

LOW CARBON FUELS STUDY

Reference Number: 2507-001 Issued: Friday, July 18, 2025 Responses Due: Friday, August 15, 2025

Calgary Economic Development Ltd

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2. Introduction

Calgary Economic Development Ltd (CED) invites qualified firms to submit a proposal for the **Low Carbon Fuels Study** Request for Proposal (RFP). A proposal, in electronic form to be submitted no later than **17:00 MST, Friday, August 15, 2025**. The electronic copy should be sent to the attention of the Contracting Manager by email as noted in Section 18. Late proposals will not be accepted.

3. Timelines

| RFP Release | Jul. 18, 2025 |
|---|---------------|
| Deadline for Questions | Aug. 1, 2025 |
| Proposal Submission Date | Aug. 15, 2025 |
| Meetings with Short-listed Vendors | Aug. 22, 2025 |
| RFP Award Notification | Aug. 27, 2025 |
| Anticipated Project Kick Off | Sept. 2, 2025 |
| Interim Results Draft – Part 1 | Oct. 3, 2025 |
| Industry Partner Engagement** | Oct. 2025 TBD |
| Interim Results Draft – Part 2 | Oct. 31, 2025 |
| Feedback from Interim Results Presentations | Nov. 7, 2025 |
| Draft Final Report and Presentation | Nov. 21, 2025 |
| Feedback from Draft Final Report | Dec. 5, 2025 |
| Final Report and Presentation Submission | Dec. 12, 2025 |
| Presentations to CED & Select Partners | Jan. 2026 TBD |

*Above are proposed timelines. Vendors are welcome to propose more efficient timelines to complete the proposed work.

**Industry Partner Engagement – preference to incorporate a session/workshop with key industry partners to support study objectives with CED's support for facilitation and coordination. Vendors are invited to propose the engagement method.



4. Definitions

"BRE" means Business Retention and Expansion.

"Calgary Region" refers to the <u>Calgary Metropolitan Region</u> which includes Airdrie, Rocky View County, Cochrane, Foothills No. 31, High River, Chestermere, Okotoks.

"CCUS" means Carbon Capture, Utilization, and Storage.

"CED" means Calgary Economic Development Ltd.

"Contracting Manager" means the person identified in Section 16 of this RFP.

"IP" means Intellectual Property.

"LCF" means Low Carbon Fuels.

"Project Lead" means the person identified in Section 16 of this RFP.

"R&D" means Research and Development.

"Request for Proposal (RFP)" means this document including attached appendices.

"RNG" means Renewable Natural Gas.

"Proposal" means a Vendor's response to this RFP and includes all of the Vendor's attachments and presentation materials.

"SAF" means Sustainable Aviation Fuel.

"Services" means the duties, tasks, and responsibilities as described in this RFP.

"SMEs" means Subject Matter Experts. "SWOT" means an analysis of the Strengths, Weaknesses, Opportunities, and Threats.

"Southern Alberta" refers to the geographic area within Alberta south of and including Red Deer. This includes Calgary, Lethbridge, Medicine Hat, etc.

"Vendor" means an organization responding to this RFP.

5. Standard Form Contract

By submitting a Proposal a Vendor acknowledges it agrees that the terms and conditions of this RFP are incorporated by reference into its Proposal. If a Vendor's Proposal is accepted by CED, the Vendor will be expected to execute CED's standard contractor agreement. Vendors who are unwilling to abide by these standard terms and conditions should not submit a Proposal.

6. Vendors Questions

All questions regarding this RFP must be directed in writing to the Contracting Manager. Enquiries and responses may be recorded and may be distributed to all Vendors.

The Vendor must immediately notify the Contracting Manager in writing of any ambiguity, divergence, error, omission, oversight, or contradiction in this RFP discovered by the Vendor and request whatever clarification is required to prepare the Vendor's Proposal.

In order for CED to deal effectively with Vendor questions or concerns about any terms, conditions or requirements of this RFP, including the standard terms and conditions, such



questions or concerns must be communicated in writing to the Contracting Manager in accordance with the Timeline indicated in item (1) above. Questions received after this time will be answered if, in the opinion of CED, time permits.

7. Conflict of Interest

Vendors must fully disclose, in writing, to the Contracting Manager on or before the closing date of this RFP, the circumstances of any possible conflict of interest or what could be perceived as a possible conflict of interest if the Vendor contracted with CED under this RFP. CED may reject any Proposal where, in the opinion of CED, the Vendor is or could be perceived to be in a conflict of interest.

8. Vendor Expenses

The Vendor is responsible for all costs of preparing and presenting its Proposal.

9. Pricing

All Proposals will be issued in Canadian dollars.

10. Background

a. About Calgary Economic Development:

Calgary Economic Development (CED) works with business, government and community partners to grow and diversify Calgary's economy by attracting new business investment, support local companies, and enhance Calgary's global competitiveness.

b. Our Work

Our work is rooted in positioning Calgary for long-term economic success and shared prosperity for all by delivering services and initiatives focused on growth and development across our key sectors. Examples include targeted business attraction and expansion; marketing and promotion of the region globally; and local expansion efforts.

CED's last sector study was conducted in 2021: Alberta Energy Transition.¹

c. Why a Low Carbon Fuels Study

The 2021 Alberta Energy Transition Study provides a foundational understanding of sectoral strengths and opportunities for Calgary. This low carbon fuels study is forward-looking by design, with a focus on identifying emerging signals, strong trends, and potential disruptions within the Low Carbon Fuels space.

By examining where the sector is heading — not just where it has been — this research will help build a clearer picture of future market dynamics, innovation pathways, and competitive positioning. The insights gathered will inform the development of a long-term sector vision and a proactive internal strategy to guide investment attraction. This will enable the region to anticipate change, align with global low-carbon trends, and drive resilient, inclusive economic growth over the next decade and beyond.

¹ Delphi Group, <u>Energy Transition Report</u>, 2021



The vendor's final product should support and/or address key focus areas which have prompted this study:

- Market Trends & Future Dynamics Global and domestic trends, such as decarbonization goals and technological innovation, that are pushing low-carbon fuels forward, presenting Calgary with opportunities to position itself as a leader in hydrogen, biofuels, and SAF.
- <u>Ecosystem & Cluster Development</u> Calgary must address gaps in infrastructure, talent, and policy alignment while engaging key partners, including industry leaders, academia, and Indigenous partners, to build a competitive low-carbon fuels ecosystem.
- <u>Competitive Positioning & Differentiation</u> Calgary's value proposition in attracting low-carbon fuels projects will be bolstered by its energy expertise, with opportunities to specialize in emerging niches like hydrogen and biofuels that set it apart from competitors.
- Investment & Policy Levers Understanding the successful policies and incentives from other regions, such as carbon pricing and green energy subsidies, Calgary can accelerate low-carbon fuels investments, aligning with federal and provincial goals to drive adoption.
- **Future Scenarios & Risks** Calgary must anticipate potential risks like policy shifts, supply chain disruptions, or geopolitical tensions and prepare for scenarios that could impact the low-carbon fuels sector, adjusting its economic strategy accordingly.

d. Sector Landscape: Highlights

As a city historically anchored by the energy sector, Calgary is uniquely positioned to lead in a new era shaped by the push to reduce greenhouse gas emissions. The global energy transition presents both a challenge and a generational opportunity: to support and evolve Calgary's homegrown strengths in energy, while accelerating the growth of clean and emerging technologies.

Recognized as Canada's energy capital, Calgary is at the forefront of this transformation. The city is leveraging decades of expertise, infrastructure, and entrepreneurial spirit to build a future-focused energy ecosystem. Industry associations, accelerators, startups, post secondaries, and businesses are increasingly aligned around advancing sustainable energy solutions that enhance economic resilience while meeting climate goals.

From commercializing carbon capture and utilization (CCUS) technologies to expanding its clean tech footprint, Calgary is redefining what it means to be an energy leader in the 21st century. The region continues to evolve towards an integrated, low-carbon future where innovation is the driver of competitiveness.

Low carbon fuels are a critical part of this evolution. As global industries and governments seek viable, scalable alternatives to decarbonize transportation and heavy industries, Calgary's assets – ranging from technical talent and research to industrial infrastructure – position it as a high-potential hub for the development, production, and commercialization of low carbon fuels.



To better understand Calgary's potential, this study seeks to explore the low carbon fuels industry through **key focus areas** which may include, but are not limited to:

Focus Areas

- 1. Sustainable Aviation Fuel (SAF)
 - <u>Relevance to Calgary:</u> Proximity to major aviation hubs, strong petrochemical expertise, and emerging SAF pilot projects position Calgary to lead SAF production and innovation.
- 2. Advanced Biofuels (e.g., cellulosic ethanol, biodiesel)
 - <u>Relevance to Calgary:</u> Access to forestry and agricultural residues, along with clean tech R&D capacity, provides a solid foundation for biofuel development.
- 3. Renewable Natural Gas (RNG) and Renewable Diesel
 - <u>Relevance to Calgary</u>: Calgary's agricultural and municipal waste streams, combined with distribution infrastructure and utilities expertise, support scalability.
- 4. E-Fuels / Power-to-Liquids
 - <u>Relevance to Calgary:</u> Strong carbon capture ecosystem and growing clean electricity capacity make Calgary a potential early adopter and innovator in this space.

Enabling Infrastructure

5. CCUS

 <u>Relevance to Calgary</u>: A globally recognized CCUS cluster, including major projects and institutional expertise, strengthens the city's positioning across multiple LCF pathways.

6. Electricity as a Fuel Source

- <u>Relevance to Calgary:</u> With Calgary's focus on green energy and innovation, electrification plays a key role in making the city more sustainable and preparing for a low-carbon future.
- 7. Hydrogen Fuels²
 - <u>Relevance to Calgary:</u> Alberta's natural gas resources, CCS leadership, and water access give Calgary a competitive edge, especially in CCS based hydrogen development.

8. Ammonia and Methanol as Low Carbon Carriers

• <u>Relevance to Calgary:</u> Chemical manufacturing expertise and industrial infrastructure offer a basis for innovation in these alternative fuels.

² Please note, Calgary Economic Development has contributed extensively to the Calgary Region Hydrogen Hub - our understanding in this area is well-developed. Proposals can make reference to hydrogen fuel but should demonstrate greater attention to the listed focus areas.



11. Scope of Work

The final deliverable should include a comprehensive, in-depth analysis of the key areas outlined in Section 10c. This analysis will directly inform CED's next steps, in critical near-term initiatives – such as the development of a sector strategy and long-term vision to support economic growth and resilience.

As part of the analysis, vendors are expected to explore and address the following questions grouped into 4 core categories:

Section I: Market Trends & Future Dynamics

- What global and domestic trends are shaping the future of the low carbon fuels sector, and how might they impact Southern Alberta and the Calgary Region over the next 5–10 years?
- What are the most promising technologies in critical subsectors (e.g., hydrogen, biofuels, SAF, e-fuels) and how is the global investment landscape evolving around them?
- How might demand for low carbon fuels evolve across key industries (e.g. market growth \$M over time, multiple jurisdictional levels).

Section II: Ecosystem & Cluster Development

- What are the potential applications and benefits of low carbon fuels across other key sectors in the region, including but not limited to aerospace & defence, and agriculture?
- What are the key gaps in Southern Alberta's ecosystem (e.g. input streams, refining capabilities, infrastructure, end use, anchor corporates, talent, innovation capacity, etc.) that need to be addressed to grow a competitive low carbon fuels cluster? What are key considerations for the Calgary Region in this regard?
- Who are the ecosystem partners (i.e. industry associations, academia, businesses, indigenous partners, incubators/accelerators etc.) that could be leveraged to support growing trends identified in low carbon fuels?

Section III:

<u>Competitive Positioning & Differentiation</u>

- How does Southern Alberta's value proposition compare to other jurisdictions in attracting low carbon fuels projects?
- What are the distinct niches or specializations Southern Alberta could own within the broader low carbon fuels landscape? Where are the most strategic opportunities for regional economic growth?

Investment & Policy Levers

- What types of incentives, partnerships, or policy interventions have proven effective in other regions, and which could be adapted or scaled in Southern Alberta? In the Calgary Region?
- How can Calgary best align with federal and provincial low-carbon policies to drive investment and adoption in this segment? How can the Calgary Region disproportionately attract investment i.e., attract more than our fair share?

Section IV: Future Scenarios & Risks

• What are the potential risks, bottlenecks, or external shocks (e.g., policy changes, supply chain disruptions, geopolitical tensions) that could impact the development of the sector?



• What plausible future scenarios should Southern Alberta and the Calgary Region prepare for in a rapidly evolving global energy transition context, and what are the implications for its economic strategy?

In the Proposal response, the Vendor will provide a timeline and detailed schedule of activities and steps (i.e., approach) for the completion of this work.

12. Deliverables

We invite the vendor to present their own methodology to achieve the desired analysis and deliverables.

- Interim results drafts: Draft results will focus on key findings to date focused on Section I-II (Part 1) and Section III-V (Part 2) as outlined in the Scope of Work.
- Final Deliverables:
 - Presentation materials highlighting key findings, analysis and recommendations with visuals/graphics³
 - A comprehensive report (including the visuals and graphics) as per the scope of work requirements.
 - Content development for a concise sector report, referred to as a "Sector/Industry Outlook," highlighting key trends (evidenced with data) and opportunities for the region to scale its low-carbon fuels industry based on the research.
 - Examples of how specific companies and organizations are initiating or advancing work in the space is required.
 - Verbal presentations to CED (internal) and select partners (external), including a Q&A session.

The final deliverables may or may not be published in their final format. CED may incorporate elements of these deliverables to inform near-term developments and/or materials.

Any presentation of deliverables should be in electronic format and readable using common software and common formats such as Word, PowerPoint, Excel or PDF. Due to the importance of sharing interim insights from the research associated with this RFP, please plan for frequent touchpoints with CED.

CED and their collaborators will consider other suggested deliverables by Vendors.

³ Our preference is a PowerPoint slide deck, but other mediums are also acceptable.



13. Communication Cadence

Regular touchpoints with Project Lead and Contracting Manager (both from CED) and other project team members or designated SMEs are to be expected.

• The chosen vendor should plan for **weekly/bi-weekly touchpoints** with the Project Lead and Contracting Manager as a minimum (unless otherwise agreed upon)

14. Fees and Payment Terms

CED and their collaborators expect Vendors to price the work according to the scope outlined above and as competitively as possible. Proposals should include a breakdown of the Vendor's fees and disbursements in completing the Services.

The Vendor agrees to invoice CED monthly based on progressed completion of the Services as described in this contract. All pre-approved expenses and disbursements are to be invoiced as they are incurred together with the monthly progress billing.

15. Project Lead and Contracting Manager

For the purposes of the provisions of information surrounding this contract or the administration of the contract, the **Project Lead** is:

Calgary Economic Development Ltd. Attention: Karim Khamisa, Business Development Manager, Energy & Environment 237 – 4th Avenue SW, Suite 2600 Calgary, AB T2P 3K4 Canada Email: kkhamisa@calgaryeconomicdevelopment.com

For the purposes of the provisions of information surrounding this contract or the administration of the contract, the **Contracting Manager** is:

Calgary Economic Development Ltd. Attention: Linda Truong, Manager, Business Intelligence 237 – 4th Avenue SW, Suite 2600 Calgary, AB T2P 3K4 Canada Email: <u>Itruong@calgaryeconomicdevelopment.com</u>



16. Proposal Evaluation Criteria

16.1. Selection Methods

When an alternative is proposed regarding any specific requirement, it will be evaluated to ensure that the desired results will be achieved. Vendors should be aware that certain mandatory requirements have been set out in the terms of reference (scope, methodology, and deliverables) and submission information. Proposals that fail to provide these requirements may not be evaluated.

16.1.1. Vendor Response Guidelines

The following information should be provided in each proposal and may be utilized in evaluating each proposal submitted.

16.1.2. Team Competence & Resources

Describe the capability (technical expertise) of the resources proposed to meet the requirements described in the terms of reference. The proposal shall include a summary of the firm and/or proposed project team knowledge, skills and past experience, with a description indicating how, and in what ways the proposed resources satisfies the needs and objectives identified in the RFP.

Include related experience of the firm, including the past three similar jobs that have completed with the company name, contact person and phone number that CED may contact for a reference.

16.1.3. Methodology

Clearly articulate the process and qualitative and quantitative methodology to be used, proposed work plan schedule, and timeline for deliverables in order to achieve the objectives and deliverables of the RFP. The methodology should also include consultations and timely reporting to CED.

16.1.4. Fees And Expenses

Expense information should be supplied including a breakdown of costs by major work plan tasks:

- Per diem rates
- Travel, if required
- Administration overhead
- Phone, fax, courier, printing, etc.
- Sundry and contingency overhead rates
- Software costs, data information or research
- Prices must be stated in actual dollars and cents expressed in Canadian funds.
- CED will pay the goods and services tax (GST); however, do not include GST in your proposed pricing.

CED will evaluate submissions based on the following criteria:



| Criteria | Possible Points | | |
|---|--------------------|--|--|
| Quality of Submission | | | |
| Clear and concise Quality of writing | 10 | | |
| Team Competency, Capabilities and Background | | | |
| Relevancy of past projects (please provide examples where possible) | 30 | | |
| Experience and knowledge of the Energy sector | 30 | | |
| Demonstrated business and/or industry experience | | | |
| Understanding of economic development Approach and Proposal | | | |
| Accurately addresses purpose and objectives Clearly outlines approach to each deliverable; the methodology should also include consultations and timely reporting to the Contracting Manager and Project Lead Sound rationale for order of deliverables Initial delivery within timelines outlined by CED Clear timelines for project milestones and methodology for completing Scope of Work | 40 | | |
| Fees Fees have been clearly outlined and are competitive Breakdown of fees and disbursements | 20 | | |
| Total | 100 | | |

17. Submission Information

Proposals must be received **by email** before 17:00 MST, **Friday, August 15th, 2025** to:

237 - 4th Avenue SW, Suite 2600 Calgary, Alberta T2P 4K3 Canada

Attention: Linda Truong, Manager, Business Intelligence Email: <u>ltruong@calgaryeconomicdevelopment.com</u> Subject: RFP 2507-001 – Low Carbon Fuels Study

- Proposals received after the exact time and date noted above will not be considered by CED.
- After the closing, CED may post the identity and addresses of the vendors.
- Proposals must be transmitted by e-mail as noted above. Transmitted proposals will be accepted under the following conditions:
 - The proposal is received before the submission deadline at the e-mail address provided above.



18. CED Reservation of Rights and Vendor's License Grant

CED reserves the right:

- To not consider, or to reject, any or all proposals in whole or in part for any reason whatsoever in its sole and absolute discretion;
- To accept any proposal in whole or in part, even if it does not comply with the terms of this RFP;
- To short list vendors, and require a presentation by the vendors short-listed and/or the provision of additional information by such short-listed vendors;
- To, at any time, add, delete or modify this RFP and to have the vendors advise CED of the effect of such changes on their proposal and/or have the vendors resubmit their proposals in light of same;
- To negotiate at any time with any one or more of the vendors to the exclusion of the other vendors; and
- To not proceed, for any reason, with this RFP or the project contemplated in this RFP.

By submitting its Proposal for consideration, the Vendor will thereby be agreeing to all of the following:

- Without the further consent of the Vendor or providing any notice, CED may disclose any and all of the content of Vendor's Proposal to any or all of the other vendors or any third party, including any or all of the creative content contained in Vendor's Proposal;
- The Vendor grants and agrees to grant to CED a non-exclusive, perpetual, fully-paid up, irrevocable license to implement, use, reproduce, modify, display, distribute, transmit, prepare derivative works of and to otherwise fully exploit, without limitation, any and all of the content of Vendor's Proposal including without limitation, all of the creative content, ideas, concepts and approached as well as all copyright therein;
- Such license shall extend to any other vendor or any other third party that CED may engage to use and implement such content;
- CED shall have no obligation to provide any credit or otherwise attribute to the Vendor or anyone else any such content as may be implemented and/or used by CED;
- The Vendor represents and warrants to CED that such content is the original work of the Vendor and its use by CED as contemplated in this Section 21 will not infringe on any rights of any third party; and
- All of the rights and licenses granted herein and the exercise of all such rights and licenses by CED and the other vendors and such other third parties, as described herein, are granted and may be exercised: (i) without any obligation to account to the Vendor or to otherwise pay any consideration to the Vendor; and (ii) without having to have accepted or shortlisted Vendor's Proposal.



19. No Further Contract or Liability Arising from RFP Process

By submitting a Proposal, the Vendor agrees and acknowledges that:

- Nothing in this RFP nor the submission of the Proposal nor the review and consideration of the Proposal by CED nor will any communication between the parties in relation to the RFP or the Proposal operate to obligate any party to enter into any further business relationship with the other party and, in particular, if CED decides to engage the Vendor in connection with the subject matter of the RFP then such engagement may only occur pursuant to a written agreement that has been signed by both parties and, absent such written agreement, CED will have no further liability or obligation to the Vendor in connection with the subject matter of the RFP;
- The Vendor is participating in this RFP process at its sole risk and expense, and CED will not be liable to the Vendor for any costs, expenses or liabilities incurred by the Vendor in any way arising in connection with the Vendor's participation;
- CED has made no representations other than those expressly stated in this RFP;
- CED has the right to cancel this request for proposals at any time and to reissue it for any reason whatsoever or decide not to reissue it for any reason, without incurring any liability and no vendor will have any claim against CED as a consequence; and
- The Proposal and any accompanying documentation submitted by the Vendor will become the property of CED and will not be returned.

20. Appendix

The following list of sources are relevant materials for exploration of this sector research:

- 1. Alberta Energy Regulator, Emerging Resources Hydrogen, 2025.
- 2. Navius Research, <u>Biofuels in Canada Annual Report</u>, 2024.
- 3. Advanced Biofuels Canada, Biofuels in Canada 2024 Databook, <u>Clean Fuels Report</u> <u>Card</u>, 2024.
- 4. Canadian Council for Sustainable Aviation Fuels, <u>Building a Feedstocks-to-Fuel</u> <u>Supply Chain in Canada</u>, 2023.
- 5. The Transition Accelerator, <u>Towards a Fuel Hydrogen Economy in the Calgary</u> Region: A Feasibility Study, 2023.
- 6. Government of Alberta, <u>Alberta Hydrogen Roadmap</u>, 2021.
- 7. Delphi Group, <u>Alberta Energy Transition Study</u>, 2021.
- 8. Advanced Biofuels Canada, Canadian Transportation Fuels Dashboard.