

Keystone XL

Project Overview

The Keystone XL Pipeline will provide a safe, reliable and environmentally responsible way to deliver energy from Western Canada to markets in the United States. The project will support tens of thousands of jobs, providing economic benefits on both sides of the border, nationally and locally to communities along its route.



\$3.4 billion
boost to U.S.
GDP during
construction



\$2.4 billion
boost to Canada's
GDP during
construction



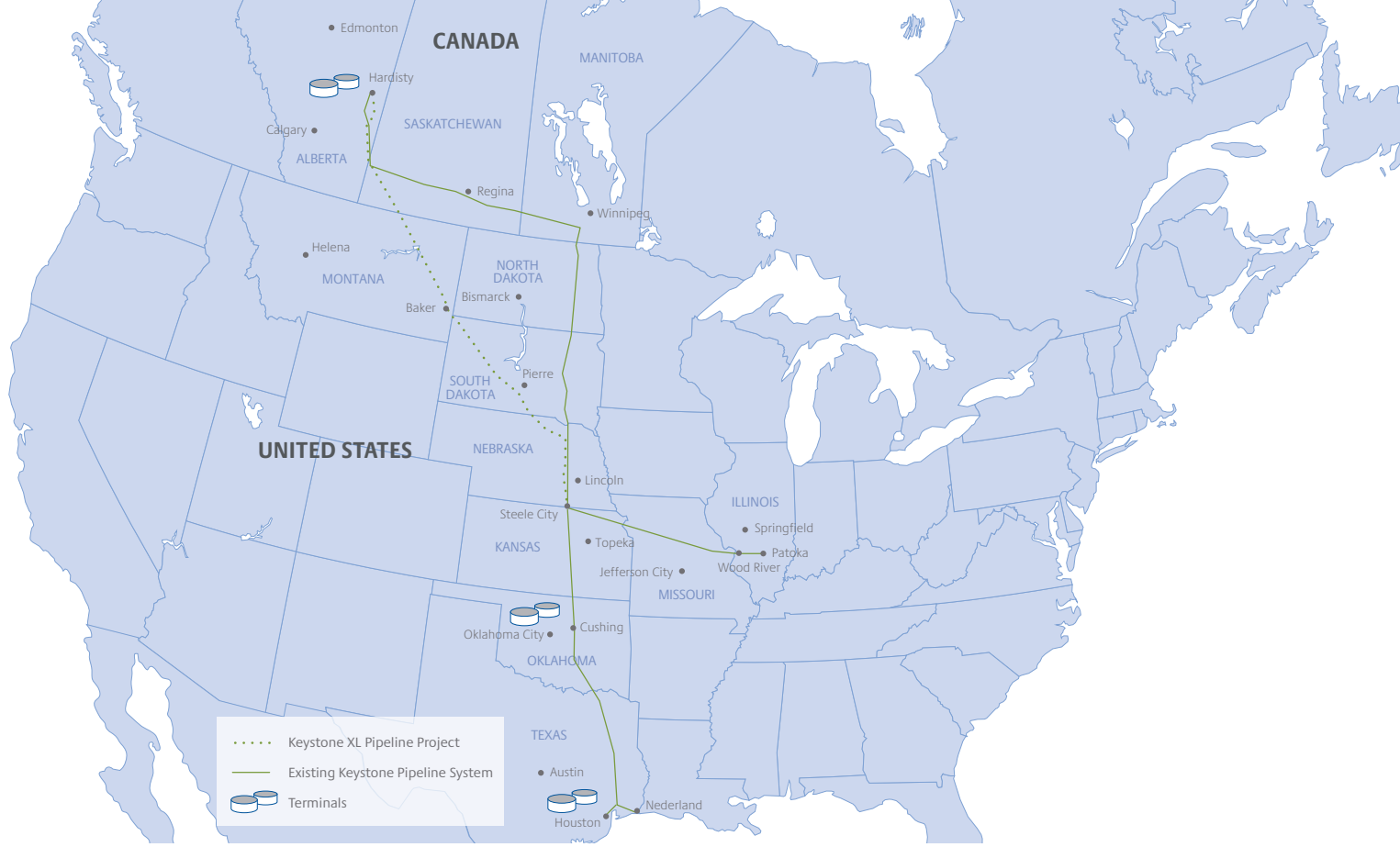
Creating jobs
during construction for
13,200 Canadians and
Americans



Safe delivery
of 830,000 barrels
of oil per day



Keystone XL



Keystone XL will provide the U.S. with a stable, secure supply of crude oil from North America

The Keystone XL Pipeline is a critical piece of North American energy infrastructure. The project has been deemed to be in the United States’ national interest; it will provide the U.S. with a dependable source of crude oil from a reliable and trusted trading partner: Canada.

Keystone XL will span 1,947 km (1,210 miles) between Hardisty, Alberta and Steele City, Nebraska. It will connect the existing Keystone Pipeline System that stretches 4,324 km (2,687 miles) between Hardisty, Alberta and the U.S. Gulf Coast.

More than 2 billion barrels of oil have been safely transported on the Keystone Pipeline System since operations began in 2010.

The Keystone XL Pipeline will add to the capacity of the existing system to **safely deliver up to 830,000 barrels of Canadian oil each day, meeting significant demand for heavy crude oil at U.S. Gulf Coast refineries.**

Heavy crude oil is refined at U.S. Gulf Coast refineries to create products such as transportation fuels for driving, flying and shipping. Currently, the U.S. imports more than 9 million barrels of oil per day from 90 countries, including Canada.

Having a stable, secure supply of North American oil that is transported safely to refineries is important for North American energy security.





Benefitting families in communities throughout the U.S. and Canada



American benefits

Billions of dollars of investment will create thousands of well-paying private sector work opportunities, thousands more in indirect job growth, substantial revenues to communities for local infrastructure, and significant growth for the U.S. economy.

Creating jobs for people and families

- During construction, Keystone XL will create approximately 10,400 U.S.-based jobs
- Employment will generate more than \$2 billion in U.S. earnings
- Indigenous groups will be included in project opportunities

Delivering local and national economic benefits

- Construction will contribute approximately \$3.4 billion to U.S. GDP
- The Keystone Pipeline System has already generated \$419 million in property tax revenue to date, helping to build local schools, hospitals and roads and benefit first responders
- Keystone XL will generate more than \$55 million in property taxes in the first year of operation*

* Future Mill Rate, CAPEX and system income changes may impact the anticipated property tax forecasts in both Canada and the United States.



Canadian benefits

During construction in Canada, Keystone XL will put thousands of Canadians to work and provide numerous economic benefits for communities along the pipeline right-of-way. This will include millions of dollars in additional taxes to municipalities, as well as investments in local community initiatives.

Creating jobs for people and families

- During construction, Keystone XL will create approximately 2,800 Canadian jobs
- Employment will generate \$1.6 billion in Canadian earnings
- Indigenous groups will be included in project opportunities

Delivering local and national economic benefits

- Construction will contribute approximately \$2.4 billion to Canada's GDP
- The Keystone Pipeline System has already generated more than \$81 million in property tax revenue to date, helping to build local schools, hospitals and roads and benefit first responders
- Keystone XL will generate more than \$7 million in property taxes in the first year of operation*

We are committed to working with Indigenous groups to explore project opportunities that benefit and align with their community interests, as well as to address concerns. Visit [TCEnergy.com/Indigenous](https://www.tcenergy.com/indigenous) to learn more about how we work with Indigenous groups.

World class safety and reliability

Pipelines are the safest method of transporting crude oil over long distances. Moving oil by other modes of transportation — such as rail, barge and trucks — can result in 28 to 42 per cent more greenhouse gas (GHG) emissions than by pipeline.

Each day in the U.S. and Canada, nearly 3 million miles of pipeline transport energy safely to intermediate and end-use markets. That’s enough pipe to circle the Earth 120x.

Pipelines are the safest method for transporting oil over long distances:¹



safer than large truck



safer than barge



safer than rail

¹ SOURCE: U.S. Bureau of Transportation Statistics – “Table 2-3 – Transportation Accidents by Mode” https://www.bts.gov/archive/publications/national_transportation_statistics/index

Every day, we do our part to **manage our GHG emissions**, and the programs and initiatives we have in place meet, and often exceed, regulatory requirements.



Visit [TCEnergy.com/ClimateChange](https://www.tcenergy.com/ClimateChange) to learn more and download our Sustainability & Climate Change Report.

Delivering energy responsibly.



Enhanced standards, powerful technology and independent reviews ensure Keystone XL will be built and operated in alignment with TC Energy's commitment to safety and the communities we serve. This includes:

- 36" diameter, corrosion-resistant pipe, and construction welds reviewed by third parties and audited by the federal government
- Built-in modern technology to monitor flow, with automatic shut-off capability
- Remotely controlled shut-off valves, increased pipeline inspections, and burying the pipe deeper in the ground
- Regularly occurring aerial and land reviews to supplement digital monitoring



Digital monitoring: Centralized 24-hour monitoring, 365 days a year

How does it work? Satellite technology sends data every five seconds from thousands of data points to the monitoring center; if a drop in pressure is detected, sections of the pipeline can be isolated by remotely closing any of the hundreds of valves on the system within minutes.

Emergency response

TC Energy works very closely with emergency responders along the route, holding more than 130 annual safety exercises to ensure readiness for an effective, coordinated response in the unlikely event of an incident, to protect communities and the environment. We have developed comprehensive Emergency Response Plans for the entire pipeline route.





Alberta, Canada

The most studied cross-border pipeline in the history of North America

Keystone XL has been studied extensively. This has included six U.S. Department of State studies, as well as thorough regulatory and environmental studies in each of the three states and two provinces along the route.

All studies concluded that Keystone XL provides the safest and most efficient means of transporting oil with no significant impact on the environment.



Keystone XL has federal, state and provincial permits in both Canada and the U.S.

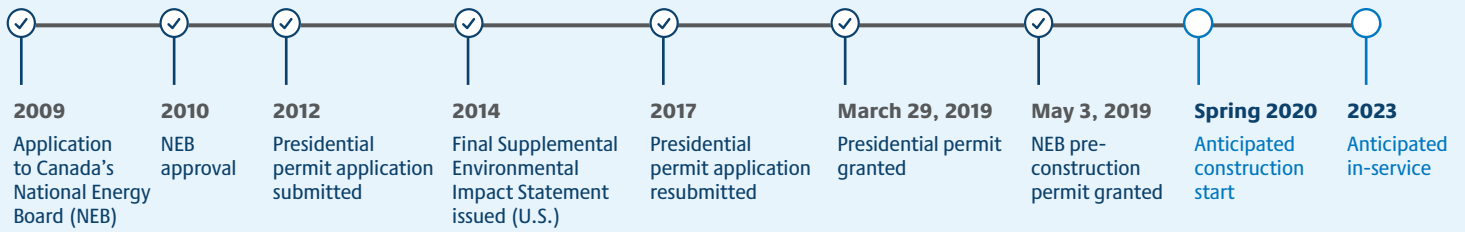
We also continue to work closely with Indigenous groups, communities, stakeholders and landowners.

Field studies and federal reviews

The U.S. Department of State's scientists and trained field workers conducted extensive field studies and vigorous research to thoroughly review the Keystone XL Pipeline. We continue to conduct ongoing environmental field studies in order to develop effective measures for maintaining our operations and safeguarding our communities. Studying Keystone XL:

- Six comprehensive scientific reviews by the U.S. Department of State
- All Environmental Impact Studies over the past 10 years have shown that Keystone XL can be built safely and responsibly
- Permits acquired in all three route states in the U.S., as well as a Presidential permit to cross the U.S.-Canada border
- Thousands of hours have been dedicated to environmental field studies and engagement with thousands of landowners, Indigenous groups and stakeholders
- Pipelines are the safest form of oil transportation – safer than the current reliance on rail and other alternative methods of crude oil transportation

Project milestones



10 years of environmental study →

Project Construction

We are committed to building and maintaining positive relationships with landowners, communities and Indigenous groups based on respect, honesty and fairness.

We engage early and will continue to communicate throughout construction, answer questions and provide timely and accurate information about construction progress.

The right-of-way

Prior to construction, we secure rights to strips of land, called rights-of-way. We maintain right-of-way easements for the life of the project and work with landowners to address concerns related to pipeline activities.

Landowners retain ownership of the land, with some restrictions on the easement to ensure safety, including keeping the right-of-way free and clear of brush, trees and permanent structures.

The permanent right-of-way for the Keystone XL Pipeline in the U.S. is over 15 meters (50 feet) wide, and approximately 13 meters (43 feet) in Canada.

Workforce accommodations

Safety for workers and communities is our number one priority. The project will create work opportunities for tens of thousands of people, the majority of whom will live in workforce accommodations.

Accommodations will be designed to ensure a positive experience for workers and nearby communities, and to encourage local benefits including jobs and business opportunities.

Land reclamation

Great care is taken to reduce our impact on the environment and communities. We will work to minimize disturbance to the land, landowners and land users as much as possible. Once the pipeline is operating, we will work to restore the land to its original condition.

Over the course of our 65-year history, we have successfully reclaimed hundreds of thousands of acres of land in arid grasslands, mountainous regions, sandy soils, forest, wetlands and rich croplands.

Did you know?

We have been internationally recognized for:

- Being one of the first companies to apply horizontal directional drilling for larger river crossings
- Pioneering the use of innovative winter construction techniques through short grass prairie ecosystems to ensure minimal impacts
- Investing significantly in the preservation and enhancement of endangered species habitats
- Adopting and developing new technology to make our pipelines more energy efficient and reduce GHG emissions



Visit [Keystone-XL.com/Construction](https://www.keystone-xl.com/construction) to learn more about project construction.



Keep in touch

There are a number of ways you can find out more about the project, and we want to make sure you have access to the information you need:



Visit our website:
Keystone-XL.com



Email us:
keystone@tcenergy.com



Call us:
1.866.717.7473
Toll-Free (North America)



Follow us on social media:
Twitter.com/KXLPipeline
Facebook.com/KXLPipeline



Sign up for our Keystone XL Pipeline Project Updates:
Keystone-XL.com/Project-Updates

Emergency Response

Our commitment to the safety of our people, pipelines and facilities is unwavering. In case of an emergency, please call the appropriate 24-hour toll-free hotline:



Canada:
1.888.982.7222

United States:
1.866.920.0007

Landowner Helpline

A key component in maintaining the integrity of our facilities is input from stakeholders, Indigenous groups, landowners and governments. If you have questions or concerns, please let us know.



Canada:
1.855.920.4694

United States:
1.866.585.7063

Indigenous Relations:
1.855.458.6714

Indigenous Relations



Toll-free (North America):
1.866.224.0104

Public Affairs



Toll-free (North America):
1.855.895.8574