ 336,501	$ 329,549	$ 6,952	$ 329,549	$ 345,250	$ (15,701)
% of Revenues	18.6%	19.1%		19.1%	19.6%	

Year Ended December 31, 2022 vs. 2021

Revenues increased 4.8%, or $83.4 million, to $1,808.5 million in the year ended December 31, 2022 compared to $1,725.1 million in 2021. The increase was primarily related to continued growth in design and engineering work executed by our advanced technologies business, particularly in the defense and space markets, resulting in revenue growth of $35.4 million.

Increases in volume related to the manufacture of nuclear components for U.S. Government programs and favorable timing in the procurement of certain long-lead materials combined for an additional increase in revenues of $31.9 million when compared to the prior year. Revenues related to our uranium conversion and purification services contract and downblending operations also increased by $26.4 million. These increases were offset by a reduction in volume related to missile tubes totaling $18.6 million.

Operating income increased $7.0 million to $336.5 million in the year ended December 31, 2022 compared to $329.5 million in 2021. The increase was due to the operating income impact of the changes in revenues noted above in addition to an increase in operating income of $16.1 million associated with our joint venture activities, which include the Savannah River Site Integrated Mission Completion Contract that commenced in February 2022. These increases were partially offset by lower levels of favorable contract adjustments which included an $11.3 million unfavorable adjustment related to the manufacture of non-nuclear components.

Year Ended December 31, 2021 vs. 2020

Revenues decreased 2.2%, or $38.0 million, to $1,725.1 million in the year ended December 31, 2021 compared to $1,763.1 in 2020. The decrease was primarily related to the timing of the procurement of certain long-lead materials when compared to the prior year. In addition, we experienced a decrease in revenues related to the divestiture of our U.S.-based commercial nuclear services business during the second quarter of 2020 and lower revenues at our Naval Reactors decommissioning and decontamination project, which totaled $23.9 million. These decreases were partially offset by additional volume in the manufacture of nuclear components for U.S. Government programs and additional volume in our naval nuclear fuel and downblending operations. We also experienced an increase in design and engineering work executed by our advanced technologies business of $11.6 million, particularly in the space and defense markets.

Operating income decreased $15.7 million to $329.5 million in the year ended December 31, 2021 compared to $345.3 million in the year ended December 31, 2020. The decrease was due to the operating income impact of the changes in revenues noted above as well as lower levels of net favorable contract adjustments recorded in 2021 when compared to the prior year. These decreases were partially offset by an increase in operating income of $4.5 million associated with our joint venture activities.

Commercial Operations

	Year Ended December 31,			Year Ended December 31,		
	2022	2021	$ Change	2021	2020	$ Change
	(In thousands)					
Revenues	$ 427,358	$ 407,082	$ 20,276	$ 407,082	$ 371,269	$ 35,813
Operating Income	$ 27,418	$ 35,243	$ (7,825)	$ 35,243	$ 36,915	$ (1,672)
% of Revenues	6.4%	8.7%		8.7%	9.9%	

Year Ended December 31, 2022 vs. 2021

Revenues increased 5.0%, or $20.3 million, to $427.4 million in the year ended December 31, 2022 compared to $407.1 million in 2021. The increase was primarily related to higher levels of in-plant inspection, maintenance and modification services totaling $32.5 million as well as higher revenues in our nuclear fuel handling and medical radioisotopes businesses, which together totaled $21.0 million. These increases were partially offset by decreased revenues in our fuel fabrication business of $20.1 million due to the cyclical nature in the timing of the award of commercial nuclear fuel contracts. Revenues associated with our parts manufacturing business also decreased by $18.8 million when compared to the prior year.

Operating income decreased $7.8 million to $27.4 million in the year ended December 31, 2022 compared to $35.2 million in 2021, due to a $4.8 million decrease in wage subsidies we received under the CEWS to offset the effects of COVID-19 on our Canadian operations in addition to higher levels of unfavorable contract adjustments when compared to the prior year. These decreases were offset by the operating income impact of the changes in revenues noted above.

Year Ended December 31, 2021 vs. 2020

Revenues increased 9.6%, or $35.8 million, to $407.1 million in the year ended December 31, 2021 compared to $371.3 in 2020. The increase was primarily related to higher levels of in-plant inspection, maintenance and modification services totaling $26.2 million in addition to increases in revenues related to our nuclear fuel handling capabilities of $13.3 million. We also experienced higher revenues in our fuel fabrication and medical radioisotopes businesses in 2021 when compared to the prior year. These increases were partially offset by lower activity in our nuclear components business of $19.8 million, primarily associated with a major steam generator design and supply contract.

Operating income decreased $1.7 million to $35.2 million in the year ended December 31, 2021 compared to $36.9 million in 2020, due primarily to a $15.0 million decrease in the amount of wage subsidies we received under the CEWS to offset the effects of COVID-19 on our Canadian operations when compared to the prior year in addition to a $2.3 million increase in the costs associated with the commercialization of our medical radioisotope technology. These decreases were partially offset by the operating income impact of the changes in revenues noted above as well as a $2.0 million gain resulting from the settlement of contingent consideration associated with the Precision Manufacturing acquisition.

Unallocated Corporate

Unallocated corporate expenses decreased $3.6 million to $15.3 million in the year ended December 31, 2022 compared to $18.9 million in 2021, primarily due to a decrease in healthcare costs and lower compensation related expense inclusive of stock-based compensation. These decreases were partially offset by an increase in restructuring related costs and higher levels of legal and consulting costs associated with due diligence activities when compared to the prior year.

Unallocated corporate expenses decreased $4.7 million to $18.9 million in the year ended December 31, 2021 compared to $23.6 million in 2020, primarily due to a decrease in legal and consulting costs associated with due diligence activities in addition to a $2.6 million reserve related to a franchise tax audit of years prior to 2016, which was recorded in the year ended December 31, 2020.

Other Income (Expense)

During the year ended December 31, 2022, other income (expense) decreased $83.2 million to a loss of $33.3 million compared to a gain of $49.9 million in 2021. A component of other income (expense) is net periodic benefit cost, which includes mark to market adjustments due to our immediate recognition of net actuarial gains (losses) for our pension and postretirement benefit plans. Net periodic benefit cost resulted in a decrease to other income of $88.9 million in 2022 when compared to the prior year, caused by increased losses related to mark to market adjustments totaling $86.2 million. This decrease was offset by an early redemption premium of $10.8 million associated with the redemption of the Senior Notes due 2026, as defined below, which occurred in the third quarter of 2021.

During the year ended December 31, 2021, other income (expense) increased $46.2 million to a gain of $49.9 million compared to a gain of $3.6 million in 2020. A component of other income (expense) is net periodic benefit cost inclusive of mark to market adjustments due to our immediate recognition of net actuarial gains (losses) for our pension and postretirement benefit plans. Net periodic benefit cost resulted in an increase to other income of $61.3 million in 2021 when compared to the prior year, caused by increased gains related to mark to market adjustments totaling $39.6 million. This increase was offset by an early redemption premium of $10.8 million and the write-off of deferred debt issuance costs totaling $4.2 million associated with the redemption of the Senior Notes due 2026, as defined below.

Provision for Income Taxes

	Year Ended December 31,			Year Ended December 31,		
	2022	2021	$ Change	2021	2020	$ Change
			(In thousands)			
Income before Provision for Income Taxes	$ 314,377	$ 395,713	$ (81,336)	$ 395,713	$ 362,172	$ 33,541
Provision for Income Taxes	$ 75,757	$ 89,425	$ (13,668)	$ 89,425	$ 82,976	$ 6,449
Effective Tax Rate	24.1%	22.6%		22.6%	22.9%	

For the year ended December 31, 2022, our provision for income taxes decreased $13.7 million to $75.8 million, while income before provision for income taxes decreased $81.3 million to $314.4 million when compared to the prior year. Our effective tax rate was 24.1% for the year ended December 31, 2022 compared to 22.6% for the year ended December 31, 2021. Our effective tax rate was 22.6% for the year ended December 31, 2021 compared to 22.9% for the year ended December 31, 2020. Our effective tax rates for the years ended December 31, 2022, 2021 and 2020 were higher than the U.S. corporate income tax rate of 21% primarily due to state income taxes within the U.S. and the unfavorable rate differential associated with our Canadian earnings.

See Note 5 to our consolidated financial statements included in this Report for further information on income taxes.

Effects of Inflation and Changing Prices

Our financial statements are prepared in accordance with GAAP, using historical U.S. dollar accounting ("historical cost"). Statements based on historical cost, however, do not adequately reflect the cumulative effect of increasing costs and changes in the purchasing power of the U.S. dollar, especially during times of significant and continued inflation.

In order to minimize the negative impact of inflation on our operations, we attempt to cover the increased cost of anticipated changes in labor, material and service costs, either through an estimate of those changes, which we reflect in the original price, or through price escalation clauses in our contracts. However, there can be no assurance we will be able to cover all changes in cost using this strategy.

Liquidity and Capital Resources

Our overall liquidity position, which we generally define as our unrestricted cash and cash equivalents plus amounts available for borrowings under our credit facility, increased by approximately $185.1 million to $532.7 million at December 31, 2022 compared to $347.7 million at December 31, 2021, primarily attributable to the borrowing of the Term Loan, as defined below, the proceeds from which were used to repay borrowings under our Revolving Credit Facility, as defined below. We experienced net cash generated from operations in each of the years ended December 31, 2022, 2021 and 2020. Typically, the fourth quarter has been the period of highest cash flows from operating activities because of the timing of payments received from the U.S. Government on accounts receivable retainages and cash dividends received from our joint ventures.

Credit Facility

On October 12, 2022, we entered into an Amended and Restated Credit Agreement (the "Credit Facility") with Wells Fargo Bank, National Association, as administrative agent, and the other lenders party thereto, which amended and restated our then existing secured credit facility (the "Former Credit Facility"), which consisted of a $750 million senior secured revolving credit facility. The Credit Facility consists of a $750 million senior secured revolving credit facility (the "Revolving Credit Facility") and a $250 million senior secured term A loan (the "Term Loan"). The Revolving Credit Facility and the Term Loan are scheduled to mature on October 12, 2027. All proceeds from the Term Loan were used to repay outstanding indebtedness under the Former Credit Facility. The proceeds of loans under the Credit Facility are available for working capital needs, permitted acquisitions and other general corporate purposes.

The Credit Facility allows for additional parties to become lenders and, subject to certain conditions, for the increase of the commitments under the Credit Facility, subject to an aggregate maximum for all additional commitments of (1) the greater of (a) $400 million and (b) 100% of EBITDA, as defined in the Credit Facility, for the last four full fiscal quarters, plus (2) all voluntary prepayments of the Term Loan, plus (3) additional amounts provided the Company is in compliance with a pro forma first lien leverage ratio test of less than or equal to 2.50 to 1.00.

The Company's obligations under the Credit Facility are guaranteed, subject to certain exceptions, by substantially all of the Company's present and future wholly owned domestic restricted subsidiaries. The Credit Facility is secured by first-priority liens on certain assets owned by the Company and its subsidiary guarantors (other than its subsidiaries comprising a portion of its Government Operations segment).

The Credit Facility requires interest payments on outstanding loans on a periodic basis until maturity. We are required to make quarterly amortization payments on the Term Loan in an amount equal to (i) 0.625% of the initial aggregate principal amount of the Term Loan on the last business day of each quarter beginning the quarter ending March 31, 2023 and ending the quarter ending December 31, 2024 and (ii) 1.25% of the initial aggregate principal amount of the Term Loan on the last business day of each quarter ending after December 31, 2024, with the balance of the Term Loan due at maturity. We may prepay all loans under the Credit Facility at any time without premium or penalty (other than customary Term SOFR breakage costs), subject to notice requirements.

The Credit Facility includes financial covenants that are evaluated on a quarterly basis, based on the rolling four-quarter period that ends on the last day of each fiscal quarter. The maximum permitted leverage ratio is 4.00 to 1.00, which may be increased to 4.50 to 1.00 for up to four consecutive fiscal quarters after a material acquisition. The minimum consolidated interest coverage ratio is 3.00 to 1.00. In addition, the Credit Facility contains various restrictive covenants, including with respect to debt, liens, investments, mergers, acquisitions, dividends, equity repurchases and asset sales. As of December 31, 2022, we were in compliance with all covenants set forth in the Credit Facility.

Outstanding loans under the Credit Facility bear interest at our option at either (1) the Term SOFR plus a credit spread adjustment of 0.10% plus a margin ranging from 1.0% to 1.75% per year or (2) the base rate plus a margin ranging from 0.0% to 0.75% per year. We are charged a commitment fee on the unused portion of the Revolving Credit Facility, and that fee ranges from 0.15% to 0.225% per year. Additionally, we are charged a letter of credit fee of between 1.0% and 1.75% per year with respect to the amount of each financial letter of credit issued under the Revolving Credit Facility, and a letter of credit fee of between 0.75% and 1.05% per year with respect to the amount of each performance letter of credit issued under the Revolving Credit Facility. The applicable margin for loans, the commitment fee and the letter of credit fees set forth above will vary quarterly based on our consolidated total net leverage ratio. The margin for Term SOFR and base rate loans was 1.50% and 0.50%, respectively, the letter of credit fee for financial letters of credit and performance letters of credit was 1.50% and 0.90%, respectively, and the commitment fee for the unused portion of the Revolving Credit Facility was 0.20% from the closing date through the date of our delivery of the compliance certificate for the fiscal quarter ended December 31, 2022.

As of December 31, 2022, borrowings under our Term Loan totaled $250.0 million, borrowings and letters of credit issued under the Revolving Credit Facility totaled $250.0 million and $2.5 million, respectively, and we had $497.5 million available under the Revolving Credit Facility for borrowings and to meet letter of credit requirements. As of December 31, 2022, the weighted-average interest rate on outstanding borrowings under our Credit Facility was 5.93%.

The Credit Facility generally includes customary events of default for a secured credit facility. Under the Credit Facility, (1) if an event of default relating to bankruptcy or other insolvency events occurs with respect to the Company, all related obligations will immediately become due and payable; (2) if any other event of default exists, the lenders will be permitted to accelerate the maturity of the related obligations outstanding; and (3) if any event of default exists, the lenders will be permitted to terminate their commitments thereunder and exercise other rights and remedies, including the commencement of foreclosure or other actions against the collateral.

If any default occurs under the Credit Facility, or if we are unable to make any of the representations and warranties in the Credit Facility, we will be unable to borrow funds or have letters of credit issued under the Credit Facility.

Senior Notes due 2026

We issued $400 million aggregate principal amount of 5.375% senior notes due 2026 (the "Senior Notes due 2026") pursuant to an indenture dated May 24, 2018, among the Company, certain of our subsidiaries, as guarantors, and U.S. Bank National Association, as trustee. On July 15, 2021, using cash on hand and borrowings under the Former Credit Facility, we redeemed the Senior Notes due 2026 at a redemption price equal to 102.688% of the principal amount, resulting in an early redemption premium of $10.8 million and the write-off of deferred debt issuance costs totaling $4.2 million. These charges were recorded in our consolidated statement of income during the year ended December 31, 2021 as components of Other – net and Interest expense, respectively.

Senior Notes due 2028

We issued $400 million aggregate principal amount of 4.125% senior notes due 2028 (the "Senior Notes due 2028") pursuant to an indenture dated June 12, 2020 (the "2020 Indenture"), among the Company, certain of our subsidiaries, as guarantors, and U.S. Bank Trust Company, National Association (formerly known as U.S. Bank National Association) ("U.S. Bank"), as trustee. The Senior Notes due 2028 are guaranteed by each of the Company's present and future direct and indirect wholly owned domestic subsidiaries that is a guarantor under the Credit Facility.

Interest on the Senior Notes due 2028 is payable semi-annually in cash in arrears on June 30 and December 30 of each year at a rate of 4.125% per annum. The Senior Notes due 2028 will mature on June 30, 2028.

We may redeem the Senior Notes due 2028, in whole or in part, at any time on or after June 30, 2023 at a redemption price equal to (i) 102.063% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on June 30, 2023, (ii) 101.031% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on June 30, 2024 and (iii) 100.0% of the principal amount to be redeemed if the redemption occurs on or after June 30, 2025, in each case plus accrued and unpaid interest, if any, to, but excluding, the redemption date. At any time prior to June 30, 2023, we may also redeem up to 40.0% of the Senior Notes due 2028 with net cash proceeds of certain equity offerings at a redemption price equal to 104.125% of the principal amount of the Senior Notes due 2028 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. In addition, at any time prior to June 30, 2023, we may redeem the Senior Notes due 2028, in whole or in part, at a redemption price equal to 100.0% of the principal amount of the Senior Notes due 2028 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date plus an applicable "make-whole" premium.

The 2020 Indenture contains customary events of default, including, among other things, payment default, failure to comply with covenants or agreements contained in the 2020 Indenture or the Senior Notes due 2028 and certain provisions related to bankruptcy events. The 2020 Indenture also contains customary negative covenants. As of December 31, 2022, we were in compliance with all covenants set forth in the 2020 Indenture and the Senior Notes due 2028.

Senior Notes due 2029

We issued $400 million aggregate principal amount of 4.125% senior notes due 2029 (the "Senior Notes due 2029") pursuant to an indenture dated April 13, 2021 (the "2021 Indenture"), among the Company, certain of our subsidiaries, as guarantors, and U.S. Bank, as trustee. The Senior Notes due 2029 are guaranteed by each of the Company's present and future direct and indirect wholly owned domestic subsidiaries that is a guarantor under the Credit Facility.

Interest on the Senior Notes due 2029 is payable semi-annually in cash in arrears on April 15 and October 15 of each year at a rate of 4.125% per annum. The Senior Notes due 2029 will mature on April 15, 2029.

We may redeem the Senior Notes due 2029, in whole or in part, at any time on or after April 15, 2024 at a redemption price equal to (i) 102.063% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on April 15, 2024, (ii) 101.031% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on April 15, 2025 and (iii) 100.0% of the principal amount to be redeemed if the redemption occurs on or after April 15, 2026, in each case plus accrued and unpaid interest, if any, to, but excluding, the redemption date. At any time prior to April 15, 2024, we may also redeem up to 40.0% of the Senior Notes due 2029 with net cash proceeds of certain equity offerings at a redemption price equal to 104.125% of the principal amount of the Senior Notes due 2029 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. In addition, at any time prior to April 15, 2024, we may redeem the Senior Notes due 2029, in whole or in part, at a redemption price equal to 100.0% of the principal amount of the Senior Notes due 2029 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date plus an applicable "make-whole" premium.

The 2021 Indenture contains customary events of default, including, among other things, payment default, failure to comply with covenants or agreements contained in the 2021 Indenture or the Senior Notes due 2029 and certain provisions related to bankruptcy events. The 2021 Indenture also contains customary negative covenants. As of December 31, 2022, we were in compliance with all covenants set forth in the 2021 Indenture and the Senior Notes due 2029.

Other Arrangements

We have posted surety bonds to support regulatory and contractual obligations for certain decommissioning responsibilities, projects and legal matters. We utilize bonding facilities to support such obligations, but the issuance of bonds under those facilities is typically at the surety's discretion, and the bonding facilities generally permit the surety, in its sole discretion, to terminate the facility or demand collateral. Although there can be no assurance that we will maintain our surety bonding capacity, we believe our current capacity is adequate to support our existing requirements for the next 12 months. In addition, these bonds generally indemnify the beneficiaries should we fail to perform our obligations under the applicable agreements. We, and certain of our subsidiaries, have jointly executed general agreements of indemnity in favor of surety underwriters relating to surety bonds those underwriters issue. As of December 31, 2022, bonds issued and outstanding under these arrangements totaled approximately $113.5 million.

Similarly, we have provided letters of credit to governmental agencies and contractual counterparties to support regulatory and contractual obligations for certain decommissioning responsibilities, projects and legal matters. We utilize our Revolving Credit Facility and a bilateral letter of credit facility to support such obligations, but the issuance of letters of credit under our bilateral letter of credit facility is at the issuer’s discretion, and our bilateral facility generally permits the issuer, in its sole discretion, to demand collateral if the issuer does not otherwise have the benefit of the collateral under our Credit Facility. Although there can be no assurance that we will maintain our bilateral letter of credit capacity, we believe our current capacity, together with capacity under our Revolving Credit Facility, is adequate to support our existing requirements for the next 12 months. As of December 31, 2022, letters of credit issued and outstanding under our bilateral letter of credit facility totaled approximately $34.9 million, and such letters of credit are secured by the collateral under our Credit Facility.

Other

Cash, Cash Equivalents, Restricted Cash and Investments

In the aggregate, our cash and cash equivalents, restricted cash and cash equivalents and investments decreased by $0.3 million to $52.9 million at December 31, 2022 from $53.1 million at December 31, 2021, primarily due to the items discussed below. Our domestic and foreign cash and cash equivalents, restricted cash and cash equivalents and investments as of December 31, 2022 and 2021 were as follows:

	December 31, 2022	December 31, 2021
	(In thousands)	
Domestic	$ 38,455	$ 39,128
Foreign	14,436	14,016
Total	$ 52,891	$ 53,144

Our working capital increased by $89.6 million to $403.8 million at December 31, 2022 from $314.1 million at December 31, 2021, primarily attributable to the timing of project cash flows and vendor payments.

Our net cash provided by operating activities decreased by $141.3 million to $244.7 million in the year ended December 31, 2022, compared to $386.0 million in the year ended December 31, 2021. The decrease in cash provided by operating activities was primarily attributable to the changes in working capital discussed above as well as an $88.7 million customer payment delayed until the first quarter of 2021, which was originally expected in 2020.

Our net cash used in investing activities decreased by $48.4 million to $256.2 million in the year ended December 31, 2022, compared to $304.7 million in the year ended December 31, 2021. The decrease in cash used in investing activities was primarily attributable to a decrease in purchases of property, plant and equipment of $112.7 million, which was partially offset by the $47.3 million acquisition of Dynamic and Cunico as well as an $11.5 million increase in investments in equity method investees during the year ended December 31, 2022.

Our net cash provided by financing activities increased by $104.1 million to $14.0 million in the year ended December 31, 2022, compared to cash used in financing activities of $90.1 million in the year ended December 31, 2021. The increase in net cash provided by financing activities was primarily attributable to a reduction in repurchases of common stock of $205.8 million when compared to the prior year and the repayment of bank overdrafts of $88.7 million in 2021. This increase was partially offset by a reduction in net borrowings of long-term debt of $225.0 million when compared to the prior year.

At December 31, 2022, we had short-term and long-term investments with a fair value of $11.9 million. Our investment portfolio consists primarily of U.S. Government securities, corporate bonds and mutual funds.

Cash Requirements

We believe we have sufficient cash and cash equivalents and borrowing capacity, along with cash generated from operations and continued access to debt markets, to satisfy our cash requirements for the next 12 months and beyond.

Our cash requirements as of December 31, 2022 include the following contractual obligations:

	Total	Less than 1 Year	1-3 Years	3-5 Years	After 5 Years
			(In thousands)		
Long-term debt principal	$ 1,300,000	$ 6,250	$ 18,750	$ 475,000	$ 800,000
Interest payments	$ 323,482	$ 65,286	$ 115,163	$ 110,033	$ 33,000
Lease payments	$ 31,078	$ 4,546	$ 6,673	$ 4,035	$ 15,824

Our contingent commitments under letters of credit and surety bonds currently outstanding expire as follows:

Total	Less than 1 Year	1-3 Years	3-5 Years	Thereafter
		(In thousands)		
$ 151,052	$ 138,775	$ 10,992	$ 1,285	$ —

Other cash requirements include, among other things, capital expenditures, payment of dividends, repurchases of common stock, capital contributions for joint ventures and contributions to our pension and other postretirement benefit plans.

Since 2017, we have made considerable investments in property, plant and equipment to support the growth of our Government Operations and Commercial Operations segments. Significant projects included the expansion of Government Operations facilities to support increased demand from the U.S. Government and the commercialization of our medical radioisotope technology in our Commercial Operations segment. We expect these heightened spending levels to decline as these capital expansion projects near completion.

During the year ended December 31, 2022, we paid $81.1 million in dividends to holders of our common stock. The declaration and payment of future dividends will be at the discretion of our Board of Directors and will depend upon many factors, including our financial condition, earnings, capital requirements of our business, legal and regulatory requirements and other factors that our Board of Directors may deem relevant.

In April 2021, our Board of Directors authorized us to repurchase an indeterminate number of shares of our common stock up to an aggregate market value of $500 million. During the year ended December 31, 2022, we repurchased $20.0 million in shares of our common stock under this and prior share repurchase authorizations. As of December 31, 2022, the total remaining share repurchase authorization was $397.6 million. See Item 5 of this Report for additional share repurchase information.

We expect cash requirements totaling approximately $5.4 million for contributions to our pension plans in 2023. In addition, we anticipate cash requirements totaling approximately $1.4 million for contributions to our other postretirement benefit plans in 2023.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk from changes in interest rates relates primarily to our debt instruments. Our borrowings include both fixed and variable interest rate debt. At December 31, 2022, we had (i) $500.0 million in outstanding borrowings and $497.5 million available under the Credit Facility, (ii) an aggregate principal amount of $400.0 million of Senior Notes due 2028 and (iii) an aggregate principal amount of $400.0 million of Senior Notes due 2029. See the heading "Liquidity and Capital Resources" in Item 7 of this Report for additional information on our debt instruments.

We also have exposure from changes in interest rates related to our cash equivalents and our investment portfolio, which consists primarily of U.S. Government securities, corporate bonds and mutual funds. We are averse to principal loss and seek to ensure the safety and preservation of our invested funds by limiting default risk, market risk and reinvestment risk.

We have operations in foreign locations, and, as a result, our financial results could be significantly affected by factors such as changes in foreign currency exchange ("FX") rates or weak economic conditions in those foreign markets. In order to manage the operational risks associated with FX rate fluctuations, we attempt to hedge those risks with FX derivative instruments. Historically, we have hedged those risks with FX forward contracts. At December 31, 2022, the fair values of our outstanding derivative instruments were not significant. We do not enter into speculative derivative positions.

Interest Rate Sensitivity

The following tables provide information about our financial instruments that are sensitive to changes in interest rates. The tables present principal cash flows and related weighted-average interest rates by expected maturity dates.

Principal Amount by Expected Maturity
(In thousands)

At December 31, 2022:	Years Ending December 31,							Fair Value at December 31,
	2023	2024	2025	2026	2027	Thereafter	Total	2022
Investments	$ 3,801	—	—	—	$ 1,479	$ 6,455	$ 11,735	$ 11,901
Average Interest Rate	0.76%	—	—	—	10.45%	0.25%		
Fixed Interest Rate Debt	—	—	—	—	—	$ 800,000	$ 800,000	$ 710,000
Average Interest Rate	—	—	—	—	—	4.125%		
Variable Interest Rate Debt	$ 6,250	$ 6,250	$ 12,500	$ 12,500	$ 462,500	—	$ 500,000	$ 509,263
Average Interest Rate	6.40%	5.26%	4.68%	4.66%	4.70%	—		

At December 31, 2021:

	Years Ending December 31, 2022	2023	2024	2025	2026	Thereafter	Total	Fair Value at December 31, 2021
Investments	$ 3,822	—	—	—	—	$ 7,587	$ 11,409	$ 13,369
Average Interest Rate	0.92%	—	—	—	—	0.94%		
Fixed Interest Rate Debt	—	—	—	—	—	$ 800,000	$ 800,000	$ 812,833
Average Interest Rate	—	—	—	—	—	4.125%		
Variable Interest Rate Debt	—	—	—	$ 400,000	—	—	$ 400,000	$ 395,100
Average Interest Rate	—	—	—	2.90%	—	—		

Exchange Rate Sensitivity

The following table provides information about our FX forward contracts outstanding at December 31, 2022 and presents such information in U.S. dollar equivalents. The table presents notional amounts and related weighted-average FX rates by expected (contractual) maturity dates and constitutes a forward-looking statement. These notional amounts generally are used to calculate the contractual payments to be exchanged under the contract. The average contractual FX rates are expressed using market convention, which is dependent on the currencies being bought and sold under the forward contract.

Forward Contracts to Purchase Foreign Currencies in U.S. Dollars (in thousands)

Foreign Currency	Year Ending December 31, 2023	Fair Value at December 31, 2022	Average Contractual Exchange Rate
Canadian dollar	$ 9,636	$ (410)	1.2899
U.S. dollar (selling Canadian dollar)	$ 414,364	$ 1,129	1.3505
Euro (selling Canadian dollar)	$ 7,058	$ 218	1.4159

Foreign Currency	Year Ending December 31, 2024	Fair Value at December 31, 2022	Average Contractual Exchange Rate
U.S. dollar (selling Canadian dollar)	$ 4,373	$ 183	1.2864
Euro (selling Canadian dollar)	$ 3,328	$ 33	1.4626

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of BWX Technologies, Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of BWX Technologies, Inc. and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 23, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition – Estimating Costs at Completion – Refer to Note 1 and Note 3 to the Financial Statements.

Critical Audit Matter Description

The Company generally recognizes contract revenues and related costs over time for individual performance obligations based on a cost-to-cost method in accordance with Financial Accounting Standards Board Topic *Revenue from Contracts with Customers*. The Company recognizes estimated contract revenue and resulting income based on the measurement of the extent of progress toward completion as a percentage of the total project. The Company reviews contract price and cost estimates periodically as the work progresses and reflect adjustments proportionate to the percentage-of-completion in income in the period when those estimates are revised. The accounting for these contracts involves judgment, particularly as it relates to the process of estimating total costs to complete the performance obligation.

Given the significance of revenue and the level of judgment involved in estimating total costs to complete the performance obligations used to recognize revenue for long-term contracts, auditing such estimates involved especially subjective judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to revenues recognized over time, including management's estimates of total contract costs to complete its performance obligations, included the following, among others:

- We tested the effectiveness of controls over revenue recognized over time, including those over cost estimates at completion for performance obligations.
- We tested recorded revenue using analytical procedures.
- We analyzed cumulative adjustments recorded during the year and separately tested those with characteristics of audit interest due to their size to determine that the adjustments were the result of changes in facts and circumstances.
- We analyzed contracts with customers recognized over time to identify whether there are contracts with characteristics of audit interest. For a contract determined to exhibit characteristics of audit interest, we performed the following testing:
    - Read the contract to understand the contract terms and the accounting treatment in accordance with generally accepted accounting principles.
    - Compared the transaction price to the consideration expected to be received based on current rights and obligations under the contract, including modifications that were agreed upon with the customer.
    - Tested the mathematical accuracy of management's calculation of the percent complete, the profit margin and the revenue recognized over time.
    - Evaluated a selection of cost estimates within the selected contract as follows:
        - Evaluated costs incurred to date based on historical experience or costs of similar performance obligations, as appropriate, to evaluate the reasonableness of management's estimates.
        - Evaluated management's ability to achieve the cost estimates by performing corroborating inquiries with the Company's project manager and comparing the estimates to management's work plans and/or supplier contracts, as appropriate.

/S/ DELOITTE & TOUCHE LLP

Charlotte, North Carolina
February 23, 2023

We have served as the Company's auditor since 2009.

BWX TECHNOLOGIES, INC.
CONSOLIDATED BALANCE SHEETS

ASSETS

	December 31, 2022	December 31, 2021
	(In thousands)	
Current Assets:		
Cash and cash equivalents	$ 35,244	$ 33,891
Restricted cash and cash equivalents	2,928	2,896
Investments	3,804	3,811
Accounts receivable – trade, net	60,782	70,663
Accounts receivable – other	26,894	16,651
Retainages	48,566	51,507
Contracts in progress	538,365	546,595
Other current assets	55,036	47,718
Total Current Assets	771,619	773,732
Property, Plant and Equipment, Net	1,134,897	1,045,640
Investments	8,097	9,558
Goodwill	293,165	285,502
Deferred Income Taxes	20,585	21,394
Investments in Unconsolidated Affiliates	100,198	85,284
Intangible Assets	193,612	185,551
Other Assets	96,766	94,719
TOTAL	$ 2,618,939	$ 2,501,380

See accompanying notes to consolidated financial statements.

BWX TECHNOLOGIES, INC.
CONSOLIDATED BALANCE SHEETS

LIABILITIES AND STOCKHOLDERS' EQUITY

	December 31, 2022	December 31, 2021
	(In thousands, except share and per share amounts)	
Current Liabilities:		
Current maturities of long-term debt	$ 6,250	$ —
Accounts payable	127,112	189,842
Accrued employee benefits	61,079	71,835
Accrued liabilities – other	84,693	86,319
Advance billings on contracts	88,726	111,619
Total Current Liabilities	367,860	459,615
Long-Term Debt	1,282,624	1,189,304
Accumulated Postretirement Benefit Obligation	18,157	24,333
Environmental Liabilities	90,989	92,642
Pension Liability	57,832	59,388
Other Liabilities	53,122	38,863
Commitments and Contingencies (Note 10)		
Stockholders' Equity:		
Common stock, par value $0.01 per share, authorized 325,000,000 shares; issued 127,671,756 and 127,311,985 shares at December 31, 2022 and 2021, respectively	1,277	1,273
Preferred stock, par value $0.01 per share, authorized 75,000,000 shares; no shares issued	—	—
Capital in excess of par value	189,263	174,288
Retained earnings	1,932,970	1,775,751
Treasury stock at cost, 36,417,480 and 35,915,747 shares at December 31, 2022 and 2021, respectively	(1,353,270)	(1,326,280)
Accumulated other comprehensive income (loss)	(21,930)	12,143
Stockholders' Equity – BWX Technologies, Inc.	748,310	637,175
Noncontrolling interest	45	60
Total Stockholders' Equity	748,355	637,235
TOTAL	$ 2,618,939	$ 2,501,380

See accompanying notes to consolidated financial statements.

BWX TECHNOLOGIES, INC.
CONSOLIDATED STATEMENTS OF INCOME

	Year Ended December 31,		
	2022	2021	2020
	(In thousands, except share and per share amounts)		
Revenues	$ 2,232,834	$ 2,124,074	$ 2,123,516
Costs and Expenses:			
Cost of operations	1,680,899	1,573,797	1,548,119
Research and development costs	9,535	11,059	14,189
Losses (gains) on asset disposals and impairments, net	5,520	(3,532)	(1,361)
Selling, general and administrative expenses	234,282	230,400	231,169
Total Costs and Expenses	1,930,236	1,811,724	1,792,116
Equity in Income of Investees	45,973	33,498	27,152
Operating Income	348,571	345,848	358,552
Other Income (Expense):			
Interest income	758	416	518
Interest expense	(36,410)	(35,758)	(31,014)
Other – net	1,458	85,207	34,116
Total Other Income (Expense)	(34,194)	49,865	3,620
Income before Provision for Income Taxes	314,377	395,713	362,172
Provision for Income Taxes	75,757	89,425	82,976
Net Income	$ 238,620	$ 306,288	$ 279,196
Net Income Attributable to Noncontrolling Interest	(429)	(417)	(526)
Net Income Attributable to BWX Technologies, Inc.	$ 238,191	$ 305,871	$ 278,670
Earnings per Common Share:			
Basic:			
Net Income Attributable to BWX Technologies, Inc.	$ 2.60	$ 3.24	$ 2.92
Diluted:			
Net Income Attributable to BWX Technologies, Inc.	$ 2.60	$ 3.24	$ 2.91
Shares used in the computation of earnings per share (Note 17):			
Basic	91,447,088	94,278,894	95,457,193
Diluted	91,702,111	94,518,422	95,726,497

See accompanying notes to consolidated financial statements.

BWX TECHNOLOGIES, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year Ended December 31,		
	2022	2021	2020
	(In thousands)		
Net Income	$ 238,620	$ 306,288	$ 279,196
Other Comprehensive Income (Loss):			
Currency translation adjustments	(34,834)	6,173	15,685
Derivative financial instruments:			
Unrealized gains (losses) arising during the period, net of tax (provision) benefit of $(89), $170 and $24, respectively	267	(500)	(73)
Reclassification adjustment for losses (gains) included in net income, net of tax (benefit) provision of $(181), $(103) and $173, respectively	532	302	(487)
Benefit obligations:			
Unrecognized losses arising during the period, net of tax benefit of $802, $1,301 and $513, respectively	(2,559)	(4,415)	(1,820)
Recognition of benefit plan costs, net of tax benefit of $(657), $(624) and $(645), respectively	2,626	2,295	2,532
Investments:			
Unrealized (losses) gains arising during the period, net of tax benefit (provision) of $28, $(24) and $(56), respectively	(105)	90	(191)
Other Comprehensive Income (Loss)	(34,073)	3,945	15,646
Total Comprehensive Income	204,547	310,233	294,842
Comprehensive Income Attributable to Noncontrolling Interest	(429)	(417)	(526)
Comprehensive Income Attributable to BWX Technologies, Inc.	$ 204,118	$ 309,816	$ 294,316

See accompanying notes to consolidated financial statements.

BWX TECHNOLOGIES, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Capital In Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Stockholders' Equity	Noncontrolling Interest	Total Stockholders' Equity
	Shares	Par Value							
	(In thousands, except share and per share amounts)								
Balance December 31, 2019	126,579,285	$ 1,266	$ 134,069	$ 1,344,383	$ (7,448)	$ (1,068,164)	$ 404,106	$ 6	$ 404,112
Recently adopted accounting standards	—	—	—	—	—	—	—	—	—
Net income	—	—	—	278,670	—	—	278,670	526	279,196
Dividends declared ($0.76 per share)	—	—	—	(73,103)	—	—	(73,103)	—	(73,103)
Currency translation adjustments	—	—	—	—	15,685	—	15,685	—	15,685
Derivative financial instruments	—	—	—	—	(560)	—	(560)	—	(560)
Defined benefit obligations	—	—	—	—	712	—	712	—	712
Available-for-sale investments	—	—	—	—	(191)	—	(191)	—	(191)
Exercises of stock options	95,750	1	2,890	—	—	—	2,891	—	2,891
Shares placed in treasury	—	—	—	—	—	(27,288)	(27,288)	—	(27,288)
Stock-based compensation charges	334,501	3	16,841	—	—	—	16,844	—	16,844
Distributions to noncontrolling interests	—	—	—	—	—	—	—	(530)	(530)
Balance December 31, 2020	127,009,536	$ 1,270	$ 153,800	$ 1,549,950	$ 8,198	$ (1,095,452)	$ 617,766	$ 2	$ 617,768
Recently adopted accounting standards	—	—	—	—	—	—	—	—	—
Net income	—	—	—	305,871	—	—	305,871	417	306,288
Dividends declared ($0.84 per share)	—	—	—	(80,070)	—	—	(80,070)	—	(80,070)
Currency translation adjustments	—	—	—	—	6,173	—	6,173	—	6,173
Derivative financial instruments	—	—	—	—	(198)	—	(198)	—	(198)
Defined benefit obligations	—	—	—	—	(2,120)	—	(2,120)	—	(2,120)
Available-for-sale investments	—	—	—	—	90	—	90	—	90
Exercises of stock options	76,682	—	1,878	—	—	—	1,878	—	1,878
Shares placed in treasury	—	—	—	—	—	(230,828)	(230,828)	—	(230,828)
Stock-based compensation charges	225,767	3	18,610	—	—	—	18,613	—	18,613
Distributions to noncontrolling interests	—	—	—	—	—	—	—	(359)	(359)
Balance December 31, 2021	127,311,985	$ 1,273	$ 174,288	$ 1,775,751	$ 12,143	$ (1,326,280)	$ 637,175	$ 60	$ 637,235
Recently adopted accounting standards	—	—	—	—	—	—	—	—	—
Net income	—	—	—	238,191	—	—	238,191	429	238,620
Dividends declared ($0.88 per share)	—	—	—	(80,972)	—	—	(80,972)	—	(80,972)
Currency translation adjustments	—	—	—	—	(34,834)	—	(34,834)	—	(34,834)
Derivative financial instruments	—	—	—	—	799	—	799	—	799
Defined benefit obligations	—	—	—	—	67	—	67	—	67
Available-for-sale investments	—	—	—	—	(105)	—	(105)	—	(105)
Exercises of stock options	35,878	—	852	—	—	—	852	—	852
Shares placed in treasury	—	—	—	—	—	(26,990)	(26,990)	—	(26,990)
Stock-based compensation charges	323,893	4	14,123	—	—	—	14,127	—	14,127
Distributions to noncontrolling interests	—	—	—	—	—	—	—	(444)	(444)
Balance December 31, 2022	127,671,756	$ 1,277	$ 189,263	$ 1,932,970	$ (21,930)	$ (1,353,270)	$ 748,310	$ 45	$ 748,355

See accompanying notes to consolidated financial statements.

BWX TECHNOLOGIES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31, 2022	2021	2020
	(In thousands)		
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net Income	$ 238,620	$ 306,288	$ 279,196
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	73,842	69,080	60,674
Income of investees, net of dividends	(3,461)	(13,023)	(2,147)
Provision for deferred taxes	5,515	40,091	7,890
Recognition of (gains) losses for pension and postretirement plans	49,868	(36,647)	9,548
Stock-based compensation expense	14,127	18,613	16,844
Premium for early redemption of senior notes	—	10,752	—
Recognition of debt issuance costs from former debt instruments	46	4,212	665
Other, net	7,649	1,401	(1,457)
Changes in assets and liabilities, net of effects from acquisitions:			
Accounts receivable	15,167	84,006	(98,302)
Accounts payable	(40,495)	28,795	(1,241)
Retainages	4,189	3,875	(8,578)
Contracts in progress and advance billings on contracts	(38,615)	(67,137)	(53,242)
Income taxes	(764)	4,116	1,157
Accrued and other current liabilities	(18,948)	(1,991)	6,843
Pension liabilities, accrued postretirement benefit obligations and employee benefits	(68,535)	(69,424)	(29,311)
Other, net	6,499	3,019	7,903
NET CASH PROVIDED BY OPERATING ACTIVITIES	244,704	386,026	196,442
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property, plant and equipment	(198,312)	(311,052)	(255,027)
Acquisition of businesses	(47,328)	—	(15,905)
Purchases of securities	(3,803)	(4,739)	(4,232)
Sales and maturities of securities	3,813	5,553	6,360
Investments, net of return of capital, in equity method investees	(11,450)	—	88
Other, net	844	5,585	3,397
NET CASH USED IN INVESTING ACTIVITIES	(256,236)	(304,653)	(265,319)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Borrowings of long-term debt	978,200	1,324,300	844,500
Repayments of long-term debt	(878,200)	(999,300)	(794,676)
Premium for early redemption of senior notes	—	(10,752)	—
Payment of debt issuance costs	(2,405)	(4,838)	(6,803)
Borrowings and repayments of bank overdraft	—	(88,694)	88,694
Repurchases of common stock	(20,000)	(225,786)	(21,960)
Dividends paid to common shareholders	(81,074)	(79,668)	(72,940)
Cash paid for shares withheld to satisfy employee taxes	(6,588)	(5,042)	(5,249)
Settlements of forward contracts, net	24,013	(2,030)	(8,802)
Other, net	6	1,674	2,282
NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES	13,952	(90,136)	25,046
EFFECTS OF EXCHANGE RATE CHANGES ON CASH	(1,205)	240	(271)
TOTAL INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS AND RESTRICTED CASH AND CASH EQUIVALENTS	1,215	(8,523)	(44,102)
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	39,775	48,298	92,400
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH AND CASH EQUIVALENTS AT END OF PERIOD	$ 40,990	$ 39,775	$ 48,298
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid during the period for:			
Interest	$ 51,343	$ 50,840	$ 38,267
Income taxes (net of refunds)	$ 71,755	$ 44,949	$ 73,589
SCHEDULE OF NON-CASH INVESTING ACTIVITY:			
Accrued capital expenditures included in accounts payable	$ 9,588	$ 27,495	$ 51,492

See accompanying notes to consolidated financial statements.

NOTE 1 – BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

We have presented the consolidated financial statements of BWX Technologies, Inc. ("BWXT") in U.S. dollars in accordance with accounting principles generally accepted in the United States ("GAAP").

We use the equity method to account for investments in entities that we do not control, but over which we have the ability to exercise significant influence. We generally refer to these entities as "joint ventures." We have eliminated all intercompany transactions and accounts. We classify assets and liabilities related to long-term contracts as current using the duration of the related contract or program as our operating cycle, which is generally longer than one year. We have reclassified certain amounts previously reported to conform to the presentation at December 31, 2022 and for the year ended December 31, 2022. We present the notes to our consolidated financial statements on the basis of continuing operations, unless otherwise stated.

Unless the context otherwise indicates, "we," "us" and "our" mean BWXT and its consolidated subsidiaries.

Reportable Segments

We operate in two reportable segments: Government Operations and Commercial Operations. Our reportable segments reflect changes we made during the first quarter of 2022 to better align our businesses by their government and commercial nature, which reflects the manner in which our operating segment information is reported for purposes of assessing operating performance and allocating resources. Prior to 2022, we reported three segments: Nuclear Operations Group, Nuclear Power Group and Nuclear Services Group.

Our Government Operations segment consists of our legacy Nuclear Operations Group and Nuclear Services Group segments with certain research and development activities in the areas of advanced reactors and advanced manufacturing. Our Commercial Operations segment consists of our legacy Nuclear Power Group segment with certain research and development and commercialization activities in the areas of medical and industrial radioisotopes and radiopharmaceuticals. Both segments now include research and development and certain commercialization activities associated with new technologies previously reported outside of our reportable segments. The change in our reportable segments had no impact on our previously reported consolidated results of operations, financial condition or cash flows. We have applied the change in reportable segments to previously reported historical financial information and related disclosures included in this annual report on Form 10-K. Our reportable segments are further described as follows:

- Our Government Operations segment manufactures naval nuclear reactors, including the related nuclear fuel, for the U.S. Naval Nuclear Propulsion Program for use in submarines and aircraft carriers. Through this segment, we also fabricate fuel-bearing precision components that range in weight from a few grams to hundreds of tons, manufacture electro-mechanical equipment, perform design, manufacturing, inspection, assembly and testing activities and downblend Cold War-era government stockpiles of high-enriched uranium. In addition, we supply proprietary and sole-source valves, manifolds and fittings to global naval and commercial shipping customers. In-house capabilities also include wet chemistry uranium processing, advanced heat treatment to optimize component material properties and a controlled, clean-room environment with the capacity to assemble railcar-size components. This segment also provides various other services, primarily through joint ventures, to the U.S. Government including nuclear materials management and operation, environmental management and administrative and operating services for various U.S. Government-owned facilities. These services are provided to the U.S. Department of Energy ("DOE"), including the National Nuclear Security Administration, the Office of Nuclear Energy, the Office of Science and the Office of Environmental Management, the Department of Defense and NASA. In addition, this segment also develops technology for advanced nuclear reactors for a variety of power and propulsion applications in the space and terrestrial domains and offers complete advanced nuclear fuel and reactor design and engineering, licensing and manufacturing services for these programs.
- Our Commercial Operations segment fabricates commercial nuclear steam generators, nuclear fuel, fuel handling systems, pressure vessels, reactor components, heat exchangers, tooling delivery systems and other auxiliary equipment, including containers for the storage of spent nuclear fuel and other high-level waste and supplies nuclear-grade materials and precisely machined components for nuclear utility customers. We have supplied the nuclear industry with more than 1,300 large, heavy components worldwide, and we are the only commercial heavy nuclear component manufacturer in North America. This segment also provides specialized engineering services that include structural component design, 3-D thermal-hydraulic engineering analysis, weld and robotic process development,

electrical and controls engineering and metallurgy and materials engineering. In addition, this segment offers in-plant inspection, maintenance and modification services for nuclear steam generators, heat exchangers, reactors, fuel handling systems and balance of plant equipment, as well as specialized non-destructive examination and tooling/repair solutions. This segment also manufactures medical radioisotopes, radiopharmaceuticals and medical devices, and partners with life science and pharmaceutical companies developing new drugs.

See Note 15 and Note 3 for financial information about our segments.

Recently Adopted Accounting Standards

There were no accounting standards adopted during the year ended December 31, 2022 that had a significant impact on our financial position, results of operations, cash flows or disclosures.

Use of Estimates

We use estimates and assumptions to prepare our financial statements in conformity with GAAP. Some of our more significant estimates include estimates of costs to complete long-term contracts and the associated revenues, estimates of the fair value of acquired intangible and other assets, estimates we make in selecting assumptions related to the valuations of our pension and postretirement benefit plans, including the selection of our discount rates, mortality and expected rates of return on our pension plan assets and estimates we make in evaluating our asset retirement obligations. These estimates and assumptions affect the amounts we report in our financial statements and accompanying notes. Our actual results could differ from these estimates. Variances could result in a material effect on our financial condition and results of operations in future periods.

Contracts and Revenue Recognition

We generally recognize contract revenues and related costs over time for individual performance obligations based on a cost-to-cost method in accordance with FASB Topic *Revenue from Contracts with Customers*. We recognize estimated contract revenue and resulting income based on the measurement of the extent of progress toward completion as a percentage of the total project. Certain costs may be excluded from the cost-to-cost method of measuring progress, such as significant costs for uninstalled materials, if such costs do not depict our performance in transferring control of goods or services to the customer. We review contract price and cost estimates periodically as the work progresses and reflect adjustments proportionate to the percentage-of-completion in income in the period when those estimates are revised. Certain of our contracts recognize revenue at a point in time, and revenue on these contracts is recognized when control transfers to the customer. The majority of our revenue that is recognized at a point in time is related to parts and certain medical radioisotopes and radiopharmaceuticals in our Commercial Operations segment. For all contracts, if a current estimate of total contract cost indicates a loss on a contract, the projected loss is recognized in full when determined.

See Note 3 for a further discussion of revenue recognition.

Stock-Based Compensation

We expense stock-based compensation in accordance with FASB Topic *Compensation – Stock Compensation.* Under this topic, the fair value of equity-classified awards, such as restricted stock, performance shares and stock options, is determined on the date of grant and is not remeasured. The fair value of liability-classified awards, such as cash-settled stock appreciation rights, restricted stock units and performance units, is determined on the date of grant and is remeasured at the end of each reporting period through the date of settlement. Grant date fair values for restricted stock, restricted stock units, performance shares and performance units are determined using the closing price of our common stock on the date of grant.

Under the provisions of this FASB topic, we recognize expense for all share-based awards granted on a straight-line basis over the requisite service periods of the awards, which is generally equivalent to the vesting term. This topic requires compensation expense to be recognized such that compensation expense is recorded only for those awards expected to vest. As a result, we periodically review the amount of actual forfeitures and record any adjustments deemed necessary each reporting period. We also recognize excess tax benefits in our provision for income taxes. These excess tax benefits result from tax deductions in excess of the cumulative compensation expense recognized for options exercised and other equity-classified awards.

See Note 9 for a further discussion of stock-based compensation.

Grant Accounting

We recognize amounts related to grants as a reduction of expense in the period in which the related costs for which the grants are intended to compensate are recognized and we are reasonably assured to receive payment.

On April 11, 2020, the Canadian Government enacted the Canada Emergency Wage Subsidy ("CEWS") under the COVID-19 Economic Response Plan to prevent large layoffs and help employers offset a portion of their employee salaries and wages for a limited period. During the years ended December 31, 2022, 2021 and 2020, we recognized subsidies under the CEWS as offsets to operating expenses of $0.6 million, $5.4 million and $20.4 million, respectively.

Research and Development

Our research and development activities are related to the development and improvement of new and existing products and equipment, as well as conceptual and engineering evaluation for translation into practical applications. Research and development costs are expensed as incurred, unless these costs relate to customer-sponsored activities where we are reimbursed in accordance with the terms of the underlying contracts. Amounts expensed as incurred for company-funded research and development projects are included in Research and development costs. Costs related to contracts with customers for customer-sponsored research and development projects are included as a contract cost in Cost of operations whereby we recognize revenue, consistent with our revenue recognition policies. Additionally, we may enter into cost-sharing arrangements with our customers to enhance our internal development capabilities and offset a portion of the costs incurred related to these development efforts.

Research and development activities totaled $45.4 million, $31.4 million and $40.8 million in the years ended December 31, 2022, 2021 and 2020, respectively. This includes amounts paid for by our customers of $35.9 million, $20.3 million and $26.6 million in the years ended December 31, 2022, 2021 and 2020, respectively.

Capitalization of Interest Cost

We capitalize interest in accordance with FASB Topic *Interest*. We incurred total interest of $53.9 million, $51.1 million and $40.8 million in the years ended December 31, 2022, 2021 and 2020, respectively, of which we capitalized $17.5 million, $15.3 million and $9.8 million in the years ended December 31, 2022, 2021 and 2020, respectively.

Income Taxes

Income tax expense for federal, foreign, state and local income taxes is calculated on pre-tax income based on current tax law and includes the cumulative effect of any changes in tax rates from those used previously in determining deferred tax assets and liabilities. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. We assess deferred taxes and the adequacy of the valuation allowance on a quarterly basis. In the ordinary course of business, there is inherent uncertainty in quantifying our income tax positions. We assess our income tax positions and record tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, we have recorded the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. We record interest and penalties (net of any applicable tax benefit) related to income taxes as a component of Provision for Income Taxes on our consolidated statements of income.

We would be subject to withholding taxes if we were to distribute earnings from certain foreign subsidiaries, and unrecognized deferred income tax liabilities, including withholding taxes, would be payable upon distribution of these earnings. We consider the earnings of our non-U.S. subsidiaries to be permanently reinvested.

Earnings Per Share

We have computed earnings per common share on the basis of the weighted-average number of common shares, and, where dilutive, common share equivalents, outstanding during the indicated periods. We issue a number of forms of stock-based compensation periodically, including incentive and non-qualified stock options, restricted stock, restricted stock units, performance shares and performance units, subject to satisfaction of specific performance goals. We include the shares applicable to these plans in our computation of diluted earnings per share when related performance criteria have been met.

Cash and Cash Equivalents and Restricted Cash and Cash Equivalents

Our cash equivalents are highly liquid investments with maturities of three months or less when we purchase them.

We record cash and cash equivalents as restricted when we are unable to freely use such cash and cash equivalents for our general operating purposes. At December 31, 2022, we had restricted cash and cash equivalents totaling $5.7 million, $2.8 million of which was held for future decommissioning of facilities (which is included in Other Assets on our consolidated balance sheets) and $2.9 million of which was held to meet reinsurance reserve requirements of our captive insurer.

The following table provides a reconciliation of cash and cash equivalents and restricted cash and cash equivalents on our consolidated balance sheets to the totals presented on our consolidated statements of cash flows:

	December 31, 2022	December 31, 2021
	(In thousands)	
Cash and cash equivalents	$ 35,244	$ 33,891
Restricted cash and cash equivalents	2,928	2,896
Restricted cash and cash equivalents included in Other Assets	2,818	2,988
Total cash and cash equivalents and restricted cash and cash equivalents as presented on our consolidated statements of cash flows	$ 40,990	$ 39,775

Investments

Our investment portfolio consists primarily of U.S. Government securities, corporate bonds and mutual funds. Our debt securities are carried at fair value and are either classified as trading, with unrealized gains and losses reported in earnings, or as available-for-sale, with the unrealized gains and losses, net of tax, reported as a component of Accumulated other comprehensive income. Our equity securities are carried at fair value with the unrealized gains and losses reported in earnings. We classify investments available for current operations in the consolidated balance sheets as current assets, while we classify investments held for long-term purposes as noncurrent assets. We adjust the amortized cost of debt securities for amortization of premiums and accretion of discounts to maturity, and such adjustments are included in Interest income. We include realized gains and losses on our investments in Other – net. The cost of securities sold is based on the specific identification method. We include interest on investments in Interest income.

Inventories

We carry our inventory at the lower of cost or net realizable value using either the weighted-average or first-in, first-out methods. At December 31, 2022 and 2021, Other current assets included inventories totaling $22.9 million and $16.3 million, respectively, consisting entirely of raw materials and supplies.

Property, Plant and Equipment

We carry our property, plant and equipment at depreciated cost, less any impairment provisions. We depreciate our property, plant and equipment using the straight-line method over estimated economic useful lives of eight to 40 years for buildings and three to 14 years for machinery and equipment. Our depreciation expense was $61.3 million, $58.1 million and $50.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. We expense the costs of maintenance, repairs and renewals that do not materially prolong the useful life of an asset as we incur them.

Property, plant and equipment is stated at cost and is set forth below:

	December 31, 2022	December 31, 2021
	(In thousands)	
Land	$ 9,844	$ 9,538
Buildings	365,955	321,872
Machinery and equipment	1,026,024	957,423
Property under construction	515,494	487,856
	1,917,317	1,776,689
Less: Accumulated depreciation	782,420	731,049
Property, Plant and Equipment, Net	$ 1,134,897	$ 1,045,640

Goodwill

Goodwill represents the excess of the cost of our acquired businesses over the fair value of the net assets acquired. We perform testing of goodwill for impairment annually or more frequently whenever events or circumstances indicate the carrying value of goodwill may be impaired. We may elect to perform a qualitative test when we believe that there is sufficient excess fair value over carrying value based on our most recent quantitative assessment, adjusted for relevant events and circumstances that could affect fair value during the current year. If we conclude based on this assessment that it is more likely than not that the reporting unit is not impaired, we do not perform a quantitative impairment test. In all other circumstances, we compare the fair value of a reporting unit to its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying value, no impairment charge is recorded. If the carrying amount of a reporting unit exceeds its fair value, an impairment charge is recorded to goodwill in the amount by which carrying value exceeds fair value.

The following summarizes the changes in the carrying amount of Goodwill:

	Government Operations	Commercial Operations	Total
		(In thousands)	
Balance at December 31, 2020	$ 155,939	$ 127,769	$ 283,708
Translation	—	1,794	1,794
Balance at December 31, 2021	$ 155,939	$ 129,563	$ 285,502
Acquisitions (Note 2)	16,609	—	16,609
Translation	(461)	(8,485)	(8,946)
Balance at December 31, 2022	$ 172,087	$ 121,078	$ 293,165

Investments in Unconsolidated Affiliates

We use the equity method of accounting for affiliates in which we are able to exert significant influence. Currently, all of our material investments in affiliates that are not consolidated are recorded using the equity method. Affiliates in which we are unable to exert significant influence are carried at fair value.

Intangible Assets

Intangible assets are recognized at fair value when acquired. Intangible assets with definite lives are amortized to Costs and Expenses using the straight-line method over their estimated useful lives and tested for impairment when events or changes in circumstances indicate that their carrying amounts may not be recoverable. Intangible assets with indefinite lives are not amortized and are subject to annual impairment testing. We may elect to perform a qualitative assessment when testing indefinite-lived intangible assets for impairment to determine whether events or circumstances affecting significant inputs related to the most recent quantitative evaluation have occurred, indicating that it is more likely than not that the indefinite-lived intangible asset is impaired. Otherwise, we test indefinite-lived intangible assets for impairment by quantitatively determining the fair value of the indefinite-lived intangible asset and comparing the fair value of the intangible asset to its carrying amount. If the carrying amount of the intangible asset exceeds its fair value, we recognize impairment for the amount of the difference.

Our Intangible Assets were as follows:

	December 31, 2022	December 31, 2021	December 31, 2020
	(In thousands)		
Amortized intangible assets:			
Gross cost:			
Technical support agreement	$ 65,069	$ 69,781	$ 68,785
Customer relationships	56,176	40,247	39,954
Unpatented technology	39,609	38,073	37,529
CNSC class 1B nuclear facility license	25,094	26,911	26,528
Acquired backlog	13,537	7,595	7,487
Patented technology	738	792	780
All other	812	871	858
Total	$ 201,035	$ 184,270	$ 181,921
Accumulated amortization:			
Technical support agreement	$ (12,495)	$ (10,366)	$ (7,227)
Customer relationships	(20,590)	(18,176)	(15,996)
Unpatented technology	(7,966)	(6,398)	(4,584)
CNSC class 1B nuclear facility license	(5,052)	(4,521)	(3,573)
Acquired backlog	(4,474)	(2,531)	(1,248)
Patented technology	(405)	(363)	(286)
All other	(271)	(194)	(86)
Total	$ (51,253)	$ (42,549)	$ (33,000)
Net amortized intangible assets	$ 149,782	$ 141,721	$ 148,921
Unamortized intangible assets:			
NRC category 1 license	$ 43,830	$ 43,830	$ 43,830

The following summarizes the changes in the carrying amount of Intangible Assets:

	Year Ended December 31, 2022	Year Ended December 31, 2021	Year Ended December 31, 2020
	(In thousands)		
Balance at beginning of period	$ 185,551	$ 192,751	$ 191,392
Acquisitions (Note 2)	28,500	—	8,180
Amortization expense	(10,901)	(9,329)	(8,824)
Translation and other (1)	(9,538)	2,129	2,003
Balance at end of period	$ 193,612	$ 185,551	$ 192,751

(1) Includes $(0.6) million related to the divestiture of the U.S.-based commercial nuclear services business during the year ended December 31, 2020.

Estimated amortization expense for the next five fiscal years is as follows (amounts in thousands):

Year Ended December 31,	Amount
2023	$ 11,328
2024	$ 11,328
2025	$ 11,328
2026	$ 10,147
2027	$ 8,552

Leases

We lease certain manufacturing facilities, office space and equipment under operating leases with terms of one to 20 years. Certain of the leases include options to renew for periods of one to 10 years. We include lease options in our determination of the right-of-use asset and lease liability if it is reasonably certain that we will exercise one or more of the options. Leases with initial terms of 12 months or less are excluded from our right-of-use assets and lease liabilities. Our right-of-use assets are included in Other Assets on our consolidated balance sheets. Our current lease liabilities are included in Accrued liabilities – other, and our noncurrent lease liabilities are included in Other Liabilities on our consolidated balance sheets. We use discount rates based on our incremental borrowing rate as most of our leases do not provide an implicit rate that can be readily determined.

During the year ended December 31, 2022, we recognized lease expense of $8.6 million, which included $1.6 million related to the amortization of favorable lease agreements, and paid cash of $6.6 million for our operating leases. During the years ended December 31, 2021 and 2020, we recognized lease expense of $8.4 million and $7.7 million, respectively. At December 31, 2022, our weighted-average remaining lease term was 13.9 years, and for the purpose of measuring the present value of our lease liabilities, the weighted-average discount rate was 4.72%. The maturities of our lease liabilities at December 31, 2022 were as follows (amounts in thousands):

2023	$	4,546
2024		3,647
2025		3,026
2026		2,426
2027		1,609
Thereafter		15,824
Total lease payments	$	31,078
Less: Interest		(8,673)
Present value of lease liabilities [(1)]	$	22,405

(1) Includes current lease liabilities of $4.4 million.

At December 31, 2022, our right-of-use assets totaled $49.6 million. The difference between our right-of-use assets and lease liabilities primarily resulted from favorable lease agreements related to acquisitions.

Warranty Expense

We accrue estimated warranty expense, included in Cost of operations on our consolidated statements of income, to satisfy contractual warranty requirements when we recognize the associated revenue on the related contracts. In addition, we record specific provisions or reductions where we expect the actual warranty costs to significantly differ from the accrued estimates. Such changes could have a material effect on our consolidated financial condition, results of operations and cash flows. Included in Accrued liabilities – other on our consolidated balance sheets were accrued warranty expenses totaling $6.6 million and $5.3 million at December 31, 2022 and 2021, respectively.

Deferred Debt Issuance Costs

We have included deferred debt issuance costs in the consolidated balance sheets as a direct deduction from the carrying amount of our debt liability. We amortize deferred debt issuance costs as interest expense over the life of the related debt. The following summarizes the changes in the carrying amount of these assets:

	Year Ended December 31,		
	2022	2021	2020
		(In thousands)	
Balance at beginning of period	$ 10,696	$ 12,269	$ 8,006
Additions	2,405	4,838	6,803
Interest expense [(1)]	(1,975)	(6,411)	(2,540)
Balance at end of period	$ 11,126	$ 10,696	$ 12,269

(1) Includes the recognition of prior deferred debt issuance costs associated with former debt instruments of $(4.2) million and $(0.7) million for the years ended December 31, 2021 and 2020, respectively.

Pension Plans and Postretirement Benefits

We sponsor various defined benefit pension and postretirement benefit plans covering certain employees of our U.S. and Canadian subsidiaries. We utilize actuarial valuations to calculate the cost and benefit obligations of our pension and postretirement benefits. The actuarial valuations utilize significant assumptions in the determination of our benefit cost and obligations, including assumptions regarding discount rates, expected returns on plan assets, mortality and health care cost trends. We determine our discount rate based on a yield curve comprising rates of return on high-quality, fixed-income investments currently available and expected to be available during the period to maturity of our pension and postretirement benefit plan obligations. The expected rate of return on plan assets assumption is based on capital market assumptions of the long-term expected returns for the investment mix of assets currently in the portfolio. The expected rate of return on plan assets is determined to be the weighted-average of the nominal returns based on the weightings of the classes within the total asset portfolio. Expected health care cost trends represent expected annual rates of change in the cost of health care benefits and are estimated based on analysis of health care cost inflation.

The components of benefit cost related to service cost, interest cost, expected return on plan assets and prior service cost amortization are recorded on a quarterly basis based on actuarial assumptions. In the fourth quarter of each year, or as interim remeasurements are required, we immediately recognize net actuarial gains and losses in earnings as a component of net periodic benefit cost. Recognized net actuarial gains and losses consist primarily of our reported actuarial gains and losses and the difference between the actual return on plan assets and the expected return on plan assets.

We recognize the funded status of each plan as either an asset or a liability in the consolidated balance sheets. The funded status is the difference between the fair value of plan assets and the present value of its benefit obligation, determined on a plan-by-plan basis. Our pension plan assets can include assets that are difficult to value. See Note 7 for detailed information regarding our plan assets.

Asset Retirement Obligations and Environmental Cleanup Costs

We accrue for future decommissioning of our nuclear facilities that will permit the release of these facilities to unrestricted use at the end of each facility's service life, which is a requirement of our licenses from the U.S. Nuclear Regulatory Commission ("NRC") and the Canadian Nuclear Safety Commission ("CNSC"). In accordance with the FASB Topic *Asset Retirement and Environmental Obligations,* we record the fair value of a liability for an asset retirement obligation in the period in which it is incurred. When we initially record such a liability, we capitalize a cost by increasing the carrying amount of the related long-lived asset. When we acquire a business that has an asset retirement obligation, the asset retirement obligation is recognized at fair value without a corresponding increase to the related long-lived asset. Over time, the liability is accreted to its present value each period and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of a liability, we will settle the obligation for its recorded amount or incur a gain or loss. This topic applies to environmental liabilities associated with assets that we currently operate and are obligated to remove from service. For environmental liabilities associated with assets that we no longer operate, we have accrued amounts based on the estimated costs of cleanup activities for which we are responsible, net of any cost-sharing arrangements. We adjust the estimated costs as further information develops or circumstances change. Given the long-lived nature of these facilities, we are required to estimate retirement costs that will be incurred in the future, which may extend up to 40 years at the time the asset retirement obligation is established. Due to the significance of the remaining useful life of these facilities, the timing of retirement and future costs for material components of the asset retirement obligations, such as labor and waste disposal fees, could differ from our estimates. An exception to this accounting treatment relates to the work we perform for two facilities for which the U.S. Government is obligated to pay substantially all of the decommissioning costs.

Substantially all of our asset retirement obligations relate to the remediation of our nuclear analytical laboratory at our facility in Lynchburg, Virginia and the Nuclear Fuel Services, Inc. ("NFS") facility in our Government Operations segment as well as certain facilities in our Commercial Operations segment. The following summarizes the changes in the carrying amount of these liabilities:

	Year Ended December 31,		
	2022	2021	2020
		(In thousands)	
Balance at beginning of period	$ 84,132	$ 78,110	$ 77,288
Costs incurred	(1,223)	(215)	(1,608)
Additions/adjustments	(4,289)	—	(3,284)
Accretion	5,158	5,996	5,343
Translation	(1,266)	241	371
Balance at end of period (1)	$ 82,512	$ 84,132	$ 78,110

(1) Includes current asset retirement obligations of $4.7 million, $4.7 million and $2.8 million at December 31, 2022, 2021 and 2020, respectively.

Self-Insurance

We have a wholly owned insurance subsidiary that provides employer's liability, general and automotive liability and primary workers' compensation insurance and, from time to time, builder's risk insurance (within certain limits) to our companies. We may also, in the future, have this insurance subsidiary accept other risks that we cannot or do not wish to transfer to outside insurance companies. Included in Other Liabilities on our consolidated balance sheets were reserves for self-insurance totaling $4.2 million and $4.5 million at December 31, 2022 and 2021, respectively.

Loss Contingencies

We accrue liabilities for loss contingencies when it is probable that a liability has been incurred and the amount of loss is reasonably estimable. We provide disclosure when there is a reasonable possibility that the ultimate loss will exceed the recorded provision or if such probable loss is not reasonably estimable. Due to the nature of our business, we are, from time to time, involved in investigations, litigation, disputes or claims related to our business activities, as discussed in Note 10. Our losses are typically resolved over long periods of time and are often difficult to assess and estimate due to, among other reasons, the possibility of multiple actions by third parties; the attribution of damages, if any, among multiple defendants; plaintiffs, in most cases involving personal injury claims, do not specify the amount of damages claimed; the discovery process may take multiple years to complete; during the litigation process, it is common to have multiple complex unresolved procedural and substantive issues; the potential availability of insurance and indemnity coverages; the wide-ranging outcomes reached in similar cases, including the variety of damages awarded; the likelihood of settlements for *de minimis* amounts prior to trial; the likelihood of success at trial; and the likelihood of success on appeal. Consequently, it is possible future earnings could be affected by changes in our assessments of the probability that a loss has been incurred in a material pending litigation against us and/or changes in our estimates related to such matters.

Accumulated Other Comprehensive Income

The components of Accumulated other comprehensive income included in Stockholders' Equity are as follows:

	December 31,	
	2022	2021
	(In thousands)	
Currency translation adjustments	$ (4,207)	$ 30,627
Net unrealized gain (loss) on derivative financial instruments	105	(694)
Unrecognized prior service cost on benefit obligations	(17,955)	(18,022)
Net unrealized gain on available-for-sale investments	127	232
Accumulated other comprehensive income	$ (21,930)	$ 12,143

The amounts reclassified out of Accumulated other comprehensive income by component and the affected consolidated statements of income line items are as follows:

Accumulated Other Comprehensive Income (Loss) Component Recognized	Year Ended December 31, 2022	2021	2020	Line Item Presented
	(In thousands)			
Realized (loss) gain on derivative financial instruments	$ (370)	$ 307	$ (35)	Revenues
	(343)	(712)	695	Cost of operations
	(713)	(405)	660	Total before tax
	181	103	(173)	Provision for Income Taxes
	$ (532)	$ (302)	$ 487	Net Income
Amortization of prior service cost on benefit obligations	$ (3,283)	$ (2,919)	$ (3,177)	Other – net
	657	624	645	Provision for Income Taxes
	$ (2,626)	$ (2,295)	$ (2,532)	Net Income
Total reclassification for the period	$ (3,158)	$ (2,597)	$ (2,045)	

Foreign Currency Translation

We translate assets and liabilities of our foreign operations into U.S. dollars at current exchange rates, and we translate income statement items at average exchange rates for the periods presented. We record adjustments resulting from the translation of foreign currency financial statements as a component of Accumulated other comprehensive income. We report foreign currency transaction gains and losses in income. We have included in Other – net translation gains (losses) of $(1.4) million, $1.8 million and $(0.6) million for the years ended December 31, 2022, 2021 and 2020, respectively.

Derivative Financial Instruments

Our operations give rise to exposure to market risks from changes in foreign currency exchange ("FX") rates. We use derivative financial instruments, primarily FX forward contracts, to reduce the impact of changes in FX rates on our operating results. We use these instruments to hedge our exposure associated with revenues or costs on our long-term contracts and other transactions that are denominated in currencies other than our operating entities' functional currencies. We do not hold or issue derivative financial instruments for trading or other speculative purposes.

We enter into derivative financial instruments primarily as hedges of certain firm purchase and sale commitments and loans between subsidiaries denominated in foreign currencies. We record these contracts at fair value on our consolidated balance sheets. Based on the hedge designation at inception of the contract, the related gains and losses on these contracts are deferred in stockholders' equity as a component of Accumulated other comprehensive income until the hedged item is recognized in earnings. The gain or loss on a derivative instrument not designated as a hedging instrument is immediately recognized in earnings. Gains and losses on derivative financial instruments that require immediate recognition are included as a component of Other – net on our consolidated statements of income and are recorded in the statements of cash flows based on the nature and use of the instruments.

We have designated the majority of our FX forward contracts that qualify for hedge accounting as cash flow hedges. The hedged risk is the risk of changes in functional-currency-equivalent cash flows attributable to changes in FX spot rates of forecasted transactions primarily related to long-term contracts. We exclude from our assessment of effectiveness the portion of the fair value of the FX forward contracts attributable to the difference between FX spot rates and FX forward rates. At December 31, 2022, we had deferred approximately $0.1 million of net gains on these derivative financial instruments. Assuming market conditions continue, we expect to recognize the majority of this amount in the next 12 months. For the years ended December 31, 2022, 2021 and 2020, we recognized (gains) losses of $(27.1) million, $(0.1) million and $8.7 million, respectively, in Other – net on our consolidated statements of income associated with FX forward contracts not designated as hedging instruments.

At December 31, 2022, our derivative financial instruments consisted of FX forward contracts with a total notional value of $438.8 million with maturities extending to December 2024. These instruments consisted primarily of FX forward contracts to purchase or sell Canadian dollars and Euros. We are exposed to credit-related losses in the event of non-performance by counterparties to derivative financial instruments. We attempt to mitigate this risk by using major financial institutions with high credit ratings. Our counterparties to derivative financial instruments have the benefit of the same collateral arrangements and covenants as described under our Credit Facility.

New Accounting Standards

In October 2021, the FASB issued an update to the Topic *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*. This update requires entities to recognize and measure contract assets and liabilities acquired in a business combination in accordance with FASB Topic *Revenue from Contracts with Customers*. The update will generally result in an entity recognizing contract assets and liabilities at amounts consistent with those recorded by the acquiree immediately before the acquisition date rather than at fair value. The new standard is effective on a prospective basis for fiscal years beginning after December 15, 2022, with early adoption permitted. We are currently evaluating the impact, if any, of the adoption of this standard on our financial statements.

NOTE 2 – ACQUISITIONS AND DIVESTITURES

Acquisition of Dynamic Controls Limited and Citadel Capital Corporation

On April 11, 2022, our subsidiary BWXT Government Group, Inc. acquired all of the outstanding stock of U.K.-based Dynamic Controls Limited ("Dynamic") and U.S.-based Citadel Capital Corporation, along with its wholly-owned subsidiary, Cunico Corporation ("Cunico"), for approximately $49.9 million. Our preliminary purchase price allocation resulted in the recognition of $28.5 million of Intangible Assets, $6.4 million of inventory and $16.6 million of Goodwill. Adjustments to our initial purchase price allocation include a reduction to intangible assets of $1.1 million with an offsetting increase to goodwill and a reduction of inventory of $2.0 million with an offsetting increase to Contracts in progress. In addition, we recognized right-of-use assets and lease liabilities of $7.2 million. The assets acquired and liabilities assumed have been recorded at preliminary estimates of fair value as determined by management, based on information currently available and on current assumptions of future operations, and are subject to change upon completion of acquisition accounting. Dynamic and Cunico are suppliers of highly-engineered, proprietary valves, manifolds and fittings for global naval nuclear and diesel-electric submarines, surface warfare ships and commercial shipping vessels. These companies are reported as part of our Government Operations segment.

The intangible assets included above consist of the following (dollar amounts in thousands):

		Amount	**Amortization Period**
Customer relationships	$	17,700	21 years
Backlog	$	6,600	5 years
Unpatented technology	$	4,200	8 years

Acquisition of Laker Energy Products Ltd.

On January 2, 2020, our subsidiary BWXT Canada Ltd. acquired Laker Energy Products Ltd., which was renamed BWXT Precision Manufacturing Inc. ("Precision Manufacturing"), for CAD 23.3 million ($17.8 million U.S. dollar equivalent). We were subject to the payment of contingent consideration of which we had recognized CAD 2.5 million as a component of the purchase price. Our purchase price allocation resulted in the recognition of $8.4 million of Property, Plant and Equipment, Net, $8.2 million of Intangible Assets and $5.8 million of Goodwill. In addition, we recognized right-of-use assets and lease liabilities of $2.7 million. During the year ended December 31, 2021, we entered into an agreement with the seller resulting in no contingent consideration due and recognized a gain of $2.0 million (CAD 2.5 million) as a component of Cost of operations. Precision Manufacturing is a global supplier of nuclear-grade materials and precisely machined components for CANDU nuclear power utilities and is reported as part of our Commercial Operations segment.

Divestiture of U.S.-Based Commercial Nuclear Services Business

On May 29, 2020, our subsidiary BWXT Nuclear Energy, Inc. divested its U.S.-based commercial nuclear services business, a component of our Government Operations segment. In a cashless transaction, we exchanged net assets totaling $18.0 million, consisting primarily of property, plant and equipment and certain warranty obligations, for a manufacturing facility and the associated land of approximately the same value. The acquired assets are reported as part of the Government Operations segment.

NOTE 3 – REVENUE RECOGNITION

Contracts and Revenue Recognition

Government Operations

Our Government Operations segment recognizes revenue over time for the manufacturing of naval nuclear reactor components and fuel, submarine missile launch tubes, the downblending of high-enriched uranium and for the development of advanced nuclear reactors for power and propulsion applications. Certain of our contracts contain two or more different types of components, each of which we identify as a separate performance obligation. We recognize revenue using a cost-to-cost method to measure progress as control is continually transferred to the customer as we incur costs on the performance obligations. We determine the stand-alone selling price of our performance obligations based on the expected cost plus margin approach. We allocate revenue to the individual performance obligations within contracts with multiple performance obligations based on the stand-alone selling price of the individual performance obligations.

Our fixed-price incentive fee contracts include incentives that we concluded to be variable consideration. The amount of the variable consideration to which we are entitled is dependent on our actual costs incurred on the performance obligation compared to the target costs for that performance obligation and subject to incentive price revisions included within the contracts. We include these incentive fees in revenue when there is sufficient evidence to determine that the variable consideration is not constrained. The remaining contracts typically have immaterial amounts of variable consideration and have a single performance obligation. Our estimates of variable consideration and total estimated costs at completion are determined through a detailed process based on historical performance and our expertise using the most likely method. Variations from estimated contract performance could result in a material effect on our financial condition and results of operations in future periods.

Our Government Operations segment's contracts primarily allow for billings as costs are incurred, subject to certain retainages on our fixed-price incentive fee contracts that require milestones to be reached for the remaining consideration to be paid. Our fuel and downblending contracts allow billing when we achieve certain milestones related to our progress.

Commercial Operations

Our Commercial Operations segment recognizes revenue over time using a cost-to-cost method for the manufacturing of large components, non-standard parts, fuel bundles and service contracts as control continually transfers to the customers. For standard parts, revenue is recognized at the point in time control transfers to the customer, which is consistent with the transfer of ownership. For medical radioisotopes, we recognize revenue either at the point in time control transfers to the customer or over time using a unit of output method. This segment generates revenue primarily from firm-fixed-price contracts that do not contain variable consideration as well as time-and-materials based contracts. Certain of these contracts contain assurance warranties and/or provisions for liquidated damages, which are expected to have an immaterial impact to the contracts based on our historical experience. We are entitled to payment on the majority of our Commercial Operations segment contracts when we achieve certain milestones related to our progress.

Disaggregated Revenues

We allocate geographic revenues based on the location of the customers' operations. Revenues by geographic area and customer type were as follows:

	Year Ended December 31, 2022			Year Ended December 31, 2021			Year Ended December 31, 2020		
	Government Operations	Commercial Operations	Total	Government Operations	Commercial Operations	Total	Government Operations	Commercial Operations	Total
					(In thousands)				
United States:									
Government	$ 1,703,005	$ —	$ 1,703,005	$ 1,624,078	$ —	$ 1,624,078	$ 1,635,399	$ —	$ 1,635,399
Non-Government	91,653	31,120	122,773	90,421	44,102	134,523	116,356	35,432	151,788
	$ 1,794,658	$ 31,120	$ 1,825,778	$ 1,714,499	$ 44,102	$ 1,758,601	$ 1,751,755	$ 35,432	$ 1,787,187
Canada:									
Government	$ 79	$ —	$ 79	$ —	$ —	$ —	$ —	$ —	$ —
Non-Government	3,134	373,705	376,839	3,417	345,412	348,829	4,357	309,433	313,790
	$ 3,213	$ 373,705	$ 376,918	$ 3,417	$ 345,412	$ 348,829	$ 4,357	$ 309,433	$ 313,790
Other:									
Government	$ 1,356	$ —	$ 1,356	$ —	$ —	$ —	$ —	$ —	$ —
Non-Government	9,256	22,533	31,789	7,181	17,568	24,749	7,015	26,404	33,419
	$ 10,612	$ 22,533	$ 33,145	$ 7,181	$ 17,568	$ 24,749	$ 7,015	$ 26,404	$ 33,419
Segment Revenues	$ 1,808,483	$ 427,358	2,235,841	$ 1,725,097	$ 407,082	2,132,179	$ 1,763,127	$ 371,269	2,134,396
Eliminations			(3,007)			(8,105)			(10,880)
Revenues			$ 2,232,834			$ 2,124,074			$ 2,123,516

Revenues by timing of transfer of goods or services were as follows:

	Year Ended December 31, 2022			Year Ended December 31, 2021			Year Ended December 31, 2020		
	Government Operations	Commercial Operations	Total	Government Operations	Commercial Operations	Total	Government Operations	Commercial Operations	Total
					(In thousands)				
Over time	$ 1,798,388	$ 370,198	$ 2,168,586	$ 1,724,961	$ 355,477	$ 2,080,438	$ 1,763,043	$ 322,745	$ 2,085,788
Point-in-time	10,095	57,160	67,255	136	51,605	51,741	84	48,524	48,608
Segment Revenues	$ 1,808,483	$ 427,358	2,235,841	$ 1,725,097	$ 407,082	2,132,179	$ 1,763,127	$ 371,269	2,134,396
Eliminations			(3,007)			(8,105)			(10,880)
Revenues			$ 2,232,834			$ 2,124,074			$ 2,123,516

Revenues by contract type were as follows:

	Year Ended December 31, 2022			Year Ended December 31, 2021			Year Ended December 31, 2020		
	Government Operations	Commercial Operations	Total	Government Operations	Commercial Operations	Total	Government Operations	Commercial Operations	Total
					(In thousands)				
Fixed-Price Incentive Fee	$ 1,226,265	$ 9,728	$ 1,235,993	$ 1,244,916	$ 9,279	$ 1,254,195	$ 1,226,748	$ 1,578	$ 1,228,326
Firm-Fixed-Price	334,076	300,129	634,205	307,652	307,200	614,852	336,496	296,394	632,890
Cost-Plus Fee	244,063	—	244,063	165,519	—	165,519	190,799	—	190,799
Time-and-Materials	4,079	117,501	121,580	7,010	90,603	97,613	9,084	73,297	82,381
Segment Revenues	$ 1,808,483	$ 427,358	2,235,841	$ 1,725,097	$ 407,082	2,132,179	$ 1,763,127	$ 371,269	2,134,396
Eliminations			(3,007)			(8,105)			(10,880)
Revenues			$ 2,232,834			$ 2,124,074			$ 2,123,516

Performance Obligations

As we progress on our contracts and the underlying performance obligations for which we recognize revenue over time, we refine our estimates of variable consideration and total estimated costs at completion, which impact the overall profitability on our contracts and performance obligations. Changes in these estimates result in the recognition of cumulative catch-up adjustments that impact our revenues and/or costs of contracts. During the years ended December 31, 2022, 2021 and 2020, we recognized net favorable changes in estimates that resulted in increases in revenues of $26.6 million, $30.7 million and $44.9 million, respectively, as well as increases (decreases) in cost of operations of $2.2 million, $4.2 million and $2.1 million, respectively. Included in these amounts are contract adjustments for cost overruns related to the manufacture of non-nuclear components being produced within our Government Operations segment. We recognized a decrease in operating income of $11.3 million for the year ended December 31, 2022 related to this matter. These contract adjustments resulted in a decrease in earnings per share of $0.09 for the year ended December 31, 2022. We are pursuing recovery of cost overruns related to this project.

Contract Assets and Liabilities

We include revenues and related costs incurred, plus accumulated contract costs that exceed amounts invoiced to customers under the terms of the contracts, in Contracts in progress. We include in Advance billings on contracts billings that exceed accumulated contract costs and revenues and costs recognized over time. In accordance with contract terms, certain amounts that are withheld by our customers and are classified within Retainages. Certain of these amounts require conditions other than the passage of time to be achieved, with the remaining amounts only requiring the passage of time. Most long-term contracts contain provisions for progress payments. Our unbilled receivables do not contain an allowance for credit losses as we expect to invoice customers and collect all amounts for unbilled receivables. Changes in Contracts in progress and Advance billings on contracts are primarily driven by differences in the timing of revenue recognition and billings to our customers. During the year ended December 31, 2022, our unbilled receivables decreased $7.4 million primarily as a result of decreases in cost in excess of billings on our fixed-price incentive fee contracts within our Government Operations segment, partially offset by increases due to the timing of milestone billings on certain firm-fixed-price contracts within our Government Operations and Commercial Operations segments. During the year ended December 31, 2022, our Advance billings on contracts decreased $22.9 million primarily as a result of revenue recognized in excess of billings on certain firm-fixed-price contracts within our Government Operations segment. Our fixed-price incentive fee contracts for our Government Operations segment include provisions that result in an increase in retainages on contracts during the first and third quarters of the year, with larger payments made during the second and fourth quarters. Retainages also vary as a result of timing differences between incurring costs and achieving milestones that allow us to recover these amounts.

	December 31, 2022	December 31, 2021
	(In thousands)	
Included in Contracts in progress:		
Unbilled receivables	$ 521,291	$ 528,644
Retainages [(1)]	$ 48,566	$ 51,507
Advance billings on contracts	$ 88,726	$ 111,619

(1) At December 31, 2021, we also had noncurrent retainages of $1.3 million included in Other Assets.

During the years ended December 31, 2022 and 2021, we recognized $91.9 million and $67.5 million of revenue that was in Advance billings on contracts at the beginning of each year, respectively.

Remaining Performance Obligations

Remaining performance obligations represent the dollar amount of revenue we expect to recognize in the future from performance obligations on contracts previously awarded and in progress. Our backlog is equal to our remaining performance obligations under contracts that meet the criteria in FASB Topic *Revenue from Contracts with Customers*. At December 31, 2022, our ending backlog was $4,144.3 million, which included $88.7 million of unfunded backlog related to U.S. Government contracts. We expect to recognize approximately 42% of the revenue associated with our backlog by the end of 2023, with the remainder to be recognized thereafter.

NOTE 4 – EQUITY METHOD INVESTMENTS

We have investments in entities that we account for using the equity method. Our share of the undistributed earnings of our equity method investees were $41.3 million and $39.4 million at December 31, 2022 and 2021, respectively. These amounts are included in Investments in Unconsolidated Affiliates on our consolidated balance sheets.

The following tables summarize combined balance sheet and income statement information for investments accounted for under the equity method:

	December 31, 2022	December 31, 2021
	(In thousands)	
Current assets	$ 566,076	$ 546,233
Noncurrent assets	445	634
Total Assets	$ 566,521	$ 546,867
Current liabilities	$ 292,081	$ 284,821
Owners' equity	274,440	262,046
Total Liabilities and Owners' Equity	$ 566,521	$ 546,867

	Year Ended December 31, 2022	2021	2020
		(In thousands)	
Revenues	$ 4,580,032	$ 4,254,635	$ 3,980,066
Gross profit	$ 176,592	$ 159,935	$ 142,709
Net income	$ 173,339	$ 156,994	$ 139,988

Reimbursable costs recorded in revenues by the unconsolidated joint ventures in our Government Operations segment totaled $4,453.7 million, $4,102.9 million and $3,851.5 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Income taxes for the investees are the responsibility of the respective owners. Accordingly, no provision for income taxes has been recorded by the investees.

Reconciliations of net income per combined income statement information of our investees to equity in income of investees per our consolidated statements of income are as follows:

	Year Ended December 31, 2022	2021	2020
		(In thousands)	
Equity income based on stated ownership percentages	$ 46,784	$ 31,870	$ 27,266
GAAP and other adjustments	(811)	1,628	(114)
Equity in income of investees	$ 45,973	$ 33,498	$ 27,152

Our transactions with unconsolidated affiliates were as follows:

	Year Ended December 31, 2022	2021	2020
		(In thousands)	
Sales to	$ 19,857	$ 11,838	$ 12,186
Dividends received	$ 42,512	$ 20,475	$ 25,005
Capital contributions, net of returns	$ 11,450	$ —	$ (88)

At December 31, 2022 and 2021, Accounts receivable – other included amounts due from unconsolidated affiliates of $1.5 million and $1.6 million, respectively.

NOTE 5 – INCOME TAXES

We are subject to federal income tax in the U.S., Canada and the U.K., as well as income tax within multiple U.S. state jurisdictions. We provide for income taxes based on the enacted tax laws and rates in the jurisdictions in which we conduct our operations. These jurisdictions may have regimes of taxation that vary with respect to nominal rates and with respect to the basis on which these rates are applied. This variation, along with the changes in our mix of income within these jurisdictions, can contribute to shifts in our effective tax rate from period to period.

We are not currently under audit by any of the various state authorities, and we do not have any returns under examination for years prior to 2017.

We apply the provisions of FASB Topic *Income Taxes* regarding the treatment of uncertain tax positions. A reconciliation of unrecognized tax benefits (exclusive of interest and federal and state benefits) is as follows:

	Year Ended December 31,		
	2022	2021	2020
		(In thousands)	
Balance at beginning of period	$ —	$ 5,852	$ 3,899
Increases based on tax positions taken in the current year	—	964	2,075
Increases based on tax positions taken in the prior years	—	—	—
Decreases based on tax positions taken in the prior years	—	—	—
Decreases due to settlements with tax authorities	—	(6,775)	—
Decreases due to lapse of applicable statute of limitation	—	(41)	(123)
Other, net	—	—	1
Balance at end of period	$ —	$ —	$ 5,852

Deferred income taxes reflect the net tax effects of temporary differences between the financial and tax bases of assets and liabilities. Significant components of deferred tax assets and liabilities as of December 31, 2022 and 2021 were as follows:

	December 31, 2022	December 31, 2021
	(In thousands)	
Deferred tax assets:		
Pension liability	$ 11,931	$ 12,047
Accrued warranty expense	1,694	1,363
Capitalized Section 174 expenditures	11,145	—
Accrued vacation pay	3,246	7,633
Accrued liabilities for self-insurance (including postretirement health care benefits)	17	2,095
Accrued liabilities for executive and employee incentive compensation	12,475	10,733
Environmental and products liabilities	20,983	21,050
Lease liabilities	5,298	3,667
Investments in joint ventures and affiliated companies	1,494	2,283
Long-term contracts	14,442	21,562
Accrued payroll taxes	2,504	4,753
U.S. federal tax credits and loss carryforward	7,113	7,023
U.S. state tax credits and loss carryforward	4,731	4,866
Foreign tax credit and loss carryforward	20,209	16,477
Other	2,719	2,568
Gross deferred tax assets	120,001	118,120
Valuation allowance for deferred tax assets	(13,022)	(13,218)
Total deferred tax assets	106,979	104,902
Deferred tax liabilities:		
Property, plant and equipment	75,334	66,636
Right-of-use lease assets	12,246	11,666
Intangibles	22,404	16,365
Total deferred tax liabilities	109,984	94,667
Net deferred tax assets (liabilities)	$ (3,005)	$ 10,235

The components of Income before Provision for Income Taxes were as follows:

	Year Ended December 31, 2022	2021	2020
		(In thousands)	
U.S.	$ 281,677	$ 343,091	$ 314,150
Other than U.S.	32,700	52,622	48,022
Income before Provision for Income Taxes	$ 314,377	$ 395,713	$ 362,172

The components of Provision for Income Taxes were as follows:

	Year Ended December 31, 2022	2021	2020
	(In thousands)		
Current:			
U.S. – federal	$ 54,683	$ 31,535	$ 53,340
U.S. – state and local	5,360	1,030	7,587
Other than U.S.	10,199	16,769	14,159
Total current	70,242	49,334	75,086
Deferred:			
U.S. – federal	5,755	40,463	10,852
U.S. – state and local	(34)	3,473	(536)
Other than U.S.	(206)	(3,845)	(2,426)
Total deferred	5,515	40,091	7,890
Provision for Income Taxes	$ 75,757	$ 89,425	$ 82,976

The following is a reconciliation of our income tax provision from the U.S. statutory federal tax rate to our consolidated effective tax rate:

	Year Ended December 31, 2022	2021	2020
U.S. federal statutory tax rate	21.0 %	21.0 %	21.0 %
State and local income taxes	1.7 %	1.1 %	1.9 %
Foreign rate differential	0.5 %	0.6 %	0.6 %
Excess tax deductions on equity compensation	(0.1)%	(0.1)%	(0.3)%
Other	1.0 %	— %	(0.3)%
Effective tax rate	24.1 %	22.6 %	22.9 %

At December 31, 2022, we had a valuation allowance of $13.0 million for deferred tax assets, which we expect cannot be realized through carrybacks, future reversals of existing taxable temporary differences and our estimate of future taxable income. We believe that our remaining deferred tax assets are more likely than not realizable through carrybacks, future reversals of existing taxable temporary differences, our estimate of future taxable income and potential tax planning. Any changes to our estimated valuation allowance could be material to our consolidated financial statements.

The following is an analysis of our valuation allowance for deferred tax assets:

	Beginning Balance	Charges To Costs and Expenses	Charged To Other Accounts	Ending Balance
		(In thousands)		
Year Ended December 31, 2022	$ (13,218)	196	—	$ (13,022)
Year Ended December 31, 2021	$ (12,892)	(326)	—	$ (13,218)
Year Ended December 31, 2020	$ (13,578)	771	(85)	$ (12,892)

We have domestic federal and foreign capital losses of $9.4 million available to offset future capital gains. The domestic federal capital losses begin to expire in 2023, while the foreign capital losses have an indefinite carryforward period. We are carrying a full valuation allowance of $9.4 million against the deferred tax asset related to these domestic federal and foreign capital loss carryforwards.

In addition, we have state credits and state net operating losses of $5.9 million ($4.7 million net of federal tax benefit) available to offset future taxable income in various states. These state net operating loss carryforwards begin to expire in 2023. We are carrying a valuation allowance of $4.6 million ($3.6 million net of federal tax benefit) against the deferred tax asset related to the state credits and state loss carryforwards.

We would be subject to withholding taxes if we were to distribute earnings from certain foreign subsidiaries. As of December 31, 2022, the undistributed earnings of these subsidiaries were approximately $277.2 million, and our unrecognized deferred income tax liabilities of approximately $13.9 million would be payable upon the distribution of these earnings. All of our foreign earnings are considered indefinitely reinvested.

NOTE 6 – LONG-TERM DEBT

Our Long-Term Debt consists of the following:

	December 31,	
	2022	2021
	(In thousands)	
Debt Instruments:		
Senior Notes	$ 800,000	$ 800,000
Credit Facility	500,000	—
Former Credit Facility	—	400,000
Less: Amounts due within one year	6,250	—
Long-Term Debt, gross	1,293,750	1,200,000
Less: Deferred debt issuance costs	11,126	10,696
Long-Term Debt	$ 1,282,624	$ 1,189,304

Maturities of Long-Term Debt subsequent to December 31, 2022 were as follows: 2023 – $6.3 million; 2024 – $6.3 million; 2025 – $12.5 million; 2026 – $12.5 million; 2027 – $462.5 million; and thereafter – $800.0 million.

Credit Facility

On October 12, 2022, we entered into an Amended and Restated Credit Agreement (the "Credit Facility") with Wells Fargo Bank, National Association, as administrative agent, and the other lenders party thereto, which amended and restated our then existing secured credit facility (the "Former Credit Facility"), which consisted of a $750 million senior secured revolving credit facility. The Credit Facility consists of a $750 million senior secured revolving credit facility (the "Revolving Credit Facility") and a $250 million senior secured term A loan (the "Term Loan"). The Revolving Credit Facility and the Term Loan are scheduled to mature on October 12, 2027. All proceeds from the Term Loan were used to repay outstanding indebtedness under the Former Credit Facility. The proceeds of loans under the Credit Facility are available for working capital needs, permitted acquisitions and other general corporate purposes.

The Credit Facility allows for additional parties to become lenders and, subject to certain conditions, for the increase of the commitments under the Credit Facility, subject to an aggregate maximum for all additional commitments of (1) the greater of (a) $400 million and (b) 100% of EBITDA, as defined in the Credit Facility, for the last four full fiscal quarters, plus (2) all voluntary prepayments of the Term Loan, plus (3) additional amounts provided the Company is in compliance with a pro forma first lien leverage ratio test of less than or equal to 2.50 to 1.00.

The Company's obligations under the Credit Facility are guaranteed, subject to certain exceptions, by substantially all of the Company's present and future wholly owned domestic restricted subsidiaries. The Credit Facility is secured by first-priority liens on certain assets owned by the Company and its subsidiary guarantors (other than its subsidiaries comprising a portion of its Government Operations segment).

The Credit Facility requires interest payments on outstanding loans on a periodic basis until maturity. We are required to make quarterly amortization payments on the Term Loan in an amount equal to (i) 0.625% of the initial aggregate principal amount of the Term Loan on the last business day of each quarter beginning the quarter ending March 31, 2023 and ending the quarter ending December 31, 2024 and (ii) 1.25% of the initial aggregate principal amount of the Term Loan on the last business day of each quarter ending after December 31, 2024, with the balance of the Term Loan due at maturity. We may prepay all loans under the Credit Facility at any time without premium or penalty (other than customary Term SOFR breakage costs), subject to notice requirements.

The Credit Facility includes financial covenants that are evaluated on a quarterly basis, based on the rolling four-quarter period that ends on the last day of each fiscal quarter. The maximum permitted leverage ratio is 4.00 to 1.00, which may be increased to 4.50 to 1.00 for up to four consecutive fiscal quarters after a material acquisition. The minimum consolidated interest coverage ratio is 3.00 to 1.00. In addition, the Credit Facility contains various restrictive covenants, including with respect to debt, liens, investments, mergers, acquisitions, dividends, equity repurchases and asset sales. As of December 31, 2022, we were in compliance with all covenants set forth in the Credit Facility.

Outstanding loans under the Credit Facility bear interest at our option at either (1) the Term SOFR plus a credit spread adjustment of 0.10% plus a margin ranging from 1.0% to 1.75% per year or (2) the base rate plus a margin ranging from 0.0% to 0.75% per year. We are charged a commitment fee on the unused portion of the Revolving Credit Facility, and that fee ranges from 0.15% to 0.225% per year. Additionally, we are charged a letter of credit fee of between 1.0% and 1.75% per year with respect to the amount of each financial letter of credit issued under the Revolving Credit Facility, and a letter of credit fee of between 0.75% and 1.05% per year with respect to the amount of each performance letter of credit issued under the Revolving Credit Facility. The applicable margin for loans, the commitment fee and the letter of credit fees set forth above will vary quarterly based on our consolidated total net leverage ratio. The margin for Term SOFR and base rate loans was 1.50% and 0.50%, respectively, the letter of credit fee for financial letters of credit and performance letters of credit was 1.50% and 0.90%, respectively, and the commitment fee for the unused portion of the Revolving Credit Facility was 0.20% from the closing date through the date of our delivery of the compliance certificate for the fiscal quarter ended December 31, 2022.

As of December 31, 2022, borrowings under our Term Loan totaled $250.0 million, borrowings and letters of credit issued under the Revolving Credit Facility totaled $250.0 million and $2.5 million, respectively, and we had $497.5 million available under the Revolving Credit Facility for borrowings and to meet letter of credit requirements. As of December 31, 2022, the weighted-average interest rate on outstanding borrowings under our Credit Facility was 5.93%.

The Credit Facility generally includes customary events of default for a secured credit facility. Under the Credit Facility, (1) if an event of default relating to bankruptcy or other insolvency events occurs with respect to the Company, all related obligations will immediately become due and payable; (2) if any other event of default exists, the lenders will be permitted to accelerate the maturity of the related obligations outstanding; and (3) if any event of default exists, the lenders will be permitted to terminate their commitments thereunder and exercise other rights and remedies, including the commencement of foreclosure or other actions against the collateral.

If any default occurs under the Credit Facility, or if we are unable to make any of the representations and warranties in the Credit Facility, we will be unable to borrow funds or have letters of credit issued under the Credit Facility.

Senior Notes due 2026

We issued $400 million aggregate principal amount of 5.375% senior notes due 2026 (the "Senior Notes due 2026") pursuant to an indenture dated May 24, 2018, among the Company, certain of our subsidiaries, as guarantors, and U.S. Bank National Association, as trustee. On July 15, 2021, using cash on hand and borrowings under the Former Credit Facility, we redeemed the Senior Notes due 2026 at a redemption price equal to 102.688% of the principal amount, resulting in an early redemption premium of $10.8 million and the write-off of deferred debt issuance costs totaling $4.2 million. These charges were recorded in our consolidated statement of income during the year ended December 31, 2021 as components of Other – net and Interest expense, respectively.

Senior Notes due 2028

We issued $400 million aggregate principal amount of 4.125% senior notes due 2028 (the "Senior Notes due 2028") pursuant to an indenture dated June 12, 2020 (the "2020 Indenture"), among the Company, certain of our subsidiaries, as guarantors, and U.S. Bank Trust Company, National Association (formerly known as U.S. Bank National Association) ("U.S. Bank"), as trustee. The Senior Notes due 2028 are guaranteed by each of the Company's present and future direct and indirect wholly owned domestic subsidiaries that is a guarantor under the Credit Facility.

Interest on the Senior Notes due 2028 is payable semi-annually in cash in arrears on June 30 and December 30 of each year at a rate of 4.125% per annum. The Senior Notes due 2028 will mature on June 30, 2028.

We may redeem the Senior Notes due 2028, in whole or in part, at any time on or after June 30, 2023 at a redemption price equal to (i) 102.063% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on June 30, 2023, (ii) 101.031% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on June 30, 2024 and (iii) 100.0% of the principal amount to be redeemed if the redemption occurs on or after June 30, 2025, in each case plus accrued and unpaid interest, if any, to, but excluding, the redemption date. At any time prior to June 30, 2023, we may also redeem up to 40.0% of the Senior Notes due 2028 with net cash proceeds of certain equity offerings at a redemption price equal to 104.125% of the principal amount of the Senior Notes due 2028 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. In addition, at any time prior to June 30, 2023, we may redeem the Senior Notes due 2028, in whole or in part, at a redemption price equal to 100.0% of the principal amount of the Senior Notes due 2028 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date plus an applicable "make-whole" premium.

The 2020 Indenture contains customary events of default, including, among other things, payment default, failure to comply with covenants or agreements contained in the 2020 Indenture or the Senior Notes due 2028 and certain provisions related to bankruptcy events. The 2020 Indenture also contains customary negative covenants. As of December 31, 2022, we were in compliance with all covenants set forth in the 2020 Indenture and the Senior Notes due 2028.

Senior Notes due 2029

We issued $400 million aggregate principal amount of 4.125% senior notes due 2029 (the "Senior Notes due 2029") pursuant to an indenture dated April 13, 2021 (the "2021 Indenture"), among the Company, certain of our subsidiaries, as guarantors, and U.S. Bank, as trustee. The Senior Notes due 2029 are guaranteed by each of the Company's present and future direct and indirect wholly owned domestic subsidiaries that is a guarantor under the Credit Facility.

Interest on the Senior Notes due 2029 is payable semi-annually in cash in arrears on April 15 and October 15 of each year at a rate of 4.125% per annum. The Senior Notes due 2029 will mature on April 15, 2029.

We may redeem the Senior Notes due 2029, in whole or in part, at any time on or after April 15, 2024 at a redemption price equal to (i) 102.063% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on April 15, 2024, (ii) 101.031% of the principal amount to be redeemed if the redemption occurs during the 12-month period beginning on April 15, 2025 and (iii) 100.0% of the principal amount to be redeemed if the redemption occurs on or after April 15, 2026, in each case plus accrued and unpaid interest, if any, to, but excluding, the redemption date. At any time prior to April 15, 2024, we may also redeem up to 40.0% of the Senior Notes due 2029 with net cash proceeds of certain equity offerings at a redemption price equal to 104.125% of the principal amount of the Senior Notes due 2029 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. In addition, at any time prior to April 15, 2024, we may redeem the Senior Notes due 2029, in whole or in part, at a redemption price equal to 100.0% of the principal amount of the Senior Notes due 2029 to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date plus an applicable "make-whole" premium.

The 2021 Indenture contains customary events of default, including, among other things, payment default, failure to comply with covenants or agreements contained in the 2021 Indenture or the Senior Notes due 2029 and certain provisions related to bankruptcy events. The 2021 Indenture also contains customary negative covenants. As of December 31, 2022, we were in compliance with all covenants set forth in the 2021 Indenture and the Senior Notes due 2029.

Other Arrangements

We have posted surety bonds to support regulatory and contractual obligations for certain decommissioning responsibilities, projects and legal matters. We utilize bonding facilities to support such obligations, but the issuance of bonds under those facilities is typically at the surety's discretion, and the bonding facilities generally permit the surety, in its sole discretion, to terminate the facility or demand collateral. Although there can be no assurance that we will maintain our surety bonding capacity, we believe our current capacity is adequate to support our existing requirements for the next 12 months. In addition, these bonds generally indemnify the beneficiaries should we fail to perform our obligations under the applicable agreements. We, and certain of our subsidiaries, have jointly executed general agreements of indemnity in favor of surety underwriters relating to surety bonds those underwriters issue. As of December 31, 2022, bonds issued and outstanding under these arrangements totaled approximately $113.5 million.

Similarly, we have provided letters of credit to governmental agencies and contractual counterparties to support regulatory and contractual obligations for certain decommissioning responsibilities, projects and legal matters. We utilize our Revolving Credit Facility and a bilateral letter of credit facility to support such obligations, but the issuance of letters of credit under our bilateral letter of credit facility is at the issuer's discretion, and our bilateral facility generally permits the issuer, in its sole discretion, to demand collateral if the issuer does not otherwise have the benefit of the collateral under our Credit Facility. Although there can be no assurance that we will maintain our bilateral letter of credit capacity, we believe our current capacity, together with capacity under our Revolving Credit Facility, is adequate to support our existing requirements for the next 12 months. As of December 31, 2022, letters of credit issued and outstanding under our bilateral letter of credit facility totaled approximately $34.9 million, and such letters of credit are secured by the collateral under our Credit Facility.

NOTE 7 – PENSION PLANS AND POSTRETIREMENT BENEFITS

We have historically provided defined benefit retirement benefits, primarily through noncontributory pension plans, for most of our regular employees. Certain of our subsidiaries have made other benefits available to certain groups of employees, including postretirement health care and life insurance benefits. For salaried employees, all major U.S. and Canadian defined benefit retirement plans have been closed to new entrants, and benefit accruals have ceased. For hourly employees, certain defined benefit retirement plans have been closed to new entrants.

Our funding policy is to fund the plans as recommended by the respective plan actuaries and in accordance with the Employee Retirement Income Security Act of 1974, as amended, or other applicable law. Assuming we continue as a government contractor, our contractual arrangements with the U.S. Government provide for the recovery of contributions to our pension and other postretirement benefit plans covering employees working primarily in our Government Operations segment.

Obligations and Funded Status

	Pension Benefits Year Ended December 31, 2022	Pension Benefits Year Ended December 31, 2021	Other Benefits Year Ended December 31, 2022	Other Benefits Year Ended December 31, 2021
	(In thousands)			
Change in benefit obligation:				
Benefit obligation at beginning of period	$ 1,308,266	$ 1,414,055	$ 59,301	$ 61,086
Service cost	11,116	11,667	650	760
Interest cost	30,924	27,170	1,387	1,197
Plan participants' contributions	224	199	346	488
Amendments	3,100	2,314	261	3,402
Settlements	(48,777)	(38,330)	—	—
Actuarial loss (gain)	(307,946)	(45,476)	(14,747)	(4,944)
Foreign currency exchange rate changes	(6,564)	1,669	(921)	197
Benefits paid	(63,365)	(65,002)	(3,227)	(2,885)
Benefit obligation at end of period	$ 926,978	$ 1,308,266	$ 43,050	$ 59,301
Change in plan assets:				
Fair value of plan assets at beginning of period	$ 1,256,799	$ 1,281,232	$ 53,512	$ 52,077
Actual return on plan assets	(263,881)	72,030	(6,003)	2,898
Plan participants' contributions	224	199	346	488
Company contributions	14,172	6,164	1,032	1,008
Settlements	(61,416)	(39,439)	—	—
Foreign currency exchange rate changes	(6,842)	1,615	—	—
Benefits paid	(63,365)	(65,002)	(3,271)	(2,959)
Fair value of plan assets at the end of period	875,691	1,256,799	45,616	53,512
Funded status	$ (51,287)	$ (51,467)	$ 2,566	$ (5,789)
Amounts recognized in the balance sheet consist of:				
Prepaid postretirement benefit obligation	$ —	$ —	$ 22,232	$ 20,122
Prepaid pension	9,542	10,573	—	—
Accrued employee benefits	(2,997)	(3,125)	(1,509)	(1,578)
Accumulated postretirement benefit obligation	—	—	(18,157)	(24,333)
Pension liability	(57,832)	(58,915)	—	—
Accrued benefit liability, net	$ (51,287)	$ (51,467)	$ 2,566	$ (5,789)
Amount recognized in accumulated comprehensive income (before taxes):				
Prior service cost (credit)	$ 20,363	$ 20,536	$ 2,750	$ 2,520
Supplemental information:				
Plans with accumulated benefit obligation in excess of plan assets:				
Projected benefit obligation	$ 877,431	$ 1,172,881	N/A	N/A
Accumulated benefit obligation	$ 873,185	$ 1,166,855	$ 17,795	$ 23,503
Fair value of plan assets	$ 816,693	$ 1,110,841	$ —	$ —
Plans with plan assets in excess of accumulated benefit obligation:				
Projected benefit obligation	$ 49,547	$ 135,385	N/A	N/A
Accumulated benefit obligation	$ 49,547	$ 135,375	$ 25,255	$ 35,798
Fair value of plan assets	$ 58,999	$ 145,958	$ 45,616	$ 53,512

We record the service cost component of net periodic benefit cost within Operating income on our consolidated statements of income. For the years ended December 31, 2022, 2021 and 2020, these amounts were $11.8 million, $12.4 million and $11.3 million, respectively. All other components of net periodic benefit cost are included in Other – net on our consolidated statements of income. For the years ended December 31, 2022, 2021 and 2020, these amounts were $(4.0) million, $(92.9) million and $(31.6) million, respectively. Components of net periodic benefit cost included in net income are as follows:

	Pension Benefits Year Ended December 31,			Other Benefits Year Ended December 31,		
	2022	2021	2020	2022	2021	2020
	(In thousands)					
Components of net periodic benefit cost:						
Service cost	$ 11,116	$ 11,667	$ 10,650	$ 650	$ 760	$ 642
Interest cost	30,924	27,170	37,199	1,387	1,197	1,612
Expected return on plan assets	(83,254)	(81,778)	(77,298)	(2,974)	(2,891)	(2,691)
Amortization of prior service cost	3,257	3,097	3,370	26	(178)	(193)
Recognized net actuarial loss (gain)	52,202	(34,690)	6,829	(5,616)	(4,876)	(458)
Net periodic benefit cost (income)	$ 14,245	$ (74,534)	$ (19,250)	$ (6,527)	$ (5,988)	$ (1,088)

Net periodic benefit cost related to our pension plans is calculated in accordance with GAAP. In addition, we calculate pension costs in accordance with U.S. cost accounting standards ("CAS") for purposes of cost recovery on our U.S. Government contracts to the extent applicable. See further discussion of CAS pension costs under the heading "Critical Accounting Estimates" in Item 7 of this Annual Report on Form 10-K.

Recognized net actuarial losses (gains) consist primarily of our reported actuarial losses (gains), settlements, and the differences between the actual returns on plan assets and the expected returns on plan assets. The benefit obligation of our pension plans as of December 31, 2022 and 2021 increased (decreased) by $(295.1) million and $(43.0) million, respectively, due to changes in the discount rate.

In November 2022, we completed the wind-up of our foreign salaried pension benefit plan and settled approximately $48.8 million in benefit obligations. As a result, we recognized pension settlement-related charges of $12.6 million during the year ended December 31, 2022. In December 2021, we purchased a group annuity contract that transferred certain foreign hourly pension benefit obligations of approximately $38.3 million to an insurance company for approximately 400 retirees.

Additional Information

	Pension Benefits Year Ended December 31,		Other Benefits Year Ended December 31,	
	2022	2021	2022	2021
	(In thousands)			
Decrease in accumulated other comprehensive income due to actuarial losses – before taxes	$ (3,100)	$ (2,314)	$ (261)	$ (3,402)

In the current fiscal year, we have recognized expense (income) in other comprehensive income as a component of net periodic benefit cost of approximately $3.3 million and $0.0 million for our pension benefits and other benefits, respectively.

Assumptions

	Pension Benefits		Other Benefits	
	2022	2021	2022	2021
Weighted-average assumptions used to determine net periodic benefit obligations at December 31:				
Discount rate	5.42 %	2.91 %	5.32 %	2.85 %

	Pension Benefits			Other Benefits		
	2022	2021	2020	2022	2021	2020
Weighted-average assumptions used to determine net periodic benefit cost for the years ended December 31:						
Discount rate to determine interest cost	2.42 %	1.96 %	2.78 %	2.42 %	1.87 %	2.62 %
Expected return on plan assets	7.10 %	6.80 %	6.95 %	5.67 %	5.66 %	5.66 %

The expected return on plan assets rate assumptions are based on the long-term expected returns for the investment mix of assets in the portfolio. In setting these rates, we use a building-block approach. Historical real return trends for the various asset classes in the plan's portfolio are combined with anticipated future market conditions to estimate the real rate of return for each asset class. These rates are then adjusted for anticipated future inflation to estimate nominal rates of return for each asset class. The expected rate of return on plan assets is then determined to be the weighted-average nominal return based on the weightings of the asset classes within the total asset portfolio.

Our existing other benefit plans are unfunded, with the exception of the NFS postretirement benefit plans. These plans provide health benefits to certain salaried and hourly employees, as well as retired employees, of NFS. All of the assets for these postretirement benefit plans are contributed into a Voluntary Employees' Beneficiary Association trust.

	2022	2021
Assumed health care cost trend rates at December 31:		
Health care cost trend rate assumed for next year	7.25 %	7.50 %
Rates to which the cost trend rate is assumed to decline (ultimate trend rate)	4.50 %	4.50 %
Year that the rate reaches ultimate trend rate	2034	2034

Investment Goals

General

The overall investment strategy of the pension trusts is to achieve long-term growth of principal, while avoiding excessive risk and to minimize the probability of loss of principal over the long term. The specific investment goals that have been set for the pension trusts, in the aggregate, are (1) to ensure that plan liabilities are met when due and (2) to achieve an investment return on trust assets consistent with a reasonable level of risk.

Allocations to each asset class for both domestic and foreign plans are reviewed periodically and rebalanced, if appropriate, to assure the continued relevance of the goals, objectives and strategies. The pension trusts for both our domestic and foreign plans employ a professional investment advisor and a number of professional investment managers whose individual benchmarks are, in the aggregate, consistent with the plan's overall investment objectives.

The goals of each investment manager are (1) to meet (in the case of passive accounts) or exceed (for actively managed accounts) the benchmark selected and agreed upon by the manager and the pension trust and (2) to display an overall level of risk in its portfolio that is consistent with the risk associated with the agreed upon benchmark.

The investment performance of total portfolios, as well as asset class components, is periodically measured against commonly accepted benchmarks, including the individual investment manager benchmarks. In evaluating investment manager performance, consideration is also given to personnel, strategy, research capabilities, organizational and business matters, adherence to discipline and other qualitative factors that may impact the ability to achieve desired investment results.

Domestic Plans

We sponsor the following domestic defined benefit pension plans:

- BWXT Retirement Plan;
- Nuclear Fuel Services, Inc. Retirement Plan for Salaried Employees; and
- Nuclear Fuel Services, Inc. Retirement Plan for Hourly Employees.

The assets of the domestic pension plans are commingled for investment purposes and held by the trustee in the BWXT Master Trust (the "Master Trust"). For the years ended December 31, 2022 and 2021, the investment returns on domestic plan assets of the Master Trust (net of deductions for management fees) were approximately (22)% and 9%, respectively.

The following is a summary of the asset allocations for the Master Trust at December 31, 2022 and 2021 by asset category:

	December 31,	
	2022	**2021**
Asset Category:		
U.S. Government Securities	36 %	32 %
Commingled and Mutual Funds	25 %	29 %
Real Estate	16 %	11 %
Diversified Credit	13 %	11 %
Fixed Income (excluding U.S. Government Securities)	5 %	11 %
Partnerships with Security Holdings	3 %	4 %
Other	2 %	2 %
Total	100 %	100 %

The target allocation for 2023 for the domestic plans, by asset class, is as follows:

Asset Class:	
Fixed Income	45 %
Equities	28 %
Other	27 %

Foreign Plan

We sponsor the BWXT Canada Ltd. Bargaining Unit Employees' Pension Plan. We also sponsored the BWXT Canada Ltd. Salaried Non-Union Employees' Retirement Plan until its wind-up in November 2022. The following is a summary of the asset allocations of these plans at December 31, 2022 and 2021 by asset category:

	December 31,	
	2022	**2021**
Asset Category:		
Fixed Income	51 %	20 %
Commingled and Mutual Funds	29 %	11 %
Cash and Other	20 %	69 %
Total	100 %	100 %

The target allocation for 2023 for the Canadian plan, by asset class, is as follows:

Asset Class:	
Fixed Income	65 %
Equities	35 %

Fair Value

See Note 14 for a detailed description of fair value measurements and the hierarchy established for valuation inputs. The following is a summary of total assets for our plans measured at fair value at December 31, 2022:

	12/31/2022	Level 1	Level 2 (In thousands)	Level 3	Unclassified
Pension and Other Benefits:					
U.S. Government Securities	$ 305,995	$ 305,995	$ —	$ —	$ —
Commingled and Mutual Funds	230,674	42,180	—	—	188,494
Real Estate	132,867	—	—	—	132,867
Diversified Credit	108,363	—	—	—	108,363
Fixed Income	95,967	35,563	—	—	60,404
Partnerships with Security Holdings	25,259	—	—	—	25,259
Cash, Cash Equivalents and Accrued Items (1)	22,182	—	—	—	22,182
Total Assets	$ 921,307	$ 383,738	$ —	$ —	$ 537,569

(1) Includes items that are not required to be categorized in the fair value hierarchy in order to permit reconciliation of the fair value hierarchy to the fair value of plan assets presented in the Obligations and Funded Status table.

The following is a summary of total assets for our plans measured at fair value at December 31, 2021:

	12/31/2021	Level 1	Level 2 (In thousands)	Level 3	Unclassified
Pension and Other Benefits:					
U.S. Government Securities	$ 369,980	$ 365,295	$ 4,685	$ —	$ —
Commingled and Mutual Funds	358,423	77,680	—	—	280,743
Fixed Income	182,169	31,856	128,829	—	21,484
Diversified Credit	133,508	—	—	—	133,508
Real Estate	126,886	—	—	—	126,886
Investment Contract (1)	46,817	—	—	46,817	—
Partnerships with Security Holdings	46,515	—	—	—	46,515
Cash, Cash Equivalents and Accrued Items (2)	46,013	—	—	—	46,013
Total Assets	$ 1,310,311	$ 474,831	$ 133,514	$ 46,817	$ 655,149

(1) During 2021, we filed for regulatory approval for the wind-up of our foreign salaried pension benefit plan. Based on those participants who elected to receive annuities upon retirement, we purchased a group annuity contract totaling $45.6 million. The wind-up of this plan was completed in 2022.

(2) Includes items that are not required to be categorized in the fair value hierarchy in order to permit reconciliation of the fair value hierarchy to the fair value of plan assets presented in the Obligations and Funded Status table.

The following is a summary of the changes in the Plans' Level 3 instruments for the years ended December 31, 2022 and 2021:

	Year Ended December 31, 2022	2021
	(In thousands)	
Balance at beginning of period	$ 46,817	$ —
Purchases	—	45,645
Dispositions	(35,822)	—
Realized gain (loss)	(6,988)	—
Change in unrealized gain (loss)	(652)	652
Translation	(3,355)	520
Balance at end of period	$ —	$ 46,817

Cash Flows

	Domestic Plans		Foreign Plans	
	Pension Benefits	Other Benefits	Pension Benefits	Other Benefits
	(In thousands)			
Expected employer contributions to trusts of defined benefit plans:				
2023	$ —	$ —	$ 2,333	N/A
Expected benefit payments:				
2023	$ 62,828	$ 2,660	$ 758	$ 544
2024	$ 64,396	$ 2,654	$ 892	$ 581
2025	$ 65,493	$ 2,601	$ 1,026	$ 626
2026	$ 66,355	$ 2,527	$ 1,157	$ 684
2027	$ 66,992	$ 2,468	$ 1,286	$ 720
2028-2032	$ 333,481	$ 11,398	$ 7,706	$ 3,784

Defined Contribution Plans

We also provide benefits under the BWXT Thrift Plan (the "Thrift Plan"). The Thrift Plan generally provides for matching employer contributions of 50% of the first 6% of compensation, as defined in the Thrift Plan, contributed by participants, and fully vest and are nonforfeitable after three years of service or upon retirement, death, lay-off or approved disability. These matching employer contributions are made in cash and invested at the employees' discretion. We also provide service-based cash contributions under the Thrift Plan to employees not accruing benefits under our defined benefit plans. Our Canadian plans also include a defined contribution component whereby we make cash, service-based contributions. Amounts charged to expense for employer contributions under our defined contribution plans totaled approximately $37.6 million, $37.5 million and $35.8 million in the years ended December 31, 2022, 2021 and 2020, respectively.

NOTE 8 – CAPITAL STOCK

On November 6, 2018, our Board of Directors authorized an additional share repurchase of up to an aggregate market value of $250 million during a three-year period from November 6, 2018 to November 6, 2021. This authorization became fully utilized in September 2021. On April 30, 2021, our Board of Directors authorized us to repurchase an indeterminate number of shares of our common stock at an aggregate market value of up to $500 million with no expiration date.

In the year ended December 31, 2022, we repurchased 374,568 shares of our common stock for $20.0 million. In the year ended December 31, 2021, we repurchased 4,134,767 shares of our common stock for $225.8 million. In the year ended December 31, 2020, we repurchased 338,521 shares of our common stock for $22.0 million. As of December 31, 2022, we had approximately $397.6 million available to us for share repurchase under the $500 million authorization described above.

NOTE 9 – STOCK-BASED COMPENSATION

BWX Technologies, Inc. 2020 Omnibus Incentive Plan

In May 2020, our stockholders approved the 2020 Omnibus Incentive Plan (the "2020 Plan") which succeeded the 2010 Long-Term Incentive Plan of BWX Technologies, Inc. (the "2010 Plan"). Members of the Board of Directors, executive officers, key employees and consultants are eligible to participate in the 2020 Plan. The Compensation Committee of the Board of Directors selects the participants for the 2020 Plan. The 2020 Plan provides for cash awards and equity-based compensation in the form of stock options, restricted stock, restricted stock units, performance shares and performance units, subject to satisfaction of specific performance goals. Shares subject to awards under either the 2020 Plan or the 2010 Plan that are cancelled, forfeited, terminated or expire unexercised, shall immediately become available for the granting of awards under the 2020 Plan. As of the effective date of the 2020 Plan, shares available for grant under the 2010 Plan are available for grant under the 2020 Plan. In addition, our stockholders approved an additional 1,450,000 shares of common stock for issuance through the 2020 Plan. Options to purchase shares are granted at not less than 100% of the fair market value closing price on the date of grant, become exercisable at such time or times as determined when granted and expire not more than ten years after the date of grant.

At December 31, 2022, we had a total of 3,720,491 shares of our common stock available for future awards. In the event of a change in control of the Company, the terms of the awards under the 2020 Plan contain provisions that may cause restrictions to lapse and accelerate the vesting of awards.

2010 Long-Term Incentive Plan of BWX Technologies, Inc.

Members of the Board of Directors, executive officers, key employees and consultants were eligible to participate in the 2010 Plan prior to it being succeeded by the 2020 Plan. The Compensation Committee of the Board of Directors selected the participants for the 2010 Plan. The 2010 Plan provided for a number of forms of stock-based compensation, including incentive and non-qualified stock options, restricted stock, restricted stock units, performance shares and performance units, subject to satisfaction of specific performance goals. Shares subject to award under the 2010 Plan that are cancelled, forfeited, terminated or expire unexercised, shall immediately become available for the granting of awards under the 2020 Plan. As part of the approval of the 2010 Plan, 10,000,000 shares of common stock were initially authorized for issuance, with an additional 2,300,000 authorized for issuance in 2014. Options to purchase shares are granted at not less than 100% of the fair market value closing price on the date of grant, become exercisable at such time or times as determined when granted and expire not more than ten years after the date of grant.

Long-Term Incentive Plan of BWXT Technical Services Group, Inc.

In June 2012, we established the 2012 Long-Term Incentive Plan of BWXT Technical Services Group, Inc., a cash-settled plan for employees of certain subsidiaries and unconsolidated affiliates as selected by the plan committee. The cash-settled plan provides for a number of forms of stock-based compensation, including stock appreciation rights, restricted stock units and performance units, subject to satisfaction of specific performance goals. Stock appreciation rights are granted at not less than 100% of the fair market value closing price of a share of BWXT common stock on the date of grant, become exercisable at such time or times as determined when granted and expire not more than ten years after the date of grant. Stock appreciation rights are cash settled for the excess of the market price of BWXT common stock on the exercise date minus the exercise price. Restricted stock units and performance units are cash settled upon vesting as determined when granted. We will not issue any shares of BWXT common stock under this plan, as all awards are cash settled.

In the event of a change in control of the Company, the terms of the awards under the cash-settled plan contain provisions that may cause restrictions to lapse and accelerate the vesting of awards.

Stock-based compensation expense for all of our plans recognized for the years ended December 31, 2022, 2021 and 2020 totaled $14.6 million, $18.3 million and $16.8 million, respectively, with associated tax benefit totaling $2.3 million, $3.0 million and $2.7 million, respectively.

As of December 31, 2022, unrecognized estimated compensation expense related to nonvested awards was $13.5 million, which is expected to be recognized over a weighted-average period of 1.8 years.

Stock Options

The following table summarizes activity for our stock options for the year ended December 31, 2022 (share data in thousands):

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value (In millions)
Outstanding at beginning of period	125	$ 23.65		
Granted	—	N/A		
Exercised	(35)	$ 23.71		
Cancelled/expired/forfeited	—	N/A		
Outstanding at end of period	90	$ 23.62	2.0 years	$ 3.1
Exercisable at end of period	90	$ 23.62	2.0 years	$ 3.1

The aggregate intrinsic value included in the table above represents the total pre-tax intrinsic value that would have been received by the option holders had all option holders exercised their options on December 31, 2022. The intrinsic value is calculated as the total number of option shares multiplied by the difference between the closing price of our common stock on the last trading day of the period and the exercise price of the options. This amount changes based on the price of our common stock.

During the years ended December 31, 2022, 2021 and 2020, the total intrinsic value of stock options exercised was $1.2 million, $2.7 million and $4.7 million, respectively. The actual tax benefits realized related to the stock options exercised during the year ended December 31, 2022 totaled $0.2 million.

Performance Shares

Nonvested performance shares as of December 31, 2022 and changes during the year ended December 31, 2022 were as follows (share data in thousands):

	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested at beginning of period	545	$ 55.90
Adjustment to assumed vesting percentage	18	$ 47.90
Granted	202	$ 45.62
Vested	(176)	$ 51.80
Cancelled/forfeited	(79)	$ 53.79
Nonvested at end of period	510	$ 53.01

The actual number of shares in which each participant vests is contingent upon achievement of a mix of certain targets (depending on the grant year), including return on invested capital; earnings before interest, taxes, depreciation and amortization; total shareholder return and diluted earnings per share, over a three-year performance period. The number of shares in which participants can vest ranges from zero to 200% of the initial performance shares granted, to be determined upon completion of the three-year performance period. The nonvested shares at the end of the period in the table above assumes weighted-average vesting of 123%.

The actual tax benefits realized related to the performance shares vested during the year ended December 31, 2022 totaled $1.6 million.

Restricted Stock Units

Nonvested restricted stock units as of December 31, 2022 and changes during the year ended December 31, 2022 were as follows (share data in thousands):

	Number of Shares		Weighted-Average Grant Date Fair Value
Nonvested at beginning of period	221	$	57.66
Granted	191	$	46.33
Vested	(124)	$	55.49
Cancelled/forfeited	(46)	$	52.59
Nonvested at end of period	242	$	50.79

The actual tax benefits realized related to the restricted stock units vested during the year ended December 31, 2022 totaled $1.3 million.

Cash-Settled Stock Appreciation Rights

The following table summarizes activity for our stock appreciation rights for the year ended December 31, 2022 (unit data in thousands):

	Number of Units		Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term		Aggregate Intrinsic Value (In millions)
Outstanding at beginning of period	27	$	23.62			
Granted	—		N/A			
Exercised	(10)	$	23.62			
Cancelled/expired/forfeited	—		N/A			
Outstanding at end of period	17	$	23.62	2.2 years	$	0.6
Exercisable at end of period	17	$	23.62	2.2 years	$	0.6

The aggregate intrinsic value included in the table above represents the total pre-tax intrinsic value that would have been received by the stock appreciation rights holders had all holders exercised their rights on December 31, 2022. The intrinsic value is calculated as the total number of stock appreciation rights multiplied by the difference between the closing price of our common stock on the last trading day of the period and the exercise price of the stock appreciation rights. This amount changes based on the price of our common stock.

Cash-Settled Performance Units

The actual number of units in which each participant vests is dependent upon achievement of certain return on invested capital and diluted earnings per share targets over a three-year performance period. The number of units in which participants can vest ranges from zero to 200% of the initial performance units granted, to be determined upon completion of the three-year performance period.

As of December 31, 2022, we had 6,353 nonvested units valued at $58.08 per share with an assumed weighted-average vesting of 123%. The fair value is based on our closing stock price as of December 31, 2022 and is re-determined at the end of each reporting period for purposes of remeasuring compensation expense associated with these cash-settled awards.

Cash-Settled Restricted Stock Units

As of December 31, 2022, we had 2,394 nonvested units valued at $58.08 per share. The fair value is based on our closing stock price as of December 31, 2022 and is re-determined at the end of each reporting period for purposes of remeasuring compensation expense associated with these cash-settled awards.

NOTE 10 – COMMITMENTS AND CONTINGENCIES

Investigations and Litigation

Due to the nature of our business, we are, from time to time, involved in investigations, litigation, disputes or claims related to our business activities, including, among other things:

- performance- or warranty-related matters under our customer and supplier contracts and other business arrangements; and
- workers' compensation, employment, premises liability and other claims.

Based upon our prior experience, we do not expect that any of these investigations, litigation proceedings, disputes and claims will have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

Environmental Matters

We have been identified as a potentially responsible party at various cleanup sites under the Comprehensive Environmental Response, Compensation, and Liability Act, as amended ("CERCLA") and other environmental laws. These laws can impose liability for the entire cost of cleanup on any of the potentially responsible parties, regardless of fault or the lawfulness of the original conduct. Generally, however, where there are multiple responsible parties, a final allocation of costs is made based on the amount and type of wastes disposed of by each party and the number of financially viable parties, although this may not be the case with respect to any particular site. We have not been determined to be a major contributor of wastes to any of these sites. On the basis of the relative contribution of waste to each site by potentially responsible parties, as well as the financial solvency of other potentially responsible parties, we expect our share of the ultimate liability for the various sites will not have a material adverse effect on our consolidated financial condition, results of operations or cash flows in any given year.

We perform significant amounts of work for the U.S. Government under both prime contracts and subcontracts and operate certain facilities that are licensed to possess and process special nuclear materials. As a result of these activities, we are subject to continuing reviews by governmental agencies, including the U.S. Environmental Protection Agency and the NRC. We are also involved in manufacturing activities at licensed facilities in Canada that are subject to continuing reviews by governmental agencies in Canada, including the CNSC.

The NRC's decommissioning regulations require our Government Operations segment to provide financial assurance that it will be able to pay the expected cost of decommissioning its two licensed facilities at the end of their service lives. We provided financial assurance totaling $68.1 million and $61.8 million during the years ended December 31, 2022 and 2021, respectively, with surety bonds for the ultimate decommissioning of these licensed facilities. These facilities have provisions in their government contracts pursuant to which substantially all of our decommissioning costs and financial assurance obligations are covered by the DOE, including the costs to complete the decommissioning projects underway at the facility in Erwin, Tennessee. The surety bonds noted above are to cover decommissioning required pursuant to work not subject to this DOE obligation.

In Canada, the CNSC's decommissioning regulations require our Commercial Operations segment to provide financial assurance that it will be able to pay the expected cost of decommissioning its CNSC-licensed facilities at the end of their service lives. We provided financial assurance totaling $43.3 million and $46.4 million during the years ended December 31, 2022 and 2021, respectively, with letters of credit and surety bonds for the ultimate decommissioning of these licensed facilities.

Our compliance with federal, foreign, state and local environmental control and protection regulations resulted in pre-tax charges of approximately $20.0 million, $17.5 million and $16.3 million in the years ended December 31, 2022, 2021 and 2020, respectively. In addition, compliance with existing environmental regulations necessitated capital expenditures of $1.6 million, $3.1 million and $1.2 million in the years ended December 31, 2022, 2021 and 2020, respectively. At December 31, 2022 and 2021, we had total environmental accruals (including asset retirement obligations) of $101.8 million and $102.4 million, respectively. Of our total environmental accruals at December 31, 2022 and 2021, $10.8 million and $9.8 million, respectively, were included in current liabilities. Inherent in the estimates of these accruals are our expectations regarding the levels of contamination, decommissioning costs and recoverability from other parties, which may vary significantly as decommissioning activities progress. Accordingly, changes in estimates could result in material adjustments to our operating results, and the ultimate loss may differ materially from the amounts that we have provided for in our consolidated financial statements.

NOTE 11 – RISKS AND UNCERTAINTIES

Revenue Recognized Over Time

As of December 31, 2022, in accordance with the method of recognizing revenue over time, we have provided for our estimated costs to complete all of our ongoing contracts. However, it is possible that current estimates could change due to unforeseen events, which could result in adjustments to overall contract costs. The risk on fixed-price contracts is that revenue from the customer does not cover increases in our costs. It is possible that current estimates could materially change for various reasons, including, but not limited to, fluctuations in forecasted labor productivity or steel and other raw material prices. Increases in costs on our fixed-price contracts could have a material adverse impact on our consolidated financial condition, results of operations and cash flows. Alternatively, reductions in overall contract costs at completion could materially improve our consolidated financial condition, results of operations and cash flows.

Insurance

Upon the February 22, 2006 effectiveness of the settlement relating to the Chapter 11 proceedings involving several of our former subsidiaries, most of our subsidiaries contributed substantial insurance rights to the asbestos personal injury trust, including rights to (1) certain pre-1979 primary and excess insurance coverages and (2) certain of our 1979-1986 excess insurance coverage. These insurance rights provided coverage for, among other things, asbestos and other personal injury claims, subject to the terms and conditions of the policies. The contribution of these insurance rights was made in exchange for the agreement on the part of the representatives of the asbestos claimants, including the representative of future claimants, to the entry of a permanent injunction, pursuant to Section 524(g) of the U.S. Bankruptcy Code, to channel to the asbestos trust all asbestos-related general liability claims against our subsidiaries and former subsidiaries arising out of, resulting from or attributable to their operations, and the implementation of related releases and indemnification provisions protecting those subsidiaries and their affiliates from future liability for such claims. Although we are not aware of any significant, unresolved claims against our subsidiaries and former subsidiaries that are not subject to the channeling injunction and that relate to the periods during which such excess insurance coverage related, with the contribution of these insurance rights to the asbestos personal injury trust, it is possible that we could have underinsured or uninsured exposure for non-derivative asbestos claims or other personal injury or other claims that would have been insured under these coverages had the insurance rights not been contributed to the asbestos personal injury trust. On June 30, 2015, we completed the spin-off of our former Power Generation business (the "spin-off") into an independent, publicly traded company named Babcock & Wilcox Enterprises, Inc. ("BWE"). In conjunction with the spin-off, claims and liabilities associated with the asbestos personal injury, property damage and indirect property damage claims mentioned above have been expressly assumed by BWE pursuant to the master separation agreement between us and BWE.

NOTE 12 – FINANCIAL INSTRUMENTS WITH CONCENTRATIONS OF CREDIT RISK

The primary customer of our Government Operations segment is the U.S. Government, including some of its contractors. Our Commercial Operations segment's major customers are large utilities. These concentrations of customers may impact our overall exposure to credit risk, either positively or negatively, in that our customers may be similarly affected by changes in economic or other conditions. In the years ended December 31, 2022, 2021 and 2020, U.S. Government contracts accounted for approximately 76%, 76% and 77% of our total consolidated revenues, respectively. Accounts receivable due directly or indirectly from the U.S. Government represented 68% and 68% of net receivables at December 31, 2022 and 2021, respectively. In the years ended December 31, 2022, 2021 and 2020, revenues from large utility customers accounted for approximately 14%, 14% and 13% of our total consolidated revenues, respectively. Accounts receivable due directly from large utility customers represented 15% and 18% of net receivables at December 31, 2022 and 2021, respectively. See Note 15 for additional information about our major customers.

We believe that our provision for possible losses on uncollectable accounts receivable is adequate for our credit loss exposure. At December 31, 2022 and 2021, the allowances for possible losses that we deducted from Accounts receivable – trade, net on our consolidated balance sheets were $0.2 million.

NOTE 13 – INVESTMENTS

The following is a summary of our investments at December 31, 2022:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
	(In thousands)			
Equity securities				
Mutual funds	$ 6,352	$ —	$ (11)	$ 6,341
Available-for-sale securities				
U.S. Government and agency securities	3,247	10	(4)	3,253
Corporate bonds	2,033	236	(4)	2,265
Asset-backed securities and collateralized mortgage obligations	103	—	(61)	42
Total	$ 11,735	$ 246	$ (80)	$ 11,901

The following is a summary of our investments at December 31, 2021:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
	(In thousands)			
Equity securities				
Mutual funds	$ 6,001	$ 1,649	$ —	$ 7,650
Available-for-sale securities				
U.S. Government and agency securities	2,742	—	(4)	2,738
Corporate bonds	2,559	374	(7)	2,926
Asset-backed securities and collateralized mortgage obligations	107	—	(52)	55
Total	$ 11,409	$ 2,023	$ (63)	$ 13,369

NOTE 14 – FAIR VALUE MEASUREMENTS

FASB Topic *Fair Value Measurements and Disclosures* defines fair value as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the measurement date. This topic also sets forth the disclosure requirements regarding fair value and establishes a hierarchy for valuation inputs that emphasizes the use of observable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The fair value hierarchy established by this topic is as follows:

- Level 1 – inputs are based upon quoted prices for identical instruments traded in active markets.
- Level 2 – inputs are based upon quoted prices for similar instruments in active markets, quoted prices for similar or identical instruments in inactive markets and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets and liabilities.
- Level 3 – inputs are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. The fair values are therefore determined using model-based techniques that include option pricing models, discounted cash flow models and similar valuation techniques.

In accordance with FASB Topic *Fair Value Measurements*, certain investments that were measured at net asset value per share (or its equivalent) ("NAV") have not been classified in the fair value hierarchy. These investments are measured on the fair value of the underlying investments but may not be redeemable at that fair value. Certain of these investments are subject to customary redemption notice periods of up to 90 days. When appropriate, we adjust these net asset values for contributions and distributions, if any, made during the period beginning on the latest NAV valuation date and ending on our measurement date.

We also consider available market data, relevant index returns, preliminary estimates from our investees and other data obtained through research and consultation with third-party advisors in determining the fair value of these investments.

The following sections describe the valuation methodologies we use to measure the fair values of our investments, derivatives and nonrecurring fair value measurements.

Investments

Investments primarily include U.S. Government securities, corporate bonds and mutual funds.

In general, and where applicable, we principally use a composite of observable prices and quoted prices in active markets for identical assets or liabilities to determine fair value. This pricing methodology applies to our Level 1 and Level 2 investments.

Fair Value Measurements

The following is a summary of our investments measured at fair value at December 31, 2022:

	12/31/2022	Level 1	Level 2	Level 3	Unclassified
			(In thousands)		
Equity securities					
Mutual funds	$ 6,341	$ —	$ 6,341	$ —	$ —
Available-for-sale securities					
U.S. Government and agency securities	3,253	3,253	—	—	—
Corporate bonds	2,265	1,714	551	—	—
Asset-backed securities and collateralized mortgage obligations	42	—	42	—	—
Total	$ 11,901	$ 4,967	$ 6,934	$ —	$ —

The following is a summary of our investments measured at fair value at December 31, 2021:

	12/31/2021	Level 1	Level 2	Level 3	Unclassified
			(In thousands)		
Equity securities					
Mutual funds	$ 7,650	$ —	$ 7,650	$ —	$ —
Available-for-sale securities					
U.S. Government and agency securities	2,738	2,738	—	—	—
Corporate bonds	2,926	1,852	1,074	—	—
Asset-backed securities and collateralized mortgage obligations	55	—	55	—	—
Total	$ 13,369	$ 4,590	$ 8,779	$ —	$ —

Derivatives

Level 2 derivative assets and liabilities currently consist of FX forward contracts. Where applicable, the value of these derivative assets and liabilities is computed by discounting the projected future cash flow amounts to present value using market-based observable inputs, including FX forward and spot rates, interest rates and counterparty performance risk adjustments. At December 31, 2022 and 2021, we had FX forward contracts outstanding to purchase or sell foreign currencies, primarily Canadian dollars and Euros, with a total fair value of $1.2 million and $(3.2) million, respectively.

Other Financial Instruments

We used the following methods and assumptions in estimating our fair value disclosures for our other financial instruments:

Cash and cash equivalents and restricted cash and cash equivalents. The carrying amounts that we have reported in the accompanying consolidated balance sheets for Cash and cash equivalents and Restricted cash and cash equivalents approximate their fair values due to their highly liquid nature.

Long-term and short-term debt. We base the fair values of debt instruments, including our Senior Notes, on quoted market prices. Where quoted prices are not available, we base the fair values on the present value of future cash flows discounted at estimated borrowing rates for similar debt instruments or on estimated prices based on current yields for debt issues of similar quality and terms. At December 31, 2022 and 2021, the fair value of our Senior Notes due 2028 was $358.0 million and $406.3 million, respectively. At December 31, 2022 and 2021, the fair value of our Senior Notes due 2029 was $352.0 million and $406.5 million, respectively. The fair value of our remaining debt instruments approximated their carrying values at December 31, 2022 and 2021.

NOTE 15 – SEGMENT REPORTING

As described in Note 1, our operations are assessed based on two reportable segments. The operations of our segments are managed separately, and each segment has unique technology, services and customer classes. We account for intersegment sales at prices that we generally establish by reference to similar transactions with unaffiliated customers. Reportable segments are measured based on operating income exclusive of general corporate expenses and gains (losses) on sales of corporate assets.

1. Information about Operations in our Different Industry Segments:

	Year Ended December 31, 2022	2021	2020
		(In thousands)	
REVENUES:			
Government Operations	$ 1,808,483	$ 1,725,097	$ 1,763,127
Commercial Operations	427,358	407,082	371,269
Eliminations (1)	(3,007)	(8,105)	(10,880)
	$ 2,232,834	$ 2,124,074	$ 2,123,516

(1) Segment revenues are net of the following intersegment transfers:

Government Operations Transfers	$ (2,941)	$ (7,327)	$ (10,327)
Commercial Operations Transfers	(66)	(778)	(553)
	$ (3,007)	$ (8,105)	$ (10,880)

OPERATING INCOME:			
Government Operations	$ 336,501	$ 329,549	$ 345,250
Commercial Operations	27,418	35,243	36,915
	$ 363,919	$ 364,792	$ 382,165
Unallocated Corporate (1)	(15,348)	(18,944)	(23,613)
Total Operating Income (2)	$ 348,571	$ 345,848	$ 358,552
Other Income (Expense)	(34,194)	49,865	3,620
Income before Provision for Income Taxes	$ 314,377	$ 395,713	$ 362,172

(1) Unallocated Corporate includes general corporate overhead not allocated to segments.

(2) The following amounts are included in Operating Income:

Losses (Gains) on Asset Disposals and Impairments, Net:			
Government Operations	$ (250)	$ (8)	$ 320
Commercial Operations	6,233	(2,548)	(1,681)
Unallocated Corporate	(463)	(976)	—
	$ 5,520	$ (3,532)	$ (1,361)
Equity in Income of Investees:			
Government Operations	$ 45,973	$ 33,498	$ 27,152
Commercial Operations	—	—	—
	$ 45,973	$ 33,498	$ 27,152

	Year Ended December 31, 2022	2021	2020
		(In thousands)	
CAPITAL EXPENDITURES:			
Government Operations	$ 103,093	$ 147,051	$ 137,197
Commercial Operations	88,853	153,571	106,614
Segment Capital Expenditures	191,946	300,622	243,811
Corporate Capital Expenditures	6,366	10,430	11,216
Total Capital Expenditures	$ 198,312	$ 311,052	$ 255,027
DEPRECIATION AND AMORTIZATION:			
Government Operations	$ 47,982	$ 42,485	$ 35,398
Commercial Operations	18,805	19,884	18,431
Segment Depreciation and Amortization	66,787	62,369	53,829
Corporate Depreciation and Amortization	7,055	6,711	6,845
Total Depreciation and Amortization	$ 73,842	$ 69,080	$ 60,674

	December 31, 2022	2021	2020
	(In thousands)		
SEGMENT ASSETS:			
Government Operations	$ 1,498,472	$ 1,430,863	$ 1,353,122
Commercial Operations	1,005,545	976,382	830,226
Segment Assets	2,504,017	2,407,245	2,183,348
Corporate Assets	114,922	94,135	110,155
Total Assets	$ 2,618,939	$ 2,501,380	$ 2,293,503
INVESTMENT IN UNCONSOLIDATED AFFILIATES:			
Government Operations	$ 100,198	$ 85,284	$ 71,806
Commercial Operations	—	—	—
Total Investment in Unconsolidated Affiliates	$ 100,198	$ 85,284	$ 71,806

2. Information about our Product and Service Lines:

	Year Ended December 31, 2022	2021	2020
	(In thousands)		
REVENUES:			
Government Operations:			
Nuclear Components and Fuel	$ 1,494,810	$ 1,481,416	$ 1,512,980
Downblending and Nuclear Services	233,197	198,420	207,221
Advanced Reactor Design and Engineering	80,476	45,261	42,926
	1,808,483	1,725,097	1,763,127
Commercial Operations:			
Nuclear Manufacturing	221,458	246,444	250,585
Nuclear Services and Engineering	205,900	160,638	120,684
	427,358	407,082	371,269
Eliminations	(3,007)	(8,105)	(10,880)
	$ 2,232,834	$ 2,124,074	$ 2,123,516

3. Information about our Consolidated Operations in Different Geographic Areas:

	December 31, 2022	2021	2020
	(In thousands)		
NET PROPERTY, PLANT AND EQUIPMENT:			
United States	$ 743,767	$ 698,772	$ 603,518
Canada	389,490	346,868	212,953
United Kingdom	1,640	—	—
	$ 1,134,897	$ 1,045,640	$ 816,471

See Note 3 for revenues by geographic area for each of our segments.

4. Information about our Major Customers:

In the years ended December 31, 2022, 2021 and 2020, sales to the U.S. Government accounted for approximately 94%, 95% and 94% of our Government Operations segment revenues, respectively. In the years ended December 31, 2022, 2021 and 2020, sales to large utility customers accounted for approximately 74%, 75% and 73% of our Commercial Operations segment revenues, respectively.

NOTE 16 – QUARTERLY FINANCIAL DATA (UNAUDITED)

The following tables set forth selected unaudited quarterly financial information for the years ended December 31, 2022 and 2021:

	Year Ended December 31, 2022 Quarter Ended			
	March 31, 2022	June 30, 2022	September 30, 2022	December 31, 2022
	(In thousands, except per share amounts)			
Revenues	$ 530,738	$ 554,208	$ 523,711	$ 624,177
Operating income (1)	$ 71,573	$ 95,237	$ 79,878	$ 101,883
Equity in income of investees	$ 8,779	$ 11,319	$ 14,783	$ 11,092
Net Income Attributable to BWX Technologies, Inc.	$ 59,010	$ 74,613	$ 61,603	$ 42,965
Earnings per common share:				
Basic:				
Net Income Attributable to BWX Technologies, Inc.	$ 0.64	$ 0.82	$ 0.67	$ 0.47
Diluted:				
Net Income Attributable to BWX Technologies, Inc.	$ 0.64	$ 0.82	$ 0.67	$ 0.47

(1) Includes equity in income of investees.

	Year Ended December 31, 2021 Quarter Ended			
	March 31, 2021	June 30, 2021	September 30, 2021	December 31, 2021
	(In thousands, except per share amounts)			
Revenues	$ 528,273	$ 505,099	$ 498,727	$ 591,975
Operating income (1)	$ 82,414	$ 73,751	$ 87,468	$ 102,215
Equity in income of investees	$ 8,316	$ 7,263	$ 10,618	$ 7,301
Net Income Attributable to BWX Technologies, Inc.	$ 69,749	$ 59,347	$ 59,914	$ 116,861
Earnings per common share:				
Basic:				
Net Income Attributable to BWX Technologies, Inc.	$ 0.73	$ 0.62	$ 0.64	$ 1.27
Diluted:				
Net Income Attributable to BWX Technologies, Inc.	$ 0.73	$ 0.62	$ 0.63	$ 1.26

(1) Includes equity in income of investees.

In the quarter ended June 30, 2022, we recognized an unfavorable contract adjustment of $11.3 million related to the manufacture of non-nuclear components. In the quarter ended September 30, 2021, we recognized an early redemption premium of $10.8 million and wrote-off deferred debt issuance costs totaling $4.2 million.

We immediately recognize actuarial gains (losses) for our pension and postretirement benefit plans in earnings as a component of net periodic benefit cost. Recorded in the quarters ended December 31, 2022 and 2021, the effects of these adjustments on pre-tax income were $(46.6) million and $39.6 million, respectively.

NOTE 17 – EARNINGS PER SHARE

The following table sets forth the computation of basic and diluted earnings per share:

	Year Ended December 31,		
	2022	2021	2020
	(In thousands, except shares and per share amounts)		
Basic:			
Net Income Attributable to BWX Technologies, Inc.	$ 238,191	$ 305,871	$ 278,670
Weighted-average common shares	91,447,088	94,278,894	95,457,193
Basic earnings per common share	$ 2.60	$ 3.24	$ 2.92
Diluted:			
Net Income Attributable to BWX Technologies, Inc.	$ 238,191	$ 305,871	$ 278,670
Weighted-average common shares (basic)	91,447,088	94,278,894	95,457,193
Effect of dilutive securities:			
Stock options, restricted stock units and performance shares (1)	255,023	239,528	269,304
Adjusted weighted-average common shares	91,702,111	94,518,422	95,726,497
Diluted earnings per common share	$ 2.60	$ 3.24	$ 2.91

(1) At December 31, 2022, 2021 and 2020, we excluded 10,419, 0 and 0 shares, respectively, from our diluted share calculation as their effect would have been antidilutive.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

As of the end of the period covered by this Report, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) adopted by the SEC under the Securities Exchange Act of 1934, as amended (the "Exchange Act")). Our disclosure controls and procedures were developed through a process in which our management applied its judgment in assessing the costs and benefits of such controls and procedures, which, by their nature, can provide only reasonable assurance regarding the control objectives. It should be noted that the design of any system of disclosure controls and procedures is based in part upon various assumptions about the likelihood of future events, and we cannot assure that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote. Based on the evaluation referred to above, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective as of December 31, 2022 to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and such information is accumulated and communicated to management, including its principal executives and principal financial officers or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as that term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) and for our assessment of the effectiveness of internal control over financial reporting.

Our internal control over financial reporting includes policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of our consolidated financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of our management and Board of Directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, including our Chief Executive Officer and Chief Financial Officer, has conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2022, based on the framework established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. This assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls. Based on our assessment under the criteria described above, management has concluded that our internal control over financial reporting was effective as of December 31, 2022. Deloitte & Touche LLP has issued an attestation report on our internal control over financial reporting as of December 31, 2022, and their report is included in this Item 9A.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of BWX Technologies, Inc.:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of BWX Technologies, Inc. and subsidiaries (the "Company") as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 23, 2023, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Report on Internal Control Over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/S/ DELOITTE & TOUCHE LLP

Charlotte, North Carolina
February 23, 2023

Item 9B. OTHER INFORMATION

None.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item with respect to directors and executive officers is incorporated by reference to the material appearing under the headings "Election of Directors" and "Named Executive Profiles" in the Proxy Statement for our 2023 Annual Meeting of Stockholders. The information required by this item with respect to our Code of Business Conduct and compliance with section 16(a) of the Securities and Exchange Act of 1934, as amended, is incorporated by reference to the material appearing under the headings "Code of Business Conduct" and "Section 16(a) Beneficial Ownership Compliance" in the Proxy Statement for our 2023 Annual Meeting of Stockholders. The information required by this item with respect to the audit committee financial experts is incorporated by reference to the material appearing in "Director Independence" and "Audit and Finance Committee" under the heading "Corporate Governance – Board of Directors and Its Committees" in the Proxy Statement for our 2023 Annual Meeting of Stockholders.

Item 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference to the material appearing under the headings "Compensation Discussion and Analysis," "Compensation of Directors," "Compensation of Executive Officers," "Compensation Committee Interlocks and Insider Participation" section under the heading "Corporate Governance – Board of Directors and Its Committees," and "Compensation Committee Report" in the Proxy Statement for our 2023 Annual Meeting of Stockholders.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference to the material appearing under the headings "Equity Compensation Plan Information" and "Security Ownership of Certain Beneficial Owners" in the Proxy Statement for our 2023 Annual Meeting of Stockholders.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item is incorporated by reference to the material appearing under the headings "Corporate Governance – Director Independence" and "Certain Relationships and Related Transactions" in the Proxy Statement for our 2023 Annual Meeting of Stockholders.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Our independent registered public accounting firm is Deloitte & Touche LLP, Charlotte, NC, PCAOB ID: 34.

The information required by this item is incorporated by reference to the material appearing under the heading "Ratification of Appointment of Independent Registered Public Accounting Firm for Year Ending December 31, 2023" in the Proxy Statement for our 2023 Annual Meeting of Stockholders.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

The following documents are filed as part of this Report or incorporated by reference:

1. CONSOLIDATED FINANCIAL STATEMENTS

   Report of Independent Registered Public Accounting Firm

   Consolidated Balance Sheets as of December 31, 2022 and 2021

   Consolidated Statements of Income for the Years Ended December 31, 2022, 2021 and 2020

   Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2022, 2021 and 2020

   Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2022, 2021 and 2020

   Consolidated Statements of Cash Flows for the Years Ended December 31, 2022, 2021 and 2020

   Notes to Consolidated Financial Statements for the Years Ended December 31, 2022, 2021 and 2020

2. CONSOLIDATED FINANCIAL STATEMENT SCHEDULES

All schedules for which provision is made of the applicable regulations of the SEC have been omitted because they are not required under the relevant instructions or because the required information is included in the financial statements or the related footnotes contained in this Report.

3. EXHIBITS

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of the Company, dated May 14, 2019 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed with the SEC on May 17, 2019 (File No. 1-34658)).
3.2	Amended and Restated Bylaws, dated November 1, 2019 (incorporated by reference to Exhibit 3.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (File No. 1-34658)).
4.1	Description of the Company's Securities Registered under Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to Exhibit 4.4 to the Company's Annual Report on Form 10-K filed with the SEC on February 24, 2020 (File No. 1-34658)).
4.2	Indenture, dated June 12, 2020, among BWX Technologies, Inc., each of the guarantors party thereto and U.S. Bank Trust Company, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on June 12, 2020 (File No. 1-34658)).
4.3	Form of 4.125% Senior Notes due 2028 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on June 12, 2020 (File No. 1-34658)).
4.4	Indenture, dated April 13, 2021, among BWX Technologies, Inc., each of the guarantors party thereto and U.S. Bank Trust Company, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on April 13, 2021 (File No. 1-34658)).
4.5	Form of 4.125% Senior Notes due 2029 (included in Exhibit 4.1) (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on April 13, 2021 (File No. 1-34658)).
10.1	Amended and Restated Credit Agreement, dated as of October 12, 2022, among BWX Technologies, Inc. as borrower, Wells Fargo Bank, National Association, as administrative agent and the other lenders party thereto (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on October 12, 2022 (File No. 1-34658)).
10.2	Tax Sharing Agreement dated as of June 7, 2010 between J. Ray Holdings, Inc. and Babcock & Wilcox Holdings, Inc. (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 (File No. 1-34658)).
10.3	Tax Sharing Agreement, dated as of June 8, 2015, by and between the Company and Babcock & Wilcox Enterprises, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 1-34658)).

Exhibit Number	Description
10.4	Cooperative Agreement, dated as of April 12, 2013, between Babcock & Wilcox mPower, Inc. and the United States Department of Energy (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated April 15, 2013 (File No. 1-34658)).
10.5*	BWX Technologies, Inc. Executive Incentive Compensation Plan as amended and restated July 1, 2015 (incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 1-34658)).
10.6*	Supplemental Executive Retirement Plan of BWX Technologies, Inc. as amended and restated July 1, 2015 (incorporated by reference to Exhibit 10.12 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 1-34658)).
10.7*	BWX Technologies, Inc. Defined Contribution Restoration Plan as amended and restated effective July 1, 2015 (incorporated by reference to Exhibit 10.13 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 1-34658)).
10.8*	Form of Change In Control Agreement between the Company and selected officers (other than Mr. Geveden) (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on July 6, 2015 (File No. 1-34658)).
10.9*	Form of Amendment to Change in Control Agreement, dated July 1, 2016, between the Company and certain officers (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 (File No. 1-34658)).
10.10*	Form of Change In Control Agreement between the Company and Mr. Geveden dated October 26, 2015 (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015 (File No. 1-34658)).
10.11*	BWX Technologies, Inc. Executive Severance Plan amended and restated July 1, 2015 (incorporated by reference to Exhibit 10.11 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 1-34658)).
10.12*	2010 Long-Term Incentive Plan of the Company as amended and restated July 1, 2015 (incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 1-34658)).
10.13*	BWX Technologies, Inc. 2020 Omnibus Incentive plan (incorporated by reference to Appendix B to the Company's Proxy Statement, dated March 17, 2020 (File No. 1-34658)).
10.14*	Form of Restricted Stock Unit Grant Agreement for Non-Employee Directors (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020 (File No. 1-34658)).
10.15*	Form of 2020 Restricted Stock Unit Grant Agreement for Employees (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (File No. 1-34658)).
10.16*	Form of 2020 Performance Restricted Stock Unit Grant Agreement for Employees (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (File No. 1-34658)).
10.17*	Form of 2021 Performance Restricted Stock Unit Grant Agreement for Employees (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (File No. 1-34658)).
10.18*	Form of 2021 Restricted Stock Unit Grant Agreement for Employees (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (File No. 1-34658)).
10.19*	Form of 2022 Performance Restricted Stock Unit Grant Agreement for Employees (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (File No. 1-34658)).
10.20*	Form of 2022 Restricted Stock Unit Grant Agreement for Employees (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (File No. 1-34658)).
10.21*	Form of Director and Officer Indemnification Agreement entered into between the Company and each of its directors and selected officers effective July 1, 2015 (incorporated by reference to Exhibit 10.15 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 1-34658)).

Exhibit Number	Description
10.22	Joinder Agreement, dated as of May 24, 2019, between BWXT Advanced Technologies LLC and Wells Fargo Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 (File No. 1-34658)).
10.23	Joinder Agreement, dated as of February 13, 2020, between Laker Energy Products Ltd. and Wells Fargo Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020 (File No. 1-34658)).
10.24	Joinder Agreement, dated as of July 9, 2020, between BWXT Mt. Athos, LLC and Wells Fargo Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020 (File No. 1-34658)).
10.25	Supplemental Indenture No. 2, dated as of May 25, 2022, between Citadel Capital Corporation, Cunico Corporation and U.S. Bank Trust Company, National Association, as Trustee under the indenture, dated as of June 12, 2020 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (File No. 1-34658)).
10.26	Supplemental Indenture No. 2, dated as of May 25, 2022, between Citadel Capital Corporation, Cunico Corporation and U.S. Bank Trust Company, National Association, as Trustee under the indenture, dated as of April 13, 2021 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (File No. 1-34658)).
10.27*	Transition Agreement, dated November 4, 2021, between David S. Black and the Company (incorporated by reference to Exhibit 10.29 to the Company's Annual Report of Form 10-K for the year ended December 31, 2021 (File No. 1-34658)).
10.28*	Non-Competition and Non-Solicitation Agreement, dated July 15, 2022, between Joel W. Duling and the Company (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report of Form 10-Q for the quarter ended September 30, 2022 (File No. 1-34658)).
10.29*	Transition Agreement, dated August 19, 2022, between Richard W. Loving and the Company (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report of Form 10-Q for the quarter ended September 30, 2022 (File No. 1-34658)).
10.30*	Transition Agreement, dated December 29, 2022, between Thomas E. McCabe and the Company.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Deloitte & Touche LLP.
31.1	Rule 13a-14(a)/15d-14(a) certification of Chief Executive Officer.
31.2	Rule 13a-14(a)/15d-14(a) certification of Chief Financial Officer.
32.1	Section 1350 certification of Chief Executive Officer.
32.2	Section 1350 certification of Chief Financial Officer.
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Management contract or compensatory plan or arrangement.

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

BWX TECHNOLOGIES, INC.

February 23, 2023	By:	/s/ Rex D. Geveden Rex D. Geveden President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities indicated and on the date indicated.

Signature	Title
/s/ Rex D. Geveden Rex D. Geveden	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ Robb A. LeMasters Robb A. LeMasters	Senior Vice President and Chief Financial Officer (Principal Financial Officer and Duly Authorized Representative)
/s/ Mike T. Fitzgerald Mike T. Fitzgerald	Vice President, Finance and Chief Accounting Officer (Principal Accounting Officer and Duly Authorized Representative)
/s/ Jan A. Bertsch Jan A. Bertsch	Independent Board Chair
/s/ Gerhard F. Burbach Gerhard F. Burbach	Director
/s/ James M. Jaska James M. Jaska	Director
/s/ Kenneth J. Krieg Kenneth J. Krieg	Director
/s/ Leland D. Melvin Leland D. Melvin	Director
/s/ Robert L. Nardelli Robert L. Nardelli	Director
/s/ Barbara A. Niland Barbara A. Niland	Director
/s/ John M. Richardson John M. Richardson	Director

February 23, 2023

EXHIBIT 21.1

BWX TECHNOLOGIES, INC.
SIGNIFICANT SUBSIDIARIES OF THE REGISTRANT
YEAR ENDED DECEMBER 31, 2022

NAME OF COMPANY	JURISDICTION OF ORGANIZATION	PERCENTAGE OF OWNERSHIP INTEREST
BWXT Advanced Technologies LLC	Delaware	100
BWXT Canada Holdings Corp.	Canada	100
BWXT Canada Ltd.	Canada	100
BWXT Commercial Group, Inc.	Delaware	100
BWXT Foreign Holdings, LLC	Canada	100
BWXT Government Group, Inc.	Delaware	100
BWXT Investment Company	Delaware	100
BWXT Medical Ltd.	Canada	100
BWXT Nuclear Energy Canada Inc.	Canada	100
BWXT Nuclear Energy, Inc.	Delaware	100
BWXT Nuclear Operations Group, Inc.	Delaware	100
BWXT Technical Services Group, Inc.	Delaware	100
NFS Holdings, Inc.	Delaware	100
NOG-Erwin Holdings, Inc.	Delaware	100
Nuclear Fuel Services, Inc.	Delaware	100

The subsidiaries omitted from the foregoing list, considered in the aggregate as a single subsidiary, do not constitute a significant subsidiary.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-168687, 333-195889 and 333-238045 on Form S-8 of our reports dated February 23, 2023, relating to the financial statements of BWX Technologies, Inc. and subsidiaries, and the effectiveness of BWX Technologies, Inc. and subsidiaries' internal control over financial reporting appearing in this Annual Report on Form 10-K of BWX Technologies, Inc. for the year ended December 31, 2022.

/S/ DELOITTE & TOUCHE LLP

Charlotte, North Carolina
February 23, 2023

EXHIBIT 31.1

CERTIFICATIONS

I, Rex D. Geveden, certify that:

1. I have reviewed this annual report on Form 10-K of BWX Technologies, Inc. for the year ended December 31, 2022;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 23, 2023

/s/ Rex D. Geveden

Rex D. Geveden
President and Chief Executive Officer

EXHIBIT 31.2

I, Robb A. LeMasters, certify that:

1. I have reviewed this annual report on Form 10-K of BWX Technologies, Inc. for the year ended December 31, 2022;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

   a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 23, 2023

/s/ Robb A. LeMasters

Robb A. LeMasters

Senior Vice President and Chief Financial Officer

EXHIBIT 32.1

BWX TECHNOLOGIES, INC.
Certification Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), I, Rex D. Geveden, President and Chief Executive Officer of BWX Technologies, Inc., a Delaware corporation (the “Company”), hereby certify, to my knowledge, that:

(1) the Company’s Annual Report on Form 10-K for the year ended December 31, 2022 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
(2) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 23, 2023

/s/ Rex D. Geveden
Rex D. Geveden
President and Chief Executive Officer

EXHIBIT 32.2

BWX TECHNOLOGIES, INC.
Certification Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), I, Robb A. LeMasters, Senior Vice President and Chief Financial Officer of BWX Technologies, Inc., a Delaware corporation (the "Company"), hereby certify, to my knowledge, that:

(1) the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
(2) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 23, 2023

/s/ Robb A. LeMasters

Robb A. LeMasters
Senior Vice President and Chief Financial Officer

BWX TECHNOLOGIES, INC.
RECONCILIATION OF NON-GAAP OPERATING INCOME AND EARNINGS PER SHARE [1][2]
(In millions, except per share amounts)

Year Ended December 31, 2022

	GAAP	Pension & OPEB MTM (Gain) / Loss	Restructuring Costs	Acquisition-related Costs	Loss on Asset Disposal	Non-GAAP
Operating Income	$ 348.6	$ —	$ 8.2	$ 2.6	$ 6.2	$ 365.6
Other Income (Expense)	(34.2)	46.6	0.0	—	—	12.4
Income before Provision for Income Taxes	314.4	46.6	8.2	2.6	6.2	378.0
Provision for Income Taxes	(75.8)	(10.9)	(1.9)	(0.4)	(1.6)	(90.5)
Net Income	238.6	35.7	6.3	2.2	4.7	287.5
Net Income Attributable to Noncontrolling Interest	(0.4)	—	—	—	—	(0.4)
Net Income Attributable to BWXT	$ 238.2	$ 35.7	$ 6.3	$ 2.2	$ 4.7	$ 287.1
Diluted Shares Outstanding	91.7					91.7
Diluted Earnings per Common Share	$ 2.60	$ 0.39	$ 0.07	$ 0.02	$ 0.05	$ 3.13
Effective Tax Rate	24.1%					23.9%
Government Operations Operating Income	$ 336.5	$ —	$ 1.2	$ 0.8	$ —	$ 338.6
Commercial Operations Operating Income	$ 27.4	$ —	$ 1.5	$ —	$ 6.2	$ 35.1
Unallocated Corporate Operating Income	$ (15.3)	$ —	$ 5.4	$ 1.8	$ —	$ (8.1)

RECONCILIATION OF CONSOLIDATED ADJUSTED EBITDA [1][2]
(In millions)

Year Ended December 31, 2022

	GAAP	Pension & OPEB MTM (Gain) / Loss	Restructuring Costs	Acquisition-related Costs	Loss on Asset Disposal	Non-GAAP
Net Income	$ 238.6	$ 35.7	$ 6.3	$ 2.2	$ 4.7	$ 287.5
Provision for Income Taxes	75.8	10.9	1.9	0.4	1.6	90.5
Other – net	(1.5)	(46.6)	—	—	—	(48.0)
Interest Expense	36.4	—	(0.0)	—	—	36.4
Interest Income	(0.8)	—	—	—	—	(0.8)
Depreciation & Amortization	73.8	—	—	—	—	73.8
Adjusted EBITDA	$ 422.4	$ —	$ 8.2	$ 2.6	$ 6.2	$ 439.4

(1) Tables may not foot due to rounding.

(2) BWXT is providing non-GAAP information regarding certain of its historical results and guidance on future earnings per share to supplement the results provided in accordance with GAAP and it should not be considered superior to, or as a substitute for, the comparable GAAP measures. BWXT believes the non-GAAP measures provide meaningful insight and transparency into the Company's operational performance and provides these measures to investors to help facilitate comparisons of operating results with prior periods and to assist them in understanding BWXT's ongoing operations.

BWX TECHNOLOGIES, INC.
RECONCILIATION OF NON-GAAP OPERATING INCOME AND EARNINGS PER SHARE[(1)(2)]
(In millions, except per share amounts)

	Year Ended December 31, 2021					
	GAAP	Pension & OPEB MTM (Gain) / Loss	Restructuring and Other Costs	Costs Associated With Early Bond Redemption		Non-GAAP
Operating Income	$ 345.8	$ —	$ 3.1	$ —		$ 349.0
Other Income (Expense)	49.9	(39.6)	—	15.0		25.3
Income before Provision for Income Taxes	395.7	(39.6)	3.1	15.0		374.3
Provision for Income Taxes	(89.4)	9.1	(0.8)	(3.5)		(84.6)
Net Income	306.3	(30.5)	2.4	11.5		289.6
Net Income Attributable to Noncontrolling Interest	(0.4)	—	—	—		(0.4)
Net Income Attributable to BWXT	$ 305.9	$ (30.5)	$ 2.4	$ 11.5		$ 289.2
Diluted Shares Outstanding	94.5					94.5
Diluted Earnings per Common Share	$ 3.24	$ (0.32)	$ 0.03	$ 0.12		$ 3.06
Effective Tax Rate	22.6%					22.6%
Government Operations Operating Income	$ 329.5	$ —	$ 0.2	$ —		$ 329.7
Commercial Operations Operating Income	$ 35.2	$ —	$ 0.9	$ —		$ 36.2
Unallocated Corporate Operating Income	$ (18.9)	$ —	$ 2.1	$ —		$ (16.9)

RECONCILIATION OF CONSOLIDATED ADJUSTED EBITDA[(1)(2)]
(In millions)

	Year Ended December 31, 2021					
	GAAP	Pension & OPEB MTM (Gain) / Loss	Restructuring and Other Costs	Costs Associated With Early Bond Redemption		Non-GAAP
Net Income	$ 306.3	$ (30.5)	$ 2.4	$ 11.5		$ 289.6
Provision for Income Taxes	89.4	(9.1)	0.8	3.5		84.6
Other – net	(85.2)	39.6	—	(10.8)		(56.4)
Interest Expense	35.8	—	—	(4.2)		31.5
Interest Income	(0.4)	—	—	—		(0.4)
Depreciation & Amortization	69.1	—	—	—		69.1
Adjusted EBITDA	$ 414.9	$ —	$ 3.1	$ —		$ 418.1

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BWX TECHNOLOGIES, INC.
RECONCILIATION OF NON-GAAP OPERATING INCOME AND EARNINGS PER SHARE[(1)(2)]
(In millions, except per share amounts)

	Year Ended December 31, 2020						
	GAAP	Pension & OPEB MTM (Gain) / Loss	Restructuring Costs	Costs Associated with Sale of Business	Debt Issuance Costs	One-time Franchise Tax Audit Expense	Non-GAAP
Operating Income	$ 358.6	$ —	$ 2.3	$ 2.9	$ —	$ 2.6	$ 366.3
Other Income (Expense)	3.6	6.4	—	—	0.5	—	10.5
Income before Provision for Income Taxes	362.2	6.4	2.3	2.9	0.5	2.6	376.8
Provision for Income Taxes	(83.0)	(1.6)	(0.6)	(0.7)	(0.1)	(0.6)	(86.5)
Net Income	279.2	4.8	1.7	2.2	0.4	2.0	290.3
Net Income Attributable to Noncontrolling Interest	(0.5)	—	—	—	—	—	(0.5)
Net Income Attributable to BWXT	$ 278.7	$ 4.8	$ 1.7	$ 2.2	$ 0.4	$ 2.0	$ 289.8
Diluted Shares Outstanding	95.7						95.7
Diluted Earnings per Common Share	$ 2.91	$ 0.05	$ 0.02	$ 0.02	$ 0.00	$ 0.02	$ 3.03
Effective Tax Rate	22.9%						23.0%
Government Operations Operating Income	$ 345.3	$ —	$ —	$ 1.0	$ —	$ —	$ 346.2
Commercial Operations Operating Income	$ 36.9	$ —	$ 2.3	$ —	$ —	$ —	$ 39.2
Unallocated Corporate Operating Income	$ (23.6)	$ —	$ —	$ 1.9	$ —	$ 2.6	$ (19.0)

RECONCILIATION OF CONSOLIDATED ADJUSTED EBITDA[(1)(2)]
(In millions)

	Year Ended December 31, 2020						
	GAAP	Pension & OPEB MTM (Gain) / Loss	Restructuring Costs	Costs Associated with Sale of Business	Debt Issuance Costs	One-time Franchise Tax Audit Expense	Non-GAAP
Net Income	$ 279.2	$ 4.8	$ 1.7	$ 2.2	$ 0.4	$ 2.0	$ 290.3
Provision for Income Taxes	83.0	1.6	0.6	0.7	0.1	0.6	86.5
Other – net	(34.1)	(6.4)	—	—	—	—	(40.5)
Interest Expense	31.0	—	—	—	(0.5)	—	30.5
Interest Income	(0.5)	—	—	—	—	—	(0.5)
Depreciation & Amortization	60.7	—	—	—	—	—	60.7
Adjusted EBITDA	$ 419.2	$ —	$ 2.3	$ 2.9	$ —	$ 2.6	$ 427.0

(1) Tables may not foot due to rounding.

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Shareholder Information

HEADQUARTERS

BWX Technologies, Inc.
800 Main Street
Lynchburg, Virginia USA 24504
Phone: +1.434.522.3800
Fax: +1.434.522.6909
www.bwxt.com

EMPLOYEES

~7,000

INVESTOR INFORMATION

Copies of the Annual Report and Form 10-K filed with the U.S. Securities and Exchange Commission and other investor information may be obtained by request in writing to Investor Relations or by visiting our website at www.bwxt.com.

INVESTOR RELATIONS

BWX Technologies, Inc.
800 Main Street
Lynchburg, Virginia USA 24504
Attention: Investor Relations
investors@bwxt.com
+1.980.365.4300

INDEPENDENT AUDITORS

Deloitte & Touche LLP
650 South Tryon Street
Suite 1800
Charlotte, North Carolina USA 28202
+1.704.887.1500

TRANSFER AGENT

Computershare Trust Company, N.A.
250 Royall Street
Canton, Massachusetts USA 02021
Toll-Free: +1.800.446.2617 or
outside the USA: +1.781.575.2723
www.computershare.com

ANNUAL MEETING

The Annual Meeting of Stockholders of BWX Technologies, Inc. will be held virtually on Wednesday, May 3, 2023, 9:30 a.m. EDT.
www.bwxt.com/investors

Forward-Looking Statements

BWXT cautions that this release contains forward-looking statements, including, without limitation, statements relating to backlog, to the extent they may be viewed as an indicator of future revenues; our plans and expectations for each of our reportable segments, including the expectations, timing and revenue of our strategic initiatives, such as medical radioisotopes, small modular reactor components and recent acquisitions; disruptions to our supply chain and/or operations, changes in government regulations and other factors, including any such impacts of, or actions in response to the COVID-19 health crisis; and our expectations and guidance for 2023 and beyond. These forward-looking statements are based on management's current expectations and involve a number of risks and uncertainties, including, among other things, our ability to execute contracts in backlog; the lack of, or adverse changes in, federal appropriations to government programs in which we participate; the demand for and competitiveness of nuclear products and services; capital priorities of power generating utilities and other customers; the timing of technology development; the potential recurrence of subsequent waves or strains of COVID-19 or similar diseases; adverse changes in the industries in which we operate; and delays, changes or termination of contracts in backlog. If one or more of these risks or other risks materialize, actual results may vary materially from those expressed. For a more complete discussion of these and other risk factors, see BWXT's filings with the Securities and Exchange Commission, including our annual report on Form 10-K for the year ended December 31, 2022. BWXT cautions not to place undue reliance on these forward-looking statements, which speak only as of the date of this release, and undertakes no obligation to update or revise any forward-looking statement, except to the extent required by applicable law.

Annual Report Design by BWXT Communications Department

BWX Technologies, Inc.

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BWX Technologies, Inc.
800 Main Street
Lynchburg, VA USA 24504
+1.434.522.3800

www.bwxt.com