Bringing Energy Security to America

TransCanada's Keystone XL Pipeline Project

BY BARBARA BILLITZER

TransCanada Corporation has been developing and operating energy infrastructure for more than six decades. Based in Calgary, Alberta, the company's pipeline network extends more than 35,500 miles and connects with virtually every major gas supply basin in North America.

Plans for the multi-phased Keystone Pipeline System originated in 2005. TransCanada proposed it as a way to connect a secure and growing supply of Canadian crude oil with the largest refining markets in the United States, significantly improving North American security supply.

While the Keystone XL expansion project has received the majority of media attention, many Americans are unaware that the first two phases of the Keystone Pipeline System were already built and have commenced operations. In fact, since 2010, the pipeline has delivered over 160 million barrels of oil from Canada to market hubs in the U.S. Midwest.

The Keystone XL extension and Gulf Coast Project encompass the last two phases of the overall Keystone Pipeline System, and both segments still are awaiting approval. The Keystone XL extension has generated the greatest controversy because of its routing over the Ogallala Aquifer in Nebraska, which yields about 80 percent of the drinking water for the area's residents.

A Multi-Phased Approach

The National Energy Board of Canada approved the construction of the Canadian section of the Keystone Pipeline System in 2007. In 2008, the U.S. Department of State (DOS) issued a Presidential Permit authorizing the construction, maintenance and operation of facilities at the United States and Canadian border.

The project's four phases were designed as follows:

Phase I: Keystone Pipeline went online in June 2010. It runs from Hardisty, Alberta to U.S. refineries in Wood River, Illinois and Patoka, Illinois.

Phase II: Keystone-Cushing Pipeline went online in February 2011. It runs from Steel City, Nebraska, through Kansas to Cushing, Oklahoma.

Phase III: Gulf Coast Project is part of the Keystone System but will also act as additional takeaway capacity for the Cushing hub. The proposed phase would start from Cushing, Oklahoma and extend to delivery points in Texas.

Phase IV: Proposed Keystone XL pipeline originates in Alberta, Canada, enters the U.S. through Montana, and travels through South Dakota and Nebraska, where it joins the existing Keystone pipelines at Steele City.

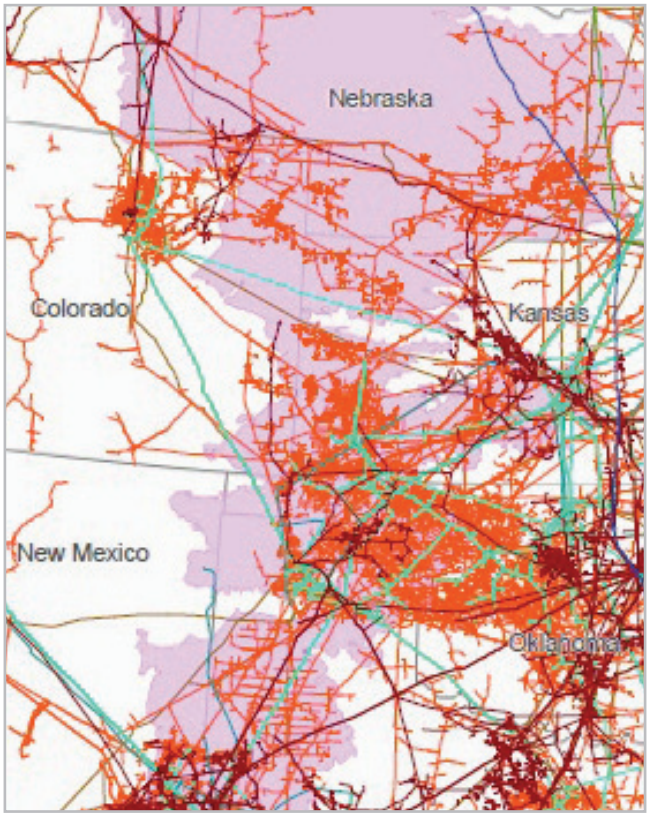
Once completed, the Keystone XL Pipeline and Gulf Coast Project will span nearly 1,200 miles and offer the capacity to deliver 830,000 barrels of oil per day to U.S. refineries in Cushing, Oklahoma and the Gulf of Mexico. Up to 25 percent of that capacity has been provided for the delivery of U.S. domestic oil from the Bakken fields in Montana and North Dakota and oil from Cushing.

The Keystone XL Extension

The Keystone XL extension was proposed in 2008. In 2010, the National Energy Board of Canada approved the project, and the South Dakota Public Utilities Commission granted a permit.

However, in July 2010, the U.S. Environmental Protection Agency said the Keystone XL's draft environmental impact study was inadequate and should be revised, indicating that the DOS's original report was "unduly narrow" because it did not fully look at oil spill response plans, safety issues and greenhouse gas concerns. The final environmental impact report published in August 2011 stated that the pipeline would pose "no significant impacts" to most resources if environmental protection measures are followed, but it would present "significant adverse effects to certain cultural resources."

Considered the largest storage facility in the world, Cushing Oklahoma will serve as the hub for the Keystone Pipeline.



The shaded area represents the Ogallala aquifer, which already has 20,000 miles worth of pipelines crossing the area.

During the three-year review period, the DOS issued three environmental impact statements, all of which concluded that Keystone XL would have a limited environmental impact and that the pipeline would be subject to the most stringent safety standards and practices ever applied to a pipeline in the U.S. As a result of this process, particularly given the concentration of concerns regarding the proposed route through the Sand Hills area of Nebraska, the DOS called for an assessment of alternative pipeline routes that would avoid the uniquely sensitive terrain.

In 2011, TransCanada announced that fourteen different routes for Keystone XL were being studied, eight that impacted Nebraska. They included one potential alternative route in Nebraska that avoided the entire Sandhills region and Ogallala aquifer, as well as six alternatives that would have reduced pipeline mileage crossing the Sandhills or the aquifer.

Since the pipeline crosses the Canadian and U.S. border, a Presidential Permit is required for the project to move forward. It came as a surprise when, in January 2012, the DOS announced that it was denying TransCanada's Presidential Permit application for Keystone XL. While the announcement was disappointing, TransCanada had anticipated the scenario. And despite what may have appeared to be a setback, plans are currently underway to maintain the construction schedule.

TransCanada's new Presidential Permit application will make use of the exhaustive record and reviews completed and conducted during the last three years – the most extensive regulatory review ever applied to a crude oil pipeline project in the U.S. The DOS estimated, based on prior projects of similar length and scope, that it could complete the necessary review to make a decision by the first quarter of 2013. With the estimated timeline, TransCanada hopes to ultimately build the pipeline by 2015.

Managing the Expectations

As the Keystone XL expansion awaits approval, we spoke with Keystone's Land Manager at TransCanada, John Hunt, about the unique hurdles this pipeline project has faced.

From John's perspective, Keystone XL was expected to meet similar challenges and opportunities as the previous project phases, which were challenging but relatively manageable. However, the fallout from recent pipeline incidents affected public perception and changed the political landscape. "In 2010, there were two key incidents that changed the way the public looked at the energy industry. The first was the BP oil spill in the Gulf of Mexico. The second was the Enbridge pipeline rupture in Kalamazoo, Michigan. As a result of these incidents, the regulatory environment forever changed, and the industry has come under intense political and public scrutiny."

This sequence of events aroused the various oppositional groups and the general public, and as a result, the government reacted to the pressure. "While those events were unfortunate, we must recognize that the oil supply must still be sustained. We need to continue domestic development in strategic supply and demand regions or economic progress would wane and prices would go up. The tide is turning in favor of an ongoing 'all-of-the-above strategy' for energy development born and raised in North America, including the need for more oil in the U.S. from a friendly nation like Canada. And that is good for all," said John.

Laws affecting the relationship between individuals and project proponents have not changed materially for over a hundred years, particularly for linear facilities, but the attitudes of stakeholders and public perception has changed significantly. "There are good reasons why those laws have not changed," explained John. "Doing so would break the fundamental principle that such public interest projects, whether proposed by government or private business, affect few for the benefit of many."

Balancing the property rights of individuals and the impact of major public projects is vital to the success of every new project. According to John, "While people understand that public works is a fundamental necessity, there seems to be growing empowerment of individual rights over projects. Our elected officials and regulators seem to have swung the pendulum in that direction as well, particularly when considering that public facilities are for the benefit of the general public. A logical and fundamental question should and will always remain – is the proposed facility needed (by society) or not and is it in the best interest of all."

Stakeholder Relations

TransCanada has a diverse group of stakeholders, and through strategic public communication programs, engages with them regularly to share information and garner their views. For the Keystone Pipeline System, TransCanada has been diligently working with thousands of landowners since 2008 to obtain the necessary land rights required to build this $14 billion crude oil pipeline and address their concerns.

"TransCanada has long believed in the importance of working closely with landowners to identify special circumstances, land restrictions, access routes and other construction requirements to minimize disturbance to the land, the landowner and the environment," said John. "We are fully committed to treating all landowners with respect, to work with them and come to the best possible solution. With over 35,000 miles of pipeline, this is a practice we have followed in all of our negotiations."

TransCanada believes that stakeholder issues in both the U.S. and Canada are very similar. "We have all seen an evolution given access to information, the formation of advocacy groups, the environmental movement, a movement to smarter regulation and other influencing factors," said John. "Landowner relations are essentially tracking similarly with heightened awareness and knowledge, and a desire to protect their individual property rights. Having said that, could TransCanada have undertaken some nuanced changes to streamline their land processes and procedures? Perhaps, but there were no fundamental changes necessary and still aren't to this day. You can't acquire over 1,000 easements and 80 pump stations without a solid foundation."

Doing the Math

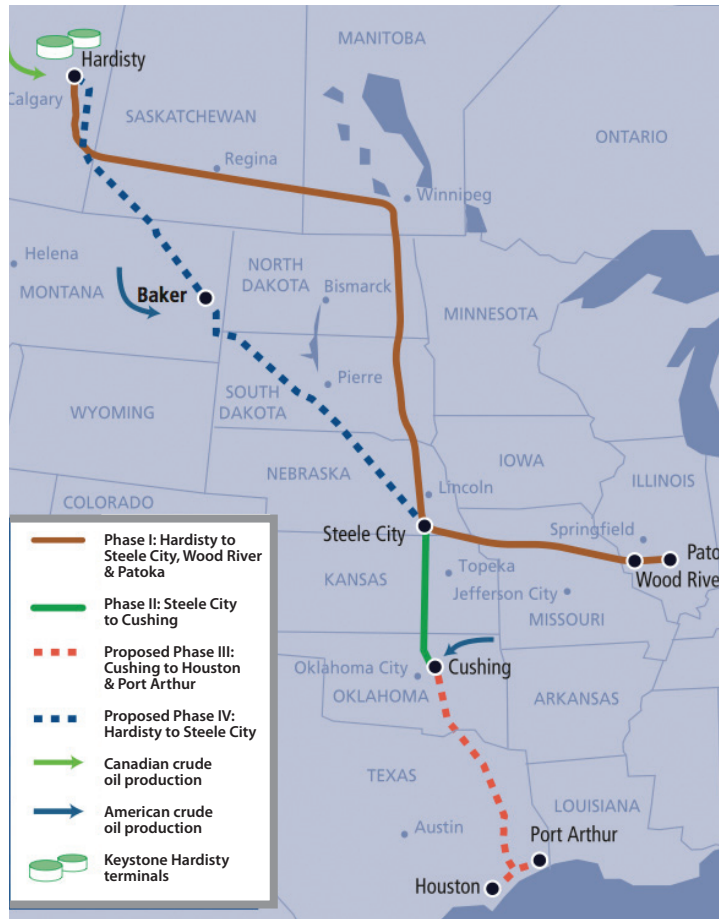
There continues to be a great deal of debate and discussion in the media about the actual employment opportunities that will result from the project. Despite the factual job-creation data presented throughout the three-year regulatory process for Keystone XL in the U.S., much of what is promoted in the media is erroneous.

In the U.S., the two projects would directly create 20,000 jobs: 13,000 in construction and 7,000 in manufacturing, not including the indirect, spin-off job creation. When you consider all the different professions involved, it really puts things into perspective.

Construction of the two pipelines in the U.S. is comprised of 17 different U.S. pipeline spreads or segments, and with 500 workers employed per spread creating 8,500 jobs. Keystone XL and the Gulf Coast Project also need 30 pump stations, and construction of each pump requires 100 workers. That's another 3,000 jobs. The project will also require six construction camps across the U.S. and tank construction at the crude oil terminal at Cushing, Oklahoma for another 600 jobs. Finally, Keystone XL and the Gulf Coast Project will create roles in construction management, engineering and inspection. This adds 1,000 jobs to the project construction job-creation profile, for a total of more than 13,000 direct, on-site construction jobs.

The construction is also expected to directly create 7,000 manufacturing jobs in the U.S. The project will require hundreds of millions of dollars worth of materials and related services for items like steel pipe, fittings, valves, fabrication of piping assemblies and structural steel for supports. Thousands of other pieces of equipment will be needed to build transformers for pumping stations, electric motors for operating pumps and cabling electrical equipment to connect the vast pipeline monitoring systems. Pipeline construction contractors will need to procure hundreds of millions of dollars worth of equipment and building materials, leading to job creation through requirements for fuel, coating materials, welding supplies, concrete, road construction, water and waste facilities, bridge construction and communication infrastructure.

In addition, local economies within the route will benefit from increases in tax revenues and business activity associated with temporary construction work in the area, and local property taxes will be paid on a continuing basis.



Since 2010, the Keystone pipeline has delivered over 160 million barrels of oil from Canada to market hubs in the United States.

Ensuring Public Safety

Every year, billions of gallons of crude oil and petroleum products are transported on pipelines. When compared to other modes of transportation, pipelines are generally considered to be the safest and most environmentally friendly method for transporting petroleum products.

TransCanada's risk-based integrity management program focuses on preventing pipeline incidents, and this includes ongoing maintenance and inspection, combined with investment in pipeline research and development to continually improve materials and processes. The company monitors its pipeline systems from a computerized control center that is staffed 24 hours a day. If an incident were to occur, TransCanada is able to shutdown the pipeline and isolate the affected pipe section from service within minutes.

Furthermore, the Keystone XL and the Gulf Coast Project have been designed to meet or exceed all requirements of the Pipeline and Hazardous Materials Safety Administration, an agency within the U.S. Department of Transportation that regulates the design, construction and operation of the 2.3 million mile pipeline system in the U.S.

Protecting the Environment

Minimizing the environmental impact along the proposed route is a high priority, as well. TransCanada recognizes that native rangelands are important ecosystems that support a variety of uses such as livestock grazing, wildlife habitat and recreational opportunities. In all cases, great care and planning is taken to minimize and avoid impacts to the environment, including rare or endangered species, habitat, significant water crossings, and historical and paleontological resources.

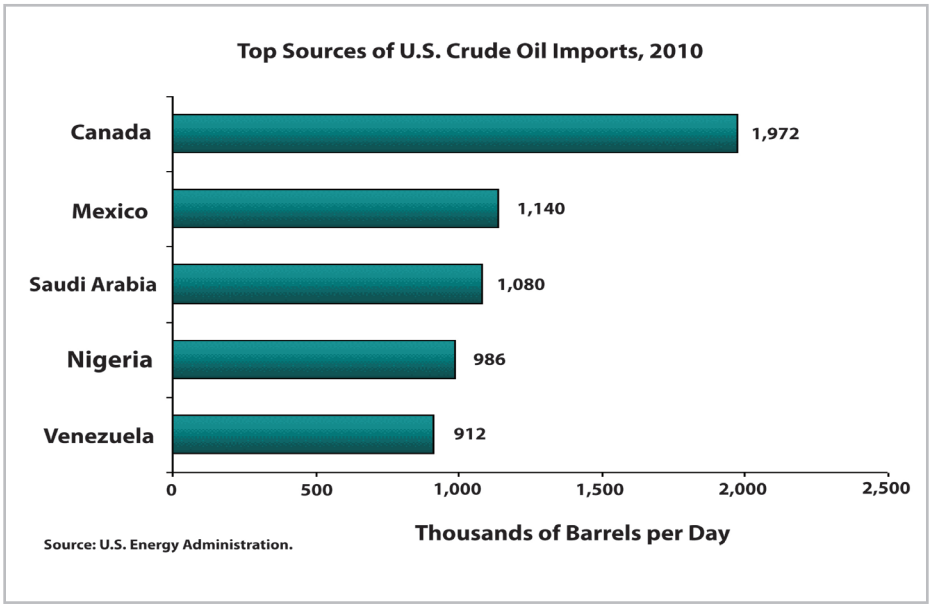
Throughout decades of building and operating pipelines, TransCanada has successfully reclaimed thousands of acres of native rangeland on pipeline rights of way throughout North America. Included in these efforts are pipeline reclamation projects in the arid native prairie regions of southern Alberta and southwestern Saskatchewan, including areas such as the Great Sand Hills of Saskatchewan.

The native rangelands within the Sandhills region of southern South Dakota and central Nebraska have posed unique challenges. While TransCanada has expertise in native rangeland reclamation, they have actively engaged in discussions with regional experts on sand hills ecology and restoration at universities and government agencies, including experts at the University of Nebraska, University of South Dakota, Natural Resources Conservation Service and numerous state road departments.

Creating Energy Stability

Once permitted and completed, the Keystone XL expansion project will supply roughly half the amount of oil currently imported by the U.S. from the Middle East or Venezuela.

The fact is that some aspects of the energy transportation system are nearing capacity, and future demand may be difficult to accommodate. Without timely investments, congestion through existing transportation systems could potentially result in supply interruptions and other problems. In fact, many of the crude oil and petroleum products pipelines in the country are operating near capacity. Ensuring the availability of this critical resource is crucial to the future performance of the U.S. economy, particularly in cases where it provides access to additional petroleum resources.



The tar sands and technology makes it easier to extract oil, enabling Canada to increase its crude oil imports to the United States.

Given that the U.S. cannot internally produce sufficient energy to meet domestic needs, the country's energy security is reliant on the ability to obtain necessary imported energy from sources that are stable and friendly to U.S. interests. A stable environment with incremental supplies from reliable sources leads to lower costs, thereby putting downward pressure on prices. Therefore, initiatives which improve the stability and security of imports are important to the economy and national security.

Russ Girling, TransCanada's President and CEO remains fully committed to the construction of Keystone XL. In a recent interview, he said, "This project is too important to the U.S. economy, the Canadian economy and the national interest of the United States for it not to proceed."