



**EMISSIONS  
REDUCTION  
ALBERTA**



**2019 – 2020  
ANNUAL REPORT**

*June 1, 2019 – May 31, 2020*

Delivering economic and  
environmental outcomes



# Table of Contents

<b>CONTEXT: NAVIGATING THE COVID-19 PANDEMIC AND OIL PRICE COLLAPSE</b>	<b>1</b>
<b>MESSAGE FROM DAVE COLLYER, ERA BOARD CHAIR</b>	<b>2</b>
<b>MESSAGE FROM STEVE MACDONALD, ERA CEO</b>	<b>3</b>
<b>CORPORATE OVERVIEW</b>	<b>4</b>
<b>OPERATIONAL HIGHLIGHTS</b>	<b>6</b>
<b>STRATEGIC DASHBOARD</b>	<b>7</b>
<b>OPERATIONAL SCORECARD</b>	<b>8</b>
<b>GOVERNANCE</b>	<b>9</b>
<b>STRATEGIC PRIORITY: ACCELERATE TECHNOLOGY</b>	<b>10</b>
<b>STRATEGIC PRIORITY: DRIVE COMMERCIALIZATION</b>	<b>17</b>
<b>STRATEGIC PRIORITY: MAXIMIZE IMPACT</b>	<b>22</b>
<b>EXECUTIVE TEAM</b>	<b>27</b>
<b>BOARD OF DIRECTORS</b>	<b>27</b>
<b>FINANCIALS</b>	<b>28</b>

# CONTEXT: NAVIGATING THE COVID-19 PANDEMIC AND OIL PRICE COLLAPSE

Alberta continues to face unprecedented uncertainty and disruption due to the COVID-19 pandemic, the decline in global oil prices, and the instability in financial markets and economies around the world. In 2020, ERA responded to these near-term threats while continuing efforts to identify opportunities and solutions for long-term economic recovery, investment attraction, job growth, and emissions reductions.

ERA is helping Alberta emerge from the current crisis stronger and more resilient by identifying and scaling up the innovation that will ensure the province succeeds in a lower emissions world. In 2020, ERA took strategic action and allocated resources to address three stages of crisis response: react, rescue, and recover.

## *REACT*

In March 2020, ERA assessed its current funding and business model to identify creative solutions to support its portfolio of companies and their projects. Through some process changes, ERA immediately made \$10 million available to speed up cash flow and support the liquidity of active projects. ERA temporarily adjusted its payment holdback policy, reducing red tape and quickening the pace of investments to companies. Funds were more quickly distributed to entrepreneurs and organizations working on technologies that improve economic competitiveness and reduce greenhouse gas emissions (GHG). This helped 74 approved projects access amounts previously committed to them to address immediate cash constraints. The remaining holdback will be made available upon project completion.

## *RESCUE*

Timely approval and implementation of projects will help keep Alberta's economy strong and improve its ability to compete in an increasingly carbon constrained future. ERA moved forward with its Natural Gas Challenge focused on technology innovation across the natural gas value chain. Following an extensive selection process, ERA committed \$58 million to 20 projects worth \$155 million.

Continued investment in new technologies to improve economic and environmental performance is important during this challenging time. On June 1, 2020, ERA announced its \$40 million Food, Farming, and Forestry Challenge. This funding opportunity will accelerate innovation in support of long-term competitiveness, stimulate growth, and reduce GHGs in the critically important agriculture, agri-food, and forestry sectors.

## *RECOVER*

ERA developed the scope and guidelines of its Shovel-Ready Challenge. Industrial innovation initiatives that support economic recovery and GHG emissions reductions will be eligible for up to \$150 million in funding in 2020, including up to \$50 million committed through the federal Low Carbon Economy Leadership Fund. This investment will help jump-start projects that may be delayed or postponed because of the COVID-19 pandemic and oil price crisis.

Additional funding opportunities to be announced in 2020/21 will enable long-term job creation and economic growth by lowering costs and emissions in sectors heavily impacted by the economic downturn and create opportunities for new businesses and growth in the future.

# MESSAGE FROM DAVE COLLYER, ERA BOARD CHAIR

**In this Annual Report you will learn more about how ERA is taking action to deliver on its mandate and contribute to Alberta's future success.**

Alberta is facing enormous challenges during this time of global health and economic disruption as well as significant volatility in oil and gas markets. During this time of unprecedented uncertainty, ERA continues to identify and invest in opportunities to accelerate the innovation and investment required to improve Alberta's environmental performance and to strengthen and diversify its economy.

Each year, ERA calls on innovators to bring forward breakthrough technologies that can be commercialized here in Alberta. These solutions will create jobs, lower costs, enable the province to remain globally competitive, and significantly reduce GHG emissions at home and around the world.

This past year, the Government of Alberta implemented its new Technology Innovation and Emissions Reduction (TIER) regulation. ERA remains one of the primary delivery agents responsible for reinvesting funds generated under this program, working with partners to accelerate technology solutions.

As demonstrated over the past year, governments and businesses are adapting to rapidly changing global events. ERA's structure and business model is perfect for this: it is flexible and scalable. In 2019/20, we responded quickly to address the immediate cash flow needs of our current projects. We revisited our medium and long-term priorities to ensure they remain relevant in this new normal. Our response provided near-term capital to innovators to help sustain their projects. We also brought forward opportunities for longer-term economic recovery, investment attraction, and job creation,

while maintaining our focus on delivering GHG emissions reductions.

In 2019, we published the third edition of our Technology Roadmap (TRM) to provide greater context on opportunities for a lower emissions future in Alberta. The TRM identifies ERA's investment principles, as well as our portfolio approach to investment opportunities in both the short-term and long-term. Our investment portfolio focuses on cleaner oil and gas; a low emitting electricity system; food, fibre, and bioindustries; and low-carbon industrial processes and products.

In conducting this work, we are committed to ongoing improvements in our operational performance. In 2019/20 operating costs were just 1.5 per cent of the total funds committed to projects.

I am very appreciative of the strategic insight and strong governance provided by my colleagues on the ERA Board, and of the outstanding performance of the ERA team during a very challenging period for all Albertans.

Sincerely,

**DAVE COLLYER**

Board Chair, Emissions Reduction Alberta



**“Each year, ERA calls on innovators to bring forward breakthrough technologies that can be commercialized here in Alberta.”**

— Dave Collyer, ERA Board Chair

# MESSAGE FROM STEVE MACDONALD, ERA CEO

**ERA's vision is anchored in the belief that our success is measured in both economic and environmental terms. The significant results we have achieved clearly demonstrate the two outcomes are not mutually exclusive.**

Established more than a decade ago, ERA has been the mechanism for investing the carbon price paid by large industrial emitters directly into clean technology solutions. Our work has reduced costs for companies and lowered emissions.

Our portfolio of investments spans all sectors and timescales. Since 2009, ERA has funded 185 Projects - \$611 million worth \$4.4 billion. For every \$1 committed, almost \$6 is invested by partners. ERA estimates its current investment portfolio will result in emissions reductions of an average of 2.6 million tonnes per year over the next decade. This is equivalent to the amount of GHG emissions sequestered by almost 43 million trees growing for 10 years, or equivalent to taking over 560,000 passenger cars off the road for one year.

These investments will also lead to the creation of over 20,000 person-year jobs in Alberta by 2024 and contribute over \$3 billion to the province's GDP. These numbers are encouraging and they continue to grow each year with our investments.

In 2019/20, ERA committed over \$98 million for 30 projects worth a combined value of more than \$304 million. Twenty-two projects were selected through two competitive funding opportunities—Round 3, the final round of our global Grand Challenge: Innovative Carbon Uses, and our Natural Gas Challenge. Eight additional projects were chosen through our Partnership Intake Program—an initiative designed to increase the efficiency of our selection process and leverage funding across the Canadian innovation system. To support our current projects' needs for immediate cash flow during the onset of COVID-19, we also accelerated \$10 million in payments to 74 active projects to support immediate operational needs.

Working collaboratively across the Canadian innovation ecosystem helps create a unified approach to securing Alberta's lower emissions future. Late in 2019, we hosted SPARK 2019: Carbon Positive. Over 600 speakers, panelists, moderators, presenters, and attendees came together to explore how we can reimagine carbon. Convening stakeholders is core to our strategic priority to drive commercialization. Creating and providing a collaborative space to share different perspectives helps reduce polarization around issues and encourages conversations that enable Alberta's longer-term economic and environmental sustainability.

In 2020, we also launched the Innovator Support Pilot (ISP) to offer additional support and resources to high-potential projects that did not qualify for ERA funding due to specific challenges or barriers. Through this one-year trial, we have connected five companies with service providers to help strengthen the strategic and market capacity critical to their long-term success.

Innovation is the engine of growth for the next normal. We will continue to work with stakeholders to identify how ERA can help mitigate the long-term impacts of COVID-19, low oil prices and economic instability, and accelerate clean technologies that will help Alberta emerge from this perfect storm stronger than ever.

Sincerely,

**STEVE MACDONALD**

CEO, Emissions Reduction Alberta



**“Innovation is the engine of growth for the next normal.”**

— Steve MacDonald, CEO, Emissions Reduction Alberta

# CORPORATE OVERVIEW

**ERA was created in 2009 to help deliver on the province’s environmental and economic goals. ERA takes action on climate change and supports economic growth by investing in the pilot, demonstration, and deployment of clean technology solutions that reduce GHGs, lower costs, attract investment, and create jobs in Alberta.**

On January 1, 2020, the Government of Alberta implemented its new Technology Innovation and Emissions Reduction (TIER) regulation. Under this carbon pricing mechanism, large emitters in Alberta will continue to meet GHG emissions performance benchmarks. Regulated facilities can comply with these benchmarks by making on-site emission reductions, using emissions performance credits or offsets, or by paying into the TIER compliance fund at \$30/tonne of CO<sub>2</sub>e. ERA remains one of the delivery agents responsible for reinvesting these funds into innovative technologies.

## MANDATE

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

## VISION

Alberta has competitive industries that deliver sustainable environmental outcomes, attract investment, and build a diversified, lower carbon economy.

## CORE VALUES

**INNOVATION – COLLABORATION – TRANSPARENCY – INTEGRITY**

## VALUE PROPOSITION

ERA invests the proceeds from carbon pricing paid by large final emitters to reduce GHGs and strengthen the competitiveness of new and incumbent industries in Alberta.

ERA delivers results through a competitive, transparent, efficient, and outcomes-focused delivery model.

## STRATEGIC PRIORITIES

1. Accelerate Technology: Invest in GHG-reducing technologies that help Alberta grow existing industries and create new ones.
2. Drive Commercialization: Convene the resources required to accelerate the adoption of technology solutions that lead to economic growth and GHG reductions in Alberta.
3. Maximize Impact: Maximize impact through leveraged funding, communications, and operational excellence.



**Christie Gamble**  
CarbonCure Technologies  
Grand Challenge Funding Recipient

# ERA'S UNIQUE BUSINESS MODEL

**While many jurisdictions have a mechanism to invest in clean technology, ERA's model is unique:**

- ▶ It offers a clear line of sight from the carbon price paid by industry to investment in the solutions needed to help achieve emissions reductions.
- ▶ Funding later-stage technology means ERA is accelerating projects toward broader industry deployment and adoption by helping to de-risk projects in the crucial pilot, demonstration, and scale-up stages of development.
- ▶ Non-dilutive\* grant funding helps to accelerate clean technologies through development stages where private industry and financial institutions are unwilling to invest due to technology risk.
- ▶ Its Delegated Administrative Organization (DAO) structure means ERA has no annual investment caps, it can fund multi-year projects, it can carry funding over from year to year, and it can take back and reinvest funds when projects do not progress.

\* Non-dilutive funding is defined as funding that does not require you to give up ownership or shares of your company or product



**Lafarge Canada**  
Low Carbon Fuels Project  
Exshaw Cement Plant

# OPERATIONAL HIGHLIGHTS

In 2019/20, ERA committed over **\$98 MILLION** for **30 PROJECTS** valued at **\$304 MILLION**.

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**TWELVE PROJECTS** worth over **\$145 MILLION** were completed.

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Operating costs were **1.5 PER CENT** of the total funds committed to projects.

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Accelerated **\$10 MILLION IN PAYMENTS TO 74 ACTIVE PROJECTS** to support immediate operational needs at the onset of COVID-19.

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Experts **PARTICIPATED IN 33 EVENTS** to raise the profile of Alberta as a place for clean technology investment and a province taking real action to deliver the environmental and economic outcomes that the world needs.

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**LAUNCHED THE INNOVATOR SUPPORT PILOT (ISP)** to offer additional support and resources to high-potential projects that did not qualify for ERA funding due to specific challenges or barriers.











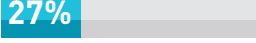





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# STRATEGIC DASHBOARD

Since 2009, ERA has committed \$611 million in funding to 185 projects. ERA maintains accountability for its investments by tracking results related to current and future outcomes. These metrics are focused on the economy, environment, technology, and community. They cover GDP impact, job creation, cumulative project emission reductions, and more.

## Figures represent Results to Date

 <b>ECONOMY</b> Direct investment into Alberta, GDP impact, job creation & new companies/revenues		 <b>ENVIRONMENT</b> GHG emissions reductions		 <b>TECHNOLOGY</b> Project TRL progression and technologies to market		 <b>COMMUNITY</b> Stakeholder awareness, knowledge sharing and collaborative partnerships	
 <b>21,980</b>	person year jobs in Alberta by 2024 <sup>1</sup>	 <b>7.6 Mt</b> project Mt CO <sub>2</sub> e reduced to 2020	 <b>80%</b> of projects > 1TRL progression	 <b>73%</b> engagement with proponents led to follow-up business (from SPARK 2019 post-event survey)			
 <b>\$3B</b>	GDP impact to Alberta by 2024	 <b>34.7 Mt</b> project Mt CO <sub>2</sub> e by 2030	 <b>27%</b> of funded projects advancing towards commercialization <sup>5</sup>	 <b>56%</b> ERA net promoter score <sup>2</sup>			
<b>\$6.2:1</b>	leveraged funding	 <b>153 Mt</b> of market Mt CO <sub>2</sub> e by 2030 <sup>3</sup>	 <b>54%</b> of projects that support SMEs <sup>4</sup>	 develop a plan to target diversity (EDI) groups			
<b>NET BENEFIT \$854M</b> Net economic benefit of avoided climate change damages by 2030				 <b>12</b> Trusted Partnership agreements: 5 — Provincial 6 — National 1 — International			

<sup>1</sup> A person-year job is equal to one-year of employment for one individual. Please note: economic impact is reported on a calendar year basis, not fiscal year.

<sup>2</sup> Net promoter score (NPS) reflects the likelihood a stakeholder will recommend ERA to others seeking funding support. NPS is believed to be the truest measure of customer satisfaction for an organization.

<sup>3</sup> 153 Mt of market CO<sub>2</sub>e by 2030 is an estimate based on industry and market assumptions of the potential reductions achieved with broader market application of the technology beyond the initial project

<sup>4</sup> 54% of projects that support SMEs reflects the support for Alberta entrepreneurs and small businesses to start, grow and succeed.

<sup>5</sup> Represents the % of ERA funded projects that are positioned to advance towards commercialization at project completion.

# OPERATIONAL SCORECARD

ERA also reports on the efficiency and operational delivery metrics, including:

- ▶ Months from intake to decision time.
- ▶ Days from approval to contract execution.
- ▶ Operating costs.
- ▶ Per cent of stakeholders that support ERA's approach to funding clean tech development.

■ Figures in colour represent Results to Date ■ Figures in grey represent Targets

	Cleaner Oil & Gas	Low Emitting Electricity System	Food, Fibre & Bioindustries	Low Carbon Industrial Processes & Products
<b>BALANCED PORTFOLIO</b> <i>ERA investments by focus area</i>	<b>47%</b> 45-50%	<b>24%</b> 20-25%	<b>15%</b> 15-20%	<b>14%</b> 10-15%

■ Figures in colour represent results from fiscal year 2019/20 ■ Figures in grey represent Targets

	Months from intake to decision time <sup>1</sup>	Days from approval to contract execution <sup>2</sup>	Operating Costs	Per cent of stakeholders that support ERA's approach to funding clean tech development
<b>OPERATIONAL EXCELLENCE</b>	<b>7/7</b>	<b>258/90</b>	<b>1.5%/2%</b>	<b>86%/90%</b>

<sup>1</sup> Over the years, ERA has made a concerted effort to streamline operational performance. In response to stakeholder input, there has been a specific focus on reducing months from intake to decision time process. While the average reflects 7 months, since 2016, these timelines have been reduced by approximately 2 months.

<sup>2</sup> Several factors have contributed to the significant variance from target in days from approval to contract execution metric above. These include delays resulting from COVID-19 and the global oil price collapse making the confirmation of financing commitments on high-impact projects challenging.

# GOVERNANCE

**ERA collaborates with and is accountable to the Government of Alberta. As a Delegated Administrative Organization (DAO), ERA operates under a Board of independent directors and is required to report annually on progress and financial status. This structure allows ERA to:**

- ▶ Respond quickly to the needs of Alberta's innovation system.
- ▶ Carry funds from one budget year to the next.
- ▶ Have independent oversight and the ability to select the best projects for funding.
- ▶ Ensure multi-year projects are feasible.
- ▶ Reinvest funds when projects do not progress.

A commitment to best-in-class governance, operational practices, internal controls, and continuous improvement helps ERA function efficiently and effectively.

## ERA recruits and retains technology, innovation, and business experts for Board of Directors

In 2019/20, ERA welcomed three new members to its Board of Directors: Johannes Dyring, assistant vice-president, business development and strategic initiatives, Ryerson University; Corrina Bryson, independent director and consultant with 25 years of experience in the energy industry; and David

Moss, general manager of the Canadian Cattlemen's Association. Céline Bak, Sara Hastings-Simon, and Clive Mather were each reappointed to an additional term of three years. Joseph Doucet was extended for two years and Patricia Mohr for one.

## Board evaluation process reviewed and refined

ERA's Board has a responsibility to make sure performance is regularly and effectively evaluated. In 2019/20, the Board requested a review of the current Board Evaluation process. A revised Board

and Committee evaluation process was approved. The revised document supports continuous improvement and overall performance assessment of the Board and its committees.

## Governance and Board policies revamped to align with mandate and business model

In 2019, ERA performed a detailed review of its Board policies and governance documents to ensure they continue to be current and reflect best practices. Key updates made to the governance documents and board policies include:

- ▶ Removal of duplication across policies.
- ▶ Replacement of previous operating model with language to reflect current model.
- ▶ Modified language to allow Board decisions on policy without being overly prescriptive.

# STRATEGIC PRIORITY: ACCELERATE TECHNOLOGY

**Core to ERA's business is investing in the pilot, demonstration, and deployment of technologies that reduce GHGs and improve Alberta's competitiveness.**

ERA funds later-stage, innovative technology solutions through competitive funding calls and its Partnership Intake Program. Each process employs a rigorous process to select innovative projects that facilitate GHG emission reductions and have the strongest potential for uptake by the market.

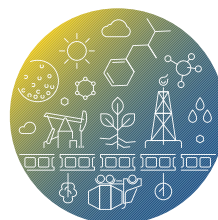
In 2019/20, ERA committed over \$98 million for 30 projects worth a combined value over \$304 million through the Grand Challenge: Innovative Carbon Uses, Natural Gas Challenge, and Partnership Intake Program. It also announced its \$40 million Food, Farming, and Forestry Challenge.

## TWO CARBON UTILIZATION TECHNOLOGIES SHARE \$10 MILLION FROM ERA'S GRAND CHALLENGE

Two of the world's most innovative carbon utilization innovations emerged from Round 3 of ERA's five-year funding competition, Grand Challenge: Innovative Carbon Uses.

that turn carbon dioxide emissions from a waste stream into valuable products in Alberta. These two technologies could deliver emissions reductions of almost two million tonnes of CO<sub>2</sub>e per year by 2030.

In October 2019, ERA awarded \$5 million to Mangrove Water Technologies and \$5 million to CarbonCure Technologies to support commercialization of their technologies in Alberta.



### GRAND CHALLENGE

*Innovative Carbon Uses*

ERA launched the \$35 million Grand Challenge in 2013, to find technologies from around the world

Project descriptions are available on [eralberta.ca/projects](http://eralberta.ca/projects).

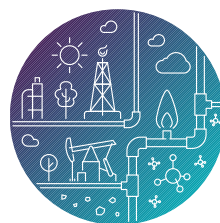
PROPONENT	PROJECT	TOTAL PROJECT VALUE	ERA COMMITMENT
<b>Mangrove Water Technologies</b>	Commercial deployment of waste-to-value technology for conversion of carbon dioxide and desalination of wastewater in the Alberta oil sands	\$10,300,000	\$5,000,000
<b>CarbonCure Technologies</b>	CO <sub>2</sub> Utilization in Concrete: A new circular economy model	\$13,000,000	\$5,000,000

**“The Grand Challenge was a huge success. Round 1 and Round 2 of allowed us to bring a concept in the lab to a commercial solution. Round 3 funding will allow us to fully commercialize our technology in Alberta and enable Mangrove to export the technology to other markets across the globe.”**

— Saad Dara, Co-Founder and CEO, Mangrove Water Technologies

## NATURAL GAS CHALLENGE AWARDS OVER \$58 MILLION TO 20 PROJECTS WORTH \$155 MILLION

To improve the competitiveness of Alberta's natural gas sector, ERA launched its Natural Gas Challenge in October 2019. ERA committed \$58 million to 20 projects valued at \$155 million. ERA estimates that these projects will lead to cumulative GHG reductions of almost one million tonnes of CO<sub>2</sub>e by 2030—equivalent to the GHG emissions from 750,000 passenger vehicles driven for one year. It is anticipated these projects will also deliver approximately 995 jobs.



### NATURAL GAS CHALLENGE

Unlocking Innovation  
Across Alberta's Value Chain

Project descriptions are available on [eralberta.ca/projects](https://eralberta.ca/projects).

#### UPSTREAM PROJECTS:

PROPONENT	PROJECT	TOTAL PROJECT VALUE	ERA COMMITMENT
<b>MultiSensor Canada Inc.</b>	Methane Imaging Solution for Continuous Leak Detection and Quantification for Tank Emissions and Facility Monitoring	\$3,200,000	\$1,600,000
<b>Qube Technologies</b>	Emissions Reductions Through Artificial Intelligence	\$16,200,000	\$4,000,000
<b>University of Calgary</b>	University of Calgary-Canadian Natural Fugitive Emissions Pilot Study: Field-Scale Deployment and Acceleration of Made-In-Alberta Technology for Fugitive Emissions Detection and Reduction	\$3,200,000	\$1,600,000
<b>Canadian Natural Resources Limited</b>	Fugitive Emissions Study Using Aerial Detection Technology	\$1,900,000	\$930,000
<b>Challenger Technical Services</b>	Multi Component Downhole Injection System	\$2,600,000	\$1,100,000
<b>Petroleum Technology Alliance Canada (PTAC)</b>	Affordable Zero-Emission Fail-Safe Electric Dump Valve Actuator (EDVA) Phase 2	\$2,200,000	\$550,000
<b>Kinetics Automation Limited</b>	Kinetics Valve Actuator for Gas Producers	\$1,100,000	\$550,000
<b>Westgen Technologies Inc.</b>	Unlocking EPOD Economic Zero Bleed Pneumatic Instrument Air Retrofit Solution	\$4,000,000	\$1,300,000
<b>Modern Wellbore Solutions</b>	Demonstration of a Full-Scale Multilateral Junction Assembly	\$12,100,000	\$3,500,000
<b>Tourmaline Oil Corp.</b>	Natural Gas Mobile Unit for Drilling Rig Power Generation	\$8,000,000	\$3,200,000

**DOWNSTREAM AND VALUE-ADDED PROJECTS:**

PROPONENT	PROJECT	TOTAL PROJECT VALUE	ERA COMMITMENT
<b>ATCO Gas and Pipelines Ltd.</b>	Fort Saskatchewan Hydrogen Blending	\$5,700,000	\$2,800,000
<b>Ekona Power Inc.</b>	Development and Field Testing of a Tri-Generation Pyrolysis (TGP) System for Low-cost, Clean Hydrogen Production	\$13,800,000	\$5,000,000
<b>Standing Wave Reformers Inc.</b>	A New Wave in Hydrogen Production	\$8,200,000	\$3,000,000
<b>ATCO Gas and Pipelines Ltd.</b>	ATCO & Future Fuel RNG	\$15,900,000	\$7,900,000
<b>Sustainitech Inc.</b>	Co-Locating Natural Gas and Indoor Agriculture for Alberta's Future	\$17,900,000	\$5,000,000
<b>Enercion Inc.</b>	Greenest Natural Gas-Powered Quad-generation with a 41% GHG Reduction	\$3,800,000	\$1,800,000
<b>Stone Mountain Technologies Inc.</b>	Demonstration of Thermally Driven Heat Pumps for Residential Heating Applications	\$2,000,000	\$990,000
<b>Anax Power</b>	Turboexpander Project	\$6,200,000	\$2,400,000
<b>Innovative Fuel Systems</b>	Advanced Dual-Fuel System Commercial Demonstration	\$2,800,000	\$1,200,000
<b>Clover Bar Landfill</b>	Converting Landfill Gas to Renewable Natural Gas	\$25,000,000	\$10,000,000

**“ERA funding is critical to the transformative jump from pilot to market-ready innovation. It allows us to move quickly from lab to market entry in Canada. Together with our partners, we can make a substantial near-term difference in global decarbonization.”**

— Kathleen O’Neil, CEO, Standing Wave Reformers, Inc.

## \$40 MILLION ANNOUNCED FOR FOOD, FARMING, AND FORESTRY INNOVATION

ERA is accelerating technology innovation in support of the critically important agriculture, agri-food, and forestry sectors. The \$40 million Food, Farming, and Forestry Challenge—announced on June 1, 2020—will provide near-term capital to innovators, while identifying opportunities and solutions for long-term economic recovery, investment attraction, job creation, and GHG reductions.

This funding opportunity supports farmers, ranchers, industry, innovators, and others as they

work to ensure sustainable food and fibre supplies and navigate the economic repercussions of COVID-19. It will lead to lower costs in production and processing, leverage nature-based solutions and other activities that sequester CO<sub>2</sub> emissions.



## FOOD, FARMING, AND FORESTRY CHALLENGE

**Sustainable Development Technology Canada (SDTC) is partnering with ERA on this Challenge. All proposals that fit the criteria of the call, and express interest in having their submission shared, will also be evaluated by SDTC. ERA and SDTC will evaluate the proposals cooperatively, and may choose to fund projects jointly, or even separately.**

## REFERRAL-BASED PARTNERSHIP INTAKE PROGRAM REDUCES RED TAPE, LEVERAGES FUNDS

ERA is showing leadership across the Canadian Innovation ecosystem by finding innovative ways to leverage funds and attract investment to Alberta. In addition to its competitive Call for Proposals process, projects can also be brought forward for consideration by Trusted Partners through the Partnership Intake Program. Trusted Partners are funding organizations with rigorous, fair, and

transparent due-diligence processes comparable in principle to ERA's, including elements such as peer review and technical expertise.

In 2019/20, the Partnership Intake Program committed over \$29.6 million in investments to eight projects worth \$126 million. The following projects were selected for funding.

**All of ERA's potential investments are assessed against a set of transparent criteria and undergo a rigorous due diligence review to select projects that can best deliver on its mandate and Technology Roadmap. The entire ERA evaluation process involves oversight by an independent Fairness Monitor who ensures all applicants are treated in a fair and impartial manner. The Monitor reports directly to our Board of Directors and shares findings before any funding decisions are made.**

Project descriptions are available on [eralberta.ca/projects](https://eralberta.ca/projects).

PROPONENT	PROJECT	REFERRED BY	TOTAL PROJECT VALUE	ERA COMMITMENT
<b>Eavor Technologies Inc.</b>	Eavor-Loop Demonstration Project	Alberta Innovates, NRCan, SDTC	\$10,300,000	\$1,000,000
<b>Quidnet Energy Inc.</b>	Geomechanical Energy Storage	Evok Innovations	\$11,400,000	\$5,000,000
<b>Lehigh Cement</b>	Edmonton CCUS Feasibility Study	Government of Alberta	\$2,800,000	\$1,400,000
<b>Imtex Membranes Corporation</b>	Energy Efficient Propylene-Propane Separation	Sustainable Development Technology Canada (SDTC)	\$9,400,000	\$3,000,000
<b>Invigor Bioenergy Corporation</b>	Invigor Bioenergy – Technology Update	Energy Efficiency Alberta	\$28,600,000	\$4,700,000
<b>BioRefinex Canada Inc.</b>	Lacombe Biorefinery	ERA's Project Re-Entry Policy	\$46,000,000	\$10,000,000
<b>Carbon Upcycling</b>	Carbon Nanoplatelet Production from Exhaust CO <sub>2</sub> Emissions	XPRIZE Foundation	\$6,700,000	\$1,500,000
<b>Carbon Corp</b>	Transformation of CO <sub>2</sub> to Valuable Carbon Nanotube Composites	XPRIZE Foundation	\$10,800,000	\$3,000,000



**Madison Savilow**  
Chief of Staff  
*Carbon Upcycling Technologies*



**In 2019/20, ERA continued to work with its strategic Trusted Partners in Alberta, with the federal government, and across the country where appropriate. The following organizations are currently considered Trusted Partners of ERA:**

- ▶ Government of Alberta
- ▶ Alberta Innovates (AI)
- ▶ Sustainable Development Technology Canada (SDTC)
- ▶ Natural Resources Canada (NRCan)
- ▶ Energy Efficiency Alberta (EEA)
- ▶ University of Alberta (through the Canada First Research Excellence Fund)
- ▶ University of Calgary (through the Canada First Research Excellence Fund)
- ▶ Northern Alberta Institute of Technology (NAIT)
- ▶ EVOK Innovations (EVOK)
- ▶ Canadian Gas Association / Natural Gas Innovation Fund (NGIF)
- ▶ Ontario Centres of Excellence (OCE)
- ▶ Business Development Bank of Canada (BDC)
- ▶ XPRIZE Foundation (XPRIZE)

## Advancing collaborations and strategic partnerships

**Collaborations and partnerships are central to ERA's success and critical to delivering on its commitment to meet its mandate. They enable the organization to:**

- ▶ Align around outcomes, challenges, and directed innovation opportunities to limit duplication in the innovation system.
- ▶ Identify new technology development opportunities.
- ▶ Develop funding calls that will provide the greatest benefits for Alberta.
- ▶ Provide continuity of support for innovators as they move projects through the stages of technology readiness.
- ▶ Leverage funds from industry, other funding agencies and levels of government.
- ▶ Share risk.
- ▶ Accelerate technology development and deployment.

During participation at the Mission Innovation: Carbon Capture, Utilization and Storage (CCUS) workshop in June 2019, ERA was introduced to an international funding initiative related to carbon capture technology called Accelerating CCS Technologies (ACT). ACT is coordinated by the Research Council of Norway (RCN) and is a collaboration of more than 15 research and innovation funding organizations from 16 countries. ERA became the first sub-national member of the ACT consortium, which launched a Call for Proposals on June 1, 2020. By engaging in this partnership, ERA is participating in an international initiative that will leverage additional funding for CCUS, while also directing international funding to projects that benefit Alberta.

**“This is an important initiative for Delphi and ERA to help move the needle and make progress through an ongoing conversation. Only by committing to this long-term and collectively working on this can we make a difference in this space.”**

— Carol-Ann Brown

Vice President, Innovation and Cleantech, GLOBE Series and The Delphi Group

Globe/Delphi workshops were held at SPARK 2019: Carbon Positive and at GLOBE Advance 2020. The sessions convened pension funds, commercial banks, family offices, venture capital, private equity firms, government, and cleantech companies to discuss barriers to financing. This partnership was developed to advance solutions that support greater investment in growing and scaling cleantech companies and technologies and exporting these Canadian products and services. An associated report, *Flowing Investment to Scale Clean Technology*, documents the conversations and offers recommendations.

In 2019, ERA partnered with its Trusted Partner, Natural Gas Innovation Fund (NGIF), on the Natural Gas Challenge to leverage funding opportunities beyond ERA's scope and provide innovators with access to potential industry partners and testing facilities. In a parallel process, NGIF committed \$3 million in funding. NGIF announced its semi-finalists on June 23, 2020. Six of ERA's Natural Gas Challenge winners—Kinitics Automation, Westgen Technologies Inc., Challenger Technical Services, Ekona Power Inc., Modern Wellbore Solutions, Standing Wave Reformers—were shortlisted.

### Third edition of Technology Roadmap integrates near-term, long-term opportunities

**ERA's Technology Roadmap (TRM), which was updated in 2019, articulates the pathways that will enable Alberta to have a competitive economy that is contributing to a prosperous, lower emissions world.**

The TRM guides ERA's investment decisions and informs its portfolio mix. ERA works with government, industry, investors and innovators to ensure it accounts for uncertainty in factors such as the pace of technology development and global decarbonization. The third edition of the TRM recognizes that:

- ▶ The potential pace of long-term global technological change, energy transition, and

decarbonization is characterized by a high degree of uncertainty and divergence of opinion.

- ▶ Guideposts provided by governments and organizations like the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC) help to define the boundary conditions for what a global low-carbon future might look like.
- ▶ ERA is uniquely positioned to use longer-term guideposts in combination with near-term opportunities for cost and GHG reductions to identify and accelerate the most impactful portfolio of technologies.

### *ERA'S OIL SANDS INNOVATION CHALLENGE SHARES ENERGY EXCELLENCE AWARD WITH TRUSTED PARTNER, NGIF*

**ERA was named co-winner alongside NGIF in the Energy Excellence Awards in the category of Project Execution/Industry Accelerators. The second annual Energy Excellence Awards, presented by the Daily Oil Bulletin, focuses on the advancement of collaboration within Canada's energy industry. The program received close to 90 nominations in four categories, with submissions judged by a committee of industry leaders.**

# STRATEGIC PRIORITY: DRIVE COMMERCIALIZATION

**Funding alone will not result in the GHG reductions and economic growth envisioned for Alberta. Today’s innovators face significant challenges that hinder technologies from scale-up, commercialization, and marketplace deployment and adoption.**

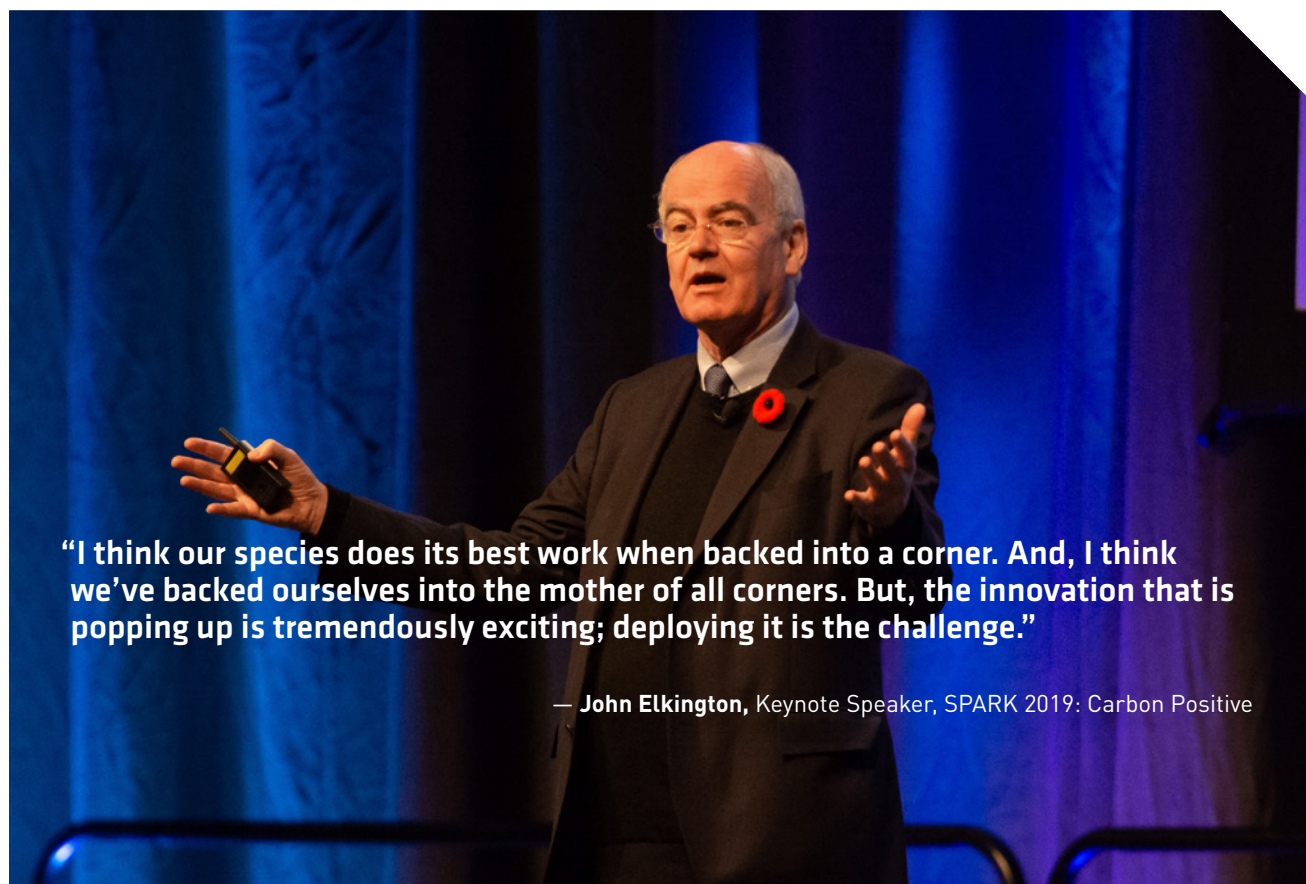
ERA successfully convenes a range of resources to accelerate the commercialization and widespread adoption of technology solutions that lead to GHG reductions and economic growth in Alberta. This includes facilitating strategic partnerships with

industry, government, business, academia, and other funders to foster a suite of policy, regulatory, program, and business innovation tools that address barriers to commercialization.

## *SPARK 2019 CONNECTS INNOVATORS, ADVANCES TECHNOLOGY*

Over 600 speakers, panelists, moderators, presenters, and attendees took part in SPARK 2019: Carbon Positive. ERA convened some of the world’s best clean technology innovators and investors to reimagine carbon in a conference full

of thought-provoking speakers, experiences, ideas, and unique program offerings. SPARK 2019’s lineup included over 110 speakers, panelists, moderators, and presenters.



**“I think our species does its best work when backed into a corner. And, I think we’ve backed ourselves into the mother of all corners. But, the innovation that is popping up is tremendously exciting; deploying it is the challenge.”**

— **John Elkington**, Keynote Speaker, SPARK 2019: Carbon Positive

## INNOVATOR SUPPORT PILOT LAUNCHES INAUGURAL COHORT

In May 2020, ERA officially launched its Innovator Support Pilot (ISP). The initiative targets projects that have gone through ERA's application process and had proposals that showed technological promise but did not qualify for funding due to specific challenges or barriers. ERA onboarded five companies into the program and connected them with service providers to help strengthen elements critical to business success such as organizational strategy and governance, technology and commercial readiness strategy, financial planning, marketing and customer attraction.

Expertise in these areas is drawn from a service provider committee comprising Alberta Innovates, TEC Edmonton, Platform Calgary, Zone Startups Calgary, and Foresight Cleantech Accelerator. ERA matched cohort companies with a suitable service provider based on needs. Moving forward, the first group of companies will work with service providers on strengthening and growing different aspects of their business. ERA is supporting projects by funding 50 hours of consultation with these service providers.

## CELEBRATING COMPLETED PROJECTS AND KEY FINDINGS

ERA is delivering on its mandate and demonstrating progress by collecting and reporting on outcomes, successes, and learnings from its investments. Each project that ERA funds must submit a project completion report. This report outlines key outcomes and details the unique learnings that ERA funding enabled. There were 12 projects completed in 2019/20.

Project descriptions and completion reports are available on [eralberta.ca/projects](https://eralberta.ca/projects).

PROPONENT	PROJECT	TOTAL PROJECT VALUE	ERA COMMITMENT	HIGHLIGHT
<b>MEG Energy</b>	Low Intensity Bitumen Upgrading Field Pilot	\$88,400,000	\$5,200,000	54.2% less GHG intensive compared to standard benchmark
<b>Field Upgrading Limited</b>	Molten Sodium Upgrading Pilot Plant	\$29,000,000	\$8,900,000	GHG reduction of up to 20% compared with conventional upgrading
<b>Titanium Corporation</b>	Reducing Methane Emissions and Other Environmental Impacts from Oil Sands Tailings and Ponds-Development of Sustainable Technology	\$10,200,000	\$5,000,000	Anticipated avoidance of 584,000 tonnes of CO <sub>2e</sub> /year by 2050; recovery of valuable minerals (zircon, titanium)
<b>Mangrove Water Technologies</b>	Pilot Demonstration of a multi-compartment electrochemical reactor at Questor Site	\$3,400,000	\$3,000,000	Estimated reduction of over 1 million tonnes of CO <sub>2e</sub> /year at commercial deployment
<b>Enerkem</b>	Reduction of GHG Emissions through Greening Biofuel Production and CO <sub>2</sub> Utilization	\$5,500,000	\$1,800,000	Decreased CO <sub>2e</sub> emissions of 14,600 tonnes/year

PROPONENT	PROJECT	TOTAL PROJECT VALUE	ERA COMMITMENT	HIGHLIGHT
<b>ATCO Gas</b>	Combined Heat and power for commercial and institutional Buildings	\$5,000,000	\$1,600,000	Estimated GHG reductions of 3,600 tonnes/year
<b>University of Calgary, Dr. Patrick Hettiaratchi</b>	Control of point-source low volume methane emissions using methane biofiltration technology	\$974,000	\$495,000	Published feasibility and market study
<b>Mikro-Tek Inc.</b>	Biological Plant Inoculants to Increase Carbon Sequestration in Alberta's Agricultural and Forestry Sectors	\$909,000	\$378,000	Replanting 6 million seedlings could eliminate 250,000 tonnes of CO <sub>2e</sub> /year
<b>Minnich and Scotto Inc.</b>	Proof-of-Concept Testing Software to Quantify Methane Emission Rates in Real-Time	\$605,000	\$300,000	Developed and integrated desired equation into software
<b>University of Calgary, Dr. Maria Strack</b>	Improved Construction of Roads and Pipelines to Minimize Impact on Peatland GHG Emissions	\$584,000	\$276,000	Published report with mitigation and management recommendations
<b>Kairos Aerospace Inc.</b>	Calibration and Demonstration of Aerial Methane Imaging for Efficient, Wide-Area Methane Emissions Detection	\$537,000	\$176,000	Emissions detection greater than 96%
<b>University of Alberta, Dr. Amit Kumar</b>	Algae-based biomass for production of fuels and chemicals	\$337,000	\$86,000	Determined first-of-its-kind baseline metric of process



**Neil Camarta**  
Enlighten Innovations  
*CleanSeas project completed*

## WORKSHOPS AND STAKEHOLDER OUTREACH INFORM INVESTMENTS

For a new technology to become commercialized, it must provide a solution that aligns with a market need or opportunity. For this reason, ERA invests in solutions that tackle the problems Alberta must solve today, while also seeking out transformative technologies to grow and diversify the economy and address Alberta's largest GHG sources over the long-term.

### Business planning sessions

To support the development of its 2020-2023 Business Plan, ERA considered potential focus areas for future Calls for Proposals. Last year, these focus areas included reducing the GHG footprint of Alberta's electricity, oil and gas, and agriculture/agri-food sectors. Preliminary engagement with stakeholders validated the potential for reducing greenhouse gases in these sectors while ensuring Alberta remains competitive globally.

**Advancing hydrogen & CCUS innovations:** These technologies are critical to achieving net zero targets. Recognizing this, ERA brought together stakeholders to brainstorm opportunities to overcome barriers in technology deployment to achieve decreased emissions and increased economic competitiveness. Stakeholders agreed that:

- ▶ A global energy transition is underway, and Alberta is positioned to lead this transition.
- ▶ While incremental changes are needed, such as energy efficiency upgrades, they may not be enough.
- ▶ Alberta must utilize expertise in science and entrepreneurial talent, to continue extracting and producing energy from its natural resource supply.
- ▶ The province is in a multi-year downturn that is posing a significant financial burden on companies, particularly small and medium-sized enterprises losing talent to other jurisdictions. Ensuring Alberta remains competitive requires the development of key infrastructure, particularly for hydrogen and CO<sub>2</sub> and utilization of existing structures such as the Alberta Carbon Trunk Line, Shell Quest, and Alberta Carbon Conversion Technology Centre (ACCTC).
- ▶ Alberta's vast resource potential provides the opportunity to use oil and gas as a feedstock for other opportunities and looking beyond simply combustion.
- ▶ Many companies are starting to offer additional products such as petrochemicals and integration of digital technologies.

**Electricity:** A reliable, lower carbon electricity system is critical to powering Alberta’s homes and businesses. ERA brought together electricity sector stakeholders from industry, government, non-governmental organizations, and post-secondary institutions. ERA heard:

- ▶ With the current coal-to-gas transition, there is a need to increase capacity; however planning capacity additions is hampered by demand forecasts that do not accurately capture the range of potential future trends.
- ▶ Low-cost natural gas as a fuel source is readily available; however there is also the opportunity to increase renewable generation as well as small-scale and/or distributed generation.
- ▶ Alberta has the benefit of possessing natural resources that others may not and must utilize these in different ways: coupling hydrogen with the electricity grid, developing Alberta’s relatively abundant solar and wind resources, and producing alternative energy resources such as petro-lithium.
- ▶ A need to advance the hydrogen economy by including demonstrations at various stages, while using current infrastructure as an enabler. This was also coupled with the support for long-duration storage, funding for grid optimization, and investing in a sandbox facility to scale, test, and de-risk technology.

### Future Call for Proposals scoping

ERA’s funding opportunities are always informed by multi-stakeholder workshops and engagement that brings together government, industry, technology developers, academia, and others to discuss Alberta’s opportunities and challenges. In 2019/20,

ERA conducted workshops to shape and define its Food, Farming, and Forestry Challenge. More than 25 representatives from government, industry, non-governmental organizations, and post-secondary institutions provided their input.

### COVID-19 pandemic and global oil price crash portfolio outreach

In late-March/early-April 2020, ERA reached out to project proponents to understand how they are responding to COVID-19 and the economic crisis and oil price collapse. ERA solicited feedback on how the crisis is affecting their company, where impacts are being felt most, how their ERA-funded project is being affected, and how much of a priority the ERA project will be in the near future.

**While many companies did not yet understand the full impact COVID-19 would have on their situation:**

- ▶ 44 per cent of respondents noted their ERA project was currently unaffected
- ▶ 26 per cent expected delays.

Project advisors continued to be available for project proponents to share insights, questions, or ask for support during this time.



**Eavor-Loop Demonstration Project**  
Rocky Mountain House, AB

# STRATEGIC PRIORITY: 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 \$6.20 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.

## Performance management focuses on continuous improvement

Ensuring responsible and effective stewardship of public funds requires ERA to track and report metrics and re-adjust as data manipulation and reporting becomes more advanced. In 2019, ERA worked to enhance its performance metrics and communication of estimated and actual results achieved. A Balanced Scorecard was created with metrics based on the following categories:

- ▶ Operational excellence: reporting on efficiency and operational delivery metrics.
- ▶ Accountability for results delivery: tracking

Call for Proposal specific metrics related to environmental and economic outcomes.

- ▶ Projected future outcomes: ongoing updates of portfolio projections in terms of environmental, economic, and community outcomes.

These metrics align with federal and international standards and provide information that can be rolled-up into Government of Alberta performance reporting. ERA's overall performance management approach, and the Balanced Scorecard, is an opportunity for ongoing and continuous improvement.

## Operating costs as a percentage of approved project commitments

ERA's 2019/20 operating costs were \$5 million, stable compared to \$5.1 million in 2018/19. In 2019/20 operating costs were 1.5 per cent of the

total funds committed to projects, no change from 2018/19.

**At time of analysis, findings from the Economic Impact Analysis showed ERA's funded projects are estimated to result in cumulative net GHG emissions reduction of 35.8 million tonnes of CO<sub>2</sub>e by 2030 or 72.2 million tonnes by 2050. Avoided climate change damages associated with these reductions are valued at approximately \$1.26 billion by 2030 or \$2.36 billion by 2040. Factoring in ERA's initial investment, these projects are forecasted to result in net benefits of \$853.9 million by 2030 or almost \$2 billion by 2050. This is equivalent to a return of \$3.1 for every dollar ERA invests by 2030 or \$5.8 by 2050.**



## Economic impact analysis of ERA's portfolio of projects

ERA has been working to better quantify the economic value of the GHG reductions its funded projects are estimated to deliver. The goal of this analysis is to quantify the net economic impact resulting from ERA's investment in emissions reduction projects in Alberta. The analysis focuses on investments made towards completed and active projects located within Alberta as of February 2020, and the associated GHG emission reductions. ERA

projects outside of Alberta, representing less than five per cent of ERA's total investment, were not included. The analysis was conducted by applying a benefit-cost analysis (BCA) approach, comparing investments made with expected benefits. The assessment uses Environment and Climate Change Canada's approved methodology for calculating the Social Cost of Carbon (SCC) which assigns a dollar value to each tonne of CO<sub>2</sub>e reduced.

## Reviewing barriers to full-scale deployment

In 2019/20, ERA worked with Dr. Jennifer Winter, assistant professor of economics and scientific director of the Energy and Environmental Policy research division at The School of Public Policy, University of Calgary, on an analysis of barriers to full-scale deployment of emissions reduction technologies. The paper includes academic, industry, and financial community perspectives for a select number of identified projects. It also identifies key factors in accessing cleantech financing in the petroleum industry, including:

- ▶ Access to capital for commercial development is the most critical bottleneck and funding that does not require innovators to give up ownership or the majority of equity in the company or product is a key.
- ▶ Due diligence and de-risking are necessary for successful innovation; innovators must clearly demonstrate to potential financiers that the technology has been de-risked sufficiently.
- ▶ Policy should help identify and promote financing for efficient projects while screening out inefficient projects and promote actions that can turn inefficient projects into efficient ones.
- ▶ Financing, business development, project management, scientific and engineering literacy, and effective communications are needed as part of a strategy for long-term commercialization.
- ▶ There may be insufficient incentive for firms to adopt cleantech solely on improving environmental impacts.
- ▶ Innovation proponents need to clearly articulate the economic benefits of innovation separately from the environmental benefits.
- ▶ Government policy, regulations, and legislation have an important role in aligning economic and environmental incentives.

## Recognizing a need for in-house staffing support

In 2019/20, ERA's Board and management worked to build capacity to support the existing and growing workload and prepare for the long-term capacity of the organization. This included a strategic

planning session in April 2020 to discuss and affirm organizational priorities in light of the evolving economic context.

## Ensuring savings from service providers

Since it was established in 2009, ERA's business needs have been carried out by a network of highly-experienced service providers and delivery partners contracted to carry out specific functions. ERA continues to focus on value for money from these

best-of-class service providers. This includes looking for in-year savings where it makes sense based on the actual operations of the year, as well as annual budget rationalization prior to the start of the fiscal year.

## Length of intake and decision-making cycle

ERA's funding process invites submissions for consideration through a competitive call for proposals. This process includes two stages of expert review prior to a Board decision. Project applicants have expressed a desire for more time to prepare their submissions and wanted a simplified

Expression of Interest (EOI) application. In 2019/20, ERA ensured applicants had a minimum of eight weeks for EOI submission for both the Natural Gas Challenge and the Food, Farming, and Forestry Challenge.

## Measuring GDP impact

In 2019, the Alberta Ministry of Economic Development and Trade carried out an updated analysis on behalf of ERA to better understand the economic impact of investments. That work confirmed that:

- ▶ ERA projects will have a total cumulative impact of over 20,000 person-year\* jobs and add \$3 billion to Alberta's GDP by 2024.

- ▶ While ERA boosts Alberta's economy, its impact can be felt across Canada as well. ERA projects will add \$4 billion to the nation as a whole by 2024 and increase employment by over 30,000 person-year jobs.

\*A person-year is equal to one-year of employment for one individual. Please note economic impact is reported on a calendar year basis, not fiscal year.

## Reviewing ERA's approach to risk management

ERA has had a risk management strategy in place since 2015. At each scheduled Board meeting, the Board reviews the highest priority risks and the actions being taken to mitigate them. In 2019, ERA initiated a process with an independent third party to review and assess its approach to risk management.

In 2019/20, results and findings of the review were presented to management, including top risk areas for ERA and specific risks within those areas. Most of these top risk areas are strategic in nature, such as political, reputational, directional, and succession-related risks.



Enerkem Alberta Biofuels  
Completed project

## Events and thought leadership

Events provide a platform to achieve broader communication goals of raising awareness of the organization's mandate and funding opportunities. In 2019/20, ERA experts were strategically placed at 33 events and spoke, presented, moderated, participated on panels at 17 of those (12 events were cancelled or postponed due to COVID-19). These efforts also help raise the profile of Alberta as a place for clean technology investment and a province taking real action to deliver the environmental and economic outcomes that the world needs. Highlights include:

### MISSION INNOVATION CHALLENGE – NORWAY

Mission Innovation is a global initiative of 23 countries and the European Commission working together to accelerate clean energy innovation to address climate change, improve energy access, and make clean energy affordable. During participation at the Mission Innovation: Carbon Capture, Utilization and Storage workshop June 2019, ERA was introduced to an international funding initiative related to carbon capture technology called Accelerating CCS Technology (ACT).

### GLOBE 2020 - VANCOUVER

ERA once again had a presence at the largest and longest-running sustainable business summit and innovation showcase in North America. Business leaders, government, not-for-profits, academics, innovators, and youth prioritized the next steps for Canada to further the clean economy, including individual commitments and actions, that moves the needle on addressing barriers to scale-up. ERA also participated in GLOBE's Innovation Showcase alongside some of its funding recipients, including Imperial Oil, Carbon Upcycling, Mangrove Water Technologies, and Eavor Technologies.

### ALBERTA'S ENERGY FUTURE - CALGARY

ERA planned its inaugural Spark Speaker Series event, Alberta's Energy Future, delivered in partnership with the University of Calgary's Haskayne School of Business and School of Public Policy. The virtual event, hosted in June, consisted of three 90-minute sessions and included an opening keynote and two interactive panel discussions.

### INVENTURE\$ UNBOUND – CALGARY

ERA was a sponsor for this virtual gathering of entrepreneurs, researchers, investors, academics, non-government organizations, businesses leaders, and government officials in June 2020. ERA's CEO Steve MacDonald was joined in a virtual conversation by Stan Blade, Dean of the Faculty of Agricultural, Life & Environmental Sciences department at the University of Alberta, and David Moss, General Manager of the Canadian Cattleman's Association and ERA Board Member. They discussed the importance of imminent innovation to support long-term economic recovery and emissions reduction in the critically important agriculture, agri-food, fibre, and forestry sectors.

### GLOBAL PETROLEUM SHOW – CALGARY

Global Petroleum Show, an energy expo and conference, was held in Calgary in June 2019. Officials from government and national and international energy companies across the entire supply chain convened to share innovative technologies, conduct business and engage in complex and controversial discussions aimed to shape the future of the energy industry. ERA was a sponsor of the event and had an information booth in the tradeshow as part of the Government of Alberta's larger presence.

### OSIS - CALGARY

ERA partnered with COSIA and Alberta Innovates on the Oil Sands Innovation Summit in June 2019. The event showcased the latest research, innovations, ideas, and results in greenhouse gas reduction, land and water improvements, and tailings management.

## Stakeholder research identifies 2020 communication opportunities

In 2019/20, ERA commissioned an independent research study to further understand stakeholder needs, how ERA is viewed, and how it might improve its work to reduce GHG emissions and strengthen the competitiveness of new and existing industries in Alberta. Input guided strategic planning efforts and informed the revised marketing and communications strategy.

ERA's 2019/20 stakeholder research showed that its mandate has significant support amongst key stakeholders, yet there is an opportunity to increase awareness of ERA's role nationally and internationally, and as a convener. Strengthening storytelling across communication channels, with the intent to reach a broader audience is also recommended by the most engaged stakeholders. It should be noted that ERA does not identify the "general public" as a priority audience for communication, however, we did undertake research with the general population to assess support for ERA's mandate. Research highlights include:

- ▶ Though ERA has low public awareness (3 per cent), 88 per cent of Albertans support ERA's mandate (82 per cent in 2017). The vast majority of the public (90 per cent) recognizes ERA's role in helping the province reduce greenhouse gas emissions while strengthening the economy and creating jobs.
- ▶ ERA is more top of mind amongst stakeholders in 2019 (59 per cent in 2019 vs. 43 per cent in 2017) and the majority of key stakeholders support ERA goals (94 per cent in 2019 vs. 92 per cent in 2017).
- ▶ 90 per cent of key stakeholders have had communication with ERA in the past year and note an increase in interaction (90 per cent in 2019 vs. 80 per cent in 2018), yet our most engaged stakeholders see opportunities to increase visibility through social media, and share more about successes that can inform the public about GHG reduction and ERA's role.
- ▶ Two in five stakeholders see room for ERA to improve its national and global visibility.
- ▶ ERA's most engaged stakeholders feel its business model is unique, a strong team and knowledgeable board is in place, and the organization offers valuable resources. They note ERA has encouraged more collaboration across provinces, yet the organization is still perceived more as a funding organization than as a convener.
- ▶ Stakeholders are "net favourable" regarding all aspects of ERA operations. Notably, the funding application process has swung from a -5 per cent to a +3 per cent in the last two years.

## Updated marketing and communications to focus on raising the profile of ERA

In 2019/20, ERA revised its marketing and communications strategy to reflect current stakeholder expectations and audience awareness/knowledge of ERA, its mandate and achievements. It outlines the objectives, strategies, and tactics to raise the profile of/support for ERA by demonstrating how marketing and communications will support ERA's strategic priorities.

### COMMUNICATION STRATEGIC PRIORITIES INCLUDE:

1. Engage with key audience(s) to build upon ERA's credibility as a convener across the innovation system, and as an accelerator of GHG-reducing technologies that can lower emissions at home and be exported to the world.
2. Ensure the Government of Alberta leverages ERA's success stories, lessons learned, and outcomes to demonstrate how investment in innovation and technology is helping to grow businesses and reduce GHG emissions in Alberta's energy sector and throughout the economy.
3. Develop clear and succinct stories that are so compelling, that all stakeholders want to share them.

# EXECUTIVE TEAM

**The ERA team supports its Board by providing sound research, expert advice, and effective reporting to facilitate decision-making.**

- ▶ Steve MacDonald, CEO
- ▶ Bob Savage, Executive Director, Planning and Performance
- ▶ Elizabeth Shirt, Executive Director, Policy and Strategy
- ▶ Mark Summers, Executive Director, Technology and Innovation
- ▶ Heather Stephens, Chief Financial Officer
- ▶ Michelle Gurney, Communications and Engagement
- ▶ Jennifer Cleall, Legal Counsel

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# BOARD OF DIRECTORS

**This group of experts in technology, finance, governance, and business provides strategic direction and oversight to the organization. These individuals form a diverse Board with backgrounds that include significant experience in industry, government, academia, and the not-for-profit sector.**

- ▶ Dave Collyer, Board Chair
- ▶ Joseph Doucet, Vice-Chair
- ▶ Céline Bak
- ▶ Corrina Bryson
- ▶ Johannes Dyring
- ▶ Ronda Goulden
- ▶ Sara Hastings-Simon
- ▶ Clive Mather
- ▶ Patricia Mohr
- ▶ David Moss

# FINANCIALS

EMISSIONS REDUCTION ALBERTA

*MAY 31, 2020*

## **Emissions Reduction Alberta**

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

Financial Statements

**May 31, 2020**



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Manulife Place  
Edmonton AB T5J 4K1  
Canada

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Fax: 780-421-3782  
www.deloitte.ca

## Independent Auditor's Report

To the Board of Directors of  
Climate Change and Emissions Management (CCEMC) Corporation (operating as Emissions  
Reduction Alberta)

### Opinion

We have audited the financial statements of Climate Change and Emissions Management (CCEMC) Corporation (operating as Emissions Reduction Alberta) (the "ERA"), which comprise the statement of financial position as at May 31, 2020, and the statements of changes in net assets, operations and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the ERA as at May 31, 2020, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

### Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the ERA in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the ERA's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the ERA or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the ERA's financial reporting process.

### Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.



As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the ERA's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ERA's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the ERA to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

*Deloitte LLP*

Chartered Professional Accountants  
September 29, 2020

## Emissions Reduction Alberta

### Statement of Financial Position

As at May 31, 2020

	2020 \$	2019 \$
<b>Assets</b>		
<b>Current assets</b>		
Cash	27,858,157	387,460,186
Accounts receivable	26,078	119,694
Grant receivable (note 3)	-	10,000,000
Interest receivable	419,297	807,146
Prepaid expenses	7,258	34,247
Short-term investments	350,000,000	-
	<u>378,310,790</u>	<u>398,421,273</u>
<b>Non-current assets</b>		
Property and equipment	90,445	26,414
Grant receivable (note 3)	8,000,000	8,000,000
	<u>386,401,235</u>	<u>406,447,687</u>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Accounts payable and accrued liabilities	3,510,074	3,875,742
Deferred lease inducement	36,166	-
	<u>3,546,240</u>	<u>3,875,742</u>
<b>Net Assets</b>		
<b>General Fund</b> – unrestricted	-	-
<b>Restricted Fund</b> (note 4)	<u>382,854,995</u>	<u>402,571,945</u>
	<u>386,401,235</u>	<u>406,447,687</u>
<b>Commitments and guarantees</b> (note 6)		

#### Approved by the Board of Directors

 Director

 Director

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

## Emissions Reduction Alberta

### Statement of Changes in Net Assets

For the year ended May 31, 2020

			2020	2019
	General Fund \$	Restricted Fund \$	Total \$	Total \$
<b>Balance – Beginning of year</b>	-	402,571,945	402,571,945	406,446,628
Deficiency of revenue over expenses for the year	-	(19,716,950)	(19,716,950)	(3,874,683)
<b>Balance – End of year</b>	-	382,854,995	382,854,995	402,571,945

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

## Emissions Reduction Alberta

### Statement of Operations

For the year ended May 31, 2020

	2020			2019
	General Fund \$	Restricted Fund \$	Total \$	Total \$
<b>Revenue</b>				
Grant revenue (note 3)	-	15,000,000	15,000,000	31,150,000
Interest income	-	8,119,333	8,119,333	8,700,365
Conference	382,565	-	382,565	-
	382,565	23,119,333	23,501,898	39,850,365
<b>Project expenses</b> (note 6)	-	38,211,631	38,211,631	33,619,127
<b>(Deficiency) excess of revenue over project expenses</b>	382,565	(15,092,298)	(14,709,733)	6,231,238
<b>Operating expenses</b>				
Program management (note 5)	-	3,611,718	3,611,718	4,077,288
Consulting contracted services	-	265,078	265,078	454,204
Corporate costs	-	360,470	360,470	353,291
Amortization	-	30,313	30,313	11,261
Board remuneration and expenses (note 5)	-	123,060	123,060	116,581
Conference	382,565	234,013	616,578	93,296
	382,565	4,624,652	5,007,217	5,105,921
<b>Grant re-allocation</b> (note 3)	-	-	-	5,000,000
<b>Deficiency of revenue over expenses for the year</b>	-	(19,716,950)	(19,716,950)	(3,874,683)

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

## Emissions Reduction Alberta

### Statement of Cash Flows

For the year ended May 31, 2020

	2020 \$	2019 \$
<b>Cash provided by (used in)</b>		
<b>Operating activities</b>		
Deficiency of revenue over expenses for the year	(19,716,950)	(3,874,683)
Amortization of property and equipment	30,313	11,261
Amortization of deferred lease inducements	(3,014)	-
Net change in non-cash working capital items		
Accounts receivable	93,616	(96,323)
Grant receivable	10,000,000	12,000,000
Interest receivable	387,849	(178,726)
Prepaid expenses	26,989	(23,564)
Accounts payable and accrued liabilities	(365,668)	2,026,293
	(9,546,865)	9,864,258
<b>Investing activities</b>		
Purchase of property and equipment	(94,344)	(1,222)
Deferred lease inducement	39,180	-
Short-term investment	(350,000,000)	-
	(359,602,029)	9,863,036
<b>(Decrease) increase in cash during the year</b>	<b>(359,602,029)</b>	<b>9,863,036</b>
<b>Cash – Beginning of year</b>	<b>387,460,186</b>	<b>377,597,150</b>
<b>Cash – End of year</b>	<b>27,858,157</b>	<b>387,460,186</b>

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

## Emissions Reduction Alberta

### Notes to Financial Statements

May 31, 2020

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#### 1 Organization

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) 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 into an Agreement dated and effective March 8, 2017 together with an Amending Agreement dated March 6, 2020, for the period up to and including March 31, 2024, 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 Summary of significant accounting policies

These financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations (“ASNPO”) within the framework of the accounting policies summarized below.

##### Fund accounting

For financial reporting purposes, the accounts have been classified into the following funds:

- General Fund

The General Fund includes all resources available for immediate purposes and accounts for ERA’s activities other than those directly attributable to funding innovation and clean technologies and adaptation to climate change.

The General Fund includes all unrestricted monies received that are available for use at ERA’s discretion. Activity in the General Fund is related to the hosting of ERA’s Spark 2019 Conference.

- Restricted Fund

The Restricted Fund includes those funds that are to be used to support investment in innovation and clean technologies and adaptation to climate change.

(1)

## Emissions Reduction Alberta

### Notes to Financial Statements

May 31, 2020

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#### Revenue recognition

These financial statements have been prepared using the restricted fund method of accounting for contributions, the key elements of which are:

- Unrestricted contributions are recognized as revenue in the General Fund when received or on becoming receivable if the amount to be received can be estimated and collection is reasonably assured.
- Externally restricted contributions are recognized as revenue in the Restricted Fund when received or receivable if the amount to be received can be estimated and collection is reasonably assured. Externally restricted amounts can only be used for the purposes designated by external parties.
- Investment income earned on contributions subject to external restrictions is recorded as revenue in the Restricted Fund in the year it is earned.

#### Financial instruments

Financial assets and financial liabilities are initially recognized at fair value less transaction costs when ERA becomes a party to the contractual provisions of the financial instrument and subsequently are measured at amortized cost with any changes recorded in the statement of operations. ERA currently does not hold any equity instruments that would be measured after initial recognition at fair value.

#### Cash

Cash consists of cash on deposit.

#### Short-term investments

Short-term investments are guaranteed investment certificates ("GICs"). GICs that mature in 12 months or less are measured at cost, recorded as short-term investments and any interest is accrued as earned.

#### Property and equipment

Property and equipment are recorded at cost less accumulated amortization. Amortization is provided on a straight-line basis at the following annual rates:

Computer equipment and software	3 years
Furniture and fixtures	5 years
Leasehold improvements	3 years

Lease inducements are accounted for as reductions of the lease expense over the term of the lease.

(2)

## Emissions Reduction Alberta

### Notes to Financial Statements

May 31, 2020

#### Project expenses and liabilities

Project expenses and the associated project liability (included in accounts payable and accrued liabilities) are recognized on receipt of a valid project progress report and associated milestone invoices by ERA. A commitment for a project expense is disclosed as such when a contribution agreement is executed.

### 3 Grant revenue

Funds are granted from the Government of Alberta to ERA on an annual basis through a Grant Agreement. The initial Grant Agreement was dated March 31, 2009, which was effective through to June 30, 2015. The Grant Agreement was amended on March 30, 2010 and was further amended on August 8, 2014. A new Grant Agreement was executed on March 8, 2017 and was amended on March 6, 2020 to extend the effective date to March 31, 2024.

On March 13, 2020, ERA received a letter from the Deputy Minister of Environment and Parks confirming funding to ERA of \$25 million in the current year, of which, \$10 million is to complete the funding for the Industrial Efficiency Challenge and another \$15 million to be used to execute ERA's business plan. The letter also indicated that ERA funds received in prior years relating to regulations or programs that are no longer proceeding may be reallocated to execute ERA's business plan. In the prior year, ERA received a letter from the Minister of Environment and Parks on December 14, 2018 outlining funding to ERA. The letter confirmed funding to ERA of \$15 million for the year ended May 31, 2019. The letter also confirmed that \$5 million of funding relating to development of a Methane Reduction Program received by ERA in fiscal 2018 had been reallocated to another delivery entity. ERA had recorded \$20 million in grant receivable and associated revenue in the fiscal year ended May 31, 2018, therefore the \$5 million grant re-allocation was recorded in the year ended May 31, 2019. On March 12, 2019, ERA received further notification from the Minister of Environment and Parks of an additional \$23.15 million to be granted in fiscal 2019 to support projects under ERA's BEST Challenge. Further to the amounts received under the Grant Agreement, ERA has executed a Delivery Entity Agreement with respect to funds that are committed to ERA under the Federal Low Carbon Economy Leadership Fund ("LCELFL"). The Government of Alberta has committed \$8 million from the LCELFL funding to ERA to support the Industrial Efficiency Challenge. These monies are expected to be received in the fiscal year ending May 31, 2022 and were recorded as grant receivable in the prior year.

Committed amounts related to future years have been included as grant receivable and are payable as follows:

Year ended	\$
May 31, 2022	8,000,000

### 4 Restricted Fund

The Restricted Fund consists of funds that are externally restricted by the Government of Alberta for the purpose of investing in various initiatives and projects related to reducing emissions of specified gases or supporting Alberta's ability to adapt to climate change as established by the Fund. The funds are also restricted for the purpose of administering ERA, which includes fees, expenses, liabilities and other costs.

(3)



## Emissions Reduction Alberta

Notes to Financial Statements

May 31, 2020

### 5 Board and management remuneration

Total honoraria and expenses related to the directors of the board amounted to \$121,180 (2019 – \$115,534) in the fiscal year. Remuneration paid to directors or their employers includes honoraria totalling \$55,945 (2019 – \$49,024) as follows:

	2020 \$	2019 \$
C. Bak	6,440	5,808
C. Bryson (A)	5,713	-
D. Collyer	9,302	7,693
J. Doucet	4,632	6,800
J. Dyring (A)	6,178	-
R. Goulden (B)	-	-
S. Hastings-Simon	6,120	4,671
B. Kenny (C)	-	4,278
R. Mansell (C)	-	5,685
C. Mather	7,848	10,181
P. Mohr	4,907	2,814
D. Moss (A)	4,805	-
R. Savage (D)	-	-
K. Sendall (E)	-	1,094
	55,945	49,024

- A) Appointed May 2019
- B) Appointed December 2019 and honoraria waived by this director
- C) Term expired June 2019
- D) Resigned December 2019 and honoraria waived by this director
- E) Term ended September 2018

Of these amounts, \$8,688 (2019 – \$5,211) is included in accounts payable and accrued liabilities. Expenses paid to directors of \$65,235 (2019 – \$66,510) relate to reimbursements for meals, travel and accommodation.

Program management expenses include remuneration to contract management who report directly to the board, totalling fees of \$294,525 (2019 – \$287,595); of this amount, \$26,670 (2019 – \$30,870) is included in accounts payable and accrued liabilities.

(4)

## Emissions Reduction Alberta

### Notes to Financial Statements

May 31, 2020

#### 6 Commitments and guarantees

During the year, contribution agreements for ERA funding were executed for 22 projects and 7 projects were not initiated. As at May 31, 2020, ERA has 151 executed contribution agreements outstanding and has commenced or completed funding for 131 of these approved projects. Funding for 20 of the 151 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 is outlined as follows:

	2020 \$	2019 \$
Total committed funds for executed projects – Beginning of year	145,809,243	95,163,716
Total funds for executed projects approved or adjusted during the year	111,396,150	84,264,654
Project expenses incurred during the year	(38,211,631)	(33,619,127)
Contribution agreements cancelled during the year	(9,621,166)	-
Total committed funds for executed projects – End of year	209,372,596	145,809,243
Total funds for projects approved by the Board	126,808,422	193,010,310
Total executed and approved commitments	336,181,018	338,819,553

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 \$209,372,596 but will not exceed that amount.

There are also an additional 32 projects, totalling \$126,808,422 (2019 – \$193,010,310), that have been approved for funding by ERA's board of directors but for which contribution agreements have not yet been executed.

Included in the project expenses for the current year is \$4,350,000 (2019 – \$5,449,041) paid to projects being developed in Canada, but outside of Alberta, and \$59,718 (2019 – \$217,218) paid to projects being developed outside of Canada. Included in total executed and approved commitments for the current year is \$23,735,895 (2019 – \$19,594,976) committed to projects being developed in Canada, but outside of Alberta, and \$8,596,959 (2019 – \$8,897,476) committed to projects being developed outside of Canada.

Subsequent to year-end, 1 of the approved projects, totalling \$1,200,000, will not proceed, 6 of the approved projects, totalling \$24,490,382, have executed contribution agreements, and 3 projects have been approved for \$5,328,424. As at September 29, 2020, ERA has 28 projects remaining, totalling \$106,446,464, which have been approved for funding by ERA's board of directors but for which contribution agreements have not been executed.

On March 11, 2020, the World Health Organization characterized the COVID-19 outbreak as a pandemic. The impact of the outbreak on the financial results of ERA will depend on future developments, including the duration and spread of the outbreak and related advisories and restrictions. These developments and the impact of COVID-19 on the overall economy and the global oil price are highly uncertain and cannot be predicted. ERA's response to this global crisis includes acceleration of holdback payments to speed up cash

(5)

## Emissions Reduction Alberta

### Notes to Financial Statements

May 31, 2020

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flow and support the liquidity of ERA's active projects. ERA is temporarily adjusting its payment holdback policy to assist with economic recovery.

ERA launched its \$40,000,000, Food, Farming and Forestry Challenge on June 1, 2020. Funding decisions for this challenge are expected in February 2021.

On June 11, 2020, the Government of Alberta ("GoA") announced the winding down of Energy Efficiency Alberta ("EEA"). ERA continues to work with the GoA and EEA on a plan that would see it assume responsibility for new program outcomes targeting industrial and commercial entities, along with associated EEA staff and resources.

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

#### 7 Financial instruments

ERA's financial instruments are exposed to certain financial risks, including credit risk, market risk and liquidity risk.

##### Credit risk

Credit risk is the risk of financial loss to ERA if a party to a financial instrument fails to meet its contractual obligations and arises principally from cash and accounts receivable. The maximum amount of credit risk exposure is limited to the carrying value of the balances disclosed in these financial statements.

Management monitors these accounts regularly and does not believe ERA is exposed to significant credit risk at the statement of financial position date.

##### Market risk

Market risk is the risk changes in market prices, such as interest rates, will affect ERA's interest income or the value of the financial instruments held. ERA is subject to interest rate cash flow risk arising primarily from fluctuations in interest rates applied to its cash balances, which are subject to floating interest rates.

##### Liquidity risk

Liquidity risk is the risk ERA will not be able to meet its financial obligations as they come due. Management mitigates liquidity risk by monitoring forecasted and actual cash flows to ensure sufficient liquidity to meet its liabilities. Accounts payable and accrued liabilities are due within the current operating period.

#### 8 Economic dependence

100% of ERA's grant revenue is received from the Fund and the GoA. The loss of this funding would have a material adverse impact on ERA's future operations, project commitments and financial position.

(6)