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# Yellowhead Mainline

Driving substantial growth in Alberta



**ATCO** Energy Systems

# Forward-Looking Information

Certain information provided in this document may be considered forward-looking information.

Forward-looking information is often, but not always, identified by the use of words such as “anticipate”, “plan”, “expect”, “will”, “goals”, “target”, “strategy”, “future”, “potential” and similar expressions. In particular, forward-looking information in this document includes, but is not limited to, references to: anticipated benefits to be generated by the Yellowhead Mainline project, including driving economic growth, supporting energy, petrochemical, building materials and hydrogen projects, reinforcing Alberta’s natural gas network, significant job creation, additional market access for producers, expanded capacity and enhanced efficiency of Alberta’s natural gas network, and role in emissions goals; the anticipated size, specifications, route and incremental natural gas delivery capacity of the Yellowhead Mainline project; the expected investments associated with the project and expected contribution to the province’s economy and GDP; expectations regarding the Dow Path2Zero Expansion Project, including it being a net-zero project; expectations regarding the Heidelberg Materials’ Edmonton Cement Plant project, including the amount of CO<sub>2</sub> to be captured annually; and the expectation that the Yellowhead Mainline project will be on-stream as early as Q4 2027.

Such forward-looking information is considered by management to be reasonable based on the information that is available on the date of this document and the processes used to prepare such information; however, such information does not constitute a guarantee of future performance and no assurance can be given that the information will prove to be correct.

Forward-looking information should not be unduly relied upon. Such information involves a variety of beliefs and assumptions of management,

known and unknown risks and uncertainties, and other factors, which may cause actual results, levels of activity, and achievements to differ materially from those anticipated by such forward-looking information. Actual results could differ materially from those anticipated in the forward-looking information as a result of, among other things: economic and industry conditions; changes in applicable laws, regulations and government policies; regulatory decisions; competitive factors; credit risk; interest rate fluctuations; the availability of labour and supplies; the successful development and execution of projects; the availability of financing; the development and performance of technology and new energy efficient products, services and programs; counterparty risks; the occurrence of unexpected events; global pandemics; geopolitical tensions and wars; and other risk factors, many of which are beyond the management’s control.

Due to the interdependencies and correlation of these factors, the impact of any one material assumption or risk on a forward-looking statement cannot be determined with certainty.

Readers are cautioned that the foregoing lists are not exhaustive.

The forward-looking information contained herein reflects management’s expectations as of the date of this document and is subject to change after such date.

ATCO Energy Systems disclaims any intention or obligation to update or revise any forward-looking information whether as a result of new information, future events or otherwise, except as required by applicable securities legislation.

# Yellowhead Mainline Project is set to expand capacity of Alberta’s natural gas network



For more than 100 years, we have been delivering safe, reliable and affordable natural gas. Building on that proud tradition, in May 2024, ATCO Energy Systems announced its largest-ever energy infrastructure project: **the Yellowhead Mainline.**

The Yellowhead Mainline consists of 200-230 kilometres of high-pressure natural gas pipeline and related facilities from the Edson area to northeast of Edmonton, with the ability to deliver more than 1,200 terajoules (or 1.1 billion cubic feet) per day of natural gas.

For comparison, this is the same amount of energy the entire Alberta electric system could deliver at peak demand over the course of a day - the equivalent of approximately 330,000 MWh in electric energy.

The projected investment by ATCO represents the largest single investment in company history and will have significant direct and spin off economic benefits within the province.

It is expected to create roughly 2,000 jobs during construction and provide the energy for projects and operations that will result in more than \$20 billion in investments and associated employment within the province.

Combined with downstream industrial investments it could unlock, the project is estimated to generate, on average, 12,000 jobs and contribute \$1.6 billion to the province’s economy per year during construction between 2023-2030.

Once operational, it is estimated that the project will support roughly 23,700 jobs in 2028 and contribute \$3.9 billion gross value-added per year to Alberta’s GDP.

The Yellowhead Mainline will connect natural gas supply to key domestic markets and expand the province’s natural gas network to ensure a reliable energy supply for Alberta’s rapidly growing population and industrial base.

It will support energy, petrochemical, building materials and hydrogen projects that use natural gas and carbon capture technology to produce products the world demands with lower emissions than previously possible, while also providing a safe and reliable supply of gas to the tens of thousands of new Albertans that put down roots in the province each and every year.

Alberta has recognized that a healthy and competitive natural gas sector is vital to jobs and prosperity of all Albertans and can have a major role in helping meet the growing global demand for reliable and responsible energy. We are excited for the Yellowhead Mainline to become an integral part of the province’s energy infrastructure and continue to contribute to a safe and reliable energy supply for our province’s growing population and industry.

**The Yellowhead Mainline will provide the energy needed to support a growing Alberta economy and increasing population**

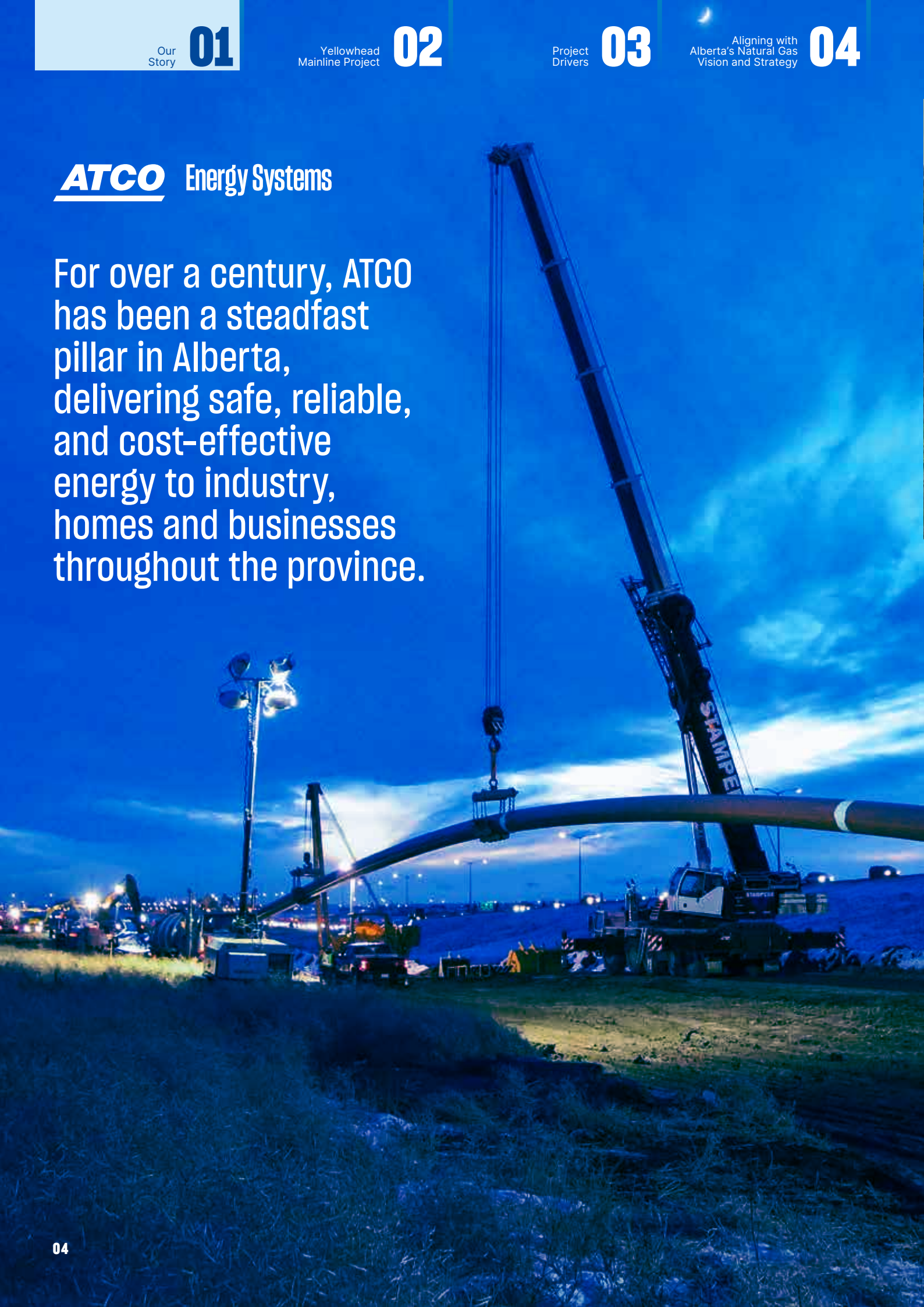
**This project is the largest single investment in ATCO’s history**

**D. Jason Sharpe**  
President, ATCO Gas and Pipelines Ltd.



## **ATCO** Energy Systems

For over a century, ATCO has been a steadfast pillar in Alberta, delivering safe, reliable, and cost-effective energy to industry, homes and businesses throughout the province.



Our story began in 1911 when the Canadian Western Natural Gas, Light, Heat and Power Company started piping natural gas from Bow Island and Turner Valley to southern Alberta communities.

It may appear as an everyday essential service in today's world, but at its inception and to the people we served, it was revolutionary.

Since those early days, ATCO's natural gas and electricity infrastructure has been the cornerstone of Alberta's growth and prosperity.

We've brought heat and light to homes and businesses for the very first time, not just in Alberta, but across the North in remote communities.

Along the way, we've formed strong relationships with numerous Indigenous communities, countless industry and municipal partners, and millions of people, all over the world.







# 02 Yellowhead Mainline Project

In May 2024, ATCO Energy Systems announced its largest ever energy infrastructure project: the **Yellowhead Mainline Project**.

This initiative is expected to increase the availability of natural gas and underpins growth in the economy of Alberta through population growth and industrial projects. This will be accomplished by a 200-230 kilometre natural gas pipeline and associated facilities, running from Peers, Alberta, to the northeast Edmonton area.

The Yellowhead Mainline Project allows for a new flow path for natural gas from the producing areas in the northwestern part of the province to the consuming regions in the central part of the province.

### Key Facts

Route:	<b>Peers, Alberta to northeast Edmonton area</b>
Length:	<b>200-230 kilometres</b>
Capacity:	<b>Over 1,200 terajoules (1.1 billion cubic feet) per day of natural gas</b>
Target in-service date:	<b>November 2027</b>



### Project Benefits

The Yellowhead Mainline Project aims to:

- Expand Alberta's natural gas network to deliver the energy required for Alberta's growing economy.
- Ensure a safe and reliable energy supply for Alberta's growing population and industrial base.
- Connect natural gas production to key domestic markets.

### Broader Impact

The Yellowhead Mainline Project will support various industries, including:

- **Energy:** Enabling energy projects that utilize natural gas and carbon capture technology.
- **Petrochemical:** Providing raw materials to expand Alberta's petrochemical sector.
- **Building Materials & Food:** Supporting production with reliable and efficient natural gas.
- **Hydrogen Projects:** Facilitating the creation of lower-emission hydrogen products.

### Economic Impact

The Yellowhead Mainline Project isn't just about pipes; it's about economic prosperity, investment and growth.

- **Construction Jobs:** Expected to create approximately 2,000 direct jobs.
- **Local Boost:** Provides an economic boost to local communities.
- **Downstream Investment:** Facilitates significant investment in value-added products like petrochemicals, hydrogen, and other natural gas products.
- **Total Investment:** Expected to enable more than \$20 billion of investment in Alberta, including projects like Dow's Fort Saskatchewan Path2Zero initiative.
- **Market Access:** Provides additional long-term and reliable market access to Western Canada's natural gas producers.
- **Economic Gains:** Generates upstream royalties, tax revenues, and employment, driving sustained economic growth.

**Dow's Fort Saskatchewan Path2Zero expansion project** aims to establish the world's first integrated ethylene cracker and derivatives site with net-zero scope 1 and 2 greenhouse gas emissions.



# 03

## Project Drivers

The Yellowhead Mainline Project has three key drivers: expanding system capacity, meeting forecast demand for natural gas, and fueling economic development and investment in Alberta.

### Expanding System Capacity

The first driver is the need to increase capacity within the Alberta Integrated System. With growing demand and newly signed delivery contracts, the system requires an expansion to accommodate the additional load.

The Yellowhead Mainline Project will boost the system's capacity, ensuring natural gas can flow from producers in the Western Canadian Sedimentary Basin to customers across Alberta, especially in the Greater Edmonton Area.

### Meeting Forecast Demand

The second driver is the forecast increase in natural gas demand across Alberta. This growth is fueled by factors such as population increase, industrial development, and the rising need for power generation.

The Alberta Integrated System is expected to handle an additional 1,350 terajoules per day of demand by 2030, over half of which has already been contracted.

### Supporting Economic Development

The third driver is Alberta's economic development and investment needs. Alberta's abundant natural gas resources offer significant opportunities for creating value-added products like petrochemicals and hydrogen.

The Yellowhead Mainline Project will support these industries by providing safe, reliable, and cost-effective natural gas transportation services, helping to drive the province's economic growth.

# 04

## Aligning with Alberta's Natural Gas Vision and Strategy

The Yellowhead Mainline Project is closely aligned with Alberta's Natural Gas Vision and Strategy<sup>1</sup>, a comprehensive plan released by the Government of Alberta in 2020.

This strategy aims to position the province as a global leader in responsibly sourced natural gas and related products like hydrogen, petrochemicals, and recycled plastics.

### Key Goals of the Strategy

- **Boosting Investment:** One of the strategy's key goals is to accelerate investment in Alberta's midstream natural gas infrastructure. This is crucial for enhancing industrial performance and driving growth within the province.
- **Industrial Consumption:** The strategy also highlights the opportunity to increase industrial consumption of natural gas within Alberta. This would help establish a sustainable market and deliver long-term benefits to the province.

### How the Yellowhead Mainline Project Supports the Strategy

The Yellowhead Mainline Project is expected to play a vital role in achieving these goals by enabling Alberta to further harness its abundant natural gas resources. It will support the creation of value-added products like petrochemicals and hydrogen, helping to expand these industries.

By providing the much-needed capacity for safe, reliable, and cost-effective natural gas transportation, the Yellowhead Mainline Project ensures that Alberta's natural gas can meet growing demand, which the current Alberta Integrated System cannot accommodate.

The Yellowhead Mainline project plays a key role in Alberta's long-term natural gas strategy and economic future.

The Alberta Integrated System is expected to handle an additional 1,350 terajoules per day of demand by 2030.





# 05 Supporting Industrial Development and Economic Diversification

The Yellowhead Mainline Project is a key driver of industrial growth and economic diversification in Alberta.

## Recognizing Economic Potential

In August 2023, BuildForce Canada released a study titled "Diversifying Alberta's Energy Economy: Economic and Employment Impacts of Proposed Diversification Projects."<sup>2</sup> Prepared for the Resource Diversification Council, this report highlights the substantial economic benefits of proposed refining and petrochemical projects in Alberta.

The Resource Diversification Council, a non-profit association of industry, postsecondary, and labour leaders, gathered input from major companies like Dow Canada, Inter Pipeline, Keyera, Nova Chemicals, Nutrien, and Pembina Pipeline.

The study points to hundreds of billions in potential Real GDP, tax revenue, and job creation.

The Yellowhead Mainline Project can play a crucial role in unlocking this economic potential.

## Economic Benefits

ATCO commissioned Oxford Economics to evaluate the Yellowhead Mainline Project's benefits. Their report found that the project is expected to generate significant economic advantages both during and after construction.

It will facilitate considerable downstream investments, including supporting Dow's Path2Zero project near Fort Saskatchewan and significant growth in industrial, commercial and residential sectors.

The Yellowhead Mainline Project will drive economic growth in Alberta by enabling further natural gas development and industrial investments.

It will boost value-added processing of natural gas, support lower-carbon projects, and drive residential and commercial investments to accommodate a growing population.

# 06 Putting Albertans to Work and Fueling Economic Growth

ATCO's investment in the Yellowhead Mainline Project is the largest single investment in a natural gas pipeline in its history.

The Yellowhead Mainline Project can create a positive impact on Alberta's economy and job market.

This critical infrastructure will drive economic growth, supporting the industrial, residential and commercial sectors and enhancing Alberta's overall economic health.

## Yellowhead Mainline Impact

- During Construction: The project is expected to create around 2,000 direct jobs.

## Major Investment

- This significant investment will yield direct and indirect economic benefits across the province, reinforcing Alberta's position as a leader in industrial and economic development.

## Unlocked Impact

- The Yellowhead Mainline Project will supply natural gas for various projects and operations by Alberta Integrated System customers, and is projected to lead to over \$20 billion in investments and job creation across the province.
- **Construction Phase:** From 2023 to 2030, the Yellowhead Mainline Project is projected to generate an average of 12,000 jobs and contribute \$1.6 billion annually to Alberta's economy.
- **Long-term Impact:** Once downstream investments are fully operational, they are anticipated to support approximately 23,700 jobs by 2028 and add \$3.9 billion annually to Alberta's GDP.





# 07 Supporting Emissions Reduction

The Yellowhead Mainline Project plays a crucial role in supporting Alberta's emission reduction goals.

## Role in Emissions Reduction

According to Alberta's Emissions Reduction and Energy Development Plan<sup>3</sup>, natural gas will play a role in emission reductions across various sectors, including:

- Oilsands
- Power Generation
- Industrial Heat
- Hydrogen and Ammonia
- Petrochemicals

These sectors account for over half of Alberta's natural gas demand and continue to grow.

## Supporting Lower-Emissions Technology

The Yellowhead Mainline Project will provide essential natural gas to support the development of lower-emissions technologies. Specifically:

- **Dow's Path2Zero Expansion:** This project aims to create the world's first net-zero emissions integrated ethylene cracker and derivatives site.
- **Heidelberg Materials' Edmonton Cement Plant:** The Yellowhead Mainline Project will supply natural gas to this plant, which will be the world's first full-scale carbon capture, utilization, and storage (CCUS) project at a cement plant and is expected to capture more than 1 million tonnes of CO<sub>2</sub> annually.

## Contribution to Emissions Goals

By enhancing natural gas delivery capacity, the Yellowhead Mainline Project will support these and other initiatives, contributing to Alberta's emissions reduction goals while fostering lower-carbon economic growth.

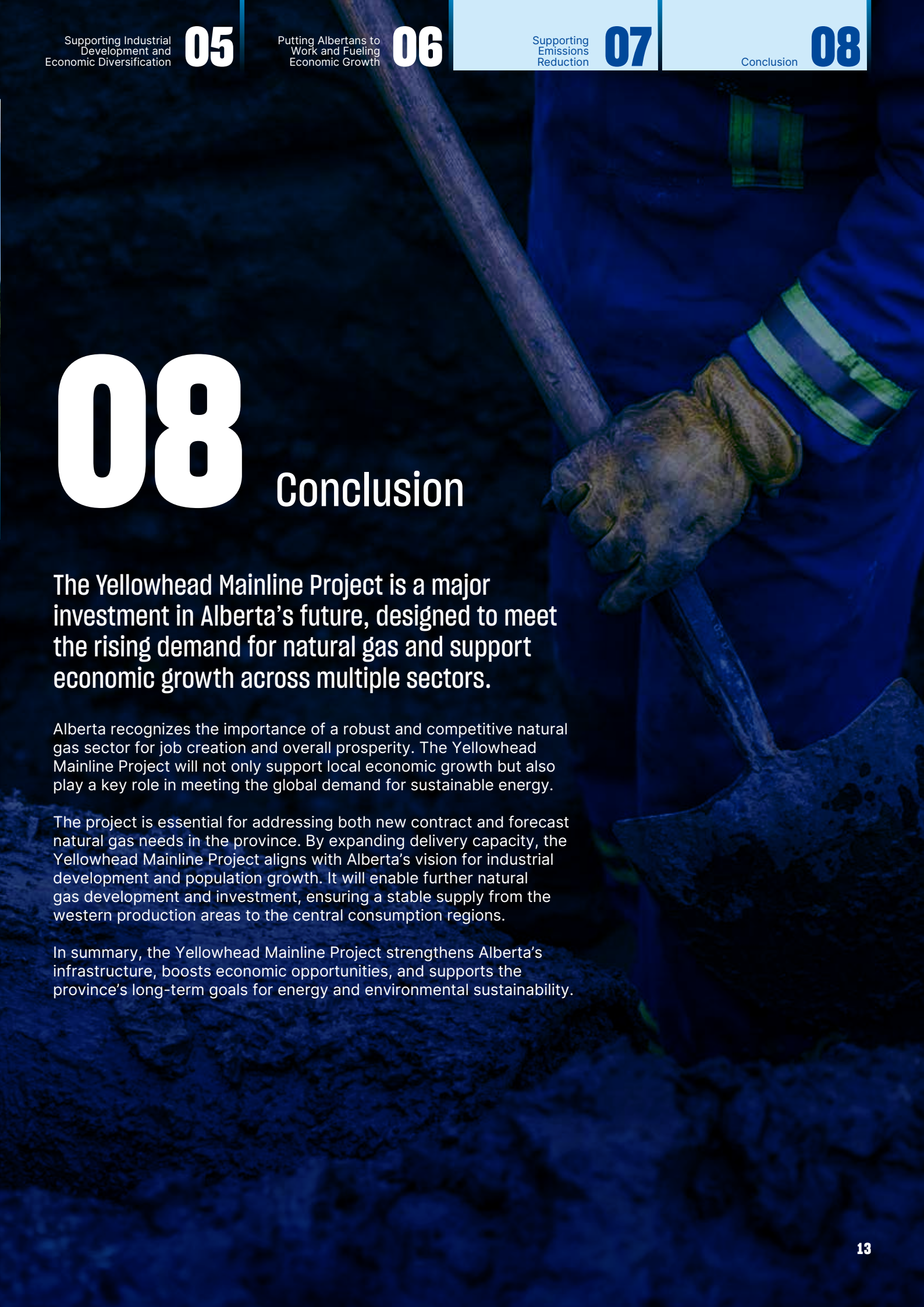
# 08 Conclusion

The Yellowhead Mainline Project is a major investment in Alberta's future, designed to meet the rising demand for natural gas and support economic growth across multiple sectors.

Alberta recognizes the importance of a robust and competitive natural gas sector for job creation and overall prosperity. The Yellowhead Mainline Project will not only support local economic growth but also play a key role in meeting the global demand for sustainable energy.

The project is essential for addressing both new contract and forecast natural gas needs in the province. By expanding delivery capacity, the Yellowhead Mainline Project aligns with Alberta's vision for industrial development and population growth. It will enable further natural gas development and investment, ensuring a stable supply from the western production areas to the central consumption regions.

In summary, the Yellowhead Mainline Project strengthens Alberta's infrastructure, boosts economic opportunities, and supports the province's long-term goals for energy and environmental sustainability.





<sup>1</sup> <https://www.alberta.ca/natural-gas-vision-and-strategy>

<sup>2</sup> energy-getting-alberta-back-to-work-natural-gas-vision-and-strategy-2020 PDF (www.diversification.org)

<sup>3</sup> <https://www.alberta.ca/emissions-reduction-and-energy-development-plan>