

**MANDATE**

To identify and accelerate innovative solutions that secure Alberta's success in a lower carbon economy.

**VISION**

Alberta is recognized as an innovation and technology leader in a lower carbon world.

**CORE VALUES**

- Leadership
- Innovation
- Collaboration
- Transparency
- Integrity

**STRATEGIC PRIORITIES**

**1 ACCELERATE TECHNOLOGY**

Seek out and fund the demonstration and deployment of impactful technology solutions.

**Deliverables:**

- Invest in projects aligned with ERA's Technology Roadmap, market needs, and government priorities.
- Select innovative technology through a rigorous process.
- Identify the right projects through increased technology scouting.
- Engage with stakeholders and participate in events that help ERA identify and accelerate GHG-reducing solutions.

**2 DRIVE COMMERCIALIZATION**

Convene the "complete solutions" needed to turn ideas into products and products into companies.

**Deliverables:**

- Help broker opportunities for policies and regulation to stimulate adoption of clean technology solutions.
- Act as a convener of resources that helps address specific barriers to commercialization.
- Monitor, evaluate and share learnings from funded projects.

**3 MAXIMIZE IMPACT**

Invest public funds wisely and responsibly through investment leverage and excellence in operations.

**Deliverables:**

- Maintain existing and establish new partnerships that maximize and leverage shared investment capacity and expertise.
- Incorporate learning to improve ERA's intake, evaluation and funding processes.
- Align operating activities and budget with Alberta Government priorities, policies and procedures.

**ERA QUICK FACTS<sup>1</sup>**



TOTAL PROJECTS:  
**128**



TOTAL FUNDS COMMITTED:  
**\$375M**



TOTAL PROJECT VALUE:  
**>\$2.6B**



CUMULATIVE GHG REDUCTIONS BY 2030:  
**28Mt CO<sub>2</sub>e**

CUMULATIVE GHG REDUCTIONS BY 2020:

**>9Mt CO<sub>2</sub>e**



GDP IMPACT IN ALBERTA BY 2023:  
**\$2B**



JOB CREATION IN ALBERTA BY 2023:  
**12,000 PERSON-YEARS<sup>2</sup>**

**ALBERTA GOVERNMENT CLIMATE LEADERSHIP PLAN TARGETS**

- Cap oil sands emissions to 100 Mt/year
- Reduce methane emissions by 45% by 2025
- Zero emissions from coal-generated electricity by 2030
- 30% of electricity from renewable sources by 2030

<sup>1</sup>Figures accurate as of October 2018. <sup>2</sup>A person-year is equal to one-year of employment for one individual.

## ERA TECHNOLOGY ROADMAP

The Technology Roadmap identifies four focus areas for technologies in the ERA portfolio.

	AREAS OF FOCUS	POTENTIAL INITIATIVES	
<p>Transformative technologies and innovation to reduce the GHG footprint of the fossil fuel supply chain and reduce methane emissions while reducing production costs.</p>	<p>Reduced GHG Footprint of Fossil Fuel Supply</p>	<ul style="list-style-type: none"> <li>• Advanced recovery</li> <li>• Fugitive emissions</li> <li>• Partial upgrading</li> </ul>	<ul style="list-style-type: none"> <li>• Electricity oil sands integration</li> <li>• Beyond combustion</li> <li>• Carbon capture utilization and storage</li> </ul>
<p>Technology and innovation to reduce the GHG footprint of Alberta's electricity supply mix, add more non-emitting supply, and enable the low-emissions electricity system of the future.</p>	<p>Low Emitting Electricity Supply</p>	<ul style="list-style-type: none"> <li>• Co-generation</li> <li>• Advanced grid management technology</li> <li>• Geothermal</li> </ul>	<ul style="list-style-type: none"> <li>• Non-conventional wind, solar, hydropower</li> <li>• Storage</li> <li>• Low-carbon electrification</li> </ul>
<p>Opportunities for biological resource optimization, including biomaterials, enhanced carbon retention, and products to support energy system transformation.</p>	<p>Biological Resource Optimization</p>	<ul style="list-style-type: none"> <li>• Biofuels</li> <li>• Bioproducts - materials</li> <li>• Bioenergy</li> </ul>	<ul style="list-style-type: none"> <li>• Carbon retention</li> <li>• N<sub>2</sub>O &amp; CH<sub>4</sub> emissions</li> <li>• Waste management</li> </ul>
<p>Technologies to deliver GHG reductions through energy efficiency, industrial process innovation, and low-GHG chemicals and materials such as CO<sub>2</sub>-based products.</p>	<p>Industrial Process Efficiency</p>	<ul style="list-style-type: none"> <li>• Industrial efficiency</li> <li>• Process improvements</li> </ul>	<ul style="list-style-type: none"> <li>• Low grade heat utilization</li> <li>• Products of CO<sub>2</sub></li> </ul>

Some initiatives could fall under multiple areas of focus.