

# **PROGRAM GUIDE**





# 1. Introduction

### 1.1. About Emissions Reduction Alberta

Emissions Reduction Alberta ("ERA") is a registered tradename of the Climate Change and Emissions Management (CCEMC) Corporation. For more than 13 years, ERA has responsibly invested revenues from Alberta's Technology and Innovation for Emissions Reduction (TIER) fund -- the carbon price paid by large industrial emitters in Alberta -- to accelerate the development and adoption of innovative clean technology solutions. Since inception in 2009, ERA has committed \$912 million to 274 projects worth nearly \$8.7 billion that are helping reduce greenhouse gas (GHG) emissions, create competitive industries, and lead to new business opportunities in Alberta. These projects are estimated to deliver cumulative GHG reductions of more than 41 million tonnes CO<sub>2</sub>e by 2030 and over 116 million tonnes CO<sub>2</sub>e by 2050.

ERA provides support to emissions reduction technologies in Alberta through several mechanisms and programs. Most ERA funding is disbursed via grants to specific technology piloting, demonstration, or first-of-a-kind implementation projects selected through a competitive process. A second area of ERA programming is related to incentives for energy efficiency and energy management with industrial and commercial businesses. Lastly, ERA has a number of initiatives underway designed specifically to support innovators and capacity building within Alberta, including its Innovator Support Services program and strategic investments in the innovation ecosystem.

# 1.2. Document Scope

This document is focused on ERA's proposed Laboratory Services Incentive Pilot (LSIP) program. LSIP is targeted at the need for laboratory services and enhanced collaboration between Alberta's post-secondary research institutions (PSIs) and early-stage innovators including startup companies and small-medium enterprises (SMEs). The Laboratory Services Incentive Pilot (LSIP) complements other ERA and Government of Alberta programming and aligns with the broader innovation ecosystem to facilitate the advancement of new technology solutions and address barriers to commercialization. This program document lays out the LSIP program design, targeted outcomes, support mechanisms, reporting obligations, and overall process.



# 2. Lab Services Incentive Pilot Program Scope

### 2.1. Background

Alberta's post-secondary research institutions (PSIs) have significant capacity to provide laboratory services relevant to early-stage technology development owing to their existing laboratory space, world-class equipment, existing administrative structures, highly-trained lab technicians, and deep roster of subject matter experts. Laboratory testing services are key to TRL advancement of technologies being developed by Albertan companies, especially for new ventures and startups who lack in-house capabilities, resources, and equipment. Timely and effective assess to lab services can provide a significant boost to technology development while enhancing connections between the private sector and PSI researchers. However, there are financial, administrative, and timing barriers that sometimes prevent effective access to lab services. If these barriers can be reduced, technology innovation across Alberta can be accelerated, helping the private sector rapidly develop and de-risk new solutions to key challenges such as those faced in the energy sector.

# 2.2. Program Focus

The Lab Services Incentive Program(LSIP) Pilot will improve access to lab services for Alberta companies and will help grow a roster of lab validated early-stage technologies that align with Alberta's Emissions Reduction and Energy Development Plan and specifically with the mandate of ERA. The LSIP Pilot will be funded by an allocation from ERA's budget sourced from the Technology Innovation and Emissions Reduction (TIER) fund. If the pilot is successful, the program could be recapitalized and expanded to larger incentives and/or more institutions.

In 2023, ERA commissioned a report on barriers to commercialization faced by Alberta's innovators. This, alongside consultation with innovators, incubators, accelerators, funders, PSIs, and other stakeholders, has led to the identification of several key trends and barriers relating to the development and rapid advancement of new technologies in Alberta. The current trend in corporate innovation has shifted towards making quicker, smaller bets on new technologies, rather than engaging in multi-year research agreements. This program addresses this shift, allowing corporations to engage with cutting-edge research without the traditional long-term financial commitments. SMEs face severe resourcing and financial constraints that may prevent them from even a basic level of engagement or access to the resources of PSIs; reducing these barriers to access will deliver significant benefits to all SMEs and startups in particular. Researchers participating in LSIP-funded projects will gain valuable experience working closely with corporations, enhancing their practical skills and industry knowledge. This interaction aids in the seamless integration of academic researchers into the private sector, enhancing career prospects and fostering an entrepreneurial spirit among researchers, encouraging them to innovate and think beyond traditional academic boundaries. LSIP aims to streamline the process by which private sector companies can access lab services, enabling



quicker turnarounds in research development that is crucial for Alberta to lead in a lower-carbon energy future. By promoting a culture of rapid development and commercialization, LSIP positions Alberta as a leader in energy research and entrepreneurship.

LSIP is intended to complement ERA's Innovator Support Services programming and address gaps in the innovation ecosystem by fast-tracking development of novel technology solutions in the areas of energy, environment, and emissions reductions. By supporting early-stage solutions in these areas, ERA intends to accelerate the maturation of made-in-Alberta solutions, enhance local capacity building, and support the development of a roster of emerging technologies that could be eligible for ERA's primary technology programming (relating to higher technology readiness level pilots, demonstration, and deployment) in the future.

### 2.3. Targeted Outcomes

The targeted outcomes for LSIP are as follows:

- 1. **Ease of access:** Lab services are accessible to clients in terms of responsiveness, collaboration, and reduction of barriers to entry.
- 2. **Efficiency of delivered services:** Lab services are provided within targets for timelines, budget, etc.
- 3. **Enhanced Affordability:** Lab services are provided at a reduced cost to clients due to the incentive.
- 4. **Technology advancement:** Technologies for which lab services are provided move up the Technology Readiness Level scale towards commercialization via improvements in performance and/or cost, validation of claims, etc.
- 5. **Capacity building:** Alberta's PSIs and SMEs collaborate to gain and share knowledge, insights, and best practices arising from the lab services provided.



# 3. Program Design and Process

## 3.1. Program Participants

Participants in LSIP are divided into two categories, each with eligibility criteria.

#### Service Providers

LSIP service providers are entities who provide laboratory services and research support. Under LSIP, the only eligible service providers are Alberta-based Post-Secondary Research Institutions (PSIs). Specifically for the LSIP Pilot, the only eligible service providers are:

- The University of Lethbridge;
- The University of Alberta; and
- The University of Calgary.

To be eligible to receive ongoing tranches of funding, participating PSIs must comply with the program eligibility and reporting requirements.

#### Clients

The ultimate beneficiaries of LSIP funding will be entities who are able to access laboratory services via the program. Organizations who are eligible to have their work with PSIs incentivised through LSIP must meet the following eligibility criteria:

- Clients must be Alberta-based, for-profit enterprises. For clarity, clients are not required to be incorporated in Alberta but must have a material, demonstrable Alberta footprint.
- Clients must be a small-medium enterprise (SME). For the purposes of this program, SME status is defined as having no more than 499 employees.
- Clients must be working to progress a technology solution relevant to the objectives of the LSIP program.

#### 3.2. Incentive Structure and Administration

Under LSIP, participating PSIs will continue to offer lab services to the private sector through their existing processes. LSIP funding will be structured as an incentive to reduce the cost to industry to access lab services while also incentivising PSIs to deliver improved access and more effective services delivery.

Each PSI will continue to manage administration and finance relating to lab services. ERA will disburse funds to PSIs to be used to reduce the cost of services offered to private sector clients while also incentivising researchers, laboratories, and PSI administrations to improve the ease of access and quality of lab services. PSIs will be responsible to report to ERA regarding the use of funds and key performance indicators, as described in Section 3. ERA will compile this reporting in order to assess and communicate program outcomes. Via reporting on the companies and technologies supported, ERA will verify that the use of funds under LSIP is



aligned with ERA's mandate and the Alberta Emissions Reduction and Energy Development Plan.

LSIP pilot delivery will be guided by oversight and input from an Advisory Committee consisting of representatives from participating PSIs and other key stakeholders from Alberta's innovation ecosystem.

### 3.3. Program Funding

Initial funding for the LSIP Pilot will consist of a \$1,000,000 CAD allocation from the TIER fund.

#### 3.4. Incentive Amounts and Structure

#### **Incentive Amounts and Limits**

The amount of the LSIP incentive for any given lab services project will be **60% of the nominal project cost,** subject to the following limitations:

- The maximum LSIP incentive value for any one project is \$60,000.
  - For clarity, projects with a nominal cost of greater than \$100,000 are eligible for LSIP but will have their incentive value capped.
  - On a case by case basis, ERA reserves the right to decline projects where the LSIP incentive value is less than 10% of the total cost; i.e., projects with total budgets in excess of \$600,000.
- The minimum LSIP incentive value is \$12,000.
  - For clarity, this means projects with a nominal cost of less than \$20,000 are not eligible for LSIP.
- Any given client may apply for multiple projects but will have their total incentive amount capped at \$100,000.

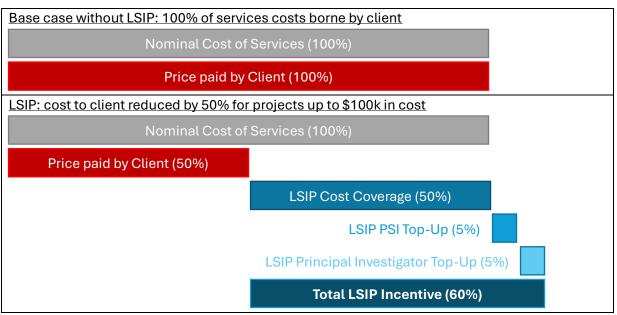
#### **Incentive Structure**

The LSIP incentive provided for each lab service request will be provided on a partial-matching basis. The LSIP incentive will reduce the cost of a given lab services project by *up to* 50% with the remaining cost borne by the client. The additional 10% of project costs (up to a maximum of \$10,000) included in the incentive will be allocated to the PSI providing the services as follows:

- 5% of costs (up to a maximum of \$5,000) will be allocated to the PSI to support program administration and reporting and to facilitate effective service delivery.
- 5% of costs (up to a maximum of \$5,000) will be provided directly to the laboratory manager or principal investigator (PI) responsible for delivery of the services.

The LSIP incentive structure is illustrated in the figure below:





**Figure 1: LSIP Incentive Structure** 

Examples of possible scenarios are as follows:

Example Scenario	Α	В	С	D	E
Cost of Services	\$10k	\$20k	\$50k	\$100k	\$150k
Total LSIP	Ineligible	\$12k	\$30k	\$60k	\$60k
Incentive					
LSIP Cost	Ineligible	\$10k	\$25k	\$50k	\$50k
Coverage					
LSIP PSI Top-Up	Ineligible	\$1k	\$2.5k	\$5k	\$5k
LSIP PI Top Up	Ineligible	\$1k	\$2.5k	\$5k	\$5k
Cost borne by	\$10k	\$10k	\$25k	\$50k	\$100k
client					

There are no restrictions or stacking limits on the source of funds used by clients to cover their share of costs. However, client contributions must be a real cash payment to the PSI service provider; i.e., in-kind contributions or similar are not allowable.

# 3.5. Eligible Costs and Activities

LSIP funds must be used to provide services that are relevant to the program focus, namely, supporting new technology development in the areas of energy, environment, and emissions reductions. For the purposes of LSIP, laboratory services are defined as activities conducted by a PSI to test, validate, characterize, or otherwise advance element(s) of a novel technology



solution under development by an eligible client. This may include experimental design, empirical studies, sampling, testing, imaging, characterization, compositional analysis, prototyping, and similar activities requiring highly specialized equipment and knowledge. ERA in its sole discretion will assess and approve the eligibility of project activities.

LSIP incentives will be provided to specific *projects* i.e. a scope wherein certain lab services are provided to a client over a set period of time in order to accomplish a pre-determined objective. Open-ended research programs are not eligible. Projects under LSIP are expected to be completed over a time period of roughly 3-9 months, depending on the nature of the project and the services required.

PSIs participating in LSIP bear the primary responsibility for ensuring LSIP funds are spent in accordance with the program guidelines. The general principle for eligibility of costs under LSIP is that the incentive is intended to offset the real cost that would be billed to a client to provide the services in the absence of the incentive. All expenses must be incurred within Alberta. Only expenses that would regularly be incurred by the PSI (and passed on to the client via fee-for-services) will be covered under LSIP; client costs to participate in the program are not eligible.

Eligibility of all expenses will be at ERA's sole discretion, with input from the program advisory committee.

Only expenses incurred during the program period (starting November 1, 2024 and ending no later than March 31, 2026 or whenever funds are depleted) are eligible for LSIP coverage.

#### Per-project reimbursement

Following the above principles, eligible costs to be covered by the LSIP incentive are primarily intended to be paid out on a per-project basis as lab services are provided. These expenses include:

- Direct labour costs for PSI employees and/or contractors to deliver lab services, including benefits where applicable. For clarity, this may also include hours worked by researchers, investigators, administrators, etc. in order to develop, plan, and administer the services.
- Materials, supplies, and other consumables used in provision of lab services. This may
  include materials used to construct or modify laboratory apparatuses or test systems,
  utility costs, and similar.
- Charges for use of major capital equipment, where such charges represent a utilization rate (per use, hourly, daily, etc.) that can be pro-rated against the useful life of the equipment and where such charges would typically be billed to the client.
- Licensing fees for IP, software, etc., pro-rated to the usage in the services.



- Courses, certifications, or other professional development or training activities for PSI staff or contractors.
- Overhead up to a maximum of 20%.
  - Note that many items typically considered overhead can be billed as direct costs within the items above; the indicated overhead rate is over and above these charges.
- An additional 10% surcharge on all expenses to provide an additional incentive to principal investigators and PSI administration for effective delivery of services (see Section 3.4)

#### Additional support

In addition to costs claimed on a per project basis, participating PSIs may also claim costs up to 0.5 FTE (up to \$75k) per PSI for the duration of the pilot program to support recruitment of technician(s) or support staff to coordinate lab services, offer support for clients, or otherwise reduce barriers to access. Resources hired with this support must be primarily dedicated to provision of LSIP-eligible services, with adequate justification provided.

#### <u>Ineligible Expenses</u>

The following expenses are expressly ineligible or are considered to be covered by the overhead rate detailed above and are therefore not eligible for separate reimbursement:

- Purchases of land, buildings, or capital equipment. Capital equipment usage and depreciation may be eligible on a pro-rated basis (see above).
- Expenses relating to downstream research activities (such as writing and editing of publications) arising from the lab services work.
- Legal expenses, regulatory fees, and similar.
- Subscriptions (e.g. to journals, databases, etc.) or membership fees (e.g. to professional organizations).
- Costs to recruit personnel.
- Travel costs.
- Insurance.
- Hospitality expenses.
- Costs relating to marketing, communications, media, and similar.

Lab services that are directly related to projects or technologies supported by other ERA programming are ineligible to receive LSIP support.

# 3.6. Funding Disbursement Process

PSIs must enter into a contribution agreement with ERA prior to receiving LSIP funds. The contribution agreement will specify the terms and conditions of funding, including program criteria and reporting obligations.



Once a contribution agreement is signed, PSIs will be required to register with ERA's Grant Manager online system to facilitate claims, reporting, and payments. Additional details on the Grant Manager system will be provided directly to participating PSIs.

Following program launch, the disbursement process will function as follows:

- 1. ERA will disburse an initial payment of \$150k to each PSI to serve as an 'advance' and to support hiring of one resource per PSI, as applicable.
- 2. PSIs will continue to offer laboratory services through their existing processes.
- 3. At the early stages of discussing a potential lab services project with a client, the PSI will flag whether that project may be a candidate for LSIP and will submit a pre-approval form to ERA.
  - a. The format of the pre-approval form will be as simple as possible to facilitate ease of completion by the PSI and rapid decision making by ERA.
  - b. The pre-approval should include the client name, technology summary, services to be provided, and an estimate for nominal cost.
- 4. ERA will pre-approve eligible projects.
- 5. The PSI and the client will enter into an agreement (as necessary) and will carry out the work. The PSI will keep records of project costs and outcomes.
- 6. Following Project Completion, the PSI will submit a Project Completion Report to ERA. On a quarterly basis, the PSI will submit a claim to cover the incentive value for completed projects in that quarter. Claims for payments are made using ERA's Grant Manager online system. PSIs will need to complete a Quarterly Report summarizing all LSIP projects supported and incentive amounts.
- 7. Following the initial release of funds, all remaining program funds will be released on a first come first serve basis. ERA will manage the total program spend and will provide updates to PSIs as the LSIP allocation is depleted.
- 8. ERA will monitor program outcomes and spending to ensure all funds have been appropriately used by the end of the pilot program period.



# 3.7. Program Timelines

The timelines for the LSIP Pilot are summarized in the table below. ERA reserves the right to modify the program timelines at any time.

Timeline	Events/Actions			
July - September 2024	Advisory committee established. Program draft design			
July - September 2024	completed. Funding allocated within ERA. [COMPLETE]			
	Program design finalized. PSIs enter contribution agreements			
October - November 2024	with ERA and establish Grant manager accounts. Pre-approval			
October - November 2024	form and reporting templates finalized. Performance metrics			
	established. Communication strategy developed.			
December 1 2024	LSIP Pilot soft launch.			
December 1 2024	Discussions begin with potential clients.			
December 2024	First tranche of funds released to PSIs. Initial recruitment and			
December 2024	outreach for program clients.			
Q1 2025	First set of projects initiated.			
April 2025	6 month interim progress checkpoint			
	First projects begin to complete. First claims from PSIs			
Q2 2025	submitted as projects complete. Additional projects approved.			
	Ongoing client recruitment and project development.			
July 2025	9 month interim progress checkpoint			
Q3 2025	Additional projects approved (subject to availability of funds).			
Q3 2023	Additional claims from PSIs as projects complete.			
October 2025	12 month interim progress checkpoint			
	Wrap-up of remaining projects. Final claims submitted. Final			
November - December 2025	reporting, data collection and analysis, and			
	recommendations for next steps.			

# 3.8. Program Performance Metrics

During the pilot, ERA will assess program performance and success through qualitative and quantitative performance measurement data.

Performance data will be captured through the PSI Quarterly Report, Project Completion Report and a Client Survey and will include:

- Number of SMEs assisted
- \$ Value of Incentive provided
- Total Lab Services Costs
- % of projects delivered according to timeline and budget
- Client satisfaction with responsiveness of the PSI and lab services provided
- TRL Advancement and other qualitative data to assess technology advancement
- Qualitative data from the PSI and SME on knowledge sharing and collaboration



# 3.9. Financial Accountability and Outcomes Reporting Obligations

Participating PSIs will be responsible for collecting information on all projects supported by LSIP, including without limitation the performance metrics described in Section 3.8. ERA will make use of the data, where appropriate, to communicate program outcomes, assess program performance, and inform future programming. Specific information on individual projects supported by LSIP (such as project title, client name, and a brief description of the project) may be shared publicly with prior permission of clients.

Each PSI shall maintain records relating to receipt, stewardship, and disbursement of funds received under LSIP. Real incurred costs for all LSIP-supported projects must be tracked following standard accounting practices. ERA will require aggregate reporting of costs claimed under the program and may conduct sample-based audits of individual projects to ensure appropriate use of funds. Additional information on financial accountability for participants will be outlined in the contribution agreement.



# 4. Intellectual Property

PSIs and clients are responsible for management of Intellectual Property (IP), including agreements on ownership and use of any background IP and any IP generated or modified as a result of project activities. ERA requires that IP agreements for LSIP-supported projects are not overly restrictive so as to not prevent commercialization of the technology for the benefit of Alberta.

As described in Sections 3.8 and 3.9, ERA will collect high level information on funding recipients and project outcomes to determine eligibility and to track key performance metrics. ERA generally regards this collected information as being distinct from any protected IP and removed from any commercial sensitivity, and therefore reserves the rights to:

- 1. make use of such information for internal purposes;
- 2. to publish aggregated, anonymized information regarding program outcomes;
- 3. to publish specific information such as recipient names, funding amounts, and services provided without pre-approval from clients or PSIs; and
- 4. to publish specific details on projects where appropriate and only with the express consent of affected clients and PSIs.

Participating PSIs must agree to these and other IP terms and conditions via the contribution agreement with ERA, and will carry forward any relevant reporting obligations or necessary releases as part of their agreements with individual clients.

For clarity, ERA will not publish information that may compromise the commercial viability of supported technologies, such as technology performance information or detailed descriptions of IP.

# 5. Confidentiality

ERA is subject to the *Freedom of Information and Protection of Privacy Act*, RSA 2000, c.F-25 in the course of performing duties and functions and exercising powers delegated to it. All data and records in the custody or under the control of ERA that are required in the performance of duties or functions or the exercise of powers delegated to ERA are subject to the *Records Management Regulation*, Alberta Regulation 244/2001.

Subject to the requirements described above, ERA is governed by a comprehensive Privacy, Data Security and Confidentiality Policy (the "Policy"). The Policy requires that any and all information concerning the business affairs of ERA and its directors, officers, employees and applicants is to be kept private, secure and confidential. Confidential information that is collected, used or disclosed by ERA will be handled in a manner that recognizes both the right of the individual to have his or her confidential information protected and the need of ERA to collect, use and disclose such information for purposes that are reasonable.

To read the entire Policy, visit <a href="http://eralberta.ca/privacy">http://eralberta.ca/privacy</a>.