



Tennessee Gas Pipeline
Company, L.L.C.
a Kinder Morgan company

Northeast Energy Direct (NED) Project Frequently Asked Questions

The Need for the Pipeline

Why do we need a new pipeline?

Tennessee Gas Pipeline Company, L.L.C. (Tennessee), a Kinder Morgan company, has been transporting natural gas to the northeast United States to supply the local distribution companies (LDCs) (i.e., natural gas utilities) since the 1950s. As demand for natural gas in the region increases, Tennessee's Northeast LDC customers have expressed the need for additional firm transportation capacity to serve their growing markets. In addition, multiple studies have concluded that additional pipeline infrastructure is needed in the region to serve increasing demand from LDCs and the power sector, and that such infrastructure may benefit the region in the form of lower energy costs. The NED Project is being developed to meet the growing energy needs in the Northeast and, more specifically, the New England region. This region as a whole stands to benefit from the NED Project as lower energy costs will enable New England businesses to compete on a more level playing field with other states that have access to low-cost shale gas.

The NED Project may provide up to 2.2 billion cubic feet per day (Bcf/d). Does the region really need that much gas?

Although the NED Project is scalable for up to 2.2 Bcf/d into the market, Tennessee will design the project to accommodate only the amount of capacity that is contracted for by our customers in binding long-term agreements. Contracts that Tennessee executes with its LDC customers in New England have to be approved by the LDC's respective state public utilities commissions, which use a thorough public process to determine the need for each utility to execute contracts for additional pipeline capacity. Other companies and potential customers, like power generators and customers in Atlantic Canada markets and potential liquefied natural gas (LNG) export projects, execute contracts based on their expected long-term needs for firm transportation capacity. During Tennessee's non-binding open season, a public process where Tennessee solicited interest in the project, Tennessee received significant interest from many companies in different sectors of the industry that are interested in the NED Project and continuing discussions toward executing long-term contracts.

Additionally, in a February 2014 report to New England's governors, congressional delegation and other officials, the Industrial Energy Consumer Group, a non-profit business group in Augusta, Maine, that has studied energy supply/demand in New England, concluded that more pipeline capacity serving the region could have had a major positive effect on lowering the high prices consumers paid for gas this past winter and in previous winters. The report found that the 2013-2014 winter contributed "to the highest energy prices ever experienced by New England," which were twice as high as those experienced in 2012-2013. The report said that the price shock could have been avoided, but that "New England lacks adequate natural gas pipeline capacity."

Could the region's needs for natural gas be met by additional conservation efforts or improving efficiencies on the distribution network?

The state public utilities commissions must approve any long-term gas transportation contracts executed by each state's gas utilities. These commissions may consider whether it would be more cost effective or preferable from

an environmental perspective for the gas utilities to meet the growing needs of their residential and commercial customers through programs to enhance the efficiency of their distribution systems, or other conservation programs. If the state public utilities commissions approve the long-term contracts executed by the LDCs for the NED Project, after a thorough and public process, it will only be after concluding that there is a justified need for the additional firm transportation capacity in each state.

Will the cost of this pipeline be passed on to ratepayers by the electric utilities?

Recent initiatives by the New England Governors and the New England States Committee on Electricity (NESCOE), a not-for-profit organization representing the collective interests of the six New England states on regional electricity matters, suggest that adding significant natural gas firm transportation capacity to the region's markets would, over time, *LOWER* the price of gas in New England and enhance the reliability of both gas and electricity service. Certain electric distribution companies (EDC) (i.e. electric utilities) in the region have also proposed that they may be willing to contract for additional gas transportation capacity to support electricity generation if they were able to recover the costs of this capacity from their ratepayers. Whether or not such cost recovery by such EDCs would be in the public interest and permissible would be decided, after a thorough and public process, by the state public utilities commissions that regulate and set the rates of each EDC.

Safety

Are natural gas pipelines safe? What does Kinder Morgan do to monitor and maintain its pipelines?

The safety of the nation's natural gas pipeline network is regulated by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), which administers the Natural Gas Pipeline Safety Act of 1968 and subsequent amendments to this statute in the Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011. PHMSA is responsible for implementing pipeline safety laws and regulations, which establish requirements to ensure that pipelines are constructed and operated safely. Here is a sampling of how the design and implementation of the NED Project will follow federal PHMSA regulations:

- a. Design – Tennessee pipeline design includes safety features that increase with population density and land usage along the pipeline. This includes: (i) extra wall thickness in more populated areas, (ii) extra wall thickness at road crossings, (iii) additional depth of cover in agricultural areas under active cultivation, (iv) corrosion protective coatings, and (v) cathodic protection facilities to protect against corrosion.
- b. Testing – Tennessee further X-rays 100 percent of all pipeline welds and pressure tests the completed pipeline with water at a pressure much higher than it will operate to ensure that it is properly built prior to being placed in service. It also inspects the pipelines internally before placing them in service to help ensure that any anomalies are identified and repaired prior to the line going into service.
- c. Cathodic Protection – Tennessee applies electrical current, known as cathodic protection, to the pipeline to prevent external corrosion from occurring and regularly checks the pipeline to ensure the protection is consistently applied. By applying the electrical current, the pipe is protected from pipe steel being removed by corrosion.
- d. Encroachment – One of the most common causes of pipeline incidents is damage by a third party. We obtain an approximately 50-foot wide permanent right-of-way to distance third party construction activities from accidentally damaging our pipeline. This gives us room to safely operate and maintain the pipeline.
- e. Tennessee actively participates in all applicable One Call programs to help prevent third-party damage. Tennessee will meet landowners and contractors to discuss excavation and marks all pipelines prior to excavation when provided with notification by state One Call programs. Depending on the location of the

digging, Tennessee also will have a company employee on site to observe digging operations around its pipelines.

- f. Monitoring – Tennessee closely monitors pipeline operations, including line pressure and surveillance of the pipeline to detect leaks and protect against third-party damage.
- g. Inspection – Tennessee uses state of the art in-line inspection tools, known as smart pigs, to periodically internally inspect the pipeline in accordance with PHMSA requirements for potential damage, erosion or corrosion. Any damage or corrosion detected through this process is repaired or replaced.
- h. Shut Off Valves- Shut off valves installed on the new pipeline facilities will include:
 - Valves that will automatically close when a specified change in pipeline conditions occur.
 - Valves that are monitored 24 hours per day and can be closed remotely from our gas control center.

How does Kinder Morgan ensure the safety of its pipelines?

Kinder Morgan is committed to public safety, protection of the environment, and operation of its facilities in compliance with all applicable rules and regulations. The majority of its pipelines fall under the regulatory oversight of PHMSA. Kinder Morgan is proud of its safety record and its compliance with all applicable safety regulations.

Pipelines are the safest and most cost-effective means to transport the extraordinary volumes of natural gas that fuel our nation's economy and provide heat and cooking fuel to residential consumers. Pipelines are extremely safe relative to the volumes of gas transported. While the amount of natural gas being used in the United States continues to increase dramatically, the industry's safety performance in recent years has improved significantly and serious accidents are rare.

Will Kinder Morgan help localities train and equip their emergency responders for pipeline related incidents?

Tennessee conducts annual meetings with first responders, local officials and contractors in all counties, cities and towns where it operates, and will continue this process in any locality where a pipeline is installed as part of the NED Project. Tennessee's local employees who operate the pipeline attend these meetings to answer questions and provide additional information related to emergency response, safety and local contact information. These employees serve on the Local Emergency Planning Committee and regularly attend meetings within the counties where they live. As the NED Project is constructed, placed in service and operated as part of the Tennessee Gas Pipeline system, Tennessee will continue all of these activities in counties where its facilities are located, and will begin those activities in counties where new facilities are added.

The meetings held in communities along the Tennessee system provide first responders with information about responding to a natural gas incident. In addition, we conduct mock emergency drills with local responders and hold open houses at our facilities to better familiarize first responders with Tennessee's equipment and facilities. Tennessee's personnel have access to pipeline emergency training materials and, if requested, can provide workshops or training for first responders.

Environment

Will the pipeline traverse wetlands, public lands, areas with conservation easements or other environmentally sensitive lands?

As part of the evaluation of the routing/location of the NED Project, Tennessee has considered and will continue to consider a number of factors, including impacts on the environment and existing land uses. Tennessee's design criteria for new facilities includes avoiding and minimizing impacts to critical and sensitive habitats and lands, such as wetlands, threatened and endangered species, culturally sensitive areas and public lands, to the extent practicable and feasible. To evaluate a proposed route, Tennessee will conduct civil, cultural and environmental

surveys to gather information that will allow it to refine the pipeline design and, in consultation with regulatory agencies, determine the most appropriate route to avoid and minimize impacts on critical habitats and lands. If Tennessee is unable to avoid critical and sensitive habitats and lands, it will determine the most appropriate crossing method to minimize and mitigate impacts as much as possible.

Will the pipeline carry gas derived from fracking?

Tennessee understands that its customers on the NED Project, whether they are gas utilities, marketers or power generators, will transport natural gas produced in the Marcellus Shale supply area in Pennsylvania to their markets in the Northeast and New England. Tennessee's construction and operation of its interstate pipeline system for the transportation of gas is a totally different type of activity from the exploration and production activities of producers to find and extract natural gas. Exploration and production activities are subject to different regulations (some federal and some state) than the construction, operation, and maintenance of interstate natural gas transportation pipelines, which is subject to regulation by the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act, and PHMSA under federal pipeline safety laws.

Does Tennessee use herbicides on its right-of-way?

After constructing the pipeline, Tennessee will restore the right-of-way as required by, and in accordance with, the conditions imposed by FERC in its certificate of public convenience and necessity. For the majority of its system, Tennessee maintains its easements by mechanical means (e.g. tractor with mower or brush hog). In some instances, as approved by landowners and regulatory agencies, herbicides may be applied in certain locations (typically at compressor stations or above-ground sites such as valves or pig launchers, or receivers).

Will the pipeline contribute to new greenhouse gas emissions or other emissions?

The facilities will comply with all applicable requirements of the federal Clean Air Act, and state and local agency rules. Project installation and operations are subject to performance standards for oil and natural gas sources which may include best available control technology, compliance with applicable state and federal air rules, air permit conditions, and monitoring and testing of emissions. The pipeline and associated compressor facilities may result in certain predictable air emissions during routine operations.

What effects will construction have on wildlife or the local environment?

Pipeline construction in general results in temporary impacts to wildlife and the environment. Construction planning and permitting includes consideration of the effects on wildlife and the environment. During construction, Tennessee would comply with all requirements imposed by FERC and other federal and state agencies, as well as its own industry-standard procedures, to avoid and minimize the effects of construction on the environment. Wildlife protection and environmental measures are further addressed during post-construction site restoration. FERC will monitor and inspect Tennessee's right-of-way restoration activities to ensure compliance with all applicable conditions and requirements.

Do the compressor stations "exhaust" or "release" methane gas during operations?

Compressor stations do not "exhaust" or "release" methane gas under normal operations. A release is defined as an unintended release. Piping systems are specifically designed and tested to prevent methane gas release. Very small quantities of gas are vented when gas is used as a power source for valve operators during normal compressor station operations. In other special operating circumstances, gas is vented to depressurize pipes in the compressor station to allow maintenance or under emergency conditions. Venting is defined as a controlled planned venting of gas. When gas is vented, it is done under controlled conditions specifically designed to allow depressurization to be done safely.

Do chemicals used in the hydraulic fracturing process transmit via the natural gas through the pipelines and into the air along the route?

Trace amounts of chemicals used in the hydraulic fracturing process may be found in natural gas produced from hydraulically fractured wells that is transported on pipelines like Tennessee. Organic compounds, like benzene

and toluene, are naturally occurring petrochemicals and trace amounts of these chemicals may also be found in conventionally produced natural gas, such as gas coming from the Gulf of Mexico, that have been supplying New England for decades. Benzene and toluene are also used as additives in gasoline. Tennessee complies with all applicable federal and state regulations regarding emissions from compressor stations and the natural gas that it transports. Trace amounts of any of these chemicals are well below the allowable safe limits set by government agencies.

Will the electricity generated with the natural gas from this pipeline increase carbon dioxide (CO₂) emissions compared to the current coal power stations?

As existing coal-fired power plants are retired, some power generators are looking at converting those plants to run on natural gas. Compared to the average air emissions from coal-fired power plants, natural gas power generators produce half as much carbon dioxide, less than a third as much nitrogen oxides and 1 percent as much sulfur oxide, according to the EPA. Currently, New England relies on natural gas fired power generation for 52 percent of its electricity and this number is expected to grow in the upcoming years.

Local Impacts

How will the pipeline impact the value of my property?

The pipeline and associated easement should not impact the value of your property. Multiple studies across the country have found minimal to no correlation between a property's sales price and its vicinity to a gas transmission pipeline. Please see the following studies for supporting information on the correlation between property values and the presence of pipelines;

- Diskin, Barry A., PH.D., Jack P. Friedman, PH.D, Spero C. Peppas, PH.D, and Stephanie R. Peppas. "The Effect of Natural Gas Pipelines on Residential Values." Right of Way (2011)
- Fruits, E., "Natural Gas Pipelines and Residential Property Values: Evidence from Clackamas and Washington Counties." (2008).
- The INGAA Foundation, Inc., "Natural Gas Pipeline Impact Study." (2001)
- Kinnard, Williams N., Jr., Sue Ann Dickey, and Mary Beth Geckler. "Natural Gas Pipeline Impact on Residential Property Values: An Empirical Study of Two Market Areas." Right of Way (1994)
- Wilde, Louis, Christopher Loos, and Jack Williamson. "Pipelines and Property Values: An Eclectic Review of the Literature." Journal of Real Estate Literature 20.2 (2012)

What are the benefits to local communities along the route?

During construction, this project will generate millions of dollars for state and local economies through spending by workers on living expenses, entertainment and meals. Some temporary jobs will be created and demand for local services such as fuel and mechanical work will increase. Towns and counties will also see a significant increase in annual property tax revenues once the project is placed into service.

In addition, several studies (see question above) have concluded that bringing additional gas supplies to the region will lower the price of natural gas in the Northeast and benefit consumers with lower energy costs.

What is the operational life of the pipeline? What happens when it's no longer in use?

The serviceable life of the pipeline is indefinite because of the materials used and the procedures in place to protect the installed pipeline, including corrosion protective coating, cathodic protection and periodic inspections.

Abandonment of unused or retired pipelines is under the jurisdiction of the FERC. The FERC would review any request by Tennessee to abandon the pipeline and issue an approval before the pipeline could be removed from service and either removed from the ground or abandoned in place (depending on location and environmental impacts). If a pipeline is abandoned in place, it will be disconnected from all sources and supplies of gas, purged of gas and the ends sealed, and, in certain cases, the pipeline may be filled with water or inert gas such as nitrogen.

Siting and Environmental Review Process

What permits does Tennessee have to obtain in order to construct the Project?

Prior to constructing and operating the NED Project, Tennessee is required to apply to the FERC for a certificate of public convenience and necessity under the Natural Gas Act (Certificate Application). As part of the Certificate Application process, FERC has established a collaborative pre-filing process under which FERC staff cooperate to establish the scope of the environmental review and the environmental reports that Tennessee will file with its Certificate Application and that will be the basis for FERC's Environmental Impact Statement. Tennessee anticipates that it will request to initiate the FERC pre-filing process starting in September 2014. The process will include Tennessee conducting open houses for interested parties, including affected landowners, to learn more about the project and FERC staff conducting scoping meetings to gather comments on the proposed project from interested parties. Tennessee anticipates that it will obtain its FERC Certificate Application for the NED Project in September 2015.

In deciding whether to issue a certificate for the NED Project, FERC will balance the public benefits of the project against the potential adverse consequences.

In addition, to the FERC certificate, Tennessee must also apply for, and obtain, other applicable federal and state permits and authorizations for specific aspects of the project, such as air emissions, erosion and sedimentation control, wetlands crossings, etc. The process and timing of other applicable federal and state permits will occur concurrently with the Certificate Application process.

Who decides where the pipeline will be constructed?

The final route for the NED Project pipeline and the location of any compressor stations or other related facilities will be determined by the FERC in its order issuing a certificate of public convenience and necessity. Tennessee will propose a route when it files its application for a certificate of public convenience and necessity with FERC. As a result of FERC's public scoping process and its environmental review under the National Environmental Policy Act, Tennessee may propose and/or FERC may require additional route changes to mitigate environmental impacts and other effects of the project.

Does the public have any say in the siting process for the pipeline?

Public participation and input is an important component of this project, and the public will have multiple opportunities to provide input to regulators like the FERC and other federal and state agencies during the course of the project.

Tennessee will conduct multiple open houses in the proposed project area to explain the NED Project and receive input from area residents and other interested parties. Tennessee will also solicit input from landowners, community leaders and citizens through face-to-face meetings and the project's web site. Throughout the course of the NED Project, continued dialogue between project team members and the public will be encouraged.

In addition, FERC will also solicit input from the public through its scoping process during the pre-filing and Certificate Application processes for the NED Project.

Why can't you show us better, more specific maps at this point?

The proposed route and facilities are still being finalized. We have been meeting with landowners to discuss routing on their properties and we have provided mapping at a town level. Once the FERC pre-filing process starts, more information will be available to affected landowners.

Where does this whole process stand in terms of permitting? What is the process?

Prior to constructing a project like this one, Tennessee is required to apply to the FERC for a certificate under the federal Natural Gas Act to construct and operate the proposed facilities. The FERC is the federal agency with authority to regulate the construction and operation of interstate natural gas pipelines, such as Tennessee. Tennessee anticipates that it will request to participate in the FERC's pre-filing process for the project in September 2014. The process will include Tennessee conducting open houses for interested parties, including affected landowners, to learn more about the project, and FERC-conducted scoping meetings for the FERC to gather comments on the proposed project from interested parties. Tennessee anticipates that it will submit the Certificate Application for the project to the FERC in September 2015.

As part of the Certificate Application, Tennessee is required to demonstrate that the project is in the public need, which is referred to by FERC as "public convenience and necessity."

In addition, we will seek other applicable federal and state permits and authorizations for specific aspects of the project, such as air emissions, erosion and sedimentation control, wetlands crossings, etc. The process and timing of other applicable federal and state permits will occur concurrently with the FERC process.

Why can't you just run the pipe along existing highway corridors?

Routing pipeline facilities in or along existing highway or road corridors presents several challenges. First and foremost is safety. Highway corridors generally already have existing utility infrastructure located in or around their corridors. By locating a pipeline in a separate corridor, there is much less likelihood that damage will occur to the existing infrastructure during construction, or that the new pipeline will be damaged by third party construction or maintenance activities by other utilities or road crews. Separate corridors are also generally less populated as compared to road corridors. In the planning stage, Tennessee reviews routing options, including ones that will share corridors with other similar uses such as existing pipelines or power lines.

Tennessee already has a pipeline in New York and Massachusetts. Why can't Tennessee build the NED Project in that corridor?

Tennessee extensively evaluated the option of installing the NED Project adjacent to its existing right-of-way. Since it was constructed in the 1950s, the area around Tennessee's existing pipeline in Massachusetts has become extremely congested. Constructing a new pipeline in this corridor would be extremely challenging and impact significantly more landowners than constructing along the new corridor across the northern tier of Massachusetts.

When you negotiate with landowners, is it just for this pipeline or all possible future pipelines?

It is only for the rights to be conveyed within the terms of the easement or right-of-way agreement.

What size right-of-way is required to build the pipeline?

In new areas, the new permanent easement, or right-of-way, would likely be 50 feet wide, generally 25 feet on either side of the pipeline. In addition to a permanent easement, an additional 50- 75 feet of temporary workspace would be needed for use during construction. Some site specific areas, like road crossings, will require additional temporary workspace to allow for specialized construction techniques and to allow the workers to work safely.

The width of the rights-of-way may differ depending on the location and topography of the land. This will be discussed with each individual landowner during easement discussions.

Will Tennessee seek Article 97 legislative approval in Massachusetts?

Tennessee anticipates that it will seek Article 97 authorization from the Massachusetts legislature to obtain easement rights on lands that promote conservation purposes and that are owned by the Commonwealth or by a town or city.

If you don't have shippers/customers, why are we even talking about this project? When do you anticipate securing customers?

Tennessee is in late stage negotiations with multiple parties to be shippers on the project. Tennessee will make announcements following the execution of agreements with shippers.

Miscellaneous

Will the pipeline be used for export to Canada or overseas?

The project is being developed to provide much needed additional firm transportation capacity into the Northeast for LDCs who need the capacity to serve increasing demand in their service territories. Under the Natural Gas Act, Tennessee is an open-access interstate pipeline system subject to the regulations and policies of the FERC, which require that transportation capacity be allocated on a not unduly discriminatory basis. Under FERC's regulations and policies, Tennessee cannot discriminate among customers based on the ultimate destination or use of the gas, such as the Northeast vs. Canada or another foreign country (via export of LNG). The ultimate destination of the gas and volumes associated is within the sole control of the project customers.

The segments of the Atlantic Canada natural gas market are similar to those in the Northeast. They include local distribution companies, electric utilities, industrial companies, power generators and potential LNG export projects. There are currently four proposed LNG export projects in Atlantic Canada and one LNG export project in northern Maine that could find capacity on the NED Project useful to serve their proposed LNG export facilities. At this time, Tennessee has not executed any contracts with developers of proposed LNG export facilities.