

## **UTILITY SERVICES**

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**TO:** Public Presentation Committee  
**DATE:** June 29, 2022 **DIVISION:** 6  
**TIME:** Morning Appointment  
**FILE:** N/A **APPLICATION:** N/A  
**SUBJECT:** Green Impact Partners – Future Energy Park

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### **POLICY DIRECTION:**

The purpose of the Public Presentation Committee (PPC) ensures that Rocky View County provides a forum for members of the public and stakeholder groups to present information and updates to the County to ensure the County understands the needs and concerns of its communities. One of the Committee's functions is to to hear presentations from organizations such as Green Impact Partners.

### **EXECUTIVE SUMMARY:**

Julia Ciccaglione from Green Impact Partners will present to the Public Presentation Committee regarding a proposed Future Energy Park and will be available for questions and discussion following the presentation.

### **DISCUSSION:**

The purpose of this presentation is to provide Rocky View County with an overview of a proposed Future Energy Park located at the junction of 84 Street SE and Frontier Road within the city of Calgary limits. Constituents of the county have been notified as part of the engagement process. The Future Energy Park is a net CO<sub>2</sub> negative renewable biofuels facility that uses low-grade wheat to produce ethanol and renewable natural gas.

Administration has included a copy of the request form as Attachment 'A' and the presentation as Attachment 'B'.

### **BUDGET IMPLICATIONS:**

There are no budget implications at this time.

### **OPTIONS:**

- Option #1: THAT the Future Energy Park presentation by the Green Impact be received as information.
- Option #2: THAT alternative direction be provided.



ROCKY VIEW COUNTY

Respectfully submitted,

“Byron Riemann”

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Executive Director  
Operations

JK/bg

Concurrence,

“Dorian Wandzura”

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Chief Administrative Officer

**ATTACHMENTS:**

Attachment ‘A’ – Request to Present Form

Attachment ‘B’ – Presentation from Green Impact Partners

**ROCKY VIEW COUNTY PUBLIC PRESENTATION COMMITTEE (PPC)  
REQUEST TO PRESENT FORM**

Name of the group/individual:	Green Impact Partners
Representative(s) for the group:	Julia Ciccaglione (submitted by Trevor Joyal - Maskwa Environmental Consulting)
Contact telephone/cell number:	
E-mail:	tjoyal@maskwaenv.com
Presentation Topic:	Future Energy Park

Do you have an active planning application on this matter? ☐ Yes ☒ No

Are you planning on submitting a planning application on this in the next six (6) months? ☐ Yes ☒ No

Please check off the appropriate information about the presentation:

☒ Information - Public Interest ☐ Community Group Update ☐ Development Proposal

☐ Other, please explain

Overview of the topic and purpose of your presentation:

Green Impact Partners would like to provide Rocky View County an overview of the proposed Future Energy Park located at the junction of 84 Street SE and Frontier Road within the City of Calgary limits. The Project is located just west of the boundary of Rocky View County/City of Calgary and constituents within the county have been notified as part of the engagement process. Future Energy Park is a net CO2 negative renewable biofuels facility that uses low-grade wheat to produce ethanol and renewable natural gas. Project newsletter: [https://www.greenipi.com/wp-content/uploads/2022/05/FutureEnergyPark\\_Spring2022\\_Newsletter-2.pdf](https://www.greenipi.com/wp-content/uploads/2022/05/FutureEnergyPark_Spring2022_Newsletter-2.pdf)

If a group, tell us about your group (mandate/membership, including a statement on why this matter should go before PPC)

Following the distribution of public materials to Rocky View County, a request was received to present to this committee. This project, although located on lands within the City of Calgary, are directly adjacent to the municipal boundary of Rocky View County. This project/presentation meets the criteria listed as "Developers and/or landowners can submit their vision for a future project that will not require a council decision."

A land use application has been submitted to the City of Calgary. Further project information can be found on the project website. <https://www.greenipi.com/portfolio/future-energy-park/>

The members of the Public Presentation Committee are County Councillors, but the meetings are not Council meetings, and Council decisions are not made.

Meetings are held to receive information and share your vision with the Committee and not to ask for advice on what should be done on a specific property.

If you would like to bring a matter to the Committee's attention, that does not require a decision of Council, you can apply to make a presentation to the Committee.

Examples of presentations that the Public can present to the Committee include:

- Developers and/or landowners can submit their vision for a future project that will not require a Council decision;
- not-for-profit organizations about their work in the community, or about recognition for special volunteers;
- post-secondary institutions or research groups about studies or surveys that might interest the County;
- resident or community groups about future plans or current activities that the groups are involved in; or
- businesses or organizations that wish to apprise Committee members of projects or initiatives that will not require a Council decision.

Examples of presentations that Public cannot be accepted by the Committee include:

- the subject matter of the presentation is related to an active application from the presenter or the presenter intends to submit an application within six months of the presentation date;
- the subject matter of the presentation is outside of the authority or jurisdiction of Rocky View County;
- the subject matter of the presentation is more appropriate for a different committee, board, commission, or other body; or
- individuals or groups wishing to provide technical, legal, or similar information when they possess no relevant qualifications or expertise.

Presentations are strictly limited to 20 minutes, but Committee members may ask questions afterwards.

#### **How to Submit a Presentation Request**

Forms can be submitted via email to [legislativeservices@rockyview.ca](mailto:legislativeservices@rockyview.ca), or print it and send or drop off a paper copy to:

Rocky View County  
Attention: Legislative and Intergovernmental Services  
262075 Rocky View Point  
Rocky View County, AB  
T4A 0X2

Please make your requests as early as possible. Requests are to be submitted to four weeks prior to the scheduled PPC meeting order for the presentation to be included on the agenda.

Once you have submitted your request, a member from the Legislative & Intergovernmental Services department will be in contact with you to discuss next steps.

If you are placed on the meeting agenda, you must provide Legislative and Intergovernmental Services with a final copy of any print or visual materials (including PowerPoint or similar slides at least 15 days before the presentation. Once submitted, changes to this material are not permitted. If changes are needed, your presentation will be rescheduled.

#### **Questions**

If you have questions about presenting to the Public Presentation Committee, contact Rocky View County Legislative and Intergovernmental Services at 403.230.1401 or [legislativeservices@rockyview.ca](mailto:legislativeservices@rockyview.ca).



# Future Energy Park

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GREEN IMPACT PARTNERS

ROCKY VIEW COUNTY – JUNE 29, 2022

Based in Calgary

Focus on renewable natural gas projects

Zero carbon opportunities

Traded on the TSX Venture Exchange (GIP.V)

\$2 billion in capital expenditures over the next three years

Project partners Carbon Clean Energy and PCL Construction



# Green Impact Partners



# Project overview

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# Where is it?

Within City of Calgary  
limits

Lands transferring  
ownership

To be designated  
*Industrial Direct Control  
District*





# Project benefits

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Meeting the shortfall of domestic ethanol to meet Alberta Fuels Standard



Connects the energy and agriculture sectors



Increase income for agricultural operators (+\$150 million annually)



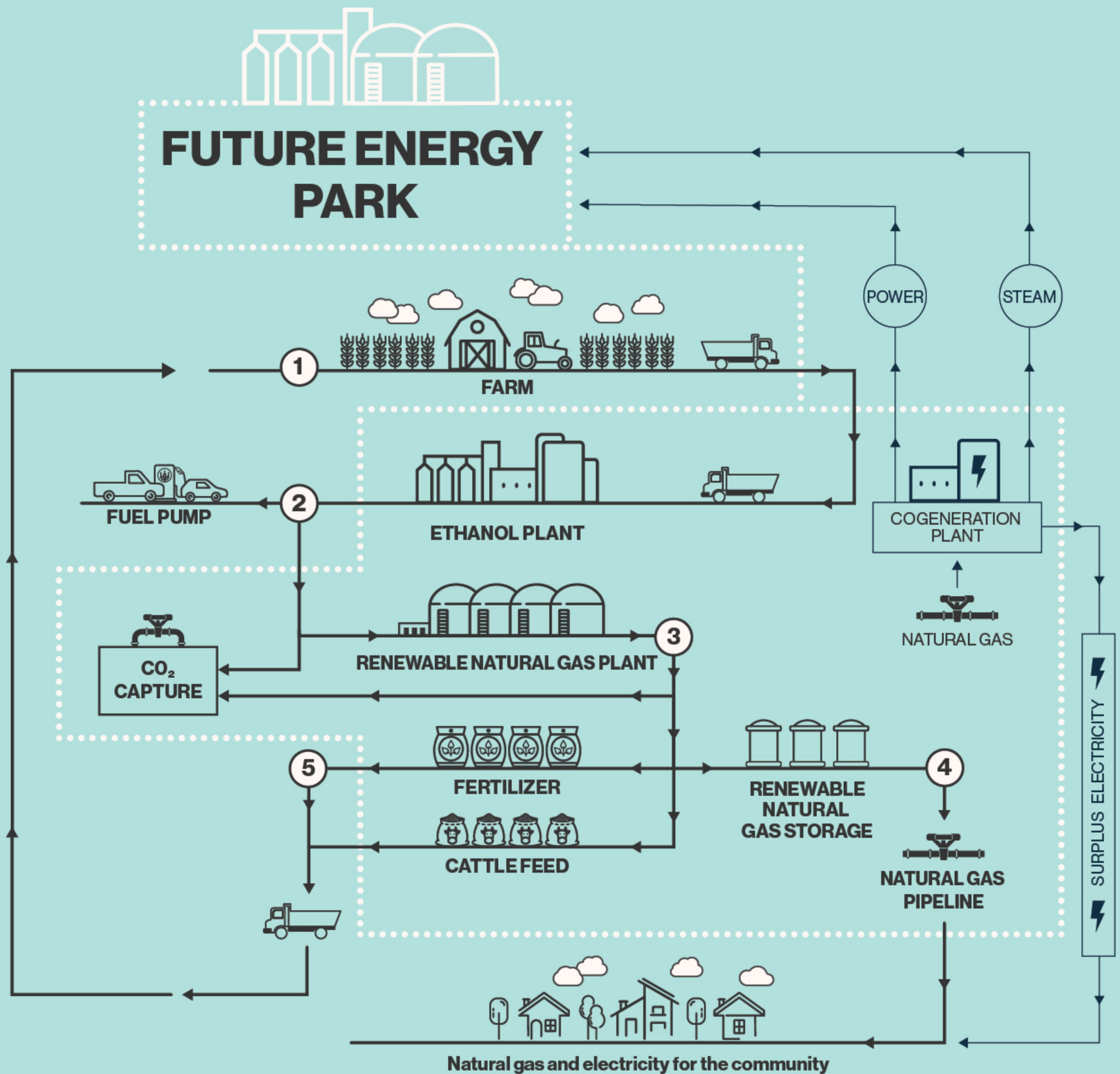
Employment opportunities (800 construction, ~50 operations)



Tax revenue and capital expenditure in Alberta



# FUTURE ENERGY PARK



# 1

Wheat producers will be able to sell low-grade wheat to the facility and generate income by converting a low value input to an alternative use.

## 2

After being weighed and stored, the wheat is processed into ethanol that will be transported to fuel blending facilities in Alberta for distribution across North America.

### 3

Wheat stillage (byproduct of ethanol production) is further processed to produce renewable natural gas and digestate (another byproduct of the facility).

## 4

Renewable natural gas is produced in anaerobic digesters (oxygen free environment), stored, and transported for use within the local natural gas distribution network.

## 5

Agricultural fertilizer and cattle feed is produced from the digestate (by-product of renewable natural gas process) and sold to agricultural operators.

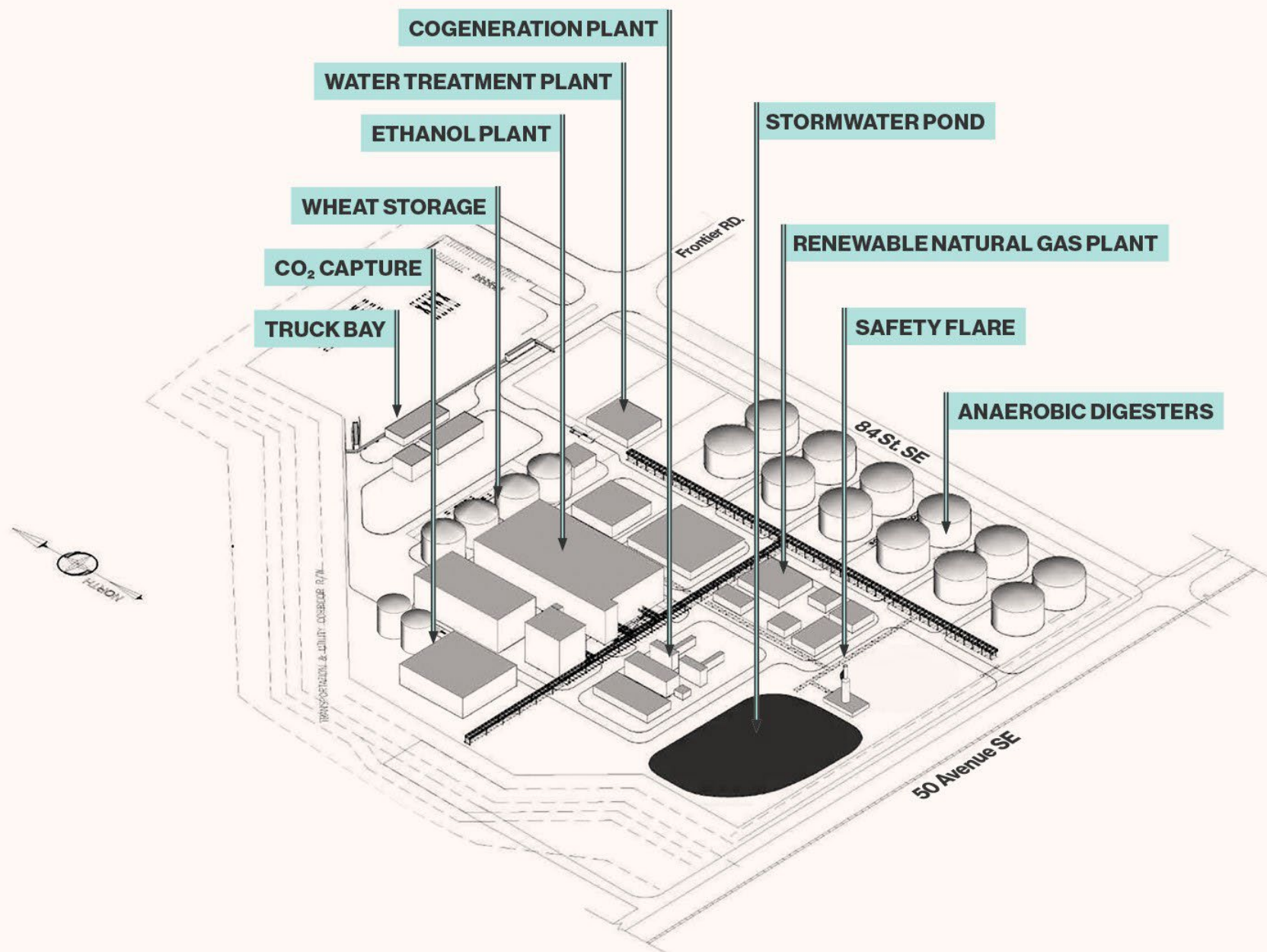


# What will it look like?

20ha (52-acre) site

Access from 84 St. SE

Design still underway



# Approval process



City of Calgary



Alberta Environment and Parks



Alberta Utilities Commission



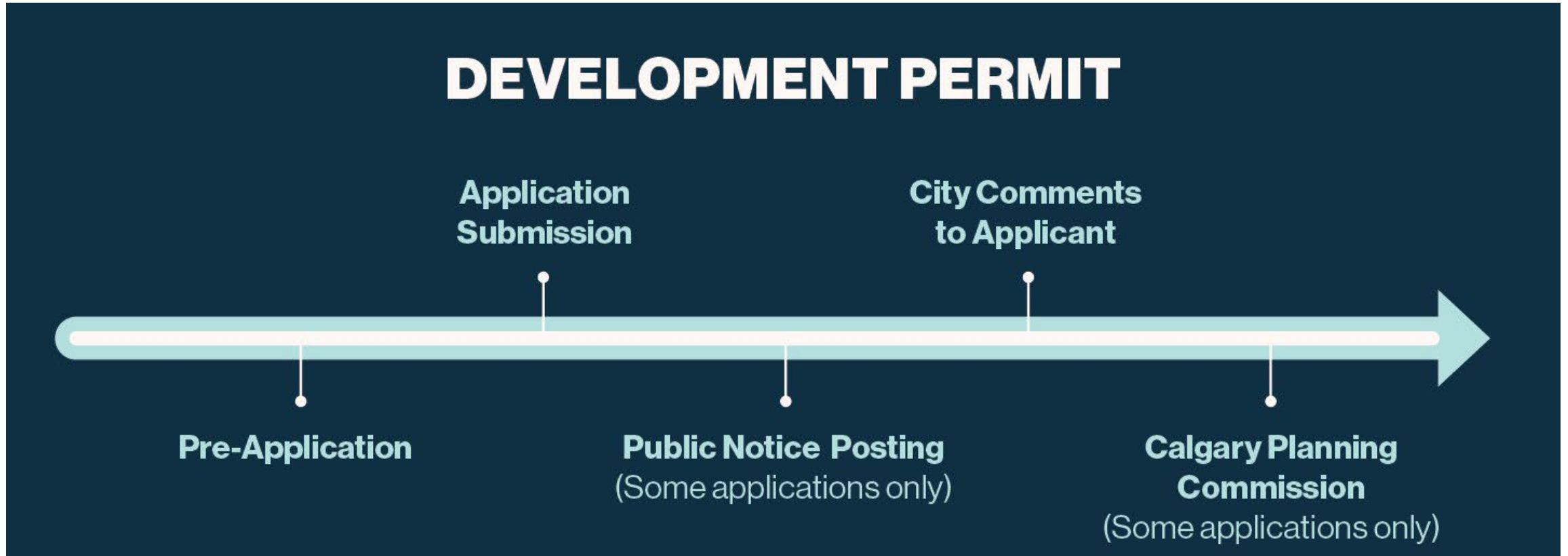
Alberta Energy Regulator (pending  
design and approval)

# LAND USE APPLICATION PROCESS



## Land use application

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# Development permit

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# Alberta Environment and Parks

Review potential  
environmental impacts

Streamlined agriculture  
project

Under *Environment  
Protection and  
Enhancement Act*

Filing in summer 2022





# Environmental work

Heritage resources

Vegetation

Odour evaluation

Noise modelling

Emissions

Wildlife

Soils

Wetlands and waterbodies



# Timelines



*Timelines subject to change*

What have we  
heard so far?



What is being considered for odour from the facility?



Will traffic counts increase?



Why this location?



How loud is the facility?

# Next steps

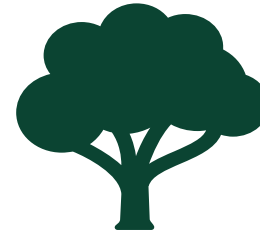
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Land use  
application  
process



Development  
permit



Secondary  
notice outlining  
environmental  
results



Team remains  
available to  
answer  
questions

# Project contact

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1-888-881-7788

[FutureEnergyPark@maskwaenv.com](mailto:FutureEnergyPark@maskwaenv.com)

<https://www.greenipi.com/portfolio/future-energy-park/>

Alberta Utilities Commission: [www.auc.ab.ca](http://www.auc.ab.ca)

City of Calgary Development Map: <https://dmap.calgary.ca/>





# FUTURE ENERGY PARK

**An Innovative Clean Energy Project  
Connecting Alberta's Agriculture and  
Energy Sectors**

## WHO IS GREEN IMPACT PARTNERS?

Based in Calgary, Alberta, Green Impact Partners is a publicly traded (TSXV: GIPV) Canadian clean energy company focused on the development of sustainable biofuel resources.

With its growing portfolio of renewable natural gas projects, capital expenditures of approximately \$2 billion are expected over the next three years.

## WHERE IS THE FACILITY LOCATED?

Located within the City of Calgary, Future Energy Park is being sited in an industrial area southeast of the intersection of Peigan and Stoney Trail SE. Access to the site will be from 84 Street SE along the boundary of Rocky View County and the city. The plant will be constructed and operated on a 21 hectare site (52 acre) on lands designated for future industrial use.



## WHAT ARE THE PROJECT BENEFITS?

Future Energy Park is a \$900 million fully integrated biofuels facility that will produce ethanol, renewable natural gas, electricity, and steam. As the first of its kind in North America, the facility will use advanced technology and provide the following direct benefits to the City of Calgary and the Province of Alberta:

- Approximately 800 jobs over 24 months during construction and 50 jobs during operations
- Direct revenue of over \$150 million annually to rural wheat producers
- Provincial and municipal tax revenues
- Repurposed by-products including cattle feed and fertilizer

## DEFINITIONS

### Low-grade Wheat:

Wheat that's not suitable for human consumption but an excellent feedstock for the production of ethanol and renewable natural gas.

### Ethanol Plant:

Portion of the facility that produces ethanol through the fermentation process, involving the breakdown of starch and sugars from low-grade wheat.

### Ethanol:

A renewable biofuel that can be blended with gasoline to produce a lower carbon content fuel.

### Renewable Natural Gas Plant:

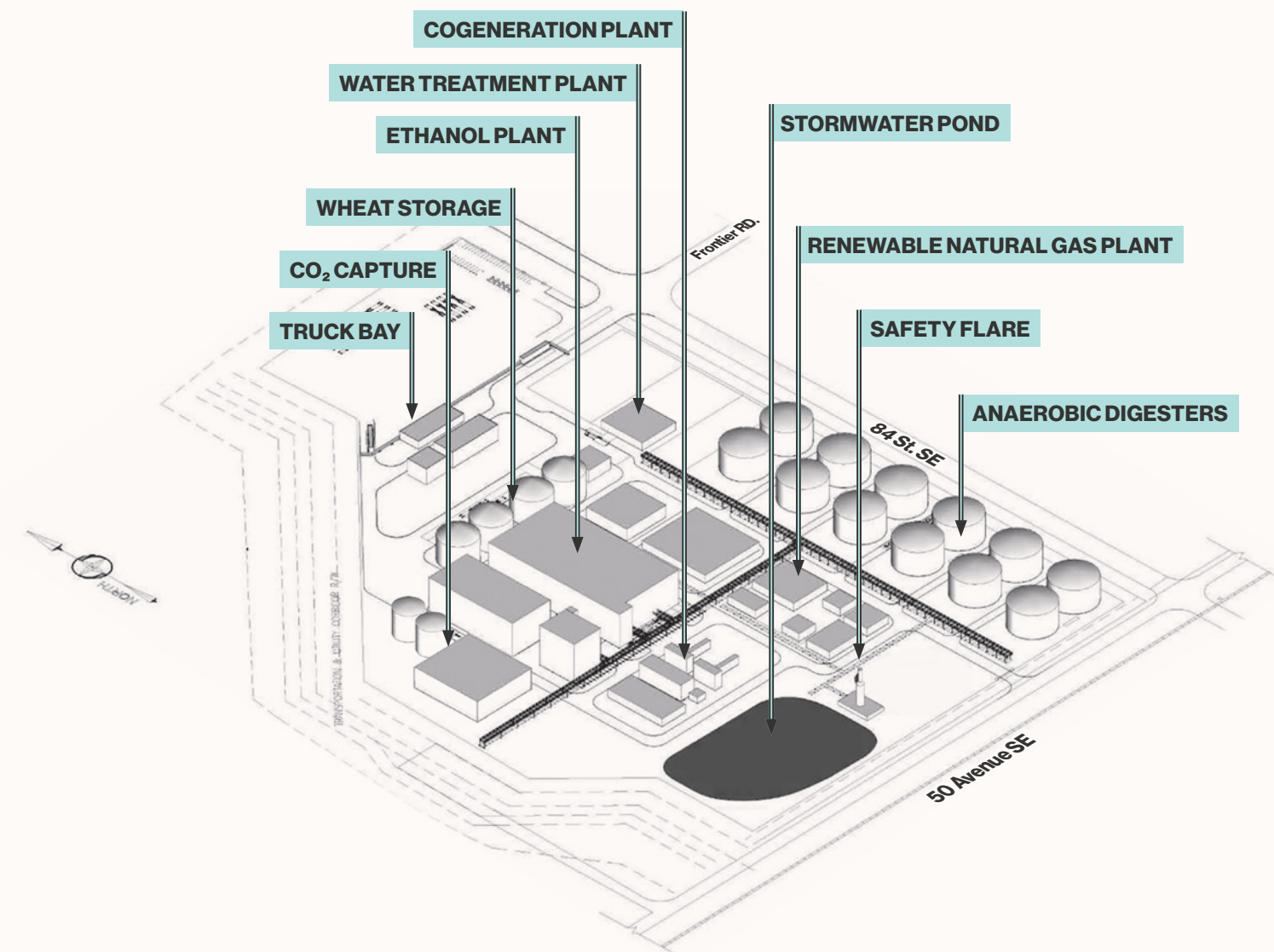
Portion of the facility where wheat stillage (a by-product of ethanol production) is mixed with water in anaerobic digesters (oxygen free environment) to produce renewable natural gas.

### Renewable Natural Gas:

Produced methane is captured from the anaerobic digesters and upgraded to pipeline quality natural gas.

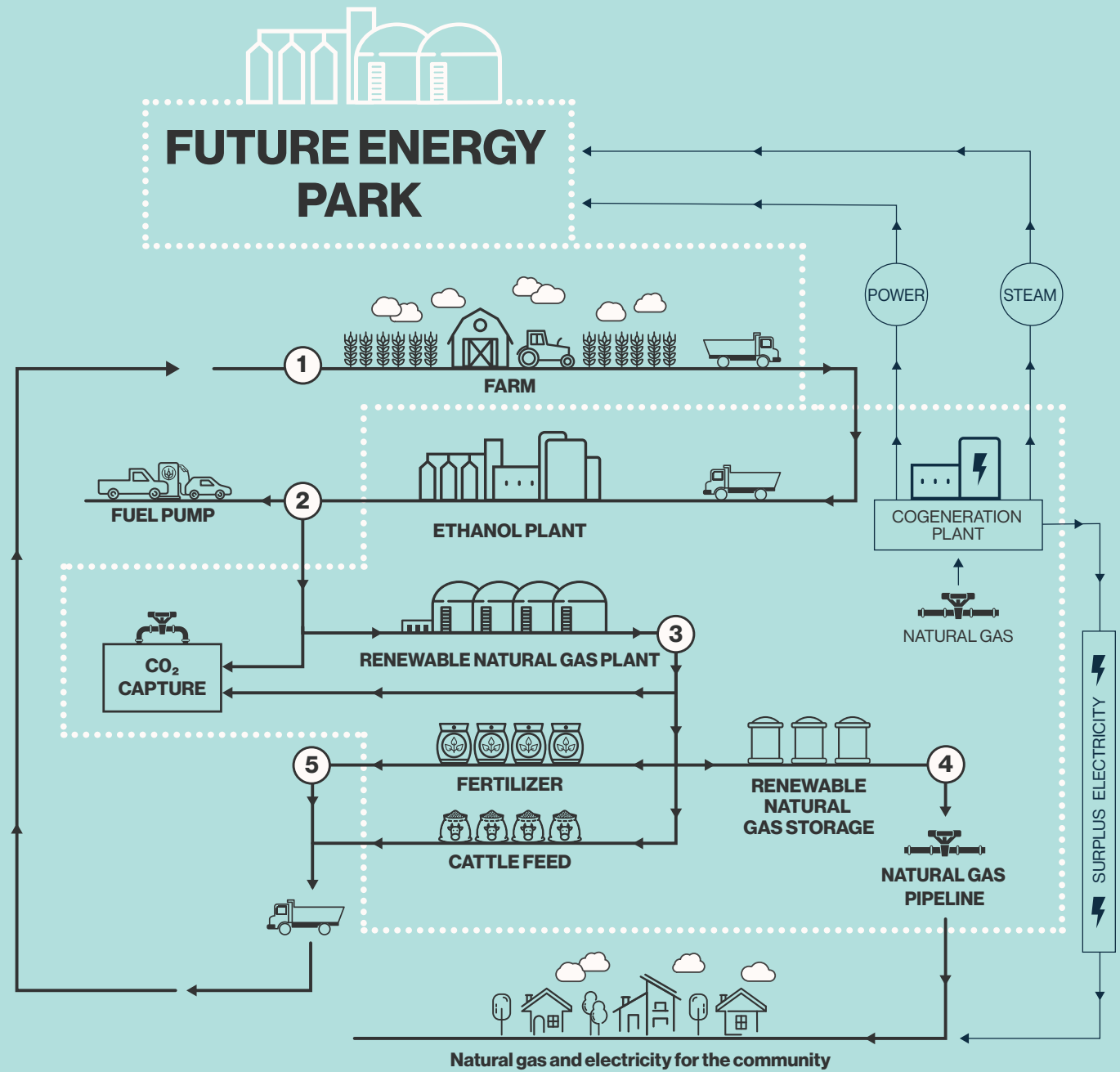
## WHAT WILL THE FACILITY LOOK LIKE?

Future Energy Park will consist of many different parts that all work together in creating sustainable biofuels. Working with a team of architects, engineers, planners, environmental specialists, and landscape architects, the plant will be a landmark facility showcasing the technological ingenuity involved in the production of renewable fuels. Our team is developing conceptual architectural plans reflective of a modern energy facility. As our final design moves forward it will be shared with the community.





WHERE ALBERTA'S AGRICULTURE & ENERGY SECTORS MEET



CO<sub>2</sub>  
CAPTURE

Future Energy Park Inc. intends to capture CO<sub>2</sub> from its ethanol and renewable natural gas processes to go beyond the goal of net-zero CO<sub>2</sub> emissions.

Captured CO<sub>2</sub> will be transported and permanently sequestered off-site in an underground CO<sub>2</sub> reservoir.

As both ethanol and renewable natural gas are produced by a renewable resource, any CO<sub>2</sub> emissions from the process are considered carbon neutral.

FUTURE  
ENERGY PARK &  
THE  
ENVIRONMENT

Air Emissions

The facility will be designed to meet the Alberta Ambient Air Quality Objectives and provincial and federal standards for nitrogen oxides (NO<sub>x</sub>).

Noise

Preliminary noise studies have been conducted to understand potential sound sources and their contribution to the surrounding area. Based on these studies, the Project will not result in significant changes to ambient noise and the facility will comply with applicable provincial and municipal noise requirements.

Lighting

The facility will be illuminated to ensure safety at the site and will abide by the City of Calgary's lighting requirements.

Safety

Safety is paramount and considered in every aspect of the facility's design from construction through to operations.

A site-specific emergency response plan will be developed and reviewed by local emergency services to incorporate their knowledge and expertise.

1

Wheat producers will be able to sell low-grade wheat to the facility and generate income by converting a low value product to an alternative use.

2

After being weighed and stored, wheat is processed into ethanol and transported to fuel blending facilities in Alberta for distribution across North America.

3

Wheat stillage (by-product of ethanol production) is further processed to produce renewable natural gas and digestate (another byproduct of the facility).

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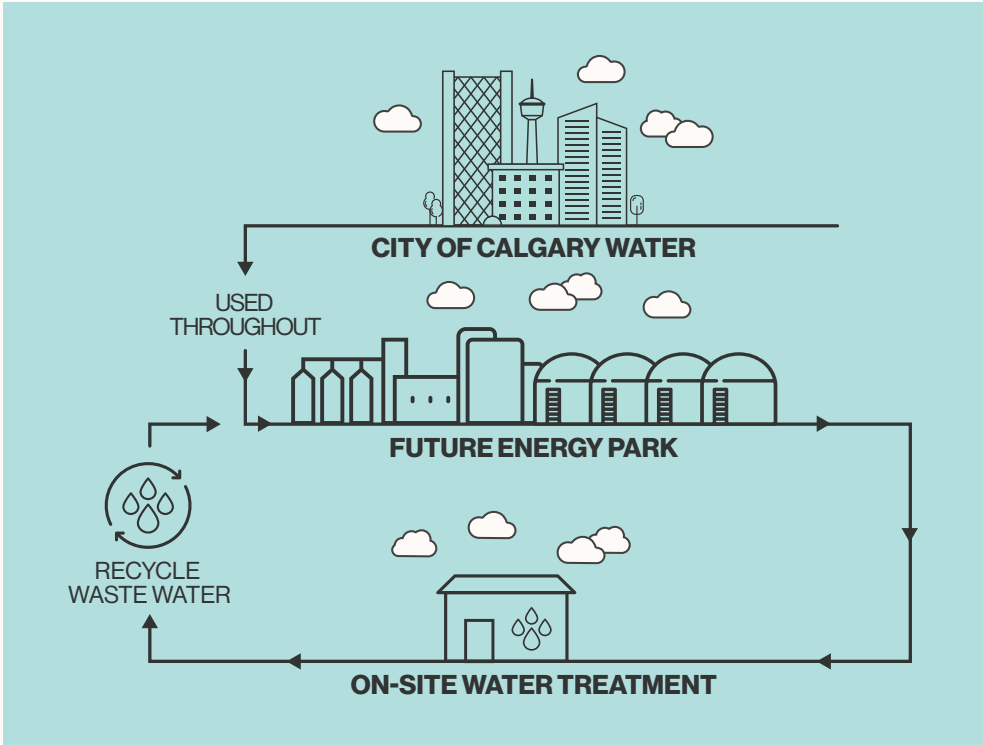
Agricultural fertilizer and cattle feed is produced from the digestate (by-product of renewable natural gas process) and sold to agricultural operators.

ALBERTA'S  
RENEWABLE  
FUELS STANDARD

Under existing legislation, Alberta fuel suppliers are required to ensure that gasoline sold in the province contains no less than 5% renewable fuel. Currently, there is a lack of renewable fuel supply to meet the standard. Future Energy Park will play a critical role in addressing this shortfall.

WATER  
USE

Water is integral to the operation of the facility and will be predominantly sourced from the City of Calgary. To optimize water use, the plant will have on-site water treatment that will recycle wastewater for reuse where possible.



COGENERATION  
STEAM+POWER

Future Energy Park will use ultra high efficiency gas fired cogeneration technology to produce both steam and electricity for use on-site.

The cogeneration plant will be equipped with two (2) 14.4 megawatt (MW) gas turbines, two (2) heat recovery steam generators, and two (2) exhaust stacks. The plant will have a maximum output of 28.8 MW with ~24 MW of power supporting the facility with any surplus being supplied to the local electrical grid.

The cogeneration plant will be enclosed within a building that is connected to a 25 kilovolt (kV) switchyard located within the boundaries of the site. ENMAX will connect the switchyard to the electrical distribution system.

The cogeneration plant will use natural gas supplied by an existing pipeline adjacent to the site.

REGULATORY  
AND MUNICIPAL  
APPROVALS

Future Energy Park is subject to various municipal and provincial approvals.

City of Calgary –  
Land Use Redesignation and Development Permit

A land use redesignation and a development permit will be required from the City of Calgary. The current land use district, *Special Future Urban District*, is proposed for redesignation as *Industrial Direct Control District*.

The City of Calgary has an established process for land use redesignation and development permit applications. This includes public notices, circulation to City of Calgary departments for review and comment, a public hearing, and Council and/or City Planning Commission approval. Once Future Energy Park's application is submitted, it can be viewed at The City of Calgary's Dmap portal (<https://dmap.calgary.ca/>) with updates to be provided on the Project website.

The land use redesignation and the development permit application are expected to be submitted in the spring of 2022.

Alberta Environment and Parks

The facility is subject to review and approval by Alberta Environment and Parks (AEP) under the *Environmental Protection and Enhancement Act*. An application under the Act is anticipated in the summer of 2022. Future Energy Park Inc. will be sharing its environmental findings with the public through our ongoing engagement activities.

Alberta Utilities Commission

The Alberta Utilities Commission (AUC) is responsible for the review and approval of the proposed cogeneration plant.

The AUC is an independent, quasi-judicial agency of the province of Alberta. The AUC is responsible to ensure that the delivery of Alberta's utility service takes place in a manner that is fair, responsible, and in the public interest.

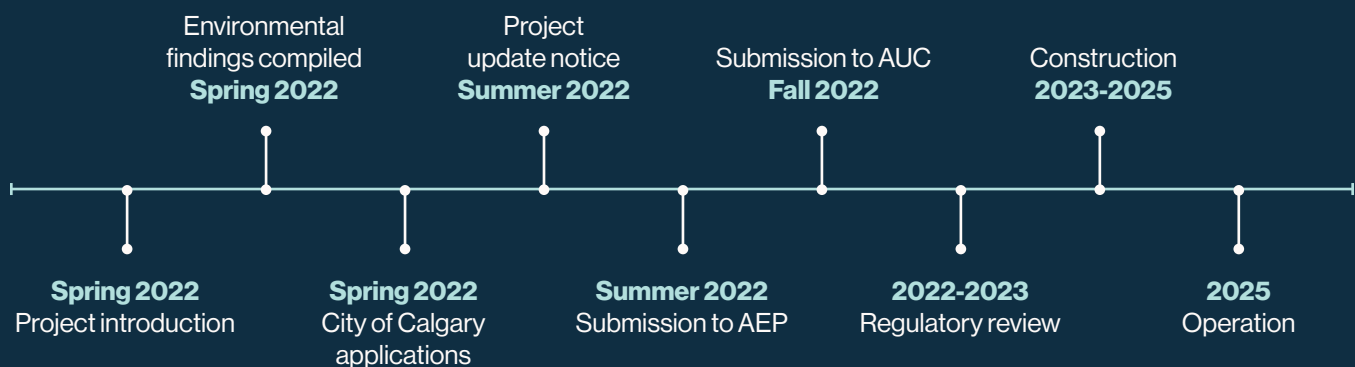
Submission of an application to the AUC is anticipated for the fall of 2022. Further information on their regulatory process can be found at [www.auc.ab.ca](http://www.auc.ab.ca) or by contacting our Project team.

Alberta Energy Regulator

Future Energy Park Inc. is working with the Alberta Energy Regulator (AER) to determine permitting requirements for pipelines that may be needed for the facility.



## TIMELINES



*Timelines subject to change*

## QUESTIONS OR COMMENTS?

Understanding the communities we work in is integral to our business. Our Project team is available to answer your questions and receive your feedback that will be shared with the various regulators responsible for the review of the Project.

We encourage you to sign up for email notices to receive updated information regarding filing notices, public events, or other milestones. You can sign up by visiting the Project website or by contacting our team.

## CONTACT US

 **1-888-881-7788**

 **FutureEnergyPark@maskwaenv.com**

 **[www.greenipi.com/portfolio/future-energy-park/](http://www.greenipi.com/portfolio/future-energy-park/)**