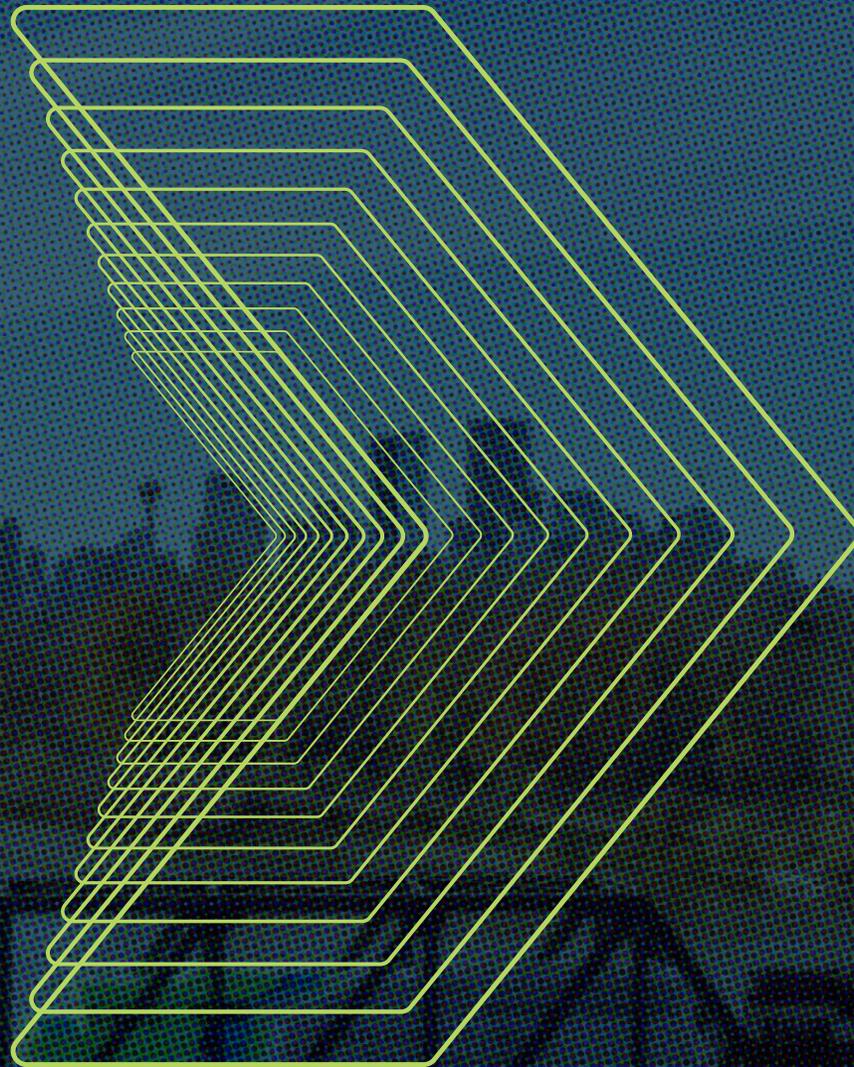


FUTURE FOCUSED



2022 – 2023
ANNUAL REPORT

June 1, 2022 — May 31, 2023

EMISSIONS
REDUCTION
ALBERTA 

Supported by: *Alberta* 



In the spirit of reconciliation, we have the privilege of living, working, and investing on traditional territories, which include Treaty 6, Treaty 7, and Treaty 8 Nations; Metis Nations (Region 3 and 4); Inuit; and all others who live on and care for these lands.

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MAXIMIZE
IMPACT

ACCOUNTABILITY STATEMENT

This review is documented as an annual accountability report and ensures that Emissions Reduction Alberta's (ERA) mandate is being fulfilled, its commitments in its three-year Business Plan are being executed, and it's delivering results in accordance with the Grant Agreement and Memorandum of Understanding in place with the Government of Alberta. All material economic, environmental, or fiscal implications, of which we are aware, have been considered in preparation of this report.

2022-23

HIGHLIGHTS AT-A-GLANCE



\$140M
IN INVESTMENTS



\$835M
TOTAL PROJECT VALUE

OVER 7.3 MILLION
TONNES OF CUMULATIVE
EMISSIONS REDUCTION
BY 2050 PROJECTED

4200+ ✓✓✓✓✓
PERSON-YEARS OF
EMPLOYMENT OPPORTUNITIES
IN ALBERTA BY 2025*

33 NEW PROJECTS **>>>** **10** COMPLETED **>>>**



\$80
MILLION
IN NEW FUNDING COMMITTED

**ANNOUNCED AS CO-HOST
OF THE IEA'S GHGT-17**
Calgary, October 2024

**TWO NEW TRUSTED
PARTNERS SIGNED**



NAMED ALBERTA CLEANTECH AWARDS FUNDER OF THE YEAR
at the Foresight Canada inaugural Alberta Cleantech Awards

* Figures are current as of June 2023 and are based on 100% project success rate.

MESSAGE FROM

DAVE COLLYER, BOARD CHAIR

Since its inception in 2009, ERA has played an important role in achieving the province's economic growth and emissions reduction objectives. ERA is a trusted delivery partner for the Government of Alberta's Technology Innovation and Emissions Reduction (TIER) Fund and closely collaborates with the province in sharing learnings and showcasing Alberta-based innovation.

The release of the Government of Alberta's Emissions Reduction and Energy Development Plan (ERED) in 2022-23 further highlighted strategic alignment with ERA and the relevance of the investment portfolio outlined in our Technology Roadmap. TIER and the commitments outlined in ERED reinforce Alberta's commitment to ongoing strategic investment in technology and innovation. To that end, ERA's investment portfolio is making a substantive contribution to the development and commercialization of new technologies that will positively impact both current and future industries in the province.

At the same time, the global energy and climate policy landscape continues to rapidly evolve. For example, in August 2022, the U.S. government's release of the Inflation Reduction Act (IRA), the largest-ever investment in funding climate solutions, introduced significant incentives for a wide range of low-emissions technologies and manufacturing. The federal government's most recent budget announced in early 2023 also included a portfolio of substantial tax measures. In light of this changing competitive context, it is important that Alberta continue to lead in demonstrating the critical role that technology and innovation must play in reducing emissions and growing the economy.

Looking back on the past year, I think not only about how much ERA has accomplished, but perhaps more importantly, the opportunity the organization has to increase its contribution toward realizing the province's economic and environmental goals given our robust strategic framework, unique business model, and track record of results delivery.

ERA's success is in part due to the leadership provided by its Board of Directors. After a comprehensive search process conducted by a third-party recruitment firm, we were very pleased to welcome two new members last year, Kate Chisholm and Mark Blackwell. Each of these Alberta-based leaders bring

a wealth of experience to the table and we look forward to their contributions to ERA's strategic direction and operational governance. On behalf of the Board and staff, I would also like to extend our sincere thanks and appreciation to Joseph Doucet, who concluded his tenure as a member of the Board of Directors in 2023 after serving for nine years. His insight and guidance, both as a Board Member and Vice-Chair of the Board, contributed greatly to ERA's growth and impact during his tenure.

ERA now has 14-years of experience in assessing, funding, and enabling the development and commercialization of technologies that contribute to economic growth and emissions reductions in Alberta. The foundation of capacity, expertise, and experience developed over this period positions ERA to make an even greater contribution in the future. As we look forward, it is always important to demonstrate and reflect on our results. I am therefore pleased to present our 2022-23 Annual Report on behalf of ERA's Board and staff.

Dave Collyer
ERA Board Chair



MESSAGE FROM JUSTIN RIEMER, CEO

The release of the 2022-23 Annual Report marks the completion of my first year as CEO. It has been an action-packed and inspiring 12 months helping usher Alberta along the road to net zero. Our investments support strong, innovative companies committed to creating jobs and strengthening our economy while meeting our environmental targets.

In 2022-2023, ERA announced we will invest \$140 million in 33 projects worth a combined value of \$835 million. We also approved an additional \$80 million in funding that we will be allocating in the coming fiscal year. Amongst many things, these investments are advancing the circular economy in the province, helping Alberta's industrial sector reduce emissions and improve competitiveness, and accelerating the critical CCUS and hydrogen technologies.

To demonstrate our funding in action, I am pleased to share that 10 ERA-funded projects were completed in 2022-23. Aligned with ERA's commitment to knowledge sharing, project proponents report on emissions reductions, technology advancements, job creation, and other environmental, economic, and social impacts.

Last year, we saw scale up successes in our investments. This includes Eavor Technologies, who recently began drilling a commercial scale geothermal facility in Germany. It also includes Carbon Engineering who was acquired by Occidental Engineering for \$1.1 billion (USD), demonstrating the value of its direct air capture technology and enabling its broader industrial deployment. ERA provided critical funding to each of these technologies for pilot demonstrations.

In April 2023 the Energy Savings for Business (ESB) Program allocated all of its \$55 million in funding. The ESB Program proves Alberta businesses are committed to cutting carbon and cutting costs.

We are very proud of ERA's track record of leveraging funds—for every \$1 we've committed, over \$7 is leveraged from public and private investors—we all have skin in the game. To further leverage funding opportunities, ERA took part in two collaborative funding competitions based on international partnerships with Accelerating CCS Technologies (ACT) and Clean Energy Transition Partnership (CETP). These cross-border collaborations ensure we position Alberta to remain a primary destination for investment in clean technologies.

Playing a convening role to support the adoption and scale-up of emissions reducing technologies continues to be a focus for ERA. In June 2022, we hosted an Energy Storage Roundtable to address greenhouse gas (GHG) quantification and tackle common issues faced by technology developers. We also host quarterly executive roundtables to help get CCUS projects to final investment decision in the province. These efforts are critical in support of Alberta's emissions reduction goals and economic evolution.

ERA continues to do incredible work through its amazing team. We were purpose built by the Government of Alberta to catalyze technologies that will reduce emissions and grow our economy—and we are delivering. We have the ability to do even more to support government and industry's desire to reduce emissions and can achieve even greater impacts. We look forward to continuing to work with the Government of Alberta towards this end.

Justin Riemer
CEO, ERA



ABOUT ERA

MANDATE

Reduce GHG emissions and grow Alberta's economy by accelerating the development and adoption of innovative technology solutions.

VISION

Alberta has a diversified, net-zero economy with competitive industries that deliver sustainable environmental outcomes and attract investment.

VALUE PROPOSITION

ERA invests proceeds from carbon pricing paid by TIER regulated facilities to reduce GHG emissions and strengthen the competitiveness of new and incumbent industries in Alberta. These investments help innovators develop and demonstrate emissions reducing technologies that will lower costs, improve competitiveness, and accelerate Alberta's transformation to a net-zero economy. ERA delivers results through a competitive, transparent, efficient, and outcomes-focused delivery model.

TIER FUND

ERA receives its funding from the Government of Alberta through the Technology Innovation Emissions Reduction (TIER) Fund. TIER serves as a framework that offers industrial facilities an opportunity to advance innovative approaches for emissions reduction and encourages investments in clean technology, thus fostering competitiveness and cost savings.

On January 1, 2023, the Government of Alberta introduced changes to the TIER Regulation, increasing the stringency of targets and aligning to the federal price on carbon. The update is designed to allow more Alberta industries to benefit from the system.



CORE VALUES



A UNIQUE BUSINESS MODEL

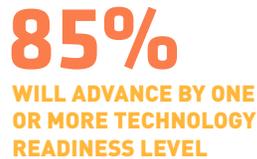
ERA's unique model to invest in clean technology includes:

- ▶ Establishing a clear line of site between the carbon price paid by industry, under the TIER Regulation, to investment in solutions designed to achieve provincial GHG reduction goals.
- ▶ Funding is directed to accelerate innovation toward commercialization by de-risking technology in the demonstration and first-of-kind deployment stages of development.
- ▶ Non-dilutive¹ grant funding to accelerate the advancement and scale-up of clean technologies by allowing ERA to share innovation risk with industry and private funders through key development stages.
- ▶ A Delegated Administrative Organization (DAO) structure. That means ERA has no annual investment caps, can fund multi-year projects through development, carries funding over from year-to-year if necessary, can reinvest funds when projects are not completed, and allows for decisions to be made arm's length from policy creators.

¹ Non-dilutive funding is defined as funding that does not require giving up ownership or shares of the company or product.

PORTFOLIO IMPACT

TECHNOLOGY SUPPORTED



PROJECTED ECONOMIC OUTCOMES



PROJECTED ENVIRONMENTAL IMPACT



ACCELERATING UPTAKE OF COMMERCIAL-READY TECHNOLOGIES THROUGH THE ENERGY SAVINGS FOR BUSINESS PROGRAM



* Figures are current as of June 2023 and are based on 100% project success rate.

COMMUNITY

TRUSTED PARTNERSHIP AGREEMENTS



5 PROVINCIAL



8 NATIONAL



4 INTERNATIONAL

BALANCED PORTFOLIO

FUNDING BY INDUSTRY



\$213M

OIL SANDS



\$76M

OIL & GAS -
CONVENTIONAL



\$42M

FOREST PRODUCTS



\$165M

ELECTRICITY
GENERATION,
TRANSMISSION
& DISTRIBUTION



\$74M

CHEMICAL & FUEL
PRODUCTION



\$36M

AGRICULTURE



\$113M

BIOFUELS &
BIOPRODUCTS



\$60M

TRANSPORTATION



\$17M

COMMERCIAL &
RESIDENTIAL BUILD



\$48M

LANDFILLS & WASTE
MANAGEMENT



\$12M

ENVIRONMENTAL
SERVICES & RESEARCH



\$43M

MINERAL PRODUCT
MANUFACTURING



\$10M

CRITICAL MINERALS
& MATERIALS

* Figures are current as of June 2023 and are based on 100% project success rate.

STRATEGIC PRIORITIES

IN 2022-23, ERA CONTINUED ITS FOCUS ON THREE STRATEGIC PRIORITIES THAT FRAME ITS ACTIVITIES:

- 1. ACCELERATE TECHNOLOGY:**
Invest in innovative technologies that help industries in Alberta achieve net-zero emissions.
- 2. DRIVE COMMERCIALIZATION:**
Convene the right resources to accelerate adoption of technology solutions that lead to economic growth and GHG reductions in Alberta.
- 3. MAXIMIZE IMPACT:**
Sharing knowledge and lessons learned and striving for operational excellence.

The following pages outline how ERA's efforts are helping innovators develop and demonstrate Alberta-based technologies that lower emissions and costs to ensure Alberta succeeds in a net-zero world.

Qube Technologies, Emissions Reduction Through Artificial Intelligence



STRATEGIC PRIORITY 1: ACCELERATE TECHNOLOGY

Core to ERA's business is investing in innovative technologies that help existing and new industries in Alberta accelerate toward net-zero GHG emissions in the province. ERA funds these later-stage, innovative technology solutions through competitive funding calls and its Partnership Intake Program.

In 2022-2023, ERA announced \$140 million in 33 projects worth a combined value of \$835 million. ERA also approved an additional \$80 million in funding that we will be allocating in the coming fiscal year. The pages that follow outline these investments.



CIRCULAR ECONOMY CHALLENGE

\$58 MILLION COMMITTED TO CIRCULAR ECONOMY PROJECTS WORTH \$528 MILLION IN PUBLIC AND PRIVATE INVESTMENT

Enhancing Alberta's global profile in the circular economy encourages investment in the province, stimulates economic activity, generates employment opportunities, and helps reduce emissions. In February 2023, ERA's Circular Economy Challenge supported projects that lessen the impacts of material production, processing, and disposal, and support economic opportunities.

INVESTMENTS

11 PROJECTS

\$58M
FUNDING

\$528M
TOTAL PROJECT VALUE

PROJECTED IMPACT



4 million tonnes
of cumulative emissions
reduction by 2050



1800+ person-years
of employment opportunities
in Alberta by 2025



\$350 million
into the province's
GDP by 2025

“Plastic recycling has been a longstanding aspiration of RBW Waste Management Ltd. Circular Economy Challenge funding allows this to become a reality.”

Rick Williams

President, RBW Waste Management Ltd.

PROJECTS

Northstar Clean Technologies	Recycling waste asphalt shingles into aggregate, fibre and liquid asphalt.	ERA FUNDING:	\$7,100,000
		PROJECT VALUE:	20,600,000
Sparks Eggs	Transforming inedible egg waste into a high-protein powder for the pet food industry.	ERA FUNDING:	\$500,000
		PROJECT VALUE:	\$1,000,000
Rimrock Renewables LP.	Enhancing digestate water treatment and adding value to fertilizers.	ERA FUNDING:	\$8,400,000
		PROJECT VALUE:	\$19,000,000
Hydrovac Waste Solutions	Scale-up of a new innovative cleantech hydrovac waste processing system.	ERA FUNDING:	\$1,700,000
		PROJECT VALUE:	\$9,000,000
Carbon Upcycling Technologies	Upcycling CO ₂ and legacy fly ash to make high performance, sustainable cement.	ERA FUNDING:	\$4,400,000
		PROJECT VALUE:	\$11,000,000
Phyto Organix Foods Inc.	Construction of a large-scale, commercial, net zero yellow pea fractionation facility.	ERA FUNDING:	\$10,000,000
		PROJECT VALUE:	\$231,000,000
Suncor Energy Inc.	Recover vanadium for use in the growing energy storage market.	ERA FUNDING:	\$7,000,000
		PROJECT VALUE:	\$36,000,000
INCA Renewtech	Creating a sustainable, advanced bio-composite material made from hemp stalk.	ERA FUNDING:	\$10,000,000
		PROJECT VALUE:	\$89,300,000
Circular Rubber Technologies	Constructing the world's first commercial facility for end-of-life industrial tires in Alberta.	ERA FUNDING:	\$3,200,000
		PROJECT VALUE:	\$14,100,000
RBW Waste Management Ltd.	Install and commission a recycling system for high-density polyethylene containers.	ERA FUNDING:	\$700,000
		PROJECT VALUE:	\$1,400,000
Lantic Inc.	Upcycling a discarded lime waste stream.	ERA FUNDING:	\$4,800,000
		PROJECT VALUE:	\$9,500,000

OVER \$60 MILLION INVESTED TO HELP TRANSFORM THE PROVINCE'S INDUSTRIAL SECTORS

Alberta's industrial sector accounts for approximately two-thirds of the province's GHG emissions. In June 2023, ERA approved the Industrial Transformation Challenge to help the province's industrial sector reduce emissions and improve competitiveness.



INDUSTRIAL TRANSFORMATION CHALLENGE

INVESTMENTS



14 PROJECTS

\$60M FUNDING

\$226M TOTAL PROJECT VALUE

“ERA’s support is an important example of how TIER funding is helping scale emissions-reducing technology from design to deployment.”

Connie De Ciancio

Vice President, Corporate,
Strathcona Resources Limited

PROJECTED IMPACT



3.2 million tonnes of cumulative emissions reduction by 2050



1800+ person-years of employment opportunities in Alberta by 2025



\$337 million into the province's GDP by 2025



Justin Riemer, ERA's CEO, announces projects approved through the Industrial Transformation Challenge.

PROJECTS

AdvEN Inc	Manufacturing electrodes for use in energy storage systems.	ERA FUNDING:	\$2,000,000
		PROJECT VALUE:	\$5,730,000
Calgary District Heating Inc.	Demonstrating electrified heating and thermal energy storage technologies.	ERA FUNDING:	\$6,500,000
		PROJECT VALUE:	\$14,960,000
Canadian Forest Products Ltd. (Canfor)	Using geothermal energy at forestry operations.	ERA FUNDING:	\$10,000,000
		PROJECT VALUE:	\$28,000,000
Canadian Pacific Kansas City (CPKC)	Converting diesel-electric locomotives to hydrogen fuel cells.	ERA FUNDING:	\$7,000,000
		PROJECT VALUE:	\$24,460,000
Cando Rail & Terminals	Replacing diesel generators in switching locomotives with lithium-ion batteries.	ERA FUNDING:	\$2,000,000
		PROJECT VALUE:	\$4,000,000
Carbon Corp	Improving the material properties of concrete.	ERA FUNDING:	\$5,000,000
		PROJECT VALUE:	\$10,040,000
CarbonIP Technologies	Converting forestry waste to anodes for use in lithium-ion batteries.	ERA FUNDING:	\$1,800,000
		PROJECT VALUE:	\$5,290,000
Litus Inc.	Harvest lithium from aqueous sources.	ERA FUNDING:	\$600,000
		PROJECT VALUE:	\$1,880,000
MakeSens	Energy efficient manufacturing of silicon lithium-ion battery materials for electric vehicles.	ERA FUNDING:	\$940,000
		PROJECT VALUE:	\$3,270,000
McCain Foods	Implement an electric boiler as part of the potato processing plant's expansion.	ERA FUNDING:	1,700,000
		PROJECT VALUE:	\$3,800,000
Replenish Nutrients	Creating a regenerative fertilizer.	ERA FUNDING:	\$7,000,000
		PROJECT VALUE:	\$23,570,000
Strathcona Resources Ltd.	Capturing carbon from natural gas fired turbines used in oil sands facilities.	ERA FUNDING:	\$7,000,000
		PROJECT VALUE:	\$30,010,000
Universal Matter	Convert natural gas to low-emissions hydrogen and graphene.	ERA FUNDING:	\$7,000,000
		PROJECT VALUE:	\$64,810,000
ZS2 Technologies	Produce magnesium-based cement as an alternative to existing, alternative cement chemistries.	ERA FUNDING:	\$2,000,000
		PROJECT VALUE:	\$6,520,000

UP TO \$50 MILLION TO SUPPORT NEW WAYS TO TRANSPORT, MANAGE, AND USE ALBERTA'S ENERGY

In April 2023, ERA launched the \$50 million Reshaping Energy Systems funding competition. The competition's key objective is to lower emissions, foster economic opportunities, and establish a more resilient, efficient, and dependable energy system in Alberta.

The Reshaping Energy Systems funding competition is designed to support new ways to transport, manage and use Alberta's energy. This opportunity will promote integration between different energy systems—electricity, natural gas, hydrogen—to achieve innovative and sustainable solutions. Projects will be adjudicated, approved, and announced in 2023-24.



RESHAPING ENERGY SYSTEMS

STUDYING THE USE OF SMALL NUCLEAR REACTORS

Oil sands operations in Canada are responsible for about ten percent of Canada's total GHG emissions. Canada currently produces five percent of the world's oil needs, supplying approximately five million barrels per day of global demand.

Small modular nuclear reactors provide a potential solution to replace gas-fired boilers on a large scale to reduce the oil sands overall GHG emissions. Small modular nuclear reactors have the transformative ability to change energy sources and infrastructure on a multi-industry scale. By replacing natural gas-fired equipment, the nonemitting nuclear reactors can provide heat on the scale required while maintaining current operations and eliminating the need for natural gas, its cost, and its associated emissions.

In 2022-23, ERA committed \$7 million to support a \$26.7 million study that will explore the feasibility and potential use of this technology in Cenovus Energy's oil sands operations.

ERA NAMED FUNDER OF THE YEAR AT FIRST-EVER ALBERTA CLEANTECH AWARDS

ERA was honoured to be named Funder of the Year at the first ever Alberta Cleantech Awards held in April 2023. ERA was nominated alongside ARC Financial, BDC Capital, NGIF Capital, and PrairiesCan. ERA was also nominated in the Ecosystem Supporter of the Year. The Alberta Cleantech Awards was created by Foresight CAC to gather and celebrate Alberta's innovators, industry leaders, investors, government officials, academics, and more.

ATTRACTING INTERNATIONAL INTEREST IN ALBERTA-LED PROJECTS THROUGH ACT PARTNERSHIP

Through an international collaboration with Accelerating CCS Technologies (ACT), ERA is leveraging investments in Alberta technologies from both Norway and the United States. Funded projects were selected through the consortium’s ACT4 Call and announced in April 2023. All three projects involve the development, scaling up, field testing, piloting, demonstration, or deployment of technology either within Alberta or through Alberta-based companies collaborating with partners from other regions.

INVESTMENT

3 PROJECTS

\$2.9M FUNDING

\$11.3M TOTAL PROJECT VALUE

PROJECTED IMPACT

450 tonnes of cumulative emission reductions by 2050

243 person-years of employment opportunities in Alberta by 2025

\$36 million into the province’s GDP by 2025

PROJECTS

Carbon Management Canada	Developing a low-cost, high resolution monitoring technology for CO ₂ storage facilities.	ERA FUNDING: \$1,100,000 PROJECT VALUE: \$6,100,000	ACT partners: Norway, United States
Carbon Upcycling Technologies	Binding CO ₂ into a variety of feedstocks to create materials for use in concrete.	ERA FUNDING: \$600,000 PROJECT VALUE: \$1,900,000	ACT partners: United States
Repsol Canada	Investigating the feasibility for permanent storage of CO ₂ in depleted gas reservoirs.	ERA FUNDING: \$1,300,000 PROJECT VALUE: \$3,300,000	ACT partners: United States

SUPPORTING GLOBAL EFFORTS TO ACCELERATE THE CLEAN ENERGY TRANSITION

In 2022-23, ERA joined the Clean Energy Transition Partnership (CETP). CETP is an international initiative focused on collaborative research, technological development, and innovation to accelerate the clean energy transition in Europe and around the world. CETP facilitates coordination among 50 funding partners at the national and regional levels across 30 countries and is designed to expand the knowledge base and share solutions globally.

ERA has committed up to \$5 million in funding to CETP and will explore projects focused on advancing technology solutions for renewable fuels and hydrogen, as well as CCUS, with strong potential for commercialization in Alberta.

“Partnerships like this demonstrates ERA’s commitment to international collaboration and is an important way for countries to leverage new knowledge, expertise, and resources. We must continue to work across borders, oceans, and industries on technology that diversifies the economy and cuts emissions.”

Justin Riemer
CEO, ERA

CHANNELING PROJECTS THROUGH THE PARTNERSHIP INTAKE PROGRAM

In addition to its competitive Call for Proposals process, projects can also be brought forward to ERA for consideration by Trusted Partners through the Partnership Intake Program. By relying on referrals from Trusted Partners, ERA can approve funding to promising technologies beyond its conventional call process. This approach ensures continuous opportunities to fund innovative projects. It has proven to be remarkably successful in expediting innovation, maximizing impact by leveraging partner funds, and reducing the administrative burden for project proponents.

INVESTMENT

4 PROJECTS

\$8.9M FUNDING

\$36.6M TOTAL PROJECT VALUE

PROJECTED IMPACT

119,000 tonnes of cumulative emission reductions by 2050

590 person-years of employment opportunities in Alberta by 2025

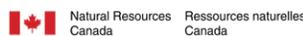
\$127 million into the province's GDP by 2025

ARIX Technologies	Corrosion inspection robot and advanced analytics software for industrial applications.	ERA FUNDING:	\$3,000,000
		PROJECT VALUE:	\$6,110,000
Suncor Energy Inc.	Design, install and operate a containerized hydrogen refueling station.	ERA FUNDING:	\$1,500,000
		PROJECT VALUE:	\$6,060,000
Aurora Hydrogen	Advance a microwave pyrolysis process for clean and distributed hydrogen production.	ERA FUNDING:	\$3,000,000
		PROJECT VALUE:	\$21,630,000
Enhance Energy Inc.	Increasing CO ₂ storage capacity using novel surfactant foam	ERA FUNDING:	\$1,400,000
		PROJECT VALUE:	\$2,780,000

BUILDING AN EXTENSIVE INVESTOR NETWORK

In 2022/23, ERA entered into formal Trusted Partner agreements with Plug and Play and Avatar Innovations with the goal of accelerating the growth and scale-up of Alberta companies. Each organization brings an extensive investor network that will enhance access to expertise, financing, and partnership opportunities.

ERA now has 17 Trusted Partner agreements in place. These partnerships allow ERA to leverage funds and due diligence, and share risk. ERA also works with strategic partners and leverages funding throughout Alberta and Canada via accelerators, venture capital organizations, the federal government, and governments across the country where appropriate.



STRATEGIC PRIORITY 2: DRIVE COMMERCIALIZATION

To support economic diversification, job creation, and technology adoption, ERA works in close alignment with Alberta's innovation system. In addition to providing funding, ERA convenes the resources required for success, including informing the suite of policy, regulatory, program, and business innovation tools required to address system gaps and deploy new technologies.

HELPING BUSINESSES REDUCE EMISSIONS AND CUT COSTS

Due to high demand, all funding available through ERA's ESB Program was awarded. For the past two years, ESB has helped eligible Alberta businesses reduce emissions, decrease operating costs, grow operations, and become more competitive, while creating skilled jobs and boosting economic recovery.

ESB gave businesses fast access to incentives for cost-effective efficiency measures that included:

- ▶ Up to \$250,000 per project
- ▶ Up to \$1 million per parent company to cover the cost of products and services
- ▶ Minimum incentive amount of \$500.

A wide range of cost-effective high efficiency products and onsite energy generation technologies were eligible for incentives, including but not limited to: HVAC, motors and drives, lighting systems, building envelope and windows, waste energy recovery and more.

PROJECTED IMPACT*



In 2022-23, ERA expanded the ESB portfolio to include the Comprehensive Energy Savings (CES) stream. The CES stream supported facilities striving to achieve significant emissions reductions and energy savings by offering financial incentives to participants who bundle efficiency measures and new technology types. The ESB portfolio also included the Small Producers Energy Efficiency Deployment (SPEED) and Expanded Technologies Pilot (ETP) funding streams.

SPEED: Through expanded eligibility and the addition of new technology types, SPEED will accelerate the deployment of proven upgrades that help eligible oil and gas producers decrease operating costs and become more competitive.

- ▶ 128 pre-approved projects
- ▶ \$16.5 million worth of incentives
- ▶ 1.25 million tonnes of projected lifetime emissions reduced

ETP: This pilot program offered a new pathway for Alberta businesses to propose effective, commercially viable technologies with a high return on investments not supported through the ESB Program.

- ▶ 5 pre-approved projects
- ▶ \$1 million worth of incentives
- ▶ 15,000 tonnes of projected lifetime emissions reduced

The Government of Alberta funded up to \$30 million for ESB through the TIER Fund. Up to \$25 million in additional funds was available from the Government of Canada's Low Carbon Economy Leadership Fund.

* Figures are current as of June 2023 and are based on 100% project success rate.

ADDRESSING GAPS WITH ENERGY STORAGE TECHNOLOGIES

In June 2022, ERA hosted an Energy Storage Roundtable with government and industry stakeholders, focusing on developers of ERA-funded projects. The topic of the roundtable was greenhouse gas quantification from storage. This is both a gap in ERA's internal quantification methodologies, and for the industry.

To date, ERA has funded ten storage projects with more than \$80 million in funding and a total project value of more than \$500 million. In the roundtable, ERA facilitated a discussion on policy, data, and technology to address common issues across storage project developers relating to quantifying and understanding emissions reduction potential from these projects.

EXAMINING HYDROGEN EXPORT OPPORTUNITIES

In April 2023, ERA and Alberta Innovates published a co-written whitepaper titled [Hydrogen as an Alberta Export Opportunity: Gap Analysis](#). Authored by ERA's Grace Meikle and Alberta Innovates' Murray Gray and Dave Van Den Assem, the paper examines potential global opportunities and challenges related to exporting hydrogen, ammonia, and liquid natural gas (LNG). The paper was published during the 2023 Canadian Hydrogen Convention in Edmonton.

INFORMING CARBON CAPTURE INVESTMENT DECISIONS

In the summer of 2022, ERA and Natural Resources Canada (NRCan) announced a combined \$90 million in funding for 17 carbon capture FEED studies at large industrial sites across Canada. If successful, the studies will result in more than \$20 billion in capital expenditures, creating thousands of jobs and more than 30 million tonnes in emissions reductions. They also present an important opportunity for data collection and knowledge sharing that will benefit the broader investment community.

To set these projects up for success and inform investment decisions across the innovation ecosystem, ERA and NRCan hosted a joint roundtable in December 2022 seeking feedback from key provincial, federal, and international stakeholders.

ADVANCING CCUS TECHNOLOGIES

ERA and the International CCS Knowledge Centre are working together to advance the research, development, and implementation of CCS/CCUS technology. In September 2022, the two organizations partnered to provide the 11 successful applicants of the ERA's Carbon Capture Kickstart program with up to 200 hours of support on their pre-construction design and engineering studies for CCS/CCUS projects across industrial sectors in Alberta.

In November 2022, ERA and the International CCS Knowledge Centre, along with the Government of Alberta, hosted more than 20 Canadian and international CCUS leaders for a CCUS Roundtable. The event took place in-person at COP27 in Egypt with the goal of exploring how to build relationships and expand hands-on expertise within the global CCS/CCUS ecosystem.

Building off this partnership, a CCUS Senior Executive Series was formed to support the development of three whitepapers in advance of the GHGT-17 Conference taking place in Calgary, Alberta in October 2024.

MAXIMIZING CLEAN TECH FUNDING

In November 2022, ERA and Alberta Innovates co-hosted a free, in-person event for innovators. Provincial and federal clean tech funders highlighted their specific programs, so entrepreneurs and innovators are better informed when navigating the innovation ecosystem.. Over 300 people registered for the event in Calgary. The following organizations participated:

- ▶ ERA
- ▶ Alberta Innovates
- ▶ Business Development Bank of Canada
- ▶ Canada Infrastructure Bank
- ▶ Environment and Climate Change Canada
- ▶ EVOK Innovations
- ▶ Government of Canada, Innovation, Science and Economic Development Canada's Strategic Innovation Fund
- ▶ National Research Council of Canada Industrial Research Assistance Program
- ▶ Clean Growth Hub
- ▶ PrairiesCan
- ▶ Sustainable Development Technology Canada



HEATHER STEPHENS RECOGNIZED BY THE WOMEN IN ENERGY TRANSFORMATION SERIES

Last year, Heather Stephens, ERA's Chief Operating Officer, was recognized by The Women in Energy Transformation Series, a partnership between the Pembina Institute and Globe Series that celebrates and honours the women advancing Canada's transition to a clean economy and identifies opportunities for more women to get involved. Stephens has been a foundational member of ERA since it began in 2009, overseeing finances while helping operate and grow the organization.

"Ultimately, success will come from convening groups of individuals and organizations developing innovative approaches by looking at existing ideas in new and creative ways. With smart investment, sound policy, and promising technologies, we can be certain that the world our children need, the one the world is demanding, will come to be."

Heather Stephens
Chief Operating Officer, ERA

STRATEGIC PRIORITY 3: MAXIMIZE IMPACT

ERA maximizes the value of its funding by leveraging investments through partnerships with the federal government and other organizations focused on climate innovation and continuous improvement of operational excellence. For every dollar ERA invests, another \$7.70 is also invested by industry, innovators, and other project funders. ERA also maximizes its impact by delivering excellence in operations and through rigorous performance measurement and reporting.

SUPPORTING ALBERTA'S EMISSIONS REDUCTION AND ENERGY DEVELOPMENT PLAN

For over a decade ERA has been a vital provincial tool for delivering on emission reductions and economic development in Alberta. Announced in early 2023, the Government of Alberta's Emissions Reduction and Energy Development Plan (ERED) is designed to strengthen Alberta's position as a global leader in clean technology development and underscores the province's continued commitment to achieve a carbon neutral economy by 2050 while ensuring affordable, reliable and secure energy for Albertans, Canadians, and the world. ERA supported the creation of the Plan and its investments are aligned and highlighted in the ERED. ERA will be a key delivery agent for the ERED to strengthen Alberta's position as a global leader in emissions reductions, the advancement of clean technology, and sustainable resource development.

COLLABORATING WITH THE GOVERNMENT OF ALBERTA ON FUNDING ANNOUNCEMENTS

ERA plays a crucial role in facilitating the Government of Alberta's strategic communication goals, objectives, and initiatives. During the period of 2022-23, a total of six ERA announcements were delivered alongside the Government of Alberta. These announcements were made across various platforms and include the participation of the relevant Minister and, when possible, the Premier of Alberta. ERA also ensures the involvement of industry and other partners in these announcements to show alignment between government and industry. Strong and favourable media coverage is secured using this approach.

REPORTING ON THE ECONOMIC IMPACT OF ERA'S INVESTMENTS

To continue understanding how ERA's investments make an impact, Alberta Innovates carried out an updated Economic Impact Analysis and Cost-benefit Analysis on behalf of ERA. The analysis found that ERA projects will have a total cumulative impact of almost 35,300 person-year jobs and add \$5.4 billion to Alberta's Gross Domestic Product (GDP) by 2026. While ERA boosts Alberta's economy, its impact can be felt across Canada as well. ERA projects will add \$7.25 billion to Canada's GDP by 2026 and increase employment by over 48,900 person-year jobs.

In addition, a cost-benefit analysis was undertaken to quantify the economic impact resulting from ERA's investments. ERA's funded projects were estimated to result in cumulative net GHG emissions reductions of 40 MT CO₂e by 2030 and 110 MT CO₂e by 2050. The avoided climate damages associated with these reductions are valued at over \$815 million by 2030 and over \$3.5 billion by 2050.

LESSONS LEARNED: RESHAPING ENERGY SYSTEMS

Achieving long-term net-zero GHG ambitions will require the reimagining and reshaping of the systems that distribute, deliver, transform, and manage our energy use. To align with the Reshaping Energy Systems funding call, ERA hosted a Lessons Learned on the topic at Inventures 2023 in Calgary.

The purpose of the panel was to detail the different types of projects ERA has supported in reshaping energy systems and underscore the need for additional investment in innovation in the area. The panel discussed how Alberta's energy system ties together, how they see the energy system shifting, and the urgency behind investment. The panel also discussed some of the high potential technologies they see in the short- and- long-term future

DISEMINATING KNOWLEDGE AND KEY FINDINGS FROM TEN COMPLETED PROJECTS

ERA is delivering on its mandate and demonstrating progress by reporting on outcomes, successes, and learnings from its investments. To support knowledge sharing that could further advance innovation, each project that ERA funds must submit a project completion report that outlines key outcomes and details the unique learnings. To ensure continued transparency, these reports are shared widely and available for public review. There were ten projects completed in 2022-23.

COMPLETED PROJECTS

Calscan Energy Ltd.	Proved its Near Zero Emission Well Control System (NZE WCS) technology in an operational environment.	ERA FUNDING:	\$971,000
		PROJECT VALUE:	\$4,550,000
Gentherm Global Power Technologies Inc.	Fully engineered, tested, and certified its new remote generator compressor system product line, leading the organization to a strengthened commercial position.	ERA FUNDING:	\$1,785,000
		PROJECT VALUE:	\$41,150,000
Growsafe Systems Ltd.	Successfully monitored beef cattle using its GrowSafe Beef technology to study the impact of feedlot activities on GHG emissions; the technology is now commercial.	ERA FUNDING:	\$666,000
		PROJECT VALUE:	\$1,331,000
Mariner Partners Inc.	Tested its EOS technology and exceeded energy saving targets by implementing automation, demand management, and building quantification tools in various buildings and facilities.	ERA FUNDING:	\$1,210,000
		PROJECT VALUE:	\$3,258,000
Peyto Exploration & Development Corp.	Installed two In-Pipe Turbine Generators to test performance, leading to a reduction in GHG emissions and potential partial reduction of wellsite footprint.	ERA FUNDING:	\$96,000
		PROJECT VALUE:	\$196,000
Petroleum Technology Alliance Canada (PTAC)	Completed prototype design and testing of its Electric Dump Valve Actuator, leading to a commercially ready technology that may replace pneumatic devices for wellsite applications providing a low-cost, reliable, and safe solution for electrification.	ERA FUNDING:	\$550,000
		PROJECT VALUE:	\$2,986,000
Suncor Energy Inc.	Completed a life-cycle analysis of the GHG intensity of Effective Solvent Extraction Incorporating Electromagnetic Heating (ESEIEH) process compared to SAGD, uncovering a general 50-70% reduction for a constant volume of oil produced.	ERA FUNDING:	\$16,475,000
		PROJECT VALUE:	\$107,887,000
TAQA North Ltd.	Successfully converted existing sulfur recovery processes to re-inject acid gas into producing reservoir, eliminating tail gas incineration and subsequent formation of CO ₂ , resulting in an anticipated 55 kilotonnes of CO ₂ e reduction per year.	ERA FUNDING:	\$10,000,000
		PROJECT VALUE:	\$24,496,000
Tourmaline Oil Corp.	Completed techno-economic and environmental assessment for its mobile natural gas unit, alongside piloting the technology, resulting in a significant reduction in diesel fuel.	ERA FUNDING:	\$3,200,000
		PROJECT VALUE:	\$7,983,000
University of Calgary	This multi-site cement industry Low Carbon Fuel implementation and Supply Chain Optimization Project provided a framework for replacing high-intensity fuels in cement manufacturing.	ERA FUNDING:	\$150,000
		PROJECT VALUE:	\$907,000

CONDUCTING STAKEHOLDER RESEARCH TO MONITOR AWARENESS AND SUPPORT

In the summer of 2022, ERA conducted its biennial stakeholder research study. This study helps to better understand stakeholder needs, how ERA is viewed, and how it might better achieve its mandate. This study is a follow-up to 2017 and 2019 research.

Research highlights include:

- ▶ 9 of 10 support overall approach
- ▶ High likelihood to recommend ERA to others
- ▶ ERA's role seen as increasingly vital, not just for Alberta but for Canada
- ▶ ERA is a strong communicator

SELECTED AS CO-HOST FOR GLOBAL GHG CONFERENCE IN CALGARY

ERA successfully won the bid to co-host GHGT-17 in Calgary, Alberta on October 20-24, 2024 with the International Energy Agency. This is a global conference that will attract over 1,000 presenters, delegates, and exhibitors from around the world. This provides the opportunity to demonstrate Alberta's global leadership in CCS and to showcase some of the current industrial CCS projects already in operation.

The bid was supported by all levels of government—City of Calgary, Province of Alberta, and Government of Canada. To prepare the bid, ERA secured sponsorship commitments from several key partners, including Alberta Innovates, ENMAX, Keyera, Shell, and Pathways Alliance.

SHOWCASING ERA'S IMPACT THROUGH PODCASTS, VIDEOS, AND WRITTEN STORIES

With a growing number of people following ERA's social channels, creating engaging content to share the work ERA does with Alberta industries is a high priority. Through podcasts, videos, and written narratives, ERA showcases its funded projects and tells the stories of the people behind them. While data and statistics tell this through numbers, these formats reveal the impact our funding is having in this province and for Albertans.

SECURING SPEAKING OPPORTUNITIES AT STRATEGIC EVENTS

Events provide a platform to achieve broader communication goals of raising awareness of the organization's mandate and funding opportunities. In 2022/23, ERA took part in 65 strategic events, workshops, roundtables, and more. These efforts also helped raise the profile of Alberta as a place for clean technology investment. Highlights include:

COP27 in Egypt

ERA's CEO *Justin Riemer* joined the Team Alberta delegation at COP27 to showcase the province's expertise in energy transition on the world stage.

Canadian Hydrogen Convention

ERA joined over 2,700 delegates and speakers from across the supply chain to explore the potential hydrogen holds in achieving Canada's environmental targets.

Inventure\$

With over 3,000 people attending the three-day annual event, Inventure\$ 2023 included sessions with ERA's CEO, *Justin Riemer*, and Chief Innovation Officer, *Mark Summers*.

Economic Development Alberta EDA Xperience

Over 400 experts in economic development and elected officials attended this annual Leaders' Summit & Conference. ERA's *Justin Riemer* presented a keynote address.

PTAC Methane Leadership Forum

A diverse range of stakeholder groups explored challenges facing the Canadian oil and gas industry regarding methane emissions reduction targets. Justin Riemer gave a keynote presentation.

Decentralized Energy

Justin Riemer participated on the panel Alberta's Net Zero Advantage as part of the two-day conference to discuss accelerating the adoption of technology solutions in Canada's sustainable energy sector.

Carbon Capture Canada

Over 4,000 attendees explored Canada's opportunity to be a leader in carbon capture storage solutions. ERA's *Grace Mickle* moderated a session focused on what Canada needs to do to achieve a net zero grid by 2035.

IPPSA's 29th Annual Conference

ERA's Chief Operating Officer, *Heather Stephens*, took part in a panel focusing on Alberta's pathway to emissions mitigation.



GEOTHERMAL TECHNOLOGY GOES GLOBAL AFTER ALBERTA DEMONSTRATION

In August, Eavor Technologies hosted German Chancellor, Olaf Scholz, and Alberta's Minister of Environment and Protected Areas, Rebecca Schulz, in a showcase of its geothermal technology. Eavor broke ground on the world's first commercially operated Eavor_Loop project in Germany in 2022. The \$290 million facility is expected to begin producing energy by 2024 and reach its full capacity in 2026, generating 64 MW of thermal power and 8.2 MW of electrical power, while saving approximately 44,000 metric tons of CO₂e and powering 20,000 homes.



ERA committed \$1 million to Eavor Technologies in 2019 to support a demonstration project near Rocky Mountain House. The technology uses existing oil and gas drilling expertise to facilitate the development of an innovative geothermal energy supply. Demonstration at this scale provided the validation needed to de-risk commercial opportunities in Alberta and around the world.

"The Eavor-Loop system incorporates the best of our province's energy technology capabilities and prowess, to provide a new and sustainable opportunity for our world-renowned drilling industry. The net result is a uniquely scalable source of emissions-free baseload power."

John Redfern,
President & CEO,
Eavor Technologies



GHGSAT COMPLETES SERIES C1 FUNDING TO ACCELERATE COMMERCIALIZATION

Over the past decade, ERA has provided more than \$130 million towards methane reduction and detection projects from oil and gas, agriculture, mining, waste management, and more. One of those projects is GHGSat, global leader in high-resolution remote sensing of GHG emissions from space. In 2016, ERA committed almost \$4 million for the company to develop and demonstrate a Calgary-based Aircraft-Satellite hybrid methane detection and quantification system.

In 2023, GHGSat completed a Series C1 funding round for a total of \$44 million (USD) in equity and debt. This milestone underscores GHGSat's leading position in GHG emissions intelligence and demonstrates strong investor confidence in the company. GHGSat has raised more than \$126 million (USD) since its inception in 2011 and has provided unique emissions data and intelligence to businesses, governments, regulators, and investors worldwide.

GHGSat has generated an eightfold revenue surge since its previous funding round, supported by a fourfold increase in commercial satellites and a threefold increase in airborne sensors deployed. Over the same period, GHGSat has enabled mitigation of 5.6 million tons of CO₂e emissions from industrial facilities around the world, equivalent to over 1.2 million passenger vehicles driven for one year.

“This new investment will enable GHGSat to further accelerate growth. Over the last two years, we have proven that we can successfully scale and commercialize GHGSat’s world class services while enabling real emissions mitigations, The business expansion is remarkable, and we’re gearing up to share more exciting updates in the forthcoming months.”

Stephane Germain,
CEO,
GHGSat





EDMONTON CEMENT PLANT ADVANCES CARBON CAPTURE AND STORAGE PROJECT

Edmonton's Lehigh Cement Plant is developing North America's first full-scale carbon capture, utilization, and storage solution for the cement industry with the goal of capturing around 780,000 tonnes of CO₂ annually.

Lehigh's parent company, Heidelberg Materials, is collaborating with Enbridge on a carbon capture, transport, and storage solution. The two companies signed an agreement with the Federal Government to support the proposed \$1.4 billion project in April of 2023.

In 2019, ERA committed \$1.4 million to Lehigh to conduct a feasibility study to assess the technical and economic viability of the technology. The study concluded that the proposed solution could capture 95 percent of the CO₂ emissions from the cement plant.

"This is a great milestone in our journey to produce the world's first net-zero cement. This pioneering initiative places the City of Edmonton at the epicentre of the cement industry's decarbonization efforts."

Oliver Patsch,
President, Northwest Region,
Heidelberg Materials North America



GOVERNANCE

ERA remains accountable to the Government of Alberta. As a DAO, ERA operates under an independent Board of Directors and is required to report annually on progress, operations, and outcomes delivered. This structure allows ERA to:

- + Respond quickly to the needs of Alberta's innovation system
- + Provide independent oversight when selecting the most impactful projects for funding
- + Carry unallocated funds from one budget year to the next
- + Support the feasibility of multi-year projects
- + Reinvest funds when projects do not progress

A commitment to best-in-class governance, operational excellence, internal controls, and continuous improvement ensures ERA functions efficiently and independently.

ERA SECURES LEADERS IN BUSINESS AND SUSTAINABILITY TO ITS BOARD OF DIRECTORS

In 2022-2023, ERA welcomed Mark Blackwell, Kate Chisholm, and Jamie Curran to its Board of Directors:

- ▶ Blackwell is a successful IT entrepreneur and well-recognized figure in Alberta's venture capital circles. He is an Investing Partner with Builders VC, which is a leading venture capital fund with \$400 million in assets under management. Blackwell is the current Board Chair of the \$100 million Opportunity Calgary Investment Fund, on the Board of Governors of the University of Calgary and Vice Chair of the \$1.2 billion Endowment Fund and Budget Committee.
- ▶ Chisholm is an innovation advocate and recognized leader in sustainability within the province. She recently retired as Senior Vice President, Chief Strategy and Sustainability Officer for Capital Power, after an extensive and celebrated corporate career. Chisholm is currently a Board Member of Carbon Management Canada and Board Chair for the University of Alberta.
- ▶ Curran is the Assistant Deputy Minister for the Strategy and Governance Division with the Department of Alberta Environment and Protected Areas. He leads and coordinates strategic services to enable effective results-oriented delivery of top department priorities.

In 2022-23, Céline Bak, Sara Hastings-Simon, and Clive Mathers were each re-appointed to additional three-year terms on the Board. ERA expresses its gratitude to each for their ongoing commitment.

In June of 2023, Joseph Doucette concluded his tenure as a member of the Board of Directors, serving for nine years. Doucette brought professional insight and advice, both as a Board Member and Vice-Chair, helping guide critical decision-making and ERA's strategic direction.

BOARD OF DIRECTORS



**Dave
Collyer**
—
BOARD
CHAIR



**Joseph
Doucet**
—
VICE-CHAIR



**Céline
Bak**



**Mark
Blackwell**



**Vittoria
Bellissimo**



**Kate
Chisholm**



**Jamie
Curran**



**Johannes
Dyring**



**Sara
Hastings-Simon**



**Clive
Mather**



**David
Moss**

EXECUTIVE TEAM



**Justin
Riemer**

—
CHIEF
EXECUTIVE
OFFICER



**Heather
Stephens**

—
CHIEF
OPERATING
OFFICER



**Chris
Owttrim**

—
EXECUTIVE
DIRECTOR,
TECHNOLOGY
AND
INNOVATION



**Tom
McCaffery**

—
EXECUTIVE
DIRECTOR,
POLICY AND
ENGAGEMENT



**Kevin
Duncan**

—
MARKETING
AND
COMMUNICATIONS

FINANCIALS

FINANCIAL PERFORMANCE

As a trusted delivery agent for the Government of Alberta and other public funders, ERA actively manages its operations to maximize cost effectiveness and efficiency. The budget is approved by the Board of Directors and demonstrates ERA's commitment to financial responsibility. ERA is in the second year of a multi-year commitment by the Government of Alberta of \$50 million core grant funding per year. ERA maintains strong alignment with the policies and priorities of the Government of Alberta and has the capacity to deliver funding calls exceeding this annual funding commitment. Project funding approvals continued to be strong during this past fiscal year, however due to a variety of economic and other factors, some projects did not proceed as originally planned. The result has led to an increase in the overall assets under management held by ERA as of the end of the year. The financial statements that follow highlight that almost all funds held are committed to innovative technologies including approved projects and commitments for announced calls that are still accepting applications.

REVENUE

The Government of Alberta committed \$50 million of core grant funding in 2022/23 along with an additional \$25 million targeted for hydrogen technology development. ERA was previously approved for Federal Low Carbon Economy Leadership Fund (LCELF) and committed this investment to projects funded under various ERA challenges and programs. Revenue associated with this funding totalling \$7.8 million is reflected in the current fiscal year. To date, ERA has received a reimbursement of \$66 million of the \$87.6 million forecast in eligible LCELF funding. Interest revenue has increased significantly this year, reflective of the strong interest rate environment applied to ERA's holdings.

EXPENDITURES

ERA continues to demonstrate a highly efficient operating model. This year's operating expenditures were \$7.2 million when the ESB program is removed, which is consistent with the approved annual budget. The ESB program incurred administrative costs of \$2.3 million for the year, slightly ahead of the planned \$2.0 million due to program pivots approved during the year to facilitate full program subscription. ERA has bolstered the internal team over the past fiscal year with senior strategy and engagement staff. The augmented team will enhance the stewardship of the larger project portfolio and enable ERA to increase support to both the Government of Alberta and industry in catalyzing investments in priority funding areas.

A key metric for ERA continues to be the overall administrative costs compared to total funds under administration, which was 2.2% for fiscal 2023, down from 2.6% in the prior fiscal year. This demonstrates a track record of operational efficiency while delivering on our key outcomes.

ERA continues to operate with robust financial controls for projects and pays at the completion of milestones with associated deliverables. ERA withholds a standard per cent of each payment until the project is completed and a final outcomes report is shared publicly. Due to current economic conditions and supply chain disruptions, existing projects in ERA's portfolio are experiencing longer than expected project timelines, resulting in a higher balance in funds under management. ERA anticipates payments to accelerate as projects return to expected execution timelines. ERA will work with all funding recipients to expedite projects where possible and enforce contractual terms where necessary to ensure funds are distributed in a timely and well controlled manner.

Summary Financial Statements of

EMISSIONS REDUCTION ALBERTA

(Emissions Reduction Alberta is a registered trade name of Climate Change and Emissions Management (CCEMC) Corporation)

Year ended May 31, 2023



KPMG LLP
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Edmonton, AB T5J 0H3
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www.kpmg.ca

INDEPENDENT AUDITOR'S REPORT ON THE SUMMARY FINANCIAL STATEMENTS

To the Board of Directors of Emissions Reduction Alberta

Opinion

The summary financial statements, which comprise the summary statement of financial position as at May 31, 2023, and the summary statement of operations for the year then ended, and related notes, are derived from the audited financial statements of Climate Change and Emissions Management (CCEMC) Corporation (operating as Emissions Reduction Alberta) ("ERA") for the year ended May 31, 2022.

In our opinion, the accompanying summary financial statements are a fair summary of the audited financial statements, in accordance with the criteria disclosed in Note 2 to the summary financial statements.

Summary Financial Statements

The summary financial statements do not contain all the disclosures required by Canadian accounting standards for non-for-profit organizations. Reading the summary financial statements and our report thereon, therefore, is not a substitute for reading ERA's audited financial statements and our report thereon.

The Audited Financial Statements and Our Report Thereon

We expressed an unmodified audit opinion on the audited financial statements in our report dated September 25, 2023.

Management's Responsibility for the Summary Financial Statements

Management is responsible for the preparation of the summary financial statements in accordance with the criteria disclosed in Note 2 to the summary financial statements.

Auditor's Responsibility

Our responsibility is to express an opinion on whether the summary financial statements are a fair summary of the audited financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, "Engagements to Report on Summary Financial Statements".

Chartered Professional Accountants

Edmonton, Canada

September 25, 2023

KPMG LLP, an Ontario limited liability partnership and member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. KPMG Canada provides services to KPMG LLP.

EMISSIONS REDUCTION ALBERTA

Summary Statement of Financial Position

As at May 31, 2023, with comparative information for 2022

	2023	2022
Assets		
Current assets:		
Cash	\$ 360,866,670	\$ 442,309,844
Accounts receivable	45,968	36,163
Grant receivable (note 3)	121,547,541	33,425,723
Interest receivable	3,359,518	756,778
Prepaid expenses	83,358	65,239
Short-term investments	80,000,000	70,000,000
	<u>565,903,055</u>	<u>546,593,747</u>
Non-current assets		
Property and equipment	53,388	40,730
Grant receivable (note 3)	-	5,311,145
	<u>53,388</u>	<u>5,351,875</u>
	<u>\$ 565,956,443</u>	<u>\$ 551,945,622</u>

Liabilities

Current liabilities:

Accounts payable and accrued liabilities (notes 4)	\$ 12,595,678	\$ 6,732,941
	<u>12,595,678</u>	<u>6,732,941</u>

Net assets

General fund - unrestricted	(89,561)	-
Restricted fund	553,450,326	545,212,681
	<u>553,360,765</u>	<u>545,212,681</u>
Commitments (note 4)		
	<u>\$ 565,956,443</u>	<u>\$ 551,945,622</u>

See accompanying notes to summary financial statements.

On behalf of the Board of Directors:



Director



Director

EMISSIONS REDUCTION ALBERTA

Summary Statement of Operations

As at May 31, 2023, with comparative information for 2022

			2023	2022
	General Fund	Restricted Fund	Total	Total
Revenue				
Grant revenue (note 3)	\$ -	\$ 82,810,673	\$ 82,810,673	\$128,486,868
Interest income	-	19,190,404	19,190,404	5,276,358
Other revenue	-	-	-	563,019
	-	102,001,077	102,001,077	134,326,245
Project expenses (note 4)	-	84,392,184	84,392,184	100,724,231
Excess of revenue over project expenses	-	17,608,893	17,608,893	33,602,014
Operating expenses				
Program management	-	7,753,916	7,753,916	8,365,198
Consulting contracted services	-	664,026	664,026	758,770
Corporate costs	-	794,548	794,548	568,738
Amortization	-	30,636	30,636	46,314
Conference expenses	89,561	-	89,561	-
Board remuneration and expenses	-	128,122	128,122	109,650
Total operating expenses	89,561	9,371,248	9,460,809	9,848,670
(Deficiency) Excess of revenue over expenses for the year	\$ (89,561)	\$ 8,237,645	\$ 8,148,084	\$ 23,753,344

See accompanying notes to summary financial statements.

EMISSIONS REDUCTION ALBERTA

Notes to Summary Financial Statements

Year ended May 31, 2023, with comparative information for 2022

1. Authority:

Climate Change and Emissions Management (CCEMC) Corporation (“CCEMC”) is an Alberta-based, independent, not-for-profit organization incorporated under the Canada Corporations Act on February 17, 2009, and continued under the Canada Not-for-profit Corporations Act on October 14, 2016; its operations commenced on June 1, 2009. On October 21, 2016, CCEMC registered the trade name of Emissions Reduction Alberta (“ERA”) and uses this as its operating name. ERA’s mandate is to identify and accelerate innovative solutions that secure Alberta’s success in a lower carbon economy. The Technology Innovation and Emissions Reductions Fund (formerly the Climate Change and Emissions Management Fund) (the “Fund”) is established under the Emissions Management and Climate Resilience Act, SA 2003, c. E-7.8 (formerly the Climate Change and Emissions Management Act) (the “Act”) by the Government of Alberta to support investment in innovation and clean technologies that will reduce Alberta’s emissions of specified gases and support its ability to adapt to climate change. The Fund provides the primary source of revenue for ERA.

The Government of Alberta and ERA entered an Agreement dated and effective March 8, 2017, together with an Amending Agreement dated April 21, 2023, for the period up to and including March 31, 2025, with respect to funding under the Emissions Management and Climate Resilience Act. As a not-for-profit organization, ERA is exempt from tax in accordance with Section 149(1)(l) of the Income Tax Act (Canada).

2. Basis of presentation:

The summary financial statements do not contain all the disclosures required by Canadian accounting standards for not-for-profit organizations. The statement of changes in net assets, the statement of cash flows, and certain note disclosures have been omitted. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of ERA.

ERA is committed to full accountability and transparency in all we do. Our audited financial statements for the year ended May 31, 2023, including all disclosures required by Canadian accounting standards for not-for-profit organizations, can be found on ERA’s website at www.eralberta.ca.

3. Grant revenue:

Funds are granted from the Government of Alberta to ERA on an annual basis through a Grant Agreement. The current Grant Agreement was executed on March 8, 2017, amended on April 21, 2023, and is effective until March 31, 2025.

On September 27, 2022, ERA received a letter from Alberta’s Minister of Environment and Parks confirming funding of up to \$150 million over the next three fiscal years, with \$50 million to be disbursed for the fiscal year 2022-23. These funds are to be used to execute ERA’s business plan, as well as for the purposes stated in the Grant Agreement and the memorandum of understanding. On March 27, 2023, ERA received a letter confirming an additional \$25 million of funding to be used to support investments in hydrogen development and the hydrogen value chain. The \$75 million in funding was recognized in the current fiscal year as grant revenue and received on June 6, 2023. The balance is included as a grant receivable as at May 31, 2023. On January 28, 2021, ERA executed an amendment to the original Delivery Entity Agreement dated February 22, 2019, with respect to funds that are committed to ERA under the Federal Low Carbon Economy Leadership Fund (“LCELF”).

EMISSIONS REDUCTION ALBERTA

Notes to Summary Financial Statements

Year ended May 31, 2023, with comparative information for 2022

3. Grant revenue (continued):

Under the amended agreement, the Government of Alberta has committed up to \$99.8 million in funding to ERA to support various initiatives including Food, Farming, and Forestry Challenge, Shovel Ready Challenges, Partnership Intake Program, Energy Savings for Business (ESB), and the Industrial Efficiency Challenge previously committed to in the original Delivery Entity Agreement. Based on the approved projects under this agreement and delays experienced in project execution, ERA is currently forecasting eligible costs to be claimed under the agreement totaling \$87.6 million. In the current fiscal year, ERA has recognized \$7.8 million of LCELF grant revenue (2022 – \$64.5 million). ERA received reimbursement of \$27.3 million (2022 - \$38.75 million) related to the 2022-23 fiscal year end on June 6, 2023, which is included as a grant receivable as at May 31, 2023. In addition to the amount received on June 6, there is \$19.3 million included in the grant receivable balance related to LCELF revenue recorded in the current and prior fiscal year, to be received in fiscal year 2024. The remaining LCELF commitment up to the forecasted \$87.6 million is expected to be recognized and received in fiscal year 2024.

4. Commitments and guarantees:

During the year, contribution agreements for ERA funding were executed for 21 projects, 2 projects were cancelled, no projects were terminated, and 1 project was not initiated. As at May 31, 2023, ERA has 237 (2022 – 218) executed contribution agreements outstanding and has commenced or completed funding for 209 (2022 – 192) of these approved projects. Funding for 28 of the 237 executed projects has not commenced. Total committed funds for executed projects is the difference between the total funding approved for executed contribution agreements and project expenses incurred to date or contribution agreements cancelled. A summary of these amounts (excluding the ESB program) is outlined as follows:

	2023	2022
Total committed funds for executed projects – Beginning of year	\$ 374,836,902	\$ 290,552,852
Total funds for executed projects approved or adjusting during the year	55,334,336	196,250,207
Project expenses incurred during the year	(76,557,938)	(92,034,260)
Contribution agreements cancelled during the year	(22,600,000)	(19,931,897)
Total committed funds for executed projects – End of year	331,013,300	374,836,902
Total funds for projects approved but not yet executed	104,881,299	10,000,000
Total commitments	\$ 435,894,599	\$ 384,836,902

Funds allocated to the executed contribution agreements are subject to ERA's review and approval prior to disbursement to ensure full compliance with the terms of the contribution agreement. The actual financial commitment could therefore differ materially from \$331,013,300 but will not exceed that amount. Project expenses incurred during the year decreased due to the timing of milestone deliverable completion on active projects. Sufficient funds are held in cash and short-term investments as at May 31, 2023, to service these commitments, approved projects and other initiated commitments. Total project expenses noted above of \$76,557,938 (2022 - \$92,034,260) includes \$2,781,020 of accrued liabilities (2022 - \$3,007,621) and \$8,536,818 accounts payable (2022 – 2,789,325) at year-end.

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Notes to Summary Financial Statements

Year ended May 31, 2023, with comparative information for 2022

4. Commitments and guarantees (continued):

There are 24 projects totaling \$104,881,299 (2022 – \$10,000,000) that have been approved for funding by ERA's board of directors but for which contribution agreements have not yet been executed as of May 31, 2023. Of this amount \$70,822,943 for a total of 16 projects relates to the Industrial Transformation call ERA launched in January 2023. Funding decisions for this call were made on June 13, 2023. The Reshaping Energy Systems call opened for applications in April 2023, the program is still undergoing the assessment process and no funding decisions have been made yet.

Subsequent to year-end, one previously executed project has been amended to reduce ERA funding by \$4,436,136. Three of the previously executed projects have been terminated and one approved project will not proceed, totaling \$21,390,000. One approved project, totaling \$7,088,856, now has an executed contribution agreement. As at September 25, 2023, ERA has 22 projects remaining, totaling \$83,109,351, which have been approved for funding by ERA's Board of Directors but for which contribution agreements have not been executed. This includes a reduction of \$13,293,092 to ERA funding for two of these projects.

In addition to the commitments noted above, ERA has approved incentive funding under the ESB program. This program was launched in November 2020 and due to high demand, all current available funding has been awarded. A summary of the ESB funding is outlined below:

	2023	2022
Total incentive funding pre-approved	\$ 10,100,000	\$ 460,000
Total incentive funding post-approved	4,000,000	1,900,000
Total Commitments – End of year	\$ 14,100,000	\$ 2,360,000

Subsequent to year end, an additional \$2,613,723 of project incentive funding has been approved for ESB and pre-approved projects has increased by \$14,132,569.

Total project expenses of \$84,392,184 includes \$7,834,246 (2022 - \$8,689,791) of payments related to the ESB program. This amount includes \$109,785 accounts payable (2022 – \$262,357) at year-end.

ERA indemnifies its directors against claims reasonably incurred and resulting from the performance of their services to ERA. No amounts are reflected in the summary financial statements related to these indemnifications.

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