



Welcome

Regional Advisory Committee

Wednesday, February 28, 2024





Welcome and Panel Introductions



Name



Where you reside



Land Acknowledgement

Project of Heart, 2023/24

“Fort Saskatchewan Elementary School is working with Canadian Ojibway artist Ellie Lagrandeur on a school wide painting project.

Our goal is to weave the 4 elements of Air/Eagle, Earth/Deer, Water/Beaver, and Fire/Wolf into a work of art that each student and staff member can contribute to; a work of art to tell the story of who we are.”





AGENDA

LITH Regional Advisory Committee

DATE: Wednesday, February 28, 2024
TIME: 5:00 pm - 8:00 pm
PLACE: Lion's Banquet Hall, Dow Centennial Centre, Fort Saskatchewan

- | | | |
|--|------------------------------|---------|
| 1. Dinner/Table Discussions | All | 5:00 pm |
| 2. 5-Minute Call for Meeting | Shawna | 5:40 pm |
| 3. Land Acknowledgement & Welcome | Shawna | 5:45 pm |
| 4. Review of Agenda & Previous Meeting's Notes | Shawna | 5:50 pm |
| 5. Safety Moment | Shawna | 5:55 pm |
| 6. Feedback Forum <ul style="list-style-type: none">Dinner discussion items for consideration | Shawna | 6:00 pm |
| 7. Heartland Growth Guest Presentations <ul style="list-style-type: none">Company spotlight presentations | IPL/AIHA/Laurie
Danielson | 6:05 pm |
| BREAK | All | 7:05 pm |
| 8. Heartland Growth <ul style="list-style-type: none">Industry panel Q&A and open discussion | TBD | 7:15 pm |
| 9. Roundtable <ul style="list-style-type: none">Public members' final thoughts/takeaways | Shawna | 7:45 pm |
| 10. Next Meeting <ul style="list-style-type: none">Wednesday, June 5, 2024 (DCC, Lion's Banquet Hall)Meeting Evaluation and next meeting's topic (Indigenous Engagement and the Path to Reconciliation) | Shawna | 8:00 pm |
| 11. Adjournment | All | 8:05 pm |



What We Heard

LITH Regional Advisory Committee Meeting Summary

Wednesday, October 11, 2023, 5:00 – 8:00 pm

Lion's Mane Banquet Hall, Dow Centennial Centre

On October 11, 2023, Life in the Heartland (LITH) hosted its Regional Advisory Committee (RAC) bi-annual meeting, facilitated by Shawna Bruce. LITH was pleased to have ten public members, representatives from nine industry companies, the Executive Directors from Alberta's Industrial Heartland Association (AIHA), the Fort Air Partnership (FAP), Northeast Capital Industrial Association (NCIA), and Northeast Region Community Awareness Emergency Response (NRCAER), and guest presenter Deputy Gordon George of Strathcona County Fire in attendance.

Industry and public members engaged in a dinner discussion and activity ahead of the formal meeting, allowing them to learn more about each other, as well as discuss what sustainability means to each of them and how they define sustainability. The meeting had a fulsome agenda discussing Environment and Sustainability in the Industrial Heartland.

Members heard presentations from Nadine Blaney from Fort Air Partnership, Laurie Danielson from Northeast Capital Industrial Association, John Parfett from Keyera, and Ashley Hynes from Sherritt where they discussed air quality and monitoring, surface water management, and industry sustainability and biodiversity initiatives.

After the guest presentations, the facilitator opened the floor for questions from the public members to the presenters. A fulsome discussion ensued with participation and more information shared by the other industry companies in attendance. The meeting concluded with the public members sharing their takeaways from this evening's presentations and discussion.

The tentative discussion topic for the next meeting will focus on Heartland Growth (land use planning and transportation). Sheena Fitzpatrick (LITH) and the facilitator will reach out to the panel of public members to confirm this topic is their next top priority for discussion.

The next meeting is scheduled for Wednesday, May 1, 2024, from 5:00 - 8:00 pm at the Dow Centennial Centre (Lion's Mane Room) in Fort Saskatchewan.

Safety Moment

- Keep a safe distance from riverbanks and lakes.
- Don't walk on ice-covered bodies of water.

It's difficult to assess the thickness of the ice and its ability to hold the weight of a person or animal.





What to do

- Stay calm and try to keep your head is out of the water and control your breathing.
- Call for help and keep your hands on the ice shelf.
- Try to pull yourself up on the ice on your stomach and roll towards the shore, where the ice may be thicker.
- If you can't get out of the water in less than 10 minutes, stop kicking and trying to pull yourself out, and anchor yourself to the ice shelf.
- Continue to call for help.





How to help someone or a pet

- Call 9-1-1
- Do not attempt to rescue them yourself by going near the open water.
- Use a reaching assist like a rope or a scarf or, if there are other people, form a human chain.

• **BE ICE AWARE!**

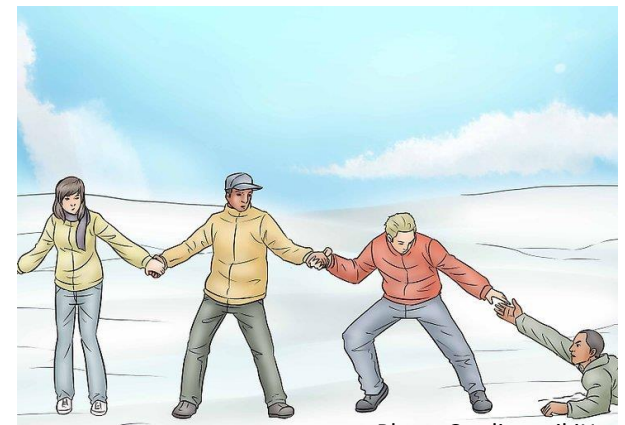


Photo Credits: wikiHow



Feedback from Dinner Discussions



Please let us collect your surveys and we will share the results with you via email.



Sneak peek?

Key Takeaways?

Surprises?



Heartland Growth Guest Presentations

Inter Pipeline Ltd. – Lorraine Royer

**Alberta's Industrial Heartland Association (AIHA) –
Mark Plamondon**

**Northeast Capital Industrial Association (NCIA) –
Laurie Danielson**



Inter Pipeline:

Gaining Operating Approval for the Heartland Petrochemical Complex

LITH Advisory Committee
Lorraine Royer February 2024



Disclaimer

The following information is intended only as a general overview of Inter Pipeline's experience obtaining past regulatory approvals related to Heartland. It is not intended to provide definitive guidance on any Alberta regulatory process and must not be relied upon as such. Readers are encouraged to refer to specific Alberta laws and regulatory guidance and seek legal advice from legal counsel familiar with Alberta laws and regulations specific to any particular project.

Application and Approval Process

- Understand the roadmap early
- Consult and collaborate with regulators

- Complex process involves multiple jurisdictions
- Operating Approval (EPEA approval) is key, but conditional upon other approvals
- Each project is approached independently despite well understood regulations and approval targets
- Upfront stakeholder mapping and engagement is key, prior to application



Expected Regulatory Jurisdictions

Two key industrial development authorities in Alberta:

- Alberta Environment and Protected Areas (AEPA) (downstream and non-energy)
- Alberta Energy Regulatory (AER) (upstream energy)

Local municipal authorities – land use and permits

Maybe Environmental Impact Assessment (EIA): certain triggers

Several regulations outside of this above process (federal and provincial) have a significant impact on petrochemical developments

Operating Approval

- Is only one of many approvals required for a project
- Allows for the construction, operation and reclamation of a facility
- Issued based on design parameters and operating commitments
- Typically amended to account for final design and operating conditions
- Must be renewed every 10 years
- Approval outlines operating parameters, monitoring and reporting requirements
- Operating Approval can be conditional on other permits/approvals



HPC Experience

Project Regulatory Timelines:

- First EPEA application October 2013; first EPEA approval January 2015
- HPC EPEA approval expires in December 2024

Initial to Final Design Timelines:

- Select technology and proprietary agreement
- Ensure engineering contractors are knowledgeable of AB regulations. Any changes to approved parameters must be approved

Construction, Commissioning and Start Up:

- Several temporary authorizations from AEPA are required for temporary equipment and construction activities during this phase
- Public notification and awareness is critical during this phase

Commencement of Operations:

- Formally notify AEPA, all commitments and requirements take effect.

HPC Experience

Stakeholder and Community Engagement

- Consultation
 - first Project Information Package mailed to affected stakeholders March 2013
 - annual updates mailed 2013-2021
 - first open house May 2013 (additional 4 over time)
- Several public presentations – AIHA, community and government events. Life in the Heartland semi-annual presentations
- Project website, radio and newspaper used as notification tool. Virtual Town Hall set up during pandemic
- Indigenous engagement – notification and consultation, business opportunities
- Government, Women Building Futures, Heartland Association, Chemistry Industry Association, Alliance to End Plastic Waste, Alberta Plastic Recycling Association, Resource Diversification Council

Project Phases and Key Approvals

Pre-Disturbance & Civil Site Work

- clearing, grading, access and road use – municipal permits
- topsoil conservation, off-site storage or use – AEPA authorization
- wetland assessment and Impact Form – AEPA approval
- Public Lands disposition – Forestry, Parks & Tourism (if required)
- Historical Resources Assessment – Alberta Culture, Multiculturalism and Status of Women

Construction

- Development Permit – municipal permit
- Environmental Impact Assessment – AEPA (and IAA if listed activity) determination whether the project requires an EIA
- Pre-consultation Assessment – ACO determination whether First Nation consultation is required
- ***EPEA Approval – AEPA approval based on limited engineering design***
- Water Act Licence – AEPA water allocation certificate
- Aviation assessment – NAV Canada
- Railway Operating Approval – Alberta Transportation and/or Transport Canada
- Nuclear Gauges or other sources – Canadian Nuclear Safety Commission

Commissioning / Start-up

- Temporary authorizations

Operations

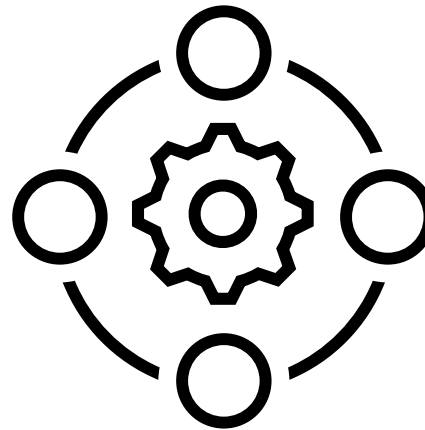
- ***EPEA Approval amendment(s) – AEPA approval to align with final design and operating conditions***

Reclamation

- Decommissioning Plan and Land Reclamation Plan – AEPA approval and issue of reclamation certificate

Growth in Alberta's Industrial Heartland

Alberta's Industrial Heartland Association (AIHA) is a municipal government supported economic development association. AIHA's mandate is to attract heavy industrial investment into Alberta's Industrial Heartland.



AIHA is a 25-year partnership of **five** municipalities and **three** associate members. AIHA is non-profit and does not seek any financial reward from project sponsors.



M U N I C I P A L I T I E S

A S S O C I A T E M E M B E R S

INTERNAL DEPARTMENTS



BUSINESS DEVELOPMENT

Works with companies to understand if AIH makes sense for their next investment



EXTERNAL RELATIONS

Advocates for project sponsors at all levels of government



COMMUNICATIONS AND COMMUNITY OUTREACH

Connects the community and stakeholders to activity in region

STRATEGIC PILLARS

Promote Project Opportunities in AIH

Attendance at notable global industry events, such as Gas Tech and World Methanol Conference

Marketing and advertising campaigns focusing on competitive advantages of the region

Improve the Business Case for AIH

Robust study and intelligence building programs

Policy and engagement opportunities, such as the Designated Industrial Zone

Advance AIH Social License and Community Support

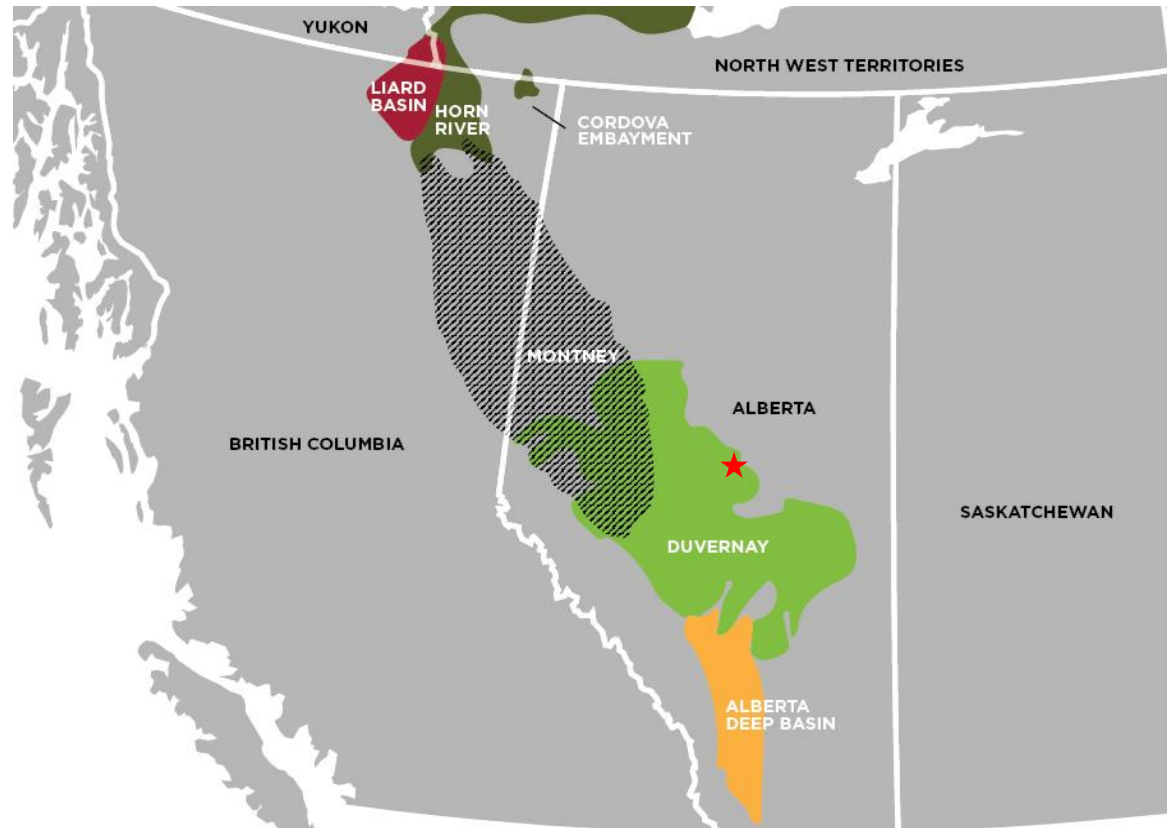
Supporting community engagement organizations such as Life in the Heartland

Indigenous engagement and Reconciliation Action Plan

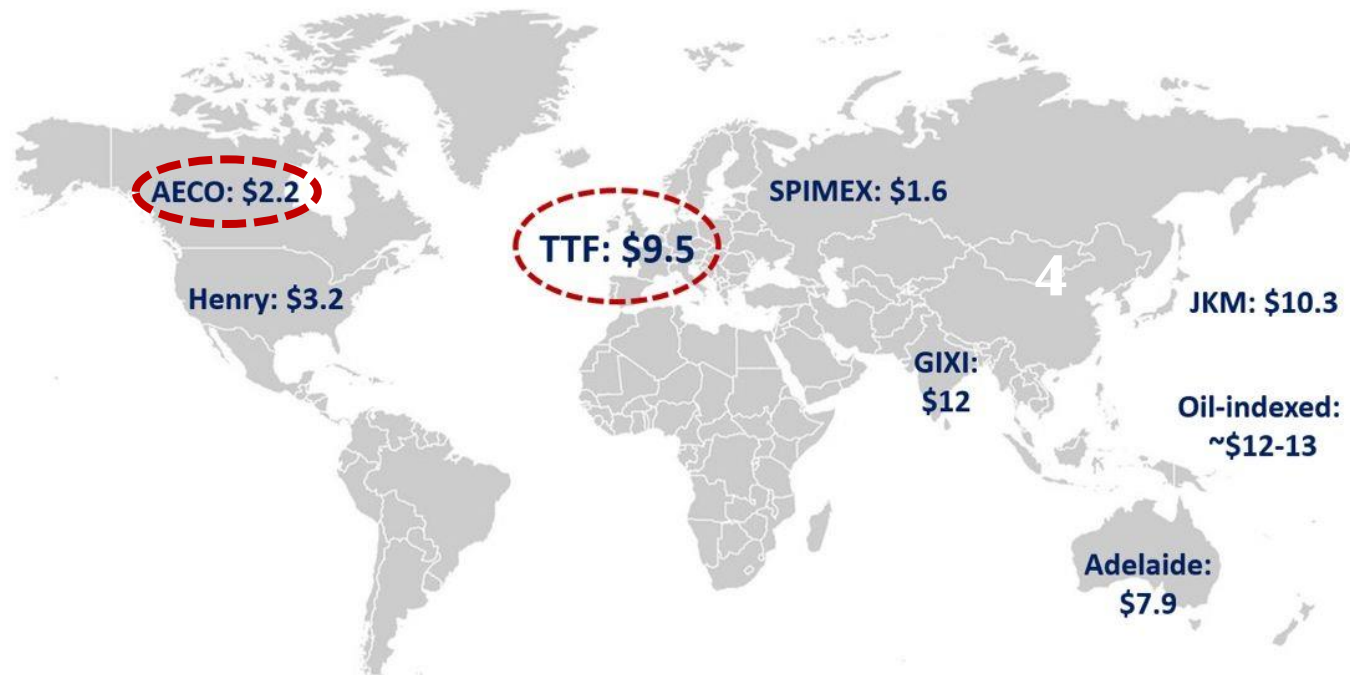
ALBERTA'S INDUSTRIAL HEARTLAND: COMPETITIVE ADVANTAGES DRIVING GROWTH

AIH is the HEART of a World Scale Energy Hub and is at the center of the second largest oil and gas reserve in the world.

- Over 1,100 TCF of natural gas reserves, representing over 200 years of production at current demand
- 18 bcf/d of gas produced in the WCSB
- Nearly 4.0 million barrels of oil produced and processed in Alberta
- 471,000 barrels of refining capacity in the Heartland

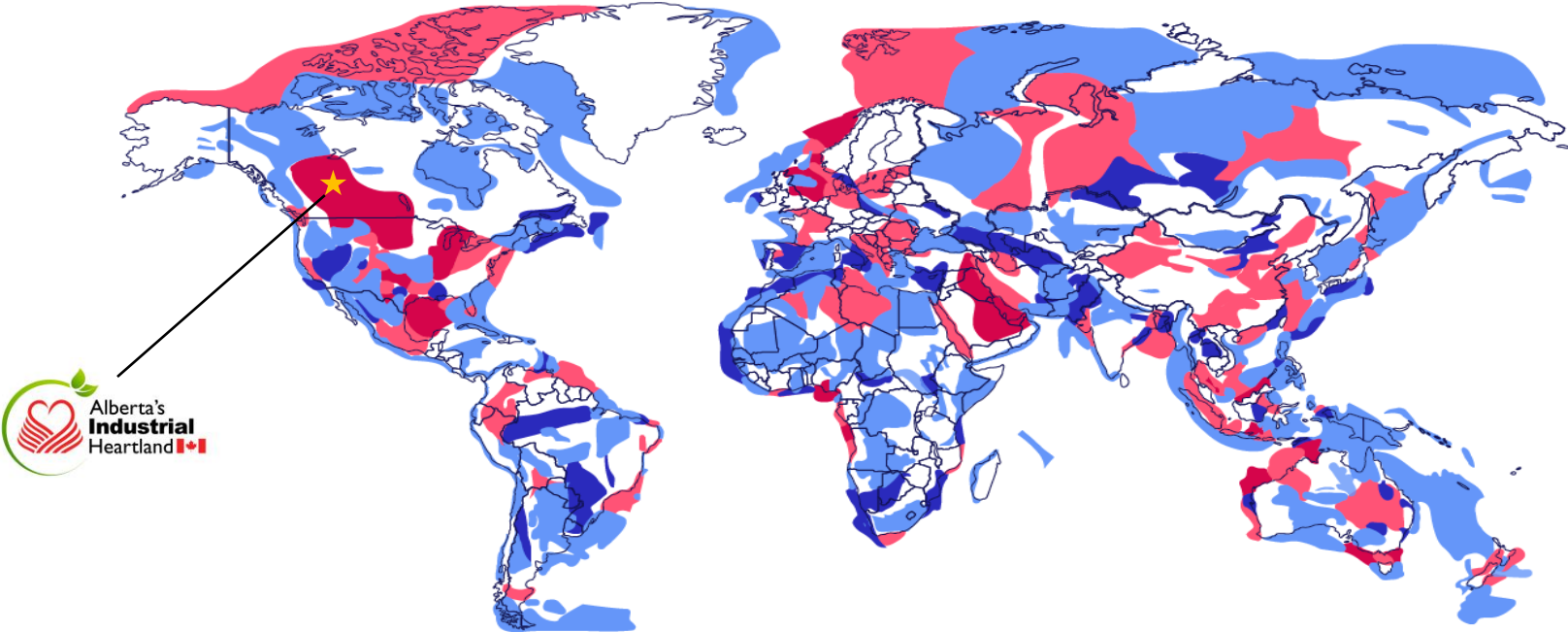


Natural gas price benchmarks –January 2024 (\$/mmbtu)



Source: Global LNG Hub. Spimex = Domestic NG price in Russia, TTF = Spot LNG price in Netherlands, IGX = Spot domestic NG price in India, JKM = Spot LNG price in Japan/Korea, Adelaide = Domestic NG price in Australia.

HIGHLY SUITABLE CARBON SEQUESTRATION GEOLOGY



■ HIGHLY SUITABLE ■ SUITABLE ■ POSSIBLE ■ UNLIKELY

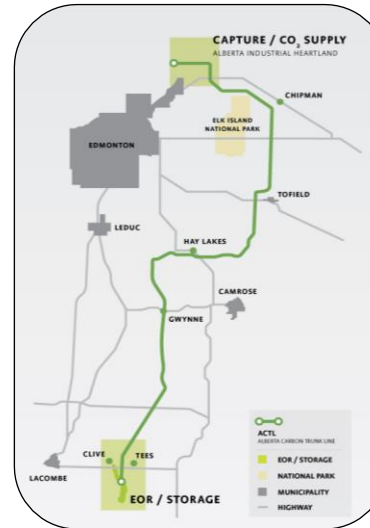
Source: Global CCS Institute

AIHA is home to ~10% of the large-scale carbon capture storage/utilization projects operating in the world



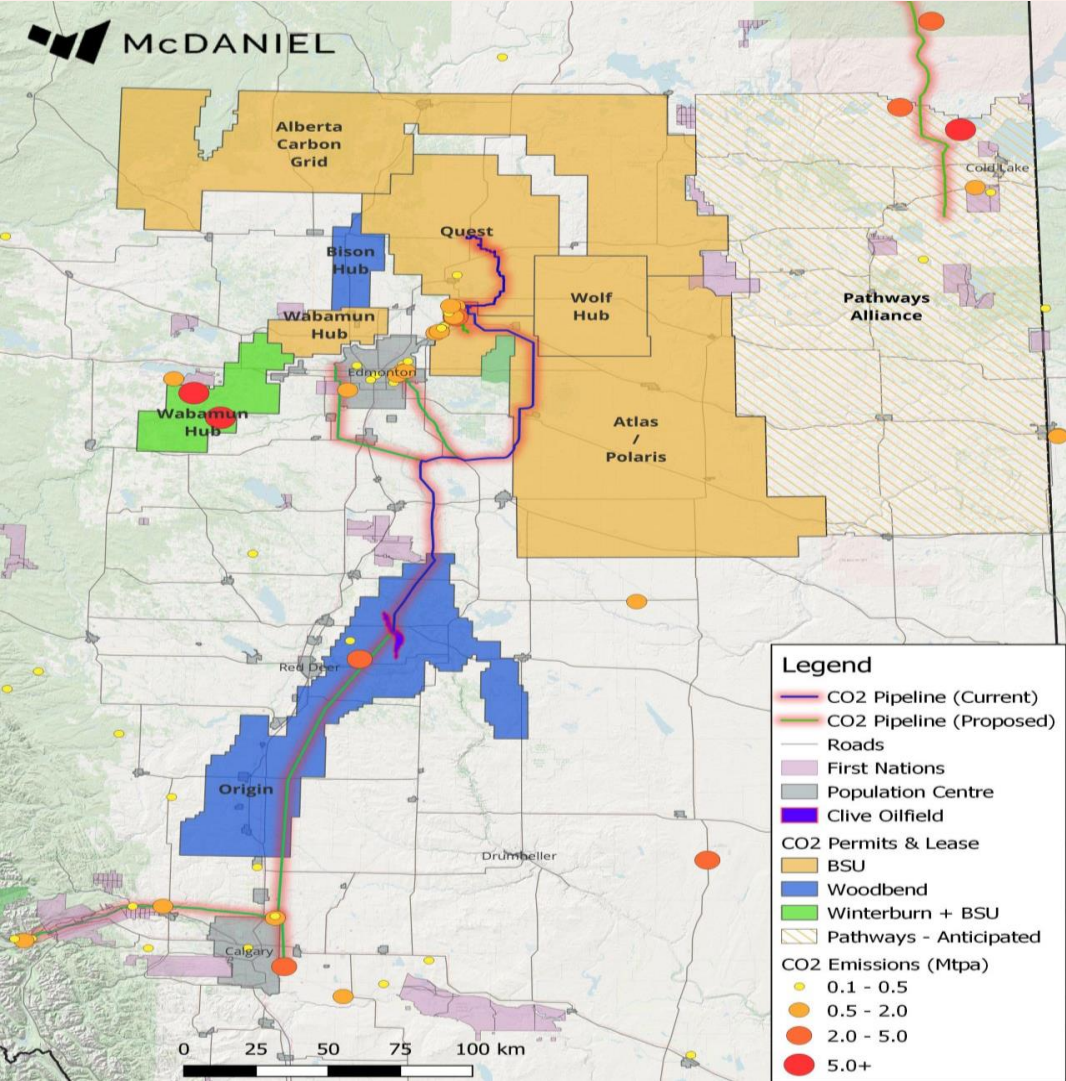
Quest Carbon Capture and Storage

- A world-class capture project designed to capture and store over 1 million tonnes of CO₂ per year
- Quest began operations in 2015 and, to date, has captured and stored more than 4 million tonnes of CO₂
- Quest is owned by the Athabasca Oil Sands Project (70% CNRL, 20% Chevron, 10% Shell) and operated by Shell Canada



Alberta Carbon Trunkline

- Alberta's first large-scale carbon capture utilization and storage project
- Consists of a 240-kilometre pipeline collecting and transporting up to 14.6 million tonnes per year of CO₂ for enhanced oil recovery and storage
- Developed as a partnership between Wolf Carbon Solutions (Wolf), Enhance Energy, Nutrien, and NWR



NEW CARBON HUBS BEING STUDIED

Atlas Carbon – Shell Canada, ATCO, & Suncor
(10 MMPTA)

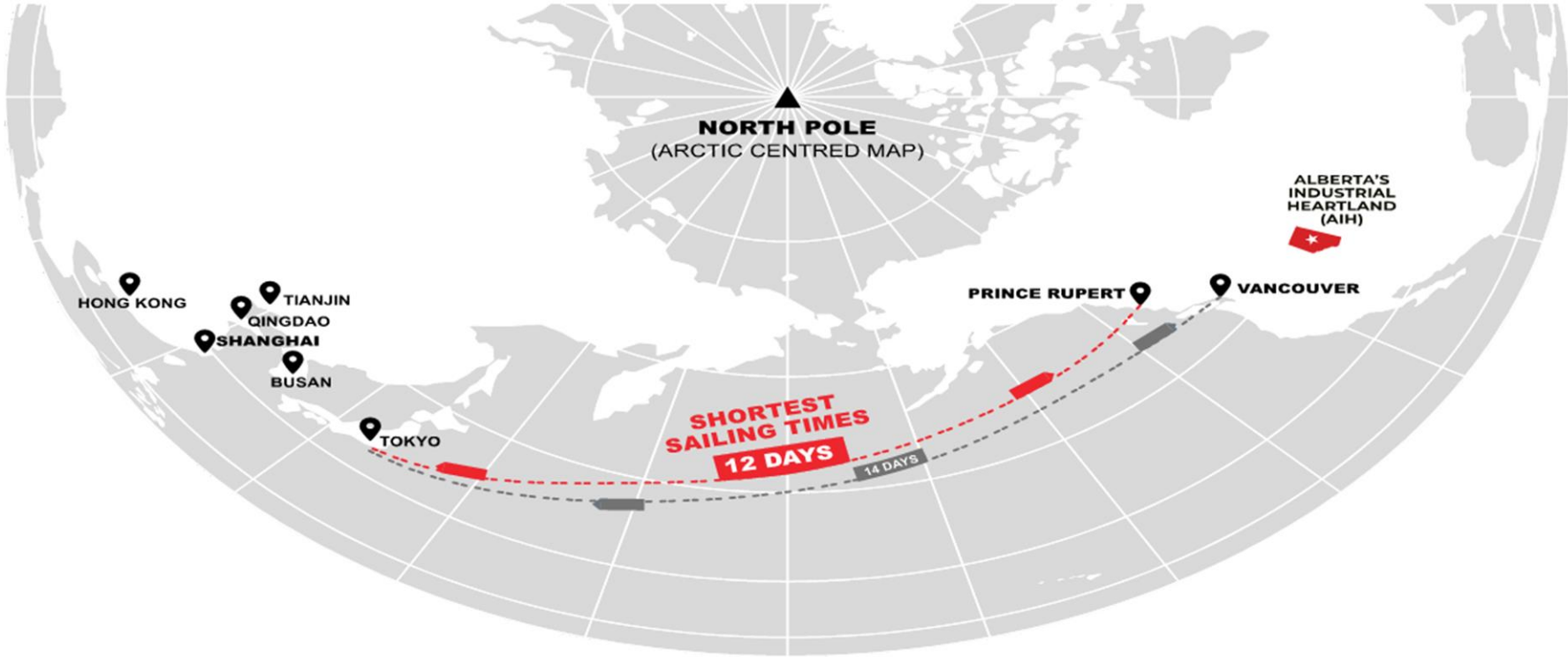
Meadowlark – Bison Low Carbon Ventures

Alberta Carbon Grid – Pembina & TC Energy
(10 MMTPA)

Wabamun Hub - Enbridge

Wolf Hub – Wolf Midstream

Origin Hub – Enhance Energy



COMPREHENSIVE GOVERNMENT SUPPORT

Federal Incentives

Strategic Innovation Fund – Funding envelopes for strategic projects

Scientific Research and Experimental Design – Tax credits for research and design in Canada

Accelerated Capital Cost Allowance – Accelerated depreciation for manufacturing projects

CCUS Tax Credit – Refundable tax credits for CCUS infrastructure(60% for DAC)

Clean Technology Investment Tax Credit – Refundable tax credits for clean technologies

Clean Technology Manufacturing Investment Tax Credit- Refundable Tax credits

Provincial Incentives

Alberta Petrochemical Incentive Program – Grants for 12% of eligible capital costs

Emissions Reduction Alberta Funding Programs – funding competitions for strategic projects

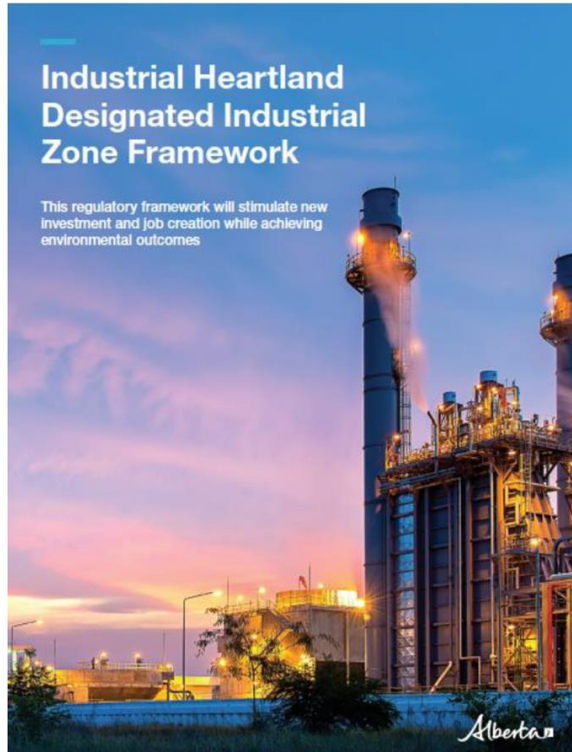
Municipal incentives

Heartland Incentive Program – Property tax abatement up to 2.5% of capital cost of project

Designated Industrial Zone – Regulatory streamlining for projects in the Industrial Heartland

2/29/2024





Classification: Protected B

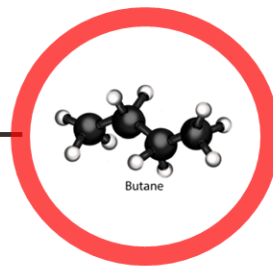
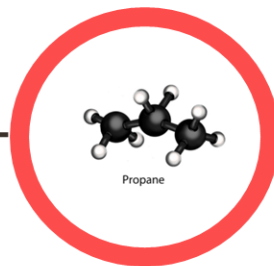
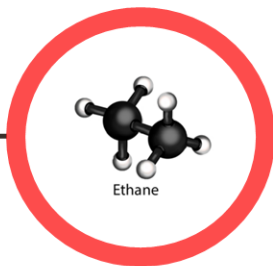
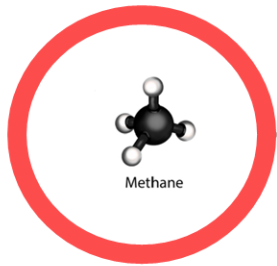
- Facilitate regulatory streamlining
 - Clarity in requirements for facilities
 - Provide investor certainty
 - Reduce approval timelines
- Improve environmental outcomes
 - Clear expectations for operators
 - Improved understanding of environmental conditions
 - Management of cumulative effects.
- Centralize infrastructure

The Alberta logo, featuring the word "Alberta" in a stylized script font with a small red and white Canadian flag icon to its right.

ALBERTA'S INDUSTRIAL HEARTLAND: GROWTH OPPORTUNITIES

PETROCHEMICALS

DIVERSIFICATION



METHANE

- Methanol
- Fertilizer
- Fuel Ammonia
- Animal Nutrition
- Hydrogen
- Hydrogen Carriers

ETHANE

- Ethylene
- EO / EG
- Chlor Alkali / EDC

PROPANE

- Propylene
- PO / PG
- SAP
- IPA
- Animal Nutrition

BUTANE

- Maleic Anhydride
- Iso-butane
- Butadiene

HEAVY INDUSTRY

- Renewable Fuels
- Synthetic graphite
- Critical Mineral Refining
- Low-carbon Power
- Waste-to-energy
- Industrial Biotech

COMPLETE



IN PROGRESS

Project: Heartland Petrochemical Complex (HPC)
Description: HPC is Canada's first propane dehydrogenation and polypropylene production facility.

Project: NGL North
Description: NGL North is an NGL recovery, transportation, and fractionation system, connecting Northern Alberta to AIH.

Project: Scotford Solar
Description: Shell Canada and Silicon Ranch are constructing a 58-megawatt behind-the-meter solar farm to power Shell Canada Energy and Chemicals Park Scotford.

Project: Fort Sask Expansion
Description: Plains Midstream Canada sanctioned an expansion of their fractionation facility at Fort Saskatchewan.

Project: RFS IV
Description: Pembina is constructing its fourth fractionator in AIH. The C3+ frac will add 55 kbb/d, bringing total frac capacity to 256 kbb/d on site

Project: Path2Zero
Description: Path2Zero is Dow's first net-zero integrated ethane cracking complex which will utilize hydrogen as a clean fuel and third-party CCS

Project Type: PDH & PP
Capacity: 550 KTA
Status: Complete

Project Type: NGL capture, transportation and fractionation
Capacity: 70 KBbl/d
Status: Complete

Project Type: Solar Power
Capacity: 58 MW
Status: Under Construction

Project Type: NGL Frac
Capacity: 30 kbb/d
Status: Under construction

Project Type: NGL Frac
Capacity: 55 kbb/d
Status: Under construction

Project Type: Ethylene and derivatives
Capacity: 1.8 MMTPA
Status: Board Sanctioned

UNDER STUDY



Project: Blue Hydrogen and Ammonia
Description: Shell and Mitsubishi have signed a MOU relating to the production of low-carbon hydrogen/ammonia through the use of carbon capture and storage (CCS).

Project Type: Hydrogen and ammonia
Capacity: 165 KTA hydrogen
Status: Under Study



Project: Blue Ammonia and Blue Methanol
Description: Itochu Corp., Petronas Canada and Inter Pipeline announced a partnership to evaluate the development of a world-scale integrated blue ammonia and blue methanol production facility.

Project Type: Ammonia and Methanol
Capacity: 1.8 MTPA
Status: Under Study



Project: Blue Ammonia
Description: Pembina and Marubeni announced an MOU to jointly develop a low carbon ammonia facility utilizing CCUS. The ammonia will be produced to serve the Asian market

Project Type: Low-carbon ammonia
Capacity: 1.0 million mt/year
Status: Under Study



Project: Hydrogen Canada Ammonia
Description: Hydrogen Canada and E1 are collaborating on a blue ammonia facility in AIH.

Project Type: Blue ammonia
Capacity: 1.0 MTPA
Status: Under Study



Project: Clean fuel export
Description: ATCO and Kansai are collaborating to develop a clean fuels supply chain, producing clean hydrogen and derivatives for Asia.

Project Type: Hydrogen and derivatives (ammonia)
Capacity:
Status: Under Study



Project: AIH Waste-to-Energy
Description: Varme signed an MOU with a major industrial partner in AIH to pursue the development of a waste-to-energy facility with integrated carbon capture in AIH.

Project Type: Waste-to-energy
Capacity:
Status: Under Study



Project: Sol Aurora
Description: Alpin Sun is proposing to build a 200 MW solar farm in AIH to make clean energy available to nearby industrials.

Project Type: Solar Farm
Capacity: 200 MW
Status: Under Study

- Uncertainty if any of the projects that are currently “Under Study” will reach Final Investment Decision
- With projects that are “In Progress”:
 - Substantial Capital Investment into the region over this decade
 - Cumulative capital investments in AIH will grow well above the \$45 billion up to today
 - Significant Employment Growth
 - Construction activities
 - Permanent operating positions
 - Indirect economic activity
 - Service providers in the region will see substantial activity

QUESTIONS

MARK PLAMONDON
Executive Director, Alberta's Industrial
Heartland Association
+1-780-721-7204
mark@industrialheartland.com

Industrial Heartland Designated Industrial Zone (IH-DIZ) Operating Approvals

February 28, 2024
Regional Advisory Committee



Outline

1. What is an Operating Approval?
2. How are they granted?
3. What are we working on in the IH-DIZ?
4. Questions



What is an Operating Approval?

- Alberta Environmental Protection and Enhancement Act (EPEA) is the main environmental statute in Alberta.
- EPEA prohibits anyone from carrying on certain activities that affect the environment unless the person obtains an approval.
- Some large industrial activities require an approval under EPEA.
- These activities are listed in Schedule 1 of the Activities Designation Regulation, Alta. Reg. 276/2003.
- https://elc.ab.ca/Content_Files/Files/EnvironmentalApprovalsandLicences.pdf#:~:text=EPEA%20is%20the%20main%20environmental%20statute%20in%20Alberta.,of%20the%20Activities%20Designation%20Regulation%2C%20Alta.%20Reg.%20276%2F2003.

What is an Operating Approval?

- Activities specified in the Activities Designation Regulation (https://open.alberta.ca/publications/2003_276) under the EPEA require an approval from Alberta Environment and Protected Areas (AEPA) or the Alberta Energy Regulator (AER) prior to their construction or operation.
-
- The Act outlines the application procedure necessary to apply for an approval with further detail provided in the Approvals and Registrations Procedure Regulation.
- The Regulation outlines the information and content that is required in an application to inform the decision whether to grant an approval.
- Once granted, approvals must be renewed every 10 years.



Regulatory Streamlining in IH-DIZ Area



The intent of regulatory streamlining is to:

- Provide clear regulatory requirements for both new and existing facilities
- Provide certainty to investors in the zone
- Reduce approval processing times (the time it takes to renew EPEA approvals in the zone will reduce from an average of 18 months to 6 months)
- Align municipal permitting requirements across partnering municipalities
- Reduce the approval processing times for new builds

IH-DIZ Approval Renewal Process

- For the IH-DIZ area, a streamlined approval renewal process was adopted in January of 2022.
- It can be found at the following link:
- <https://open.alberta.ca/publication/s/industrial-heartland-diz-epea-guide-for-renewal-applications>



For New Operating Approvals

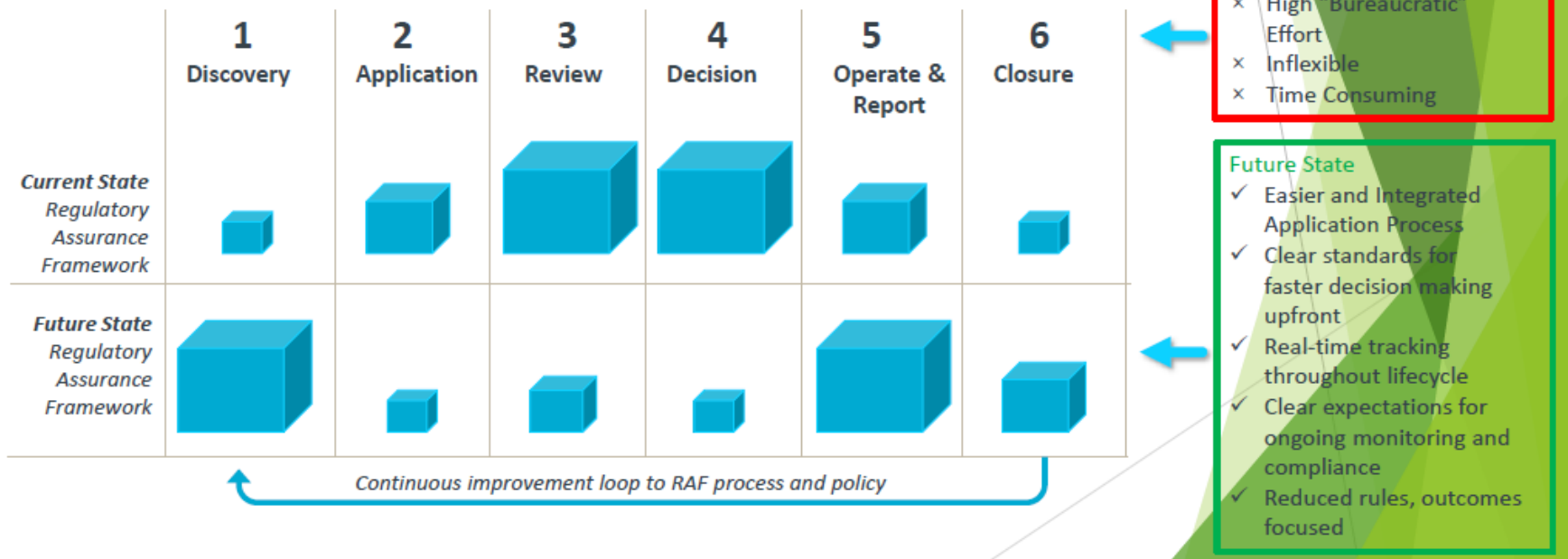
- We are currently working with AER and AEPA to streamline the process for new operating approvals.



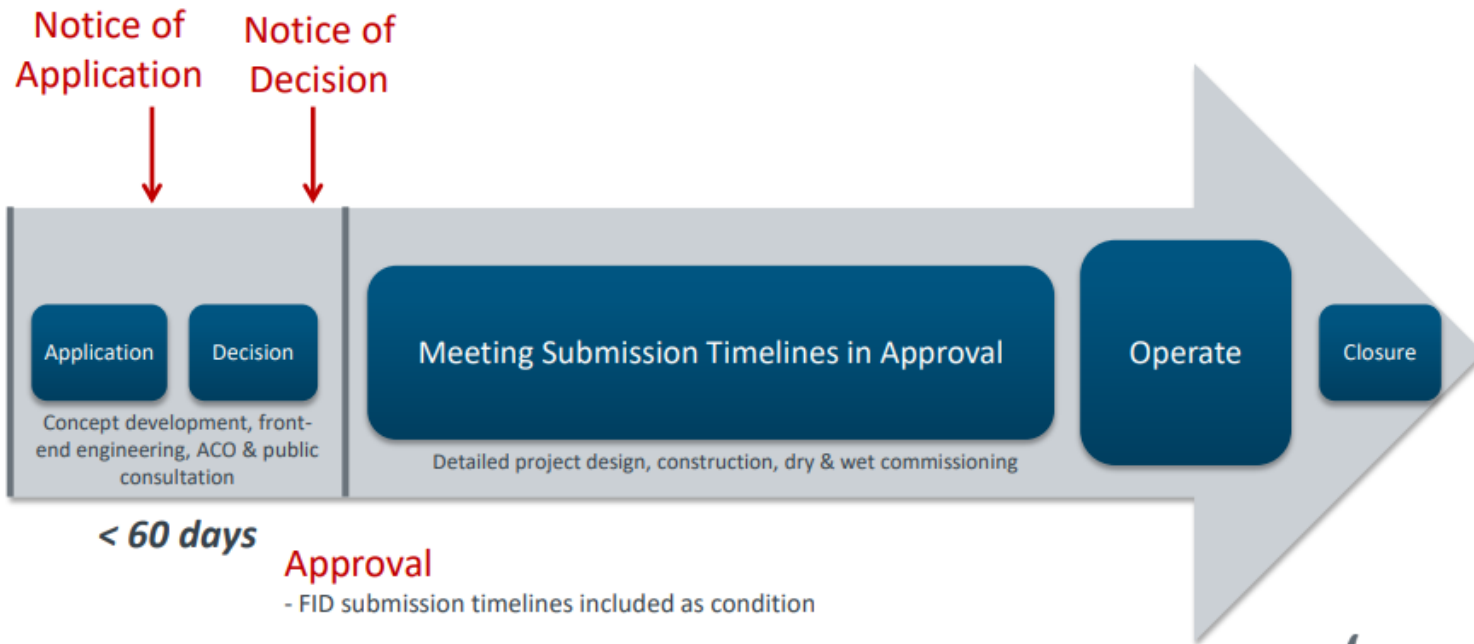
Regulatory Performance

What is RAF - Regulatory Assurance Framework?

Regulatory Assurance Framework: AEP's foundational approach to enabling economic development activity while ensuring environmental standards outlined in policies, plans, and legislation are maintained.



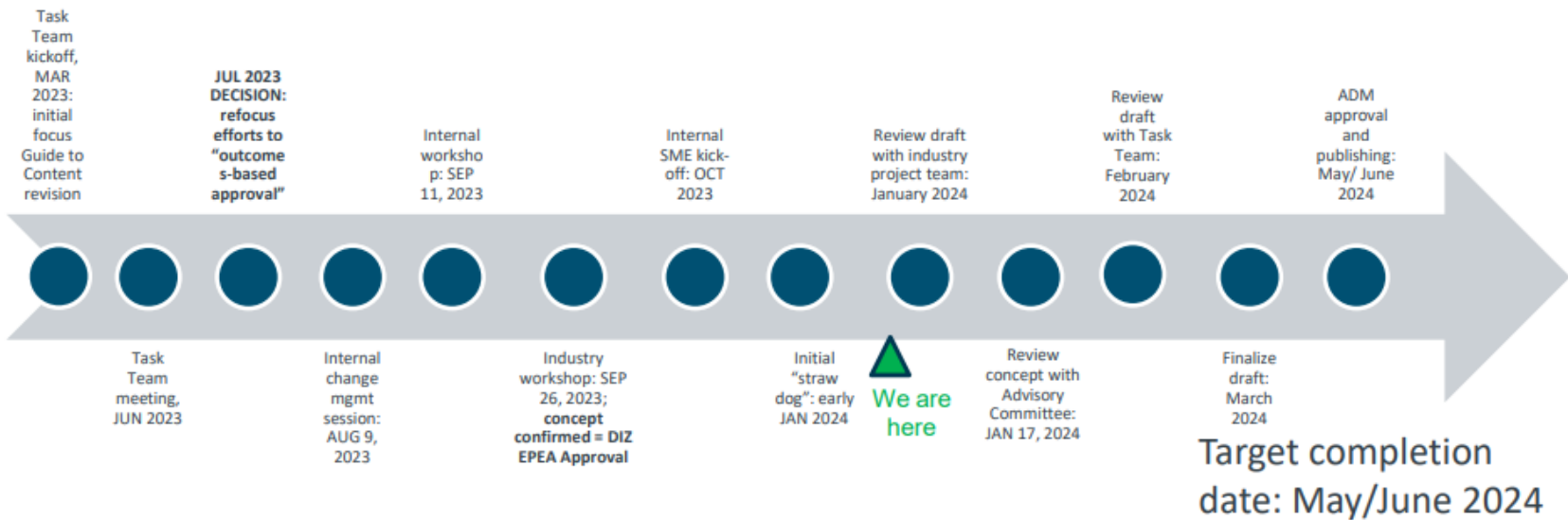
IH-DIZ EPEA Approval



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Classification: Protected B

IH-DIZ EPEA Approval: Timeline

Start: Mar 2023



Dr. Laurie Danielson
Executive Director
Northeast Capital Industrial Association
780-992-1463

w. NCIA.ab.ca

 [@NCIA_Alberta](https://twitter.com/NCIA_Alberta)

 [Northeast Capital Industrial Association](https://www.linkedin.com/company/northeast-capital-industrial-association)





Open Q & A Discussion

- Questions?
- Clarification?
- More details needed?



Roundtable

- **One** thing you learned tonight you didn't know before.
- **One** question that you may still have.
- **One** nugget you will share with a family member, friend or neighbour.



Next Meeting

- **Date:** Wednesday, June 5, 2024
Place: Dow Centennial Centre
(Lion's Mane Room)
- Please complete your meeting evaluations before leaving.

June 2024

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5 	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						



Thank you

- We know your time is valuable and we appreciate you spending this evening with us.

