

Attachment A

**Tennessee's Responses to Scoping Comments
June 30, 2015 through October 1, 2015**

This page intentionally left blank

Issue	Summary of Comments	Response
Resource Report 1: General Project Description		
Project Purpose and Need	Requests that Tennessee be required to prove the necessity of the proposed Northeast Energy Direct (NED) Project with studies verifying the actual need.	<p>Please see Article IX, Public Convenience and Necessity and Compliance with Certificate Policy Statement, in the certificate application and Section 1.1.1, Purpose and Need, in Resource Report 1 of the Environmental Report, included as Exhibit F-1 to the certificate application, for a detailed discussion of the purpose and need for the Project.</p> <p>Multiple studies have concluded that there is a critical need in the northeast U.S. for additional pipeline capacity to lower energy costs, reduce volatility of natural gas and electric prices, and foster more reliable natural gas and electric service to New England consumers. As a result of the fact that current natural gas transportation infrastructure is inadequate to meet the growing demand in the New England region, gas prices in New England are the highest in the U.S. Limited natural gas transportation infrastructure also has led to extremely high electricity prices in the northeast U.S., and threatens the reliability of the region's electric grid. For example, National Grid received approval to increase its customers' electric rates by an average of 37 percent for winter 2014-2015 due to "continued constraints on the natural gas pipelines serving the region, which decrease natural gas availability at times of peak demand, causing some generators to buy gas on the spot market at higher prices, switch over to alternate fuels, or not run at all." National Grid has applied for approval to increase its customers' electric rates by approximately 21 percent for winter 2015-2016, citing electric supply volatility due to continued gas pipeline constraints. A January 21, 2015 presentation by Gordon van Welie, President and Chief Executive Officer of Independent System Operator-New England ("ISO-New England"), discussed that the New England region is challenged by a lack of natural gas pipeline infrastructure, and is losing non-gas power plants, resulting in serious threats to power system reliability. The presentation further noted that "electricity prices are on an upward trajectory until the needed energy infrastructure is added."</p> <p>A list of the sources describing the need for additional pipeline infrastructure in the Northeast U.S. is provided as Attachment 1c to Resource Report 1.</p>
	Comments suggesting that by the time the proposed Project is built, the "need" will be met by the other pending projects, such as the Spectra Access Northeast expansion project.	While other pending projects share the general common goal with the NED Project of transporting natural gas to northeast U.S. markets, including New York and New England, there are significant differences. In general, the other pipeline companies existing and pending systems serve geographically limited areas of Massachusetts, whereas the NED Project will enable service to all areas of Massachusetts. Please see Section 10.2, System Alternatives, in Resource Report 10 of the Environmental Report, included as Exhibit F-1 to the certificate application, for further information and discussion.

Issue	Summary of Comments	Response
	<p>Questions regarding the benefit to the local communities that will be impacted by the proposed Project.</p>	<p>During construction, the NED Project will generate millions of dollars for state and local economies through spending by workers on living expenses, entertainment and meals. 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 have concluded that bringing additional gas supplies to the region will lower the price of natural gas in the northeast U.S. and benefit consumers with lower energy costs. Additional information regarding benefits to local communities is provided in Resource 5, Socioeconomics, of the Environmental Report, included as Exhibit F-1 to the certificate application. In addition, please see the reports for the states of Pennsylvania, New York, and Massachusetts discussing economic benefits to those states included in Exhibit Z-4 to the certificate application.</p>
	<p>Requests that Tennessee disclose the amount and percentage of the gas that will be used in the northeast, state by state, and the amount that will be exported.</p>	<p>As of the date of the certificate application, on the Supply Path Component (as defined in the certificate application), Tennessee has executed precedent agreements for 751,650 dekatherms ("Dth") per day of firm transportation capacity with a variety of shippers, including four local distribution companies ("LDCs"), one municipal light department, and two producers. On the Market Path Component (as defined in the certificate application), Tennessee has executed 552,262 Dth per day of long-term firm transportation capacity with a variety of shippers, including seven LDCs, one municipal light department, one industrial end-user, and one holding corporation. The signed precedent agreements, including a summary of those precedent agreements and a list of the end use of the natural gas by the Project Shippers, is set forth in Exhibit I to the certificate application. In addition, through the NED Project, Tennessee is uniquely positioned to serve the growing demand for natural gas to meet the needs of the Northeast and New England's gas-fired electric generation fleet. NED will significantly enhance Tennessee's ability to serve new and existing gas-fired generation customers while increasing electric reliability and lowering energy costs for the New England region. Tennessee is actively engaging electric distribution companies ("EDCs") and power generators to discuss Tennessee's new planned enhanced firm services for gas-fired generators, which will provide the opportunity for EDCs to proactively reserve capacity on NED for use by generators, as well as contracting directly by generators.</p>
	<p>Questions regarding the need for the Fitchburg Lateral because the existing pipeline from the south to the same terminus was expanded less than 7 years ago (Tennessee Fitchburg Expansion Project).</p>	<p>Due to increased LDC contracted gas quantities, additional gas supplies are needed at existing customer delivery points located at the northern terminus of the existing Fitchburg Lateral, but there is not sufficient capacity on the Fitchburg Lateral for the additional gas supplies. The proposed extension to the Fitchburg Lateral from the new Wright to Dracut mainline pipeline to the customers at the northern terminus of the existing Fitchburg Lateral is needed to transport the additional gas supplies.</p>

Issue	Summary of Comments	Response
	<p>Questions regarding the purpose of the Lynnfield Lateral.</p>	<p>The Lynnfield Lateral does not currently exist, but Tennessee’s 270C-100 system, at the southern terminus of the proposed 24-inch Lynnfield Lateral, which the Lynnfield Lateral will supplement, is fully subscribed on a firm contractual basis. The Lynnfield Lateral will serve localities and markets south, including Danvers, Essex, Camp Curtis, Everett, Revere, Lynn, Salem, Gloucester, Wenham, Lynnfield and West Peabody on a different system.</p>
	<p>Request that Federal Energy Regulatory Commission ("FERC") require Tennessee to detail commitments for all LDCs and EDCs, ensure a full analysis of need, quantify expected commitments from LDCs and EDCs, quantify amount of gas delivered to the EDCs in New England for the past 5 years, require Liberty Utilities detail plans for their NED Project commitment, compare competing pipeline plans, and quantify the amount of gas lost in current transmission and distribution lines in New England.</p>	<p>Tennessee is complying with the Commission requirements to demonstrate the public convenience and necessity of the proposed Project. Please see Article IX, Public Convenience and Necessity, in the certificate application and Section 1.1.1, Purpose and Need, in Resource Report 1 of the Environmental Report, included as Exhibit F-1 to the certificate application, for a detailed discussion of the purpose and need for the Project. The signed precedent agreements, including a summary of those precedent agreements and a list of the end use of the natural gas by the Project Shippers, is set forth in Exhibit I to the certificate application. In addition, please see the information in Section 10.2.1 of Resource Report 10, included in the Environmental Report attached as Exhibit F-1 to the certificate application, for information on other pipeline systems, including other proposed pipeline projects in the region.</p>
	<p>Comments suggesting that the Connecticut Expansion Project is related to the NED Project and should not be subject to a separate review by the Commission. Separate permitting for the Connecticut Expansion Project amounts to unlawful segmentation of the two projects.</p>	<p>The Connecticut Expansion Project is a stand-alone project, limited in size and scope, and supported by binding precedent agreements for 100 percent of the firm transportation capacity to be created by that project. The Environmental Assessment for the Project was issued on October 23, 2015 and Tennessee anticipates a certificate order to be issued for the Connecticut Expansion Project by the end of 2015 so that it may construct and place the proposed facilities in service by November 1, 2016, the in-service date requested by the three shippers that have executed binding precedent agreements for all of the firm transportation capacity to be created by the Connecticut Expansion Project. The facilities that are proposed for the NED Project will not require modifications to the pipeline looping segments and appurtenant facilities proposed as part of the Connecticut Expansion Project. However, as part of the NED Project, Tennessee is proposing to extend one of the pipeline looping segments proposed as part of the Connecticut Expansion Project (this looping segment is a partial loop segment proposed to be installed on Tennessee’s 300 Line in Connecticut and is referred to as the “Connecticut Loop” in the certificate application for the Connecticut Expansion Project) in order to efficiently create the incremental capacity for the proposed NED Project. The pipeline looping segment to be built as part of the NED Project is referred to as the “300 Line CT Loop” in the NED Project certificate application.</p>

Issue	Summary of Comments	Response
	<p>Questions regarding the rationale for the statement that the proposed project will reduce electric rates in New Hampshire since there is no electricity generator in New Hampshire contracting for gas from the proposed Project.</p>	<p>The NED Project is uniquely designed to provide the transformative solution that New England needs to bring low-cost, abundant and environmentally clean natural gas to New England, which will lower and stabilize energy costs for gas and electric customers, will serve other regional pipelines, and help stimulate economic growth, providing the opportunity for New England to benefit similarly to other regions of the U.S. where low-cost natural gas is transforming the economy. As a new path for gas into New England, the NED Project will create a large bi-directional pipeline system that will fundamentally improve natural gas flows, relieve existing bottlenecks, and enhance gas supply diversity and reliability for decades to come. The NED Project is designed to provide New York and New England with direct access to low-cost gas supplies in the “scale” necessary to significantly lower energy costs. Combined, the existing Tennessee system and the proposed NED Project are, among all pipeline systems serving New England, best situated and designed to serve the areas specifically identified by ISO-New England where additional generation is required to replace substantial amounts of oil and coal-fired generation retiring in the next few years without triggering electric transmission constraints. Further, on April 17, 2015, the New Hampshire Public Utility Commission (“PUC”) (in Docket No. IR 15-124), recognizing that significant constraints on natural gas resources have emerged in New England, and the resultant extreme price volatility, announced an investigation into potential approaches for EDCs to address cost and price volatility issues currently affecting wholesale electricity markets in New Hampshire. On September 15, 2015, Staff of the New Hampshire PUC issued its report finding that increasing natural gas capacity will result in lower electricity prices and enhanced electric reliability. Please see Article IX, Public Convenience and Necessity and Compliance with Certificate Policy Statement, of the certificate application for additional information.</p>

Issue	Summary of Comments	Response
Construction Period	Question regarding federal oversight provided during the construction phase and how the construction process is monitored?	<p>Tennessee will fund a third-party compliance program to operate at the direction of the Commission to ensure compliance with the Project-specific Environmental Construction Plans ("ECP") for each state (Volume II, Appendices J, K, L, M, and N), as well as the requirements of applicable federal, state, and local environmental permits and approvals. Tennessee will use a minimum of one qualified, full-time Environmental Inspector ("EI") for each pipeline spread during Project construction, as well as a minimum of one Lead EI to oversee the EI staff. The EIs assigned to oversee construction for the individual pipeline spreads will also oversee the construction of the new and modified compressor stations, meter stations, and appurtenant facilities in the area. Tennessee conducts in-house EI training to ensure that the EIs will be able to carry out their duties as described in this document and that construction activities will be in compliance with the Project-specific ECP requirements for each state, and with requirements of applicable federal, state, and local environmental permits and approvals and environmental requirements in landowner easement agreements. Additionally, Tennessee will conduct environmental training in advance of construction, and the EIs will perform all duties as specified in Tennessee's Project-specific ECPs for each state. The level of training will be commensurate with the type of duties of the Project personnel. Further details concerning environmental training is provided in Tennessee's Project-specific ECPs (Volume II, Appendices J, K, L, M, and N) for each state.</p> <p>In addition to the third-party compliance program, the New Hampshire Public Utilities Commission will provide construction oversight as part of the Site Evaluation Committee process.</p>

Issue	Summary of Comments	Response
<p>Cumulative Impacts</p>	<p>Comments stating that the cumulative impacts analysis must include the cumulative effects of the environmental impacts of the fracking done as a consequence of the approval of the NED pipeline.</p>	<p>In Resource Report 1 of the Environmental Report, Tennessee includes a detailed discussion of potential cumulative impacts associated with the Project when combined with other past, present, and reasonably foreseeable projects occurring within the vicinity of the Project. This cumulative impacts analysis generally follows the methodology set forth in relevant Council on Environmental Quality ("CEQ") and U.S. Environmental Protection Agency ("USEPA") guidance. Under these guidelines, inclusion of projects within the analysis is based on identifying commonalities of impacts from other projects to potential impacts that will result from the proposed NED Project. In addition, consistent with a decision from the U.S. Court of Appeals, District of Columbia Circuit ("DC Circuit"), the cumulative impact analysis identifies: (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions -- past, present, and proposed, and reasonably foreseeable -- that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and, (5) the overall impact that can be expected if the individual impacts are allowed to accumulate. The Commission's authority under the Natural Gas Act ("NGA") and the National Environmental Policy Act ("NEPA") review requirements relate only to natural gas facilities that are involved in the transportation of natural gas interstate commerce. Thus, the facilities associated with the production of natural gas are not under the Commission's jurisdiction. The production of natural gas through hydraulic fracturing, an activity which is regulated by the states, continues to drive the need for takeaway interstate pipeline capacity to allow the gas to reach markets.</p> <p>Therefore, companies are planning and building interstate transmission facilities in response to this new source of gas supply. In addition, many production facilities have already been permitted and/or constructed in the region, creating a network through which natural gas may flow along various pathways to local users or interstate pipeline systems.</p>

Issue	Summary of Comments	Response
	<p>Comment requesting the analysis of cumulative environmental impacts of co-location should a right-of-way ("ROW") undergo construction multiple times, including the cumulative environmental impacts to humans, wildlife, vegetation, and water resources should ROWs sustain back-to-back co-location constructions lasting 2, 5, and 10 years.</p>	<p>In Resource Report 1 of the Environmental Report, Tennessee includes a detailed discussion of potential cumulative impacts associated with the Project when combined with other past, present, and reasonably foreseeable projects occurring within the vicinity of the Project. This cumulative impacts analysis generally follows the methodology set forth in relevant CEQ and USEPA guidance. Under these guidelines, inclusion of projects within the analysis is based on identifying commonalities of impacts from other projects to potential impacts that will result from the proposed NED Project. In addition, consistent with a decision by the DC Circuit, the cumulative impact analysis identifies: (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions -- past, present, and proposed, and reasonably foreseeable -- that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and, (5) the overall impact that can be expected if the individual impacts are allowed to accumulate. Based on this approach, the cumulative impacts associated with past, present, and reasonably foreseeable projects within the Cumulative Impact Assessment Area determined for each resource are identified and addressed as appropriate in the cumulative impact analysis.</p>
	<p>Comments stating that Greenhouse Gas ("GHG") emissions and the resulting climate change should be considered cumulative impacts according to the NEPA requirements.</p>	<p>Emissions of GHGs from the NED Project would not have any direct impacts on the environment in the area of the Project. Currently, there is no standard methodology to determine how the proposed Project's relatively small incremental contribution to GHGs would translate into physical effects of the global environment. The GHG emissions from the construction and operation of the NED Project would be negligible compared to the global GHG emission inventory. Additionally, burning natural gas results in less CO₂e compared to other fuel sources (e.g., fuel oil or coal). Because fuel oil is widely used as an alternative to natural gas in the region in which the NED Project would be located, it is anticipated that the Project would result in the displacement of some fuel oil use, thereby potentially offsetting some regional GHG emissions, in terms of CO₂e.</p> <p>Currently proposed and potential future projects that would connect to the NED Project could also require the construction and operation of compressor stations. These compressor stations would undergo the relevant state and federal permitting and mitigation process and would be subject to pertinent mitigation requirements. We assume that all existing compressor stations are operating within permit guidelines, and any proposed compressor stations would operate within the same guidelines for their facility.</p>

Issue	Summary of Comments	Response
Co-location with other ROWs	Comments stating an opposition to the co-location with power lines because of impacts of power lines on pipeline integrity (e.g., corrosion from emissions from electric power poles) and safety concerns.	<p>A significant portion of the proposed Project pipeline will be located adjacent to or co-located with high voltage electric power lines. Tennessee has hired a specialist design engineering firm to design an alternating current mitigation system that will protect the pipeline facilities and operations personnel from induced voltage. It is anticipated that the design will include installation of zinc ribbon installed in the pipeline trench grounding mats at aboveground facilities and other appurtenant equipment, most of which will be buried.</p> <p>Tennessee applies electrical current, known as cathodic protection, to the pipeline to prevent external corrosion from occurring and regularly monitors 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.</p>
Permitting	Comment stating that Tennessee must submit a complete Stormwater Pollution Prevention Plan ("SWPPP") to the Commission to be included in the Draft Environmental Impact Statement, not prior to construction. This plan must also include all water certifications for waterbodies and wetlands that will be directly and indirectly impacted by this project. The SWPPP must include the preferred route, all alternative routes, contractor yards, permanent access roads, temporary access roads and compressor stations that are being considered for this project. This SWPPP must be available for review and comment.	All construction, operation, and maintenance of the Project will be conducted in accordance with Tennessee's specifications and all applicable federal, state, and local permit requirements. Tennessee will work with the appropriate regulatory agencies to develop the necessary SWPPPs for the Project and will provide this information to the Commission as available.
	Comment requesting that the Project adhere to Massachusetts Drinking Water Regulations, the Massachusetts Environmental Policy Act (MEPA) process, the Massachusetts Wetlands Protection Act process, and Massachusetts Riverfront Protection.	All construction, operation, and maintenance of the Project will be conducted in accordance with Tennessee's specifications and all applicable federal, state, and local permit requirements. Tennessee will comply with applicable Massachusetts state laws and regulations and will be filing for approval under the MEPA process.
Compressor Stations	Comments stating an opposition to the location of the compressor station in Nassau, New York (on Clarks Chapel Road).	Tennessee has identified and investigated seven alternative sites for the compressor station planned for Nassau, New York, but none of them proved to be viable for various reasons, as set forth in Resource Report 10 of the Environmental Report, attached as Exhibit F-1 to the certificate application. The compressor station must be placed within a relatively limited geographic area due to the need for compression at certain intervals to keep the pipe pressurized.

Issue	Summary of Comments	Response
	<p>Comments concerned about the compressor station in Dracut because of its close proximity (within a mile) to an elementary school.</p>	<p>Tennessee has relocated its compressor station in Dracut and it is no longer in close proximity to an elementary school. Tennessee identified and investigated three additional alternative sites for the compressor station. The previous site for the compressor station is now identified as Alternative 3 in Resource Report 10 of the Environmental Report, attached as Exhibit F-1 to the certificate application. The alternatives identified were not viable for various reasons. The compressor station must be placed within a relatively limited geographic area due to the need for compression at certain intervals to keep the gas adequately pressurized for transporting the contracted volumes at downstream delivery points.</p>
	<p>Comments questioning the amount of land needed for the compressor stations.</p>	<p>The operational area for each compressor station is identified on the compressor station drawings included in Volume II, Appendix R of the Environmental Report. The operational area includes the compressor units, buildings, and other associated facilities, and will be fenced. In addition, Tennessee has obtained options to purchase parcels totaling between 25 and 150 acres for the compressor station locations, which is larger than the proposed operational areas, in order to seclude the compressor stations and minimize visibility from surrounding homes and businesses. The additional acreage also assists in further reducing the noise and light from the compressor stations. The property boundaries will also be fenced.</p>
	<p>Questions regarding the potential for odors from the compressor stations.</p>	<p>No detectable odors from the proposed compressor turbines are expected, as confirmed by dispersion modeling that demonstrates that maximum air concentrations for all compressor stations are less than the National Ambient Air Quality Standards ("NAAQS") which include primary (protect health) and secondary (protect public welfare including odor) standards.</p>

Issue	Summary of Comments	Response
	<p>Comments expressing concerns about the frequency of blowdowns at compressor stations.</p>	<p>Venting (often referred to as blowdowns) are infrequent events lasting only a few minutes (some even much less than a few minutes) during which small amounts of natural gas are emitted to reduce pipeline pressure. Blowdowns occur under the following operational conditions:</p> <ul style="list-style-type: none"> • <u>Unit shutdown</u>: When a compressor unit is shut down and remains shut down for an extended period (greater than 24 hours), the natural gas stored inside a small amount of piping (from the unit valves to the compressor) is vented. This is done to protect the integrity of the compressor. • <u>Unit startup</u>: If the unit has been down for an extended period, the compressor piping will need to be purged and pressurized during startup. During this process, the piping between the unit suction valve and unit discharge valve is briefly purged with gas for one to two minutes. This is to make sure that all air is purged from this piping. • <u>Valve operators</u>: Small amounts of gas from gas-operated valves are vented when they are opened or closed. • <u>Emergency shut downs</u>: Emergency shutdowns are extremely rare events and are initiated by gas or fire detection systems or manually initiated by an employee. When a station emergency shut down is initiated, all gas in the station yard is vented to the atmosphere. Regulations require that the gas be vented to 50 psig within 3.5 minutes.

Issue	Summary of Comments	Response
	<p>Comments stating general concerns regarding potential impacts from compressor stations, including noise, air pollution, water pollution, lower property values, and public health.</p>	<p>Tennessee's construction projects adhere to the strictest environmental standards for clean air, water and habitat and NED will undergo a comprehensive environmental review as part of the FERC permitting process. For new compressor stations, the FERC requires that the noise level can be no greater than 55 decibels on a day/night average sound level ("dBA Ldn") at the closest noise sensitive area ("NSA"). A noise sensitive area would include occupied residences, schools, hospitals, and other locations. Fifty-five decibels is equivalent to a quiet conversation indoors or a refrigerator running in the same room as you. Tennessee uses the latest in noise-dampening technology to reduce any noise as much as possible. Where possible, Tennessee will leave a wooded area around the compressor station to buffer the sound and decrease visibility of the station.</p> <p>The USEPA has promulgated NAAQS to protect human health and welfare. The NAAQS include primary standards which are designed to protect human health, including the health of sensitive subpopulations such as children, the elderly and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.</p> <p>The NAAQS currently apply to the following criteria pollutants:</p> <ul style="list-style-type: none"> - Sulfur dioxide - Particulate matter with a nominal aerodynamic diameter of 10 microns or less - Particulate matter with a nominal aerodynamic diameter of 2.5 microns or less - Nitrogen dioxide - Carbon monoxide - Ozone - Lead

Issue	Summary of Comments	Response
		<p>Equipment installed as part of the project will be subject to the New Source Review ("NSR") permitting process. This NSR permitting process ensures that current NAAQS standards are not exceeded for the criteria pollutants listed above after installation of the new combustion equipment.</p> <p>Tennessee is not aware of any instances of a decrease to property value or the inability of a homeowner to obtain a mortgage for a property in the vicinity of a compressor station. There are dozens of existing compressor stations along Tennessee's existing system in the Northeast and many individuals have bought, sold and built homes immediately in the vicinity of compressor stations. Additionally, there are an estimated over 1,200 mainline compressor stations nationwide (US Energy Information Administration, Office of Oil and Gas) and no research has demonstrated property value decreases in the vicinity of a compressor station. Please see the following studies for supporting information on the correlation between property values and the presence of pipelines:</p> <ul style="list-style-type: none"> • LPC Commercial Services, Inc., "A Study of Natural Gas Pipelines and Residential Property Values." (2015) • 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 Interstate Natural Gas Association of America ("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)
	<p>Comments stating an opposition to the compressor station site in New Ipswich near the border with Temple because of its close proximity to a school and the headwaters of the town's water supply.</p>	<p>Tennessee has identified and investigated eight alternative sites for the compressor station, but none of them proved to be viable for various reasons as set forth in Resource Report 10 of the Environmental Report, attached as Exhibit F-1 to the certificate application. The compressor station must be placed within a relatively limited geographic area due to the need for compression at certain intervals to keep the gas adequately pressurized for transporting the contracted volumes at downstream delivery points.</p>

Issue	Summary of Comments	Response
Resource Report 2: Water Use and Quality		
Public Water Supply	<p>Comments regarding the proposed pipeline's proximity to the Ipswich River and crossing of tributaries to the Ipswich River since the river supplies drinking water to 335,000 people and many businesses in 14 communities.</p> <p>Comment concerned with the proposed pipeline's crossing of the Hannegan Brook Water Supply Protection Area, which supplies water to over 5,000 households.</p> <p>Comment requesting a review of the potential impact to the Merrimack River, including the potential for resuspension of contaminated sediments, which is the source of drinking water for the City of Methuen.</p>	<p>The NED Project is not anticipated to have impacts on public drinking water supply. Tennessee will implement Best Management Practices ("BMPs") designed to avoid, reduce, and/or mitigate potential impacts on groundwater during construction and operation as detailed within the Project-specific ECPs for each state (Volume II, Appendices J, K, L, M, and N) and Tennessee's Upland Erosion Control, Revegetation, and Maintenance Plan ("Plan") and Wetland and Waterbody Construction Crossing Construction and Mitigation Procedures ("Procedures") (Volume II, Appendix H). Tennessee and its contractors will adhere to practices related to groundwater and surface water protection, including specifications for trench breakers and dewatering, as well as restrictions on refueling and storage of hazardous substances. In the unlikely event that construction of the proposed Project is determined to have temporarily impacted private or public well quality or yield, Tennessee will provide alternative water sources or other compensation to the well owner. Should permanent well damage be sustained, Tennessee will either compensate the well owner or make arrangements for a new well to be drilled.</p> <p>The NED Project is not anticipated to have impacts on groundwater quality or supply. Tennessee will implement BMPs designed to avoid, reduce, and/or mitigate potential impacts on groundwater during construction and operation as detailed within the Project-specific ECPs for each state (Volume II, Appendices J, K, L, M, and N) and Tennessee's Project-specific Plan and Procedures (Volume II, Appendix H). Tennessee and its contractors will adhere to practices related to groundwater protection, including specifications for trench breakers and dewatering, as well as restrictions on refueling and storage of hazardous substances. In the unlikely event that construction of the proposed Project is determined to have temporarily impacted private or public well quality or yield, Tennessee will provide alternative water sources or other compensation to the well owner. Should permanent well damage be sustained, Tennessee will either compensate the well owner or make arrangements for a new well to be drilled.</p> <p>Tennessee will cross the Merrimack River via the horizontal directional drill ("HDD") construction method; therefore, there would not be a potential for the resuspension of contaminated sediments. Tennessee will evaluate and treat any unanticipated hazardous materials uncovered during construction in accordance with applicable federal and state requirements.</p>

Issue	Summary of Comments	Response
	<p>Comments requesting an assessment of impacts from compressor station emissions on all public water supply reservoirs near compressor stations.</p>	<p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the project facilities, is referred to as “pipeline quality” natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users. This natural gas has already been treated and processed prior to its entry into the interstate pipeline network so the impurities have been removed. Benzenes and other hazardous air pollutants that may be present as a result of production have been removed prior to custody transfer into the Tennessee pipeline system.</p> <p>The USEPA has promulgated NAAQS to protect human health and welfare. The NAAQS include primary standards which are designed to protect human health, including the health of sensitive subpopulations such as children, the elderly and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.</p> <p>The NAAQS currently apply to the following criteria pollutants:</p> <ul style="list-style-type: none"> - Sulfur dioxide - Particulate matter with a nominal aerodynamic diameter of 10 microns or less - Particulate matter with a nominal aerodynamic diameter of 2.5 microns or less - Nitrogen dioxide - Carbon monoxide - Ozone - Lead <p>Equipment installed as part of the project will be subject to the NSR permitting process. This NSR permitting process ensures that current NAAQS standards are not exceeded for the criteria pollutants listed above after installation of the new combustion equipment.</p> <p>Therefore, Tennessee does not anticipate any impacts to public water supply reservoirs from compressor station emissions due to compliance with the above regulations.</p>

Issue	Summary of Comments	Response
<p>Private Water Supply</p>	<p>Comments regarding impacts to private water supply wells from potential pipeline leaks.</p>	<p>The safety of the nation’s natural gas pipeline network is regulated by the U.S. Department of Transportation's ("USDOT") 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. Tennessee's Operating and Maintenance procedures either meet or exceed PHMSA requirements.</p> <p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the project facilities, is referred to as “pipeline quality” natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users. This natural gas has already been treated and processed prior to its entry into the interstate pipeline network so the impurities have been removed. Benzenes and other hazardous air pollutants that may be present as a result of production have been removed prior to custody transfer into the Tennessee pipeline system.</p> <p>Tennessee performs leak detection surveys on its pipeline systems in accordance with USDOT 49 Code of Federal Regulations ("CFR") 192.706. Tennessee’s operation and maintenance program includes corrosion control, leak inspection surveys, and regularly scheduled aerial and ground patrols of the pipeline ROW.</p>
	<p>Questions regarding proposed well testing within 200 feet of Project facilities. What contaminants will they test for? Will they test well flow, recovery and head? What is the timeframe? What measures will they take if testing indicates an impact on the well? What do they mean by “immediately qualify”? Does that suggest that immediate post-construction testing is what would be done?</p>	<p>Testing for water quantity and quality parameters will be conducted for wells located within 200 feet of the Project workspace both pre- and post-construction by a qualified independent inspection service, on property for which Tennessee has been granted access by landowners. Tennessee will similarly, at the request of a landowner, sample developed springs used for drinking water pre- and post-construction within the area referenced above. Water quality parameters for testing of both wells and springs will include: yield, pH, petroleum based hydrocarbons, total suspended solids, total dissolved solids, nitrates, nitrites, arsenic, iron, manganese, lead, copper, and total coliform bacteria. A Tennessee representative will contact landowners after the sample analysis has been conducted to provide the results of these pre- and post-construction sampling events. In the unlikely event that construction of the Project is determined to have temporarily impacted private or public well/spring quality or yield, Tennessee will provide alternative water sources or other compensation to the well owner(s). In the event that it is determined that permanent impacts have occurred to a well/spring as a result of construction activities, Tennessee will repair, replace or provide alternative sources of potable water. State-specific Blasting Management Plans are included in Volume II, Appendices J, K, L, M, and N, Attachment 8.</p>

Issue	Summary of Comments	Response
	<p>Comments regarding potential impacts to private water supply wells from blasting.</p>	<p>Blasting/removal of bedrock will be conducted to a depth sufficient to install the pipeline, typically 6 to 8 feet below the ground surface. Blasting charges will be limited to the minimum number and force necessary to fracture or loosen rock to the desired depth. Explosive products will be selected that have the appropriate water resistance for the site conditions to minimize the potential for hazardous effect of the product on the groundwater. Testing for water quantity and quality parameters will be conducted for wells located within 200 feet of the Project workspace both pre- and post-construction by a qualified independent inspection service, on property for which Tennessee has been granted access by landowners. Tennessee will similarly, at the request of a landowner, sample developed springs used for drinking water pre- and post-construction within the area referenced above. Water quality parameters for testing of both wells and springs will include: yield, pH, petroleum based hydrocarbons, total suspended solids, total dissolved solids, nitrates, nitrites, arsenic, iron, manganese, lead, copper, and total coliform bacteria. A Tennessee representative will contact landowners after the sample analysis has been conducted to provide the results of these pre- and post-construction sampling events. In the unlikely event that construction of the Project is determined to have temporarily impacted private or public well/spring quality or yield, Tennessee will provide alternative water sources or other compensation to the well owner(s). In the event that it is determined that permanent impacts have occurred to a well/spring as a result of construction activities, Tennessee will repair, replace or provide alternative sources of potable water. State-specific Blasting Management Plans are included in Volume II, Appendices J, K, L, M, and N, Attachment 8.</p>

Issue	Summary of Comments	Response
<p>Groundwater/Aquifers/Springs</p>	<p>Comments regarding potential impacts to groundwater from pipeline leaks.</p>	<p>The safety of the nation’s natural gas pipeline network is regulated by the U.S. Department of Transportation's ("USDOT") 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.</p> <p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the project facilities, is referred to as “pipeline quality” natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users. This natural gas has already been treated and processed prior to its entry into the interstate pipeline network so the impurities have been removed. Benzenes and other hazardous air pollutants that may be present as a result of production have been removed prior to custody transfer into the Tennessee pipeline system.</p> <p>Tennessee performs leak detection surveys on its pipeline systems in accordance with USDOT 49 Code of Federal Regulations ("CFR") 192.706. Tennessee’s operation and maintenance program includes corrosion control, leak inspection surveys, and regularly scheduled aerial and ground patrols of the pipeline ROW.</p>
	<p>Comments regarding the potential impacts of herbicide use on groundwater.</p>	<p>Tennessee maintains its easements by mechanical means (e.g., tractor with mower or bush hog). In some instances, as approved by landowners and regulatory agencies, herbicides may be applied in certain fenced locations (typically at compressor stations or above-ground sites such as valves, pig launchers or pig receivers).</p> <p>Due to the limited use of herbicides, Tennessee does not expect impacts to groundwater.</p>

Issue	Summary of Comments	Response
	<p>General comments expressing concerns regarding impacts to groundwater quality.</p>	<p>NED Project construction and operation is not anticipated to have any major impacts on groundwater quality or supply (i.e., quantity). During construction, Tennessee will implement BMPs designed to avoid, reduce, and/or eliminate potential impacts on groundwater, as detailed within the Project-specific ECPs (Volume II, Appendices J, K, L, M, and N) and Tennessee’s Project-specific Plan and Procedures (Volume II, Appendix H). Other issues, including but not limited to, equipment refueling and lubrication, well and spring sampling, and potential blasting impacts on groundwater quality and/or quantity are address in Resource Report 2.</p> <p>In terms of potential impact to groundwater quality that may result from operation of the proposed compressor station, there is also very little chance of groundwater impact. The only potential source of groundwater contamination would be the result of spills of liquids stored on the compressor site. However, only small quantities of liquids would be stored on site. The only source of liquids stored on site would be liquids produced from filtering or separators that result from pipe inspection and cleaning (“pigging”) operations. Tennessee expects very small quantities of these liquids because the source natural gas is very dry, and as stated above, the natural gas being transported has already been treated and processed prior to its entry into the interstate pipeline network so the impurities have been removed. Benzenes and other pollutants that may be present as a result of production of the natural gas have been removed prior to custody transfer into Tennessee’s pipeline system.</p>
<p>Surface Waters</p>	<p>General comments regarding the effects the proposed Project will have on surface waters.</p>	<p>Construction procedures and timing specified for the Project will minimize impacts to surface water features. Erosion and sediment controls will be installed to further minimize impacts to adjacent areas during construction. Temporary siltation will occur within streams during pipeline installation, however impacts will be localized and short duration. No long term impacts to drinking water sources are anticipated from pipeline installation.</p>

Issue	Summary of Comments	Response
	<p>Comment requesting that the following additional steps be taken for the crossing of the Merrimack River in New Hampshire:</p> <ol style="list-style-type: none"> 1. Increase the overburden requirements above the bore hole by a suitable percentage to further limit the chance of the pipeline being dislodged by exceptional flows 2. Ensure that the entry and exit points are set back sufficiently far from the current shorelines to minimize the threat of exposure from future scouring and riverbed migration. 3. Ensure the river crossing section of the pipeline can be inspected frequently and rapidly and rapidly isolated if a problem develops. 4. Consider installing the river crossing section of the pipeline in a 'sleeve' such that repairs could be effected with minimal disruption 	<p>The crossing of the Merrimack River in New Hampshire will be installed using the HDD construction method. The pipeline has a design depth of approximately 50 feet, which should alleviate concerns with scour and exposure of the pipe. Tennessee is completing a geohazard study for the project which includes review of waterbodies for scour potential and riverbed migration and mitigation requirements for those waterbodies identified to have high risk for these geohazards. The HDD crossing for the Merrimack River will be designed to reduce risk of impact due to scour and riverbed migration.</p> <p>The pipeline will be inspected during regular internal and external inspections. Regular patrols of the pipeline facilities are performed to monitor and control encroachment by third parties. Any unusual situation or condition is reported and investigated immediately. Additionally, Tennessee performs periodic leak detection surveys in accordance with USDOT regulations. Tennessee will follow similar marking, patrols, reporting, investigation, and leak detection procedures for the proposed Project's facilities. Mainline valves ("MLVs") will be installed according to USDOT regulations and remotely monitored by gas control.</p> <p>Based on the geometry of the pipeline installed via HDD, it is not possible to install the pipeline inside an outer sleeve.</p>

Issue	Summary of Comments	Response
	<p>Comments concerned with impacts to Burden Lake from compressor station emissions that may flow downwind into the Burden Lake Basin and settle in Burden Lake thereby impacting the water quality.</p>	<p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the project facilities, is referred to as “pipeline quality” natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users.</p> <p>The USEPA has promulgated NAAQS to protect human health and welfare. The NAAQS include primary standards which are designed to protect human health, including the health of sensitive subpopulations such as children, the elderly and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.</p> <p>The NAAQS currently apply to the following criteria pollutants:</p> <ul style="list-style-type: none"> - Sulfur dioxide - Particulate matter with a nominal aerodynamic diameter of 10 microns or less - Particulate matter with a nominal aerodynamic diameter of 2.5 microns or less - Nitrogen dioxide - Carbon monoxide - Ozone - Lead <p>Equipment installed as part of the project will be subject to the NSR permitting process. This NSR permitting process ensures that current NAAQS standards are not exceeded for the criteria pollutants listed above after installation of the new combustion equipment.</p> <p>Therefore, Tennessee does not anticipate impacts to public water supply reservoirs from compressor station emissions due to compliance with the above regulations.</p>
	<p>Comments concerned with the lack of design information for waterbody crossing construction methods.</p>	<p>Details regarding waterbody construction methods are provided in Resource Report 2 included in the Environmental Report, attached as Exhibit F-1 to the certificate application.</p>

Issue	Summary of Comments	Response
Flooding	Comment expressing concern that construction across areas of steep topography creates a potential for flash flooding. Specifically, Glass Lake and Crooked Lake in New York are vulnerable to high volume flows from higher elevations and downstream dams are not capable of withstanding additional loads.	Tennessee will implement BMPs outlined in the Project-specific Plan and Procedures (Volume II, Appendix H) and incorporated into the Project-specific ECP for each state (Volume II, Appendices J, K, L, M, and N), which are intended to be used to avoid, minimize, and/or mitigate impacts from the Project. BMPs applicable to floodplains include the control of erosion and sedimentation through installation of structural erosion and sedimentation facilities within and at the limits of the Project workspace. BMPs will comply with state standards for erosion and sediment control, including specifications for flooding frequency and volume. Additionally, the amount of vegetation cleared during construction will be limited to the removal of the minimum amount necessary for safe construction. Tennessee will restore and revegetate temporary workspace areas to minimize impacts on vegetated areas. Restoration and revegetation will comply with state and federal regulations and monitoring requirements. The construction workspace will be restored to pre-construction contours after construction and will not result in increased flood heights or encroachment within floodways. Tennessee will apply for and obtain applicable regulatory permits and approvals related to land use regulations prior to construction of the proposed facilities.
Wetlands/Vernal Pools	General comments regarding the effects the proposed Project will have wetlands and vernal pools.	<p>When constructing a pipeline through wetlands, Tennessee will not be allowed to fill or change the contour of the wetland. The construction area will be reduced in wetlands as compared to non-wetlands areas, and construction equipment will travel over temporary equipment mats to minimize disturbance. Impermeable plugs are placed in the ditch at the edge of the wetlands to prevent drainage of the wetland down the ditch where the pipeline will be installed. Frequently, the wetland areas are the first to be restored after construction is complete.</p> <p>Tennessee will implement BMPs outlined in Tennessee's Plan and Procedures (Volume II, Appendix H) and incorporated into the Project-specific ECPs for each state (Volume II, Appendices J, K, L, M, and N).</p>
Resource Report 3: Fish, Wildlife, and Vegetation		
Rare Species	Comments stating that long-term ROW maintenance should have timing restrictions in Northern long-eared bat territory.	Impact avoidance and minimization measures for construction are currently being developed by Tennessee in consultation with applicable agencies. Tennessee has committed to winter tree clearing in areas identified as summer roosting and maternal colony habitats. Tennessee will comply with regulatory requirements from FERC and USDOT governing maintenance.

Issue	Summary of Comments	Response
	<p>Comments expressing a general concern about impacts to threatened and endangered species.</p>	<p>Tennessee is currently assessing the presence of state and federal listed threatened and endangered species along the pipeline alignment, access roads, contractor yards and compressor station sites. All surveys to determine presence are in accordance with state and federal regulations and surveys protocols approved by the applicable agency (i.e., U.S. Fish and Wildlife Service ["USFWS"] and/or state endangered species programs. Until the assessment can be completed, it is premature for Tennessee to fully assess impacts to any listed species.</p> <p>It is Tennessee's intent to protect all listed species consistent with applicable state and federal regulations and guidelines. At the time of filing the certificate application, protected species surveys are ongoing and protected species have been identified in the Project area by state and federal agencies as well as through Tennessee's surveys. Once all surveys have been completed, the results will be provided to the agencies and to the Commission. Tennessee will work closely with all state and federal agencies to protect all listed species to the greatest extent possible.</p>
Migratory Birds	<p>Comments expressing a concern about compressor stations impacting Bald Eagles and raptor migration paths.</p>	<p>As the detailed facility design for compressor stations is completed, Tennessee will coordinate with the USFWS to comply with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act to avoid collision events to the extent practicable.</p>
Wildlife	<p>Comment requesting an explanation regarding seasonal variation in wildlife when the environmental assessment for the proposed Project is only being conducted in a single season.</p>	<p>Seasonal variation in habitat selection and activity level is well documented for all the species for which surveys are conducted. Tennessee has developed species-specific survey protocols that have been approved by each state that target appropriate habitats and times of year (seasonality) for best survey results. For some species, this may only be a visit during one season (e.g., amphibians and vernal pools in the spring), and for some species there may be multiple seasons (e.g., turtles with meander surveys in early spring, nesting surveys in June, and hibernation surveys in fall). For other species, including turtles, bats, and eagles, multi-year surveys are conducted.</p>

Issue	Summary of Comments	Response
	General concerns regarding impacts to wildlife.	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 the Commission 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. The Commission will monitor and inspect Tennessee's right-of-way restoration activities to ensure compliance with all applicable conditions and requirements.
Fisheries	Comments requesting that the Commission include a full review of impact on trout habitat and the necessary mitigation and remediation measures that will be required to negate adverse impacts.	Tennessee has consulted with each state's fisheries biologists to identify coldwater fisheries habitats and is coordinating with the National Marine Fisheries Service ("NMFS") and USFWS on impacts to federal-listed fish habitats. Section 3.1.2 in Resource Report 3 of the Environmental Report, included as Exhibit F-1 to the certificate application, provides information on state programs and a summary of coldwater fisheries streams crossed; Section 3.1.3 of Resource Report 3 provides information on potential impacts; and Section 3.1.4 of Resource Report 3 and the Project-specific ECPs (Volume II, Appendices J, K, L, M, and N) provide information on impact avoidance and minimization and restoration. Potential cumulative impacts are discussed in Section 3.5.2.1. Tennessee will continue to coordinate with state and federal agencies, and other interested parties to assess impacts to cold water fisheries habitats, and will consider any recommendations provided.
	Comments requesting consideration of the potential direct, indirect and cumulative impacts of the Northeast Energy Direct project on coldwater streams and avoidance of water quality degradation and other stream health impacts, so that years of progress to restore native Eastern Brook Trout to its historic range is not undone.	Tennessee has consulted with each state's fisheries biologists to identify coldwater fisheries habitats and is coordinating with the NMFS and USFWS on impacts to federal-listed fish habitats. In Resource Report3, Section 3.1.2 provides information on state programs and a summary of coldwater fisheries streams crossed, Section 3.1.3 provides information on potential impacts, Section 3.1.4 and the Project-specific ECPs (Volume II, Appendices J, K, L, M, and N) provide information on impact avoidance and minimization and restoration. Potential cumulative impacts are discussed in Section 3.5.2.1 of Resource Report 3. Tennessee will continue to coordinate with state and federal agencies, and other interested parties to assess impacts to cold water fisheries habitats, and will consider any recommendations provided.

Issue	Summary of Comments	Response
Sensitive Habitats	Comments expressing concerns about the potential impacts to the Ponemah Bog and Scott Conservation land because of their role as local wildlife sanctuaries.	Throughout the development of the Project, Tennessee has conducted an extensive needs and alternative routing analysis for the Project, which includes evaluation of pipeline routing options based on regional topography, environmental considerations, population density, existing land usage, construction safety, and feasibility considerations. As part of this overall alternative analysis and evaluation, Tennessee has been working with the town of Amherst on an alternative route for the NED Project that will avoid the Ponemah Bog and the Scott Conservation lands. On September 16, 2015, Tennessee met for the third time with the Amherst Pipeline Task Force to discuss a proposed route alternative. This alternative route was developed following two previous meetings with the Amherst Pipeline Task Force as well as town officials and impacted stakeholders and landowners. Tennessee has adopted the alternative route and it is reflected as part of the proposed Project in the certificate application.
	Comments expressing concerns about potential impacts to the Fifield Conservation land, a conservancy that was established to preserve wildlife habitats, fisheries and other important natural resources.	Tennessee is working to avoid (where feasible) and minimize impacts on fisheries, wildlife species, and their designated habitats through careful Project design and site selection, including extensive co-location with existing facilities; consultation with appropriate local, state, and federal agencies and private organizations; and detailed environmental surveys are to be conducted by qualified wetland scientists, wildlife biologists, and botanists. Tennessee is currently in communication with the USFWS-New England Office, as well as the New Hampshire state agencies with jurisdiction over threatened and endangered species, habitats, and natural communities, including the New Hampshire Natural Heritage Bureau, the New Hampshire Fish and Game Department ("NHFG"), and the New Hampshire Department of Environmental Services ("NHDES"). Development of species-specific survey protocols, habitat assessments, and field surveys are underway for various rare plants, natural communities, vernal pools, and threatened and endangered wildlife species. Information obtained through habitat assessments and field surveys will be used to develop impact avoidance and minimization measures, in consultation with the jurisdictional agencies. Mitigation strategies will be incorporated into Tennessee's Project-specific ECP for New Hampshire (Volume II, Appendix M). Direct impacts to wildlife that are temporary in nature are associated with the active construction period of the Project.

Issue	Summary of Comments	Response
		<p>Long-term direct impacts to wildlife habitat due to construction and operation of the proposed pipeline Project will be limited to clearing of upland and wetland forests required for temporary workspace ("TWS") and the new permanent easement. Areas cleared for TWS will naturally revegetate within one to two growing seasons and provide additional open land habitat (i.e., shrubland and old field). These areas will not be maintained post-construction, and will eventually revert back to forested habitat over time. Permanent loss of trees will occur within the permanent ROW that will be maintained by mowing and periodic tree removal. Tennessee and its construction contractor will strive to minimize impacts on wildlife by expediting construction to the greatest extent possible. Restoration and revegetation will occur after construction has been completed, and the restored areas are to be closely monitored until final site stabilization and re-vegetation have been achieved.</p> <p>Tennessee also has ongoing consultations with NHFG fisheries biologists to determine which waterbodies contain fisheries resources and those waterbodies whose quality classification and/or standard has been designated to meet the criteria established to support fisheries, but do not provide habitat for fisheries resources. Tennessee will continue these consultations to determine appropriate impact avoidance, minimization, and mitigation measures for the waterbodies that contain fisheries resources, including observing time of year restrictions to avoid crossing of waterbodies during spawning season. Construction and operation of the proposed Project may include temporary impacts to waterbodies crossed by the pipeline or located within the Project workspace. Temporary impacts on surface waters may include disturbance of stream banks, removal of bank vegetation, and, in some instances, diversion of flow during dry crossing construction. Tennessee anticipates providing mitigation for possible impacts resulting from construction through adherence to the Project-specific Plan and Procedures (Volume II, Appendix H), as well as state and federal permit conditions, which will be incorporated into the New Hampshire ECP (Volume II, Appendix M). Where temporary impacts to surface waterbodies cannot be avoided during construction activities, Tennessee will restore and stabilize these areas upon completion of pipeline installation to as close to their pre-construction conditions as possible.</p>
Vegetation	Comments regarding the potential spread of invasive species due to Project construction.	Tennessee has included an Invasive Species Management Plan within the ECP for each state crossed by the Project (Volume II, Appendices J, K, L, M, and N, Attachment 9).

Issue	Summary of Comments	Response
	<p>Questions regarding the amount of tree clearing that will be required where the Project is co-located with an existing powerline or pipeline corridor.</p>	<p>Tennessee is currently in discussions with utility companies to discuss co-location for Project facilities with the utility companies' existing power line easements in order to identify the factors that will determine the need to increase the size of the existing utility corridor. The width of the right-of-way for the Project may differ depending on the location and topography of the land. This will be discussed with each individual landowner during easement discussions.</p> <p>In upland areas, the maintained corridor is normally the width of the permanent easement and trees are kept clear by mowing or removal on a regular basis. During operation of the Project, 10 feet of the permanent ROW, centered over the Project pipeline, will be maintained within wetlands as PEM wetland in accordance with Tennessee's requirements. In PFO wetlands, Tennessee will minimize tree clearing to the maximum extent practicable while maintaining safe construction conditions. Tree clearing within wetlands during operation of the pipeline will be limited to selectively clearing trees within 15 feet of the pipeline that may damage the pipeline coating.</p>
	<p>Comments expressing concerns about the use of herbicides to maintain the ROW.</p>	<p>Tennessee maintains its easements by mechanical means (e.g., tractor with mower or bush hog). In some instances, as approved by landowners and regulatory agencies, herbicides may be applied in certain fenced locations (typically at compressor stations or above-ground sites such as valves, pig launchers or pig receivers).</p>
<p>Natural Resources</p>	<p>General comments regarding the effects the proposed Project will have on natural resources.</p>	<p>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 will comply with all requirements imposed by the Commission and other applicable regulatory 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. The Commission will monitor and inspect Tennessee's right-of-way restoration activities to ensure compliance with all applicable conditions and requirements.</p>

Issue	Summary of Comments	Response
Resource Report 4: Cultural Resources		
Historic and Archaeological Resources	General comments regarding potential impacts to historic and archaeological resources.	As the lead federal agency, the Commission is responsible for compliance with the National Historic Preservation Act (“NHPA”) and, with Tennessee’s assistance, is following the NHPA Section 106 historic preservation review process. As detailed within Resource Report 4 of the Environmental Report, included as Exhibit F-1 to the certificate application, Tennessee currently is conducting cultural resource and historic architecture surveys within the Project area to identify previously unidentified sites and avoid or mitigate impacts on sensitive resources. The survey methodology employed to find new sites meets or exceeds the applicable state guidelines.
	Comments asking whether Tennessee will preserve stone walls, historic foundations, and dam and mill sites within the project’s Area of Potential Effect (“APE”).	Tennessee is conducting cultural resource surveys to identify historic properties in the APE. Tennessee and its contractors will follow all applicable cultural resource laws regarding effects to historic properties in the APE. Section 4.1 of Resource Report 4 of the Environmental Report, included as Exhibit F-1 to the certificate application, outlines the Section 106 compliance process being followed by Tennessee for the NED Project.
Cultural Resources	General comments regarding potential impacts to cultural resources.	As the lead federal agency, the Commission is responsible for compliance with the NHPA and, with Tennessee’s assistance, is following the NHPA Section 106 historic preservation review process. As detailed in Resource Report 4 of the Environmental Report, included as Exhibit F-1 to the certificate application, Tennessee currently is conducting cultural resource and historic architecture surveys within the Project area to identify previously unidentified sites and avoid or mitigate impacts on sensitive resources. The survey methodology employed to find new sites meets or exceeds the applicable state guidelines.
	Comments regarding the potential for unanticipated discovery of prehistoric sites, historic properties, or human remains.	Tennessee has prepared “Procedures Guiding the Discovery of Unanticipated Cultural and Paleontological Resources and Human Remains Plan”, which is included in the state-specific ECPs (Volume II, Appendices J, K, L, M, and N).

Issue	Summary of Comments	Response
Resource Report 5: Socioeconomics		
Property Values and Insurance Rates	Comments expressing concern about negative impacts to or loss of property values, re-sale value, and a lower tax base as a result of lower property value.	<p>Tennessee is not aware of any instances of a decrease to property value or the inability of a homeowner to obtain a mortgage for a property in the vicinity of a compressor station. There are dozens of existing compressor stations along Tennessee’s existing system in the northeast U.S. and many individuals have bought, sold, and built homes immediately in the vicinity of compressor stations. Additionally, there are an estimated over 1,200 mainline compressor stations nationwide (US Energy Information Administration, Office of Oil and Gas) and no research has demonstrated property value decreases in the vicinity of a compressor station. Please see the following studies for supporting information on the correlation between property values and the presence of pipelines:</p> <ul style="list-style-type: none"> • LPC Commercial Services, Inc., "A Study of Natural Gas Pipelines and Residential Property Values." (2015) • 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 Interstate Natural Gas Association of America ("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)
	Comments expressing concern about payment to property owners for easement or taking of land.	<p>Each property that is affected by the NED Project has different and unique circumstances. Tennessee will review and discuss any concerns regarding property valuation during the negotiation stage for permanent and temporary easements for pipelines associated with the NED Project on an individual basis. Compensation for the pipeline easement will be based upon appraisals of the fair market value of properties completed for land types and then applied to similar properties based upon square footage impacted for both the permanent and temporary easements. Land used for compressor and meter stations would be purchased from the landowner.</p>

Issue	Summary of Comments	Response
	<p>Comments expressing concerns about an increase in homeowner's insurance.</p>	<p>Based on information obtained by Tennessee, insurance underwriters have not considered the presence of a natural gas pipeline when determining the cost and coverage of property insurance. In the January 2015 Final Environmental Impact Statement for the Algonquin Incremental Market Project, the Commission stated:</p> <p><i>Regarding the potential for insurance premium adjustments associated with pipeline proximity, insurance advisors consulted on other natural gas projects reviewed by the FERC indicated that pipeline infrastructure does not affect homeowners insurance rates (FERC, 2008). As such, we find that homeowners' insurance rates are unlikely to change due to construction and operation of the proposed Project.</i></p> <p>Based on this information, Tennessee does not anticipate that the Project will adversely impacts homeowners' insurance rates, the ability to acquire a new homeowner's insurance policy, or that insurance policies will be discontinued as a result of a natural gas pipeline located on a property.</p>
<p>Traffic and Road Impacts</p>	<p>Comments regarding impacts to residents from road closures during construction.</p>	<p>Tennessee will develop a traffic management plan prior to the start of construction of the Project. Tennessee will secure permits from the highways jurisdictions within the Project area and will comply with all applicable permit conditions, including those that cover traffic control. Tennessee will work with local jurisdictions on a regular planning and implementation cycle for any road closures that may be necessary during construction. Additionally, most major roads are planned to have trenchless crossings.</p>
	<p>Comments expressing concerns about the ability of larger vehicles such as logging trucks to traverse roads crossed by the pipeline.</p>	<p>As part of the negotiations for land rights to construct the proposed pipeline, Tennessee will review with landowners their planned access needs and will work with the landowners to address situations such as the need to cross the pipeline with equipment for timber harvesting. Additionally, a heavier wall pipe is typically installed at road crossings.</p>
	<p>Comments expressing concern about impacts to smaller, rural roads that have culverts or bridges not designed for heavy truck traffic, including (but not limited to) Rockwood Pond Road in New Hampshire.</p>	<p>Tennessee proposes use of existing public roads as well as certain non-public access roads for construction of the Project. Tennessee's use of these roads will be in compliance with legal weight limits. Additionally, Tennessee's construction contractors will be responsible for repairing any damage to roads resulting directly from Project construction.</p>
<p>Environmental Justice</p>	<p>Comments regarding the pipeline route, specifically, how the route avoids wealthier towns and instead traverses the poorer towns.</p>	<p>Based on the CEQ and USEPA criteria for defining environmental justice communities, none of the counties and municipalities crossed by the Project exceed the environmental justice threshold for populations living below poverty level.</p>

Issue	Summary of Comments	Response
General Socioeconomics	Comments expressing concerns about decrease of tax revenues.	Tennessee will pay an Ad Valorem tax on all assets located within each community. These taxable assets include the pipeline, valves, meters, compressors and/or buildings at compressor stations.
	Comments requesting an analysis comparing job creation over the next 2, 5, and 10 years for the case of the NED Project being built and funding to clean energy decreased, versus the case with the NED Project not built and money invested instead in clean energy.	<p>Local contractors will be hired to oversee construction work, although the extent of how many of the required jobs are filled with the local workforce will depend on the pool of skilled workers in the impacted communities. Although Tennessee has no requirement that contractors be residents of the state in which construction is occurring, Tennessee prefers to hire locally whenever possible. Based on Tennessee’s past experience, it is estimated that approximately 50 percent of the workers will be coming from the local workforce. Tennessee, through its construction contractors and subcontractors, will hire local construction workers that have the required skills and experience necessary to construct the proposed facilities.</p> <p>Operation of the Project is anticipated to require the addition of 24 new permanent employees. Based on Tennessee’s past experience, local hires may be obtained for operations positions, although supervisory and higher level employees generally transfer from other areas.</p>

Issue	Summary of Comments	Response
	<p>Comments requesting a study be conducted by independent experts to determine what the reduction in property values actually is. Further requests that the study include the impact of pipeline/compressor stations on the tax rates in affected communities.</p>	<p>Tennessee is not aware of any instances of a decrease to property value or the inability of a homeowner to obtain a mortgage for a property in the vicinity of a compressor station. There are dozens of existing compressor stations along Tennessee’s existing system in the northeast U.S. and many individuals have bought, sold, and built homes immediately in the vicinity of compressor stations. Additionally, there are an estimated over 1,200 mainline compressor stations nationwide (US Energy Information Administration, Office of Oil and Gas) and no research has demonstrated property value decreases in the vicinity of a compressor station. Please see the following studies for supporting information on the correlation between property values and the presence of pipelines:</p> <ul style="list-style-type: none"> • LPC Commercial Services, Inc., "A Study of Natural Gas Pipelines and Residential Property Values." (2015) • 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 Interstate Natural Gas Association of America ("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)

Issue	Summary of Comments	Response
	<p>Comments expressing a concern that few jobs would be created and those that are would be temporary (i.e., during construction).</p>	<p>Construction of the pipeline portion of the Project is expected to create approximately 200 to 500 temporary construction-related jobs per Project section or spread. Tennessee expects that there will be twelve construction spreads: Spreads 1 and 2 in Pennsylvania; Spreads 3, 4 and 5 in New York; Spread 6 includes portions of New York and Massachusetts; Spread 7 in Massachusetts; Spread 8 includes portions of New Hampshire and Massachusetts; Spread 9 includes portions of Massachusetts and New Hampshire; Spreads 10 and 11 are in Massachusetts and Spread 12 in Connecticut. Based on Tennessee's past experience, it is estimated that approximately 50 percent of the workers will be coming from the local workforce. Tennessee, through its construction contractors and subcontractors, will hire local construction workers that have the required skills and experience necessary to construct the proposed facilities.</p> <p>Operation of the Project is anticipated to require the addition of 24 new permanent employees. Based on Tennessee's past experience, local hires may be obtained for operations positions, although supervisory and higher level employees generally transfer from other areas.</p>
	<p>Comments requesting information on compensation for loss of present and future income from logging.</p>	<p>Tennessee will negotiate compensation for loss of timber production with each affected landowner of timber lands, and will compensate landowners for any increase in taxes resulting from construction of the Project.</p>
	<p>Comments regarding potential impacts to tourism.</p>	<p>There would be significant short-term positive economic impact during the construction phase of the Project. Restaurants, hotels/motels, and retailers would experience increased activity from construction crews, and the state and local communities would benefit economically through state and local sales and use taxes for the materials and equipment purchased to be installed at the job sites. The presence of a natural gas transmission pipeline would create the possibility of a backbone for future economic growth in the region.</p> <p>A thorough evaluation of socioeconomic impacts associated with the Project is provided in Resource Report 5 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p>

Issue	Summary of Comments	Response
Resource Report 6: Geological Resources		
Karst Terrain	Comments expressed concerns related to karst terrain, including groundwater quality.	<p>The presence of karst terrain along the Project corridor is addressed in Resource Report 6 of the Environmental Report, included as Exhibit F-1 to the certificate application. Additional information relative to potential groundwater contamination is addressed in Resource Report 2 of the Environmental Report. Tennessee is also in the process of completing a geohazard study that will be submitted to FERC as part of the application process.</p> <p>Karst topography is typically found in areas where water soluble bedrock has resulted in the formation of sinkholes, caverns, and underground rivers. Common geological characteristics of karst regions that influence human use of its land and water resources include ground subsidence, sinkhole collapse, groundwater contamination, and unpredictable water supply. Sinkhole development can affect permanent soil stabilization post-construction, resulting in erosion of soils and exposure of buried pipeline.</p> <p>To address risks associated with karst features identified prior to or during construction, Tennessee will develop and implement measures to avoid, minimize, or mitigate impacts on karst features and groundwater as a result of project construction and operation. These measures will be detailed with typical construction methods in the Project-specific ECPs for each state (Volume II, Appendices J, K, L, M, and N). These measures include spill control measures to avoid, minimize, and mitigate impacts to groundwater and surface water as a result of Project construction activities.</p>

Issue	Summary of Comments	Response
Earthquakes	Comments expressed concerns related to seismicity.	<p>Impacts on pipeline construction and operation as a result of potential seismicity and earthquakes are addressed in Resource Report 6 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p> <p>Three phenomena are associated with seismic hazard risk and include faults, seismicity, and ground motion hazards. Faults are defined as fractures within bedrock in which movement has occurred. An active fault is one in which movement has demonstrated to have taken place within the last 10,000 years. Seismicity refers to the intensity and the geographic and historical distribution of earthquakes. Ground motion hazards are defined as movement of the earth's surface as a result of earthquakes.</p> <p>Pipeline design for the Project is under development, and specifications will be included in Resource Reports 1 and 11 in the Environmental Report. The pipeline will be designed and constructed to standards that withstand probable seismic events within the seismic risk zones crossed by the proposed Project (Zones 4 to 6) and in accordance with USDOT regulations, 49 CFR Part 192, Transportation of Natural and Other Gas by Pipeline, and additional federal and state regulations applicable design requirements.</p>
Blasting	Comments expressed concerns related to blasting, including impacts to foundations, wells, and septic tanks.	<p>Blasting-related operations (including, but not limited to, obtaining, transporting, storing, handling, loading, detonating, and disposing of blasting material, as well as drilling and ground motion monitoring) will comply with all applicable federal, state, and local regulations. Blasting contractors working on the NED Project will be required to acquire all required federal, state, and local permits relating to transportation, storage, handling, loading, and detonation of explosives. Blasting operations are required to be conducted by or under the direct and constant supervision of experienced personnel, legally licensed and certified to perform blasting operations in the jurisdiction where blasting is required.</p> <p>Blasting will be required at locations where mechanical excavation cannot successfully remove rock to the necessary depth. Tennessee will develop and utilize a Project-specific Blasting Plan that details the procedures and safety measures that the construction contractor will adhere to while implementing blasting activities along the pipeline corridor.</p> <p>Tennessee is responsible for impacts that are determined to be caused by the construction and operation of its facilities. Although Tennessee does not expect any impacts to wells or foundations as a result of Project construction, any damage claims would be resolved with the impacted landowner.</p>

Issue	Summary of Comments	Response
	<p>Comment from laboratory concerned with vibrations and noise related to blasting and high-impact excavations (lots of ledge in the area). Noise and vibrations will affect their research models which are sensitive to noise and vibration. Requesting that a reputable scientific advisor familiar with the drug discovery process is consulted.</p>	<p>Tennessee does not anticipate effects to the laboratory from blasting.</p>
Resource Report 7: Soils		
Soils	<p>Comments concerned with potential pollutants leaching into the soil.</p>	<p>During construction, Tennessee will implement a Spill Prevention and Response Plan (“SPRP”) which specifies prevention and cleanup procedures in the event of a spill or leaks of fuel, lubricants, coolants, or solvents. Implementation of the SPRP will prevent and minimize the potential for soil contamination during construction. A copy of the SPRP is provided in Tennessee’s Project-specific ECPs for each state (Volume II, Appendices J, K, L, M, and N, Attachment 3).</p>
	<p>Comments stating concerns regarding the depth of the proposed pipe below ground due to the potential for “frost heave”.</p>	<p>High pressure natural gas transmission pipelines are currently operating in New England from the northern most reaches in Maine to the shores of Connecticut. These transmission pipelines in New England and throughout the county operate under the same USDOT requirements of three-foot minimum cover for a welded steel transmission pipe, which is being proposed for the Project. Tennessee will comply with these depth requirements for the Project. The bottom of the pipeline proposed to be installed for the Project will be below the typical frost lines in the region.</p>
	<p>Comments requesting that soil tests at farms be conducted prior to the construction of the compressor stations to establish a baseline for any pollutants known to be emitted by compressor stations, and then to have soil tests done annually. In the event that the soils are found to have pollutants from the compressor stations, Tennessee should be required to devise a way to prevent further contamination and compensate for any lost income. Also, if the pollutants render the farm unsafe for growing food then Tennessee should purchase the farm at fair market value.</p>	<p>The proposed compressor stations will be subject to a stringent permitting process mandated by the federal Clean Air Act, which ensures that the proposed compressor stations will not exceed the USEPA’s NAAQS for any airborne pollutants. In addition, applicable regulatory agencies ensure that all new projects will not cause an adverse impact to human health or the environment prior to issuing construction and operational permits. It is also important to reiterate that the natural gas that Tennessee transports in its existing pipeline system, and through the proposed compressor stations, is “pipeline quality” natural gas as required by Tennessee’s effective FERC Gas tariff.</p>

Issue	Summary of Comments	Response
Resource Report 8: Land Use, Recreation, and Aesthetics		
Agriculture	General comments regarding potential impacts to agriculture and future productivity to agricultural lands.	<p>Tennessee operates approximately 84,000 miles of pipeline throughout the United States, a large portion of which are located in rural agricultural areas with productive farms. Tennessee will utilize soil-segregation methods during construction to ensure the ground is returned to as close to its previous state as possible. Farming can continue on property above the pipeline following construction. During the survey period, Tennessee will meet with landowners who actively farm their properties to account for existing drainage tiles, irrigation systems, and what type of equipment the pipeline's presence will need to be compatible with; the route and depth the pipeline is buried can be adjusted to accommodate these factors.</p> <p>Through the acquisition process, Tennessee will work with each individual farmer to identify the crops grown on each property. Through negotiations with the farmer and the local agricultural extension office, Tennessee will compensate the landowner for all crop damage for the current year and future years, depending upon the crop produced.</p>

Issue	Summary of Comments	Response
	<p>Comments expressing concerns about potential soil contamination from compressor station emissions and impacts to organic and other farms.</p>	<p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the project facilities, is referred to as “pipeline quality” natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users.</p> <p>The USEPA has promulgated NAAQS to protect human health and welfare. The NAAQS include primary standards which are designed to protect human health, including the health of sensitive subpopulations such as children, the elderly and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.</p> <p>The NAAQS currently apply to the following criteria pollutants:</p> <ul style="list-style-type: none"> - Sulfur dioxide - Particulate matter with a nominal aerodynamic diameter of 10 microns or less - Particulate matter with a nominal aerodynamic diameter of 2.5 microns or less - Nitrogen dioxide - Carbon monoxide - Ozone - Lead <p>Equipment installed as part of the project will be subject to the NSR permitting process. This NSR permitting process ensures that current NAAQS standards are not exceeded for the criteria pollutants listed above after installation of the new combustion equipment.</p> <p>Therefore, Tennessee does not anticipate impacts to public water supply reservoirs from compressor station emissions due to compliance with the above regulations.</p>

Issue	Summary of Comments	Response
Hazardous Materials	Comment stating that the proposed site for the New Ipswich compressor station is contaminated with lead.	<p>A Phase I Environmental Site Assessment ("ESA") was conducted of the parcel associated with the proposed location of the Market Path Mid Station 4 compressor station in New Ipswich to identify any potential contamination on the parcel. The ESA was conducted in the spring of 2015. No potential contamination issues were identified at the proposed compressor station site.</p> <p>Should any hazardous materials be encountered during pipeline construction, Tennessee will dispose of and/or mitigate for any hazardous materials uncovered in accordance with applicable federal and state regulations. Additionally, Tennessee will implement its Project-specific Plan and Procedures, Volume II, Appendix H, and its Project-specific ECP for New Hampshire, Volume II, Appendix M, during construction of the Project facilities to minimize potential disturbance of contaminated media. Should surface or subsurface contamination be encountered during construction, it will be addressed and handled in accordance with the Unanticipated Discovery of Contamination Plan (Volume II, Appendix M, Attachment 7) and federal, state, and local requirements.</p>
	Comments expressing concerns about the proximity of the pipeline to the Troy Mills Superfund site and the potential impacts of blasting the bedrock adjoining the Superfund site.	<p>Tennessee does not anticipate effects to the Troy Mills Superfund site from blasting. Blasting-related operations (including, but not limited to, obtaining, transporting, storing, handling, loading, detonating, and disposing of blasting material, as well as drilling and ground motion monitoring) will comply with all applicable federal, state, and local regulations. Blasting contractors working on the NED Project will be required to acquire all required federal, state, and local permits relating to transportation, storage, handling, loading, and detonation of explosives. Blasting operations are required to be conducted by or under the direct and constant supervision of experienced personnel, legally licensed and certified to perform blasting operations in the jurisdiction where blasting is required. Should any hazardous materials be encountered during pipeline construction, Tennessee will dispose of and/or mitigate for any hazardous materials uncovered in accordance with applicable federal and state regulations. Additionally, Tennessee will implement its Project-specific Plan and Procedures, Volume II, Appendix H, and its Project-specific ECP for New Hampshire, Volume II, Appendix M, during construction of the Project facilities to minimize potential disturbance of contaminated media. Should surface or subsurface contamination be encountered during construction, it will be addressed and handled in accordance with the Unanticipated Discovery of Contamination Plan (Volume II, Appendix M, Attachment 7) and federal, state, and local requirements.</p>
	Comment concerned about the identification of Valatie Kill as a source for hydrostatic test water because is it contaminated by discharge from the Dewey Loeffel Toxic Landfill Superfund site.	<p>The Dewey Loeffel Toxic Landfill Superfund site has been remediated and closed. Although Valatie Kill is documented as having PCB-contaminated sediments, the withdrawal of hydrostatic test water will not disturb the sediments; therefore, there are no concerns regarding the use of Valatie Kill as a source for hydrostatic test water.</p>

Issue	Summary of Comments	Response
	<p>Comment stating that the Hudson River is a Superfund site for 200 miles from Fort Edward south to New York City. Requests that Tennessee determine whether the proposed crossing method will disturb and resuspend PCB deposits at the crossing site.</p>	<p>The proposed pipeline will be installed under the Hudson River in the Lower Hudson River portion of the Superfund site. Tennessee is currently proposing an approximately 4,470-foot HDD beneath the Hudson River in the Lower Hudson River portion of the site. The use of an HDD to cross the Hudson River will avoid impacts to the Superfund site.</p>
<p>Residential Properties and Schools</p>	<p>Comments expressing concerns about the proximity of the Project to several schools.</p>	<p>Tennessee is committed to public safety, protection of the environment, and operation of its facilities in compliance with all applicable rules and regulations. The natural gas pipelines fall under the regulatory oversight of the USDOT's PHMSA. Tennessee has an outstanding safety program that is in compliance with all applicable safety regulations. Tennessee outperforms its peers on a majority of safety and operational measures, and its safety record is posted online: http://www.kindermorgan.com/pages/ehs/ehs_performance/default.aspx.</p> <p>Tennessee uses state-of-the-art, automated emergency detection systems including ultraviolet/infrared detectors, gas detectors, and rate-of-rise heat detectors mounted at various points inside the compressor building. Data from these detection systems are fed into the station computer system which will, in turn, shut down station operations and isolate the station in an emergency situation. Tennessee's security program employs security measures consistent with the Transportation Security Administration's ("TSA") Pipeline Security Guidelines. Compressor station operations are monitored continuously (24/7 / 365) in its Gas Control Center in Houston, and operations personnel typically staff compressor stations Monday through Friday during normal business hours. Compressor stations are sometimes manned full-time (24 /7) during significant weather events, such as snowstorms.</p>
	<p>Comments expressing concerns about the location of the pipeline between the Amherst Middle School and Elementary School.</p>	<p>Tennessee has been working cooperatively with the town of Amherst on an alternative route that will avoid both the Amherst Middle and Elementary Schools. On September 16, 2015, Tennessee conducted its third meeting with the Amherst Pipeline Task Force to present the proposed route alternative through Amherst. Tennessee has adopted the alternative route and it is reflected as part of the proposed Project in the certificate application.</p>

Issue	Summary of Comments	Response
	<p>Comments expressing concerns about the proximity of the pipeline and compressor station to Temple Elementary School, which is also used as an emergency shelter/evacuation site.</p>	<p>Tennessee is committed to public safety, protection of the environment, and operation of its facilities in compliance with all applicable rules and regulations. The natural gas pipelines fall under the regulatory oversight of the USDOT's PHMSA. Tennessee has an outstanding safety program that is in compliance with all applicable safety regulations. Tennessee outperforms its peers on a majority of safety and operational measures, and our safety record is posted online: http://www.kindermorgan.com/pages/ehs/ehs_performance/default.aspx.</p> <p>Tennessee uses state-of-the-art, automated emergency detection systems, including ultraviolet/infrared detectors, gas detectors, and rate-of-rise heat detectors mounted at various points inside a compressor building. Data from these detection systems are fed into the compressor station computer system which will, in turn, shut down compressor station operations and isolate the compressor station in an emergency situation.</p> <p>Tennessee' security program employs security measures consistent with Transportation Security Administration's Pipeline Security Guidelines. Compressor station operations are monitored continuously (24/ 7 / 365) in Tennessee's Gas Control Center in Houston, Texas, and operations personnel typically staff compressor stations Monday through Friday during normal business hours. Compressor stations may be manned full-time (24 /7) during significant weather events, such as snowstorms.</p>
<p>Recreation Areas and Conservation Land</p>	<p>Comments regarding crossing of Article 97 lands in Massachusetts.</p>	<p>Tennessee has been working with the Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs since November 2014. Since that time, Tennessee has worked cooperatively to reduce impacts to any public lands through interaction with representatives of the Commonwealth. These reductions are largely related to co-location of the NED Project pipeline with existing power line corridors. This co-location was a direct result of relocating a portion of the proposed pipeline into New Hampshire to the terminus of the pipeline in Dracut, Massachusetts.</p> <p>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.</p>
	<p>Comments regarding impacts associated with all-terrain vehicle use in the existing powerline ROW and the NED pipeline ROW.</p>	<p>Tennessee will work with concerned landowners to repair or replace any existing property boundary fencing that may need to be removed temporarily during construction and will install locking gates, as necessary, to deter unauthorized vehicle traffic along and within the pipeline ROW.</p>

Issue	Summary of Comments	Response
	General comments regarding impacts to conservation lands.	Throughout the development of the Project, Tennessee has conducted an extensive needs and alternative routing analysis for the Project, which includes evaluation of pipeline routing options based on regional topography, environmental considerations, population density, existing land usage, construction safety, and feasibility considerations. Pipelines can and do cross parks and conservation areas. Pipelines are a compatible use for conservation areas as they restrict development on the permanent easement. Disturbance through these areas may be mitigated by selective routing and minimization of workspace where possible. Restoration after construction is tailored to these areas by using compatible seed mixes consisting of native grasses and the planting of trees in temporary workspace areas. Tennessee will work with the park/conservation managers to coordinate construction and restoration activities.
	Comments expressing concerns about the Project disrupting recreational and hiking areas such as the Peabody Town Forest.	The current pipeline route is planned to cross the Peabody Town Forest and will be co-located with the existing power transmission corridor. Tennessee also plans to use soil-segregation methods during construction to seek to ensure the ground is returned to as close to its previous condition as possible. Tennessee believes that there will be no change in the public being able to use the land as it is used currently by hikers, nature observers and sportsmen following completion of construction.
	Comment expressing concern about potential impacts to the Converse Meadow conservation easements and their natural resources resulting from construction and maintenance associated with the NED project 'would severely degrade the conservation values protected by and for the public of the State of New Hampshire and visitors to these properties.	Although the Project will cross the Converse Meadow, Tennessee has co-located the Project with an existing utility corridor through this property to minimize impacts to the area. Any changes to the existing landscape will be minor and confined to minimal widening of the existing cleared ROW as necessary for safe construction and operation of the pipeline. Disturbed areas will be restored after construction is completed, as described in the Project-specific ECP for New Hampshire (Volume II, Appendix M). Tennessee will coordinate with the town regarding the proposed crossing of this area to assess any impacts to further avoid, minimize, or mitigate impacts.
	Comments requesting an explanation of how the Commission intends to reimburse or compensate donors, taxpayers, land trusts, charities, government agencies, and the Internal Revenue Service for lost conservation benefits (and those which were paid for), lost conservation funding, and lost conservation tax deduction incentives, credits, and lost tax revenue due to the destruction promised by pipeline and breach of the Public Trust and Charitable Trust Doctrines.	Tennessee will continue to work with federal, state, and municipal agencies, as well as landowners, to avoid, minimize, or mitigate impacts to properties protected under conservation programs. Additionally, construction and operation of the Project will have beneficial impacts on local property tax revenue in the areas impacted by the Project, as discussed in Section 5.10.1 of Resource Report 5.

Issue	Summary of Comments	Response
	<p>Comment stating that Tennessee should provide mitigation by improving access to the Merrimack River by funding improvements to the Greeley Park access in Nashua. Mitigation should be provided to compensate for tributary disruptions to create hiking trails and picnic spots in the area.</p>	<p>Tennessee, through the New Hampshire Site Evaluation Committee process, will determine appropriate mitigation within the watershed.</p>
	<p>Comments expressing concern about the crossing of the Appalachian Trail and other trails. Concerns include accommodating users of the trails during construction and impacts to users of the trails during operation from noise.</p>	<p>Tennessee has co-located the Project with an existing utility corridor through the segment that crosses the Appalachian Trail to minimize the impacts in this area. Any changes to the existing landscape will be minor and confined to minimal widening of the existing cleared ROW as necessary for safe construction and operation of the pipeline. Tennessee will continue to coordinate with the applicable agencies and other interested parties regarding the proposed crossing of the Appalachian Trail to assess impacts to further avoid, minimize, or mitigate those impacts.</p>
<p>Other Special Land Uses</p>	<p>Comments regarding the risk and endangerment to the Villi Poni Farm Sanctuary's ponies from the proposed compressor station.</p>	<p>The federal government and the State of New Hampshire have stringent permitting requirements to ensure that the proposed compressor station will have a minimal impact on its neighbors and surrounding environment. The proposed compressor station will be subject to a stringent permitting process mandated by the Clean Air Act, which ensures that the proposed compressor station will not exceed the USEPA's NAAQS for any airborne pollutants. In addition, the NHDES Air Quality Division ensures that all new projects located in the state will not cause an adverse impact to human health or the environment, including animals, prior to issuing construction and operational permits.</p> <p>Tennessee does not anticipate impacts to the Villi Poni Farm Sanctuary, located more than 0.25 mile from the Project area, as a result of compliance with these requirements during operation of the compressor station in New Hampshire.</p>

Issue	Summary of Comments	Response
	<p>Comments expressing concerns with contamination of food supply, including impacts to organic farms and family gardens, from air pollution from nearby compressor stations.</p>	<p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the project facilities, is referred to as “pipeline quality” natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users.</p> <p>The USEPA has promulgated NAAQS to protect human health and welfare. The NAAQS include primary standards which are designed to protect human health, including the health of sensitive subpopulations such as children, the elderly and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.</p> <p>The NAAQS currently apply to the following criteria pollutants:</p> <ul style="list-style-type: none"> - Sulfur dioxide - Particulate matter with a nominal aerodynamic diameter of 10 microns or less - Particulate matter with a nominal aerodynamic diameter of 2.5 microns or less - Nitrogen dioxide - Carbon monoxide - Ozone - Lead <p>Equipment installed as part of the project will be subject to the NSR permitting process. This NSR permitting process ensures that current NAAQS standards are not exceeded for the criteria pollutants listed above after installation of the new combustion equipment.</p> <p>Therefore, Tennessee does not anticipate impacts to public water supply reservoirs from compressor station emissions due to compliance with the above regulations.</p>
<p>Visual Resources</p>	<p>Comments expressing concerns with lighting at compressor stations, including potential impacts to the night sky for observing with telescopes. Comment suggests that night vision security cameras be employed as a mitigation measure and that the compressor station facilities meet "Dark Sky" guidelines for shielding of glare.</p> <p>Comments expressing a concern about visual impacts to Burden Lake from the compressor station in Nassau, New York.</p>	<p>Compressor stations require a certain amount of yard lighting at night for safety reasons. Tennessee is proposing to install special directional light fixtures that will direct the light toward the buildings and ground. The directional lighting shields the bulb from view so that only indirect light will be visible outside the property line.</p> <p>Since the proposed compressor station will not be visible from Burden Lake, there will be no visual impacts to the lake from the proposed compressor station in Nassau, New York.</p>

Issue	Summary of Comments	Response
	Comments expressing concerns over impacts to mature landscaping that will be removed, particularly, mature trees. Concern that removal of the natural tree buffer between residences and the powerline will be a visual impact and lower property values.	Tennessee will minimize tree removal to the extent possible while maintaining a safe workspace. Tennessee will evaluate selectively leaving some trees on a case-by-case basis. Tennessee will also discuss with landowners whether certain trees can be left.
	Comment expressing concern that tree cutting for the pipeline will expose the existing powerlines and ruin the views for Ashfield Lake, the "jewel of the town".	Tennessee will minimize tree removal to the extent possible while maintaining a safe workspace. Tennessee will evaluate selectively leaving some trees on a case-by-case basis. Tennessee will also discuss with landowners whether certain trees can be left.
	Comment suggesting that community-friendly landscaping be required along the pipeline route. Such landscaping should incorporate recreational design to benefit the people affected. It might include bike paths, golf, nature trails, swimming holes, picnic tables, softball, etc.	Tennessee will revegetate with native species in consultation with applicable agencies.
Town Plans and Zoning	Comments regarding the proposed Project's violation of town Master Plans and Zoning ordinances.	Based on input from community stakeholders, the NED Project path has been adjusted several times, resulting in approximately 91 percent of the NED Project Market Path Component mainline path from Wright, New York to Dracut, Massachusetts being co-located with existing utility corridors, (i.e., areas already containing power transmission lines), to minimize possible impacts on nearby towns and comply with Master Plans and Zoning Ordinances. Additionally, Tennessee will apply for, and obtain, applicable federal, state, and local permits and authorizations to be compliant with existing regulations.
Rural Character	Comments concerned with the potential impact to the rural character of the area.	Long- term operation and maintenance of the pipeline is not anticipated to interfere with the existing character of the area. Agricultural operations and rural residential development will be able to continue in the vicinity of the Project. An assessment of visual and aesthetic impacts associated with the Project and proposed mitigation measures is identified in Resource Report 8 of the Environmental Report, included as Exhibit F-1 to the certificate application.
Resource Report 9: Air and Noise		
Air Quality	Comments expressing concerns about air quality from pipeline leaks.	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.

Issue	Summary of Comments	Response
	<p>Comments expressing concerns about air quality from compressor station operations.</p>	<p>Resource Report 9 of the Environmental Report, included in Exhibit F-1 to the certificate application, addresses air emission for the NED Project. The USEPA has promulgated NAAQS to protect human health and welfare. The NAAQS include primary standards which are designed to protect human health, including the health of sensitive subpopulations such as children, the elderly and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.</p> <p>The NAAQS currently apply to the following criteria pollutants:</p> <ul style="list-style-type: none"> • Sulfur dioxide • Particulate matter with a nominal aerodynamic diameter of 10 microns or less • Particulate matter with a nominal aerodynamic diameter of 2.5 microns or less • Nitrogen dioxide • Carbon monoxide • Ozone • Lead <p>Equipment installed as part of the project will be subject to the NSR permitting process. This NSR permitting process ensures that current NAAQS standards are not exceeded for the criteria pollutants listed above after installation of the new combustion equipment.</p>

Issue	Summary of Comments	Response
	<p>Comments requesting an assessment of how much chemical pollution from compressor station emissions accumulates in the different layers of winter snowfall.</p>	<p>Resource Report 9 addresses air matters for the NED project. The USEPA has promulgated NAAQS to protect human health and welfare. The NAAQS include primary standards which are designed to protect human health, including the health of sensitive subpopulations such as children, the elderly and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.</p> <p>The NAAQS currently apply to the following criteria pollutants:</p> <ul style="list-style-type: none"> • Sulfur dioxide • Particulate matter with a nominal aerodynamic diameter of 10 microns or less • Particulate matter with a nominal aerodynamic diameter of 2.5 microns or less • Nitrogen dioxide • Carbon monoxide • Ozone • Lead <p>Equipment installed as part of the project will be subject to the NSR permitting process. This NSR permitting process ensures that current NAAQS standards are not exceeded for the criteria pollutants listed above after installation of the new combustion equipment.</p>
	<p>Comment suggesting that USEPA's proposed "suite of comment sense requirements to . . . Reduce air pollution that harms public health" be imposed as a mitigation measure. This includes use of dry seal compressors; replacement of rod packing systems in reciprocating compressors every 26,000 hours of operation or every 36 months or capturing rod packing emissions in a closed vent system; and, most importantly, using optical gas imaging equipment to monitor leaks (which must be repaired within 15 days).</p>	<p>Tennessee will exclusively use dry seal centrifugal compressors at the new compressor stations.</p>
	<p>Comments expressing concerns about the release of benzene from compressor stations.</p>	<p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the project facilities, is referred to as "pipeline quality" natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users. This natural gas has already been treated and processed prior to its entry into the interstate pipeline network so the impurities have been removed. Benzenes and other hazardous air pollutants that may be present as a result of production have been removed prior to custody transfer into the Tennessee system.</p>

Issue	Summary of Comments	Response
<p>Noise</p>	<p>Comments expressing general concerns about noise from compressor stations.</p>	<p>The Commission requires that the noise level at new compressor stations be no greater than 55 dBA Ldn at the closest NSA. NSAs includes occupied residences, schools, hospitals, and other locations. Fifty-five decibels is equivalent to a quiet conversation indoors or a running refrigerator. Tennessee uses the latest in noise-dampening technology to reduce any noise as much as possible. Compressor station noise is minimized through exhaust silencers, building noise insulation, and quieter compressor generators. These measures help in keeping compressor stations in compliance with regulated noise level of 55 decibel at the nearest noise sensitive areas, such as homes and schools. Where possible, Tennessee will leave a wooded area around a compressor station to minimize sound and decrease visibility of the compressor station.</p>
	<p>Comments expressing concerns about noise from "blowdowns" at compressor stations.</p>	<p>Blowdowns (or venting) are infrequent events at compressor stations during which small amounts of natural gas are emitted in the following operational conditions:</p> <ul style="list-style-type: none"> • <u>Unit shutdown</u>: When a compressor unit is shut down and remains shut down for an extended period (greater than 24 hours), the natural gas stored inside a small amount of piping (from the unit valves to the compressor) is vented. This is done to protect the integrity of the compressor. • <u>Unit startup</u>: If the unit has been down for an extended period, the compressor piping will need to be purged and pressurized during startup. During this process, the piping between the unit suction valve and unit discharge valve is briefly purged with gas for one to two minutes. This is to make sure that all air is purged from this piping. • <u>Valve operators</u>: Small amounts of gas from gas-operated valves are vented when they are opened or closed. • <u>Emergency shut downs</u>: Emergency shutdowns are extremely rare events and are initiated by gas or fire detection systems or manually initiated by an employee. When a station emergency shut down is initiated, all gas in the station yard is vented to the atmosphere. Regulations require that the gas be vented to 50 psig within 3.5 minutes. <p>Because of the short duration (typically less than one minute) and irregular timing of blowdown events, they have almost no influence on the 24-hour dBA Ldn values for a facility.</p>

Issue	Summary of Comments	Response
	<p>Comment requesting that Kinder Morgan be required to meet a noise level standard for the compressor station that is less than 38 decibel equivalent sound level ("dBA leq") nighttime at the boundary of residential properties. Comments state that the Commission's standard of 45 dBA leq is not appropriate for quiet, rural communities and there are noise-control material providers that specialize in the design of very quiet compressor stations.</p>	<p>Tennessee will comply with the Commission's requirement of 55 dBA leq nighttime. Fifty-five decibels is equivalent to a quiet conversation indoors or a running refrigerator. Tennessee uses the latest in noise-dampening technology to reduce any noise as much as possible. Compressor station noise is minimized through exhaust silencers, building noise insulation, and quieter compressor generators. These measures help in keeping compressor stations in compliance with the regulated noise level of 55 decibel to the nearest NSA, such as homes and schools. Where possible, Tennessee will leave a wooded area around the compressor station to minimize the sound and decrease visibility of the compressor station.</p>
	<p>General comments regarding construction noise.</p>	<p>The noise impacts due to equipment used for Project construction will be temporary. General construction equipment noise impacts will be mitigated as necessary through one or more of the following measures:</p> <ul style="list-style-type: none"> • Maintaining equipment in accordance with good operating practices for noise control; • Selecting low-noise alternatives when possible (e.g., electric versus diesel engines); • Restricting the time of day or season of the year for construction; • Installing temporary noise barriers or constructing berms; • Enclosing equipment; and • Preparing site-specific noise management plans, including a communication mechanism for residents and businesses to report noise-related issues.
<p>Climate Change and Greenhouse Gases</p>	<p>Comments stating that the Commission should analyze GHG emissions from the NED project over its lifetime.</p>	<p>GHG emissions for construction activities and compressor station operations are quantified and presented in Resource Report 9 of the Environmental Report, included in Exhibit F-1 to the certificate application. GHG emissions are evaluated relative to required state and federal regulatory requirements. Additionally, Kinder Morgan regularly reports environmental, health, and safety performance to the public on its website: http://www.kindermorgan.com/pages/ehs/ehs_performance/default.aspx.</p>
	<p>Comments questioning what strategies will be implemented to recoup methane emissions, reduce methane emissions, and monitor both planned and incidental emissions at the proposed compressor stations.</p>	<p>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.</p>

Issue	Summary of Comments	Response
Resource Report 10: Alternatives		
Renewable Energy	<p>Comments expressed a preference for the use of renewable energy sources over fossil fuels to reduce the potential effects of greenhouse gases.</p>	<p>Tennessee's research of renewable energy sources shows that these sources have not been fully developed in the United States or in the Project area for large-scale application or to the point where they would be viable energy alternatives to the proposed Project. Smaller-scale, or individual, renewable energy sources could be combined to meet the energy needs for the proposed Project; however, the number of such individual projects would be large, and land requirements likely would be greater, since renewable energy sources also require land to site and construct renewable energy facilities such as wind farms or solar arrays as well as construction of infrastructure to transport the energy generated. In addition, combining the disparate renewable energy sources into a coherent energy supply that would be equivalent to the energy to be provided by the proposed Project would require an extensive coordinating system that does not exist at present. Development of such a system would take time and would not provide the energy in time to meet the Project's purpose and need. For these reasons, use of renewable energy sources is not a viable alternative to the natural gas to be provided by the proposed Project. More detail on renewable energy sources is available in Resource Report 10 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p> <p>NED in no way increases New England's reliance on fossil fuels or prevents the development of energy efficiency measures and renewable technologies. In fact, NED will help the region reduce its reliance on fuel oil and coal, while enabling the further growth of renewables. Natural gas supports the growth of renewables by providing clean power when the wind doesn't blow and the sun doesn't shine. Political and energy leaders, including President Obama, have expressed support for new natural gas capacity to facilitate the development of wind and solar power.</p>
	<p>Comment requesting that Tennessee consider Energy Conservation, Energy Efficiency, Wind Power, Solar Power, Geothermal Power, Coal, Fuel Oil, Nuclear, Hydroelectric Power, Electric Generation, Fuel Cells, and Other Energy Sources as methods of reducing the demand on current gas capacity to generate electricity.</p>	<p>The use of other energy sources as an alternative to the NED Project are discussed in Resource Report 10 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p>

Issue	Summary of Comments	Response
	<p>Comment stating that the implementation of geothermal systems, air source heat pumps, ground source heat pumps, and hybrid water heaters, throughout Massachusetts may achieve the aim of energy necessity.</p>	<p>Large scale geothermal energy is available only at tectonic plate boundaries or at geothermally active hotspots. Due to a lack of these features in the Project area, geothermal energy is not available for development as an alternative to natural gas. Although geothermal energy systems are available in the Project area, they are on smaller scales at individual homes and businesses. For example, systems installed at Harvard University in Boston, Massachusetts, Nichols College in Dudley, Massachusetts, and St. Josephs Hospital in Hudson, New Hampshire, each produce 90 tons, or 316 kilowatts, of energy. Geothermal heat pumps are used to circulate groundwater or other fluids through piping to be used for heat exchange. The system typically has a higher up-front cost compared to other traditional gas and oil heating and cooling systems, but may be paid back within three to seven years, based on energy savings, tax savings, and rebates. While this renewable resource may provide some level of energy supply diversity, it is not available on a large enough scale to meet the specific purpose and need of the Project and provide the required natural gas pipeline transportation capacity to be provided by the Project.</p>
<p>Energy Conservation</p>	<p>Comments expressed that the preferred action should be reduced energy consumption.</p>	<p>Conservation of energy reduces the demand for the limited resources and should be encouraged. Programs are currently in place to encourage large-scale energy conservation, such as renewable portfolio standards and/or Energy Efficiency Resource Standards. It is possible that the development and implementation of additional conservation measures could have some effect on the demand for natural gas; however, substantial new technology development and significantly increased social and political support would be needed before the magnitude of energy conservation necessary to equal the proposed Project could be implemented effectively. Energy conservation may provide an alternative in the long-term, but it is not a viable alternative to meet the short-term energy demands of the market. More detail regarding energy conservation will be available in Resource Report 10 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p>
<p>Compressor Station Alternatives</p>	<p>Commenter suggests an area in Schodack, New York where Rice Road intersects the proposed northern route and west towards Poyneer Road because it is an open area that abuts fewer residences instead of the currently proposed location in Nassau, New York.</p>	<p>Tennessee has identified and investigated several additional alternative sites for each compressor station. Compressor stations must be placed within a relatively limited geographic area due to the need for compression at certain intervals to keep the pipe pressurized. The alternatives analysis for compressor station sites is included in Resource Report 10 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p>

Issue	Summary of Comments	Response
	<p>Comments requesting that the location of the proposed compressor stations along the pipeline be in areas properly zoned for such industrial factories, not in rural communities.</p> <p>Comment suggests that a number of smaller compressor stations with electric motors be utilized instead of the larger, natural gas engine compressor stations.</p>	<p>Tennessee has identified and investigated several additional alternative sites for each compressor station. Compressor stations must be placed within a relatively limited geographic area due to the need for compression at certain intervals to keep the pipe pressurized. The alternatives analysis for compressor station sites is included in Resource Report 10 of the Environmental Report, included as Exhibit F to the certificate application.</p> <p>Tennessee could install five or six compressor stations with compression horsepower of less than 40,000 horsepower in closer proximity along the pipeline than the currently proposed compressor stations. However, this increase in the number of compressor station sites would correspondingly increase the Project's environmental, cultural, and landowner impacts. It would also increase Project costs, and therefore, rates for the local distribution company shippers, which would ultimately increase the cost to the residential, commercial, and industrial gas consumers in the state.</p> <p>Using electric-driven compression rather than natural gas-driven compression would result in additional landowner and environmental resource impacts in order to build the necessary power infrastructure to build an electrical connection to a mid/high voltage transmission lines rather than to the low voltage connections that would be needed for natural gas compression. In addition to the construction of the mid/high voltage transmission lines, electric sub-stations to step the voltage down would also be needed at each electric-driven compressor station.</p> <p>In addition, Tennessee notes that electric generation capacity in the four states in which new compressor stations will be installed as part of the Project is generated by using various fuel types, including coal, oil, and wood. Each of these fuel types have significantly more CO₂, NO_x and SO₂ emissions per amount of energy consumed than natural gas.</p> <p>Based on the factors discussed above, Tennessee has chosen to install natural gas-driven compression at all but one of the new compressor stations proposed to be constructed as part of the Project. Tennessee notes that it is proposing to install electric compression at the Market Tail Station near Dracut, Massachusetts due to a combination of factors unique to that area, including the compressors station being located in a non-attainment region; proximity to residential and commercial structures; proximity to appropriate medium voltage supply to run the electric-driven compression; and the anticipated highly variable operation at this compressor station and its smaller size as compared to the proposed stations to be installed on the mainline of the Market Path Component.</p>

Issue	Summary of Comments	Response
<p>Route Alternatives</p>	<p>Comment from the Town of Tewksbury suggesting three possible route alternatives.</p>	<p>After evaluating the three route alternatives proposed by the Town of Tewksbury, Tennessee has determined that it will continue to pursue the currently proposed route for the Project through the town for the following reasons:</p> <ol style="list-style-type: none"> 1. <u>Alternative Re-Route 1- Haverhill Lateral Co-Localization</u> - Due to the fact that the existing Maritimes Line, Haverhill Lateral, and existing power line all run in the same utility corridor, construction of an additional pipeline within this corridor would be not be feasible without excessive encroachments on nearby properties and neighborhoods due to congestion. There are additional constructability concerns for the new pipeline given the close proximity to the two existing pipelines, such as structures that are built up to the roadway of I-93 as well as bridge abutments and concrete piers. Based on these considerations, the proposed route is preferred. 2. <u>Alternative Re-Route 2- High Plain Crossing</u> - Due to the slope alongside the bank of the Merrimack River, constructing a pipeline in this area would require clearing of a false right-of-way for the pull back and additional environmental impacts would occur due to close proximity of the river. Based on these considerations, the proposed route is preferred. 3. <u>Alternative Re-Route 3- I-495 Co-Localization</u> - As with the High Plain Crossing, this reroute would increase new (greenfield) Article 97 Commonwealth owned land disturbance. Also, construction of pipeline parallel to highways/interstates is not preferred due to structures built up to the road easement and bridge abutments. Additionally, access to the site would disturb additional landowners since it is unlikely the highway department will allow access to the construction site on or off the highway. Due to these considerations, the proposed route is preferred.
	<p>Comments suggesting that the pipeline be routed along existing hardscape and previously disturbed hardscape infrastructure such as existing highways or within existing pipeline corridors, not undisturbed lands.</p>	<p>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.</p>

Issue	Summary of Comments	Response
	<p>Commenter stating that pipeline co-location with the I-90 corridor is less intrusive, safer, and easily maintainable than co-location with the National Grid ROW.</p>	<p>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.</p>
	<p>Landowner comments requesting minor route deviations.</p>	<p>Landowner requested route deviations are set forth and Tennessee's response to those requests are included in Section 10.3.3.1 and Table 10.3-16 in Resource Report 10 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p>
	<p>Several comments suggesting that the pipeline should be moved back to Massachusetts since it does not benefit New Hampshire.</p>	<p>Tennessee extensively evaluated the option of installing the NED Project adjacent to its existing ROW. 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.</p> <p>Subsequent to the submission of drafts of Resource Reports 1 and 10 on November 5, 2014 in Docket No. PF14-55-000, Tennessee revised the proposed route of the Project to locate the Wright to Dracut Pipeline Segment along a portion of a powerline corridor located in New Hampshire (referred to as the New Hampshire Powerline Alternative, Section 10.3.1.8 in draft Resource Report 10, dated November 2014). On December 8, 2014, Tennessee submitted a filing to FERC in which it adopted the New Hampshire Powerline Alternative as its proposed route for a portion of the Market Path component of the Project. This proposed route modification for the Market Path component of the Project was intended to address comments and concerns expressed by affected stakeholders across various areas of the Project. Additionally, the proposed route modification, which takes advantage of a greater percentage of co-located facilities with existing power utilities, will provide economic service to several areas in northern Massachusetts and southern New Hampshire that are not currently served by an interstate pipeline.</p>

Issue	Summary of Comments	Response
<p>Other Alternatives</p>	<p>Comment suggesting Gas-to-Power/Gas-to-Wire whereas large-scale electric power generation from natural gas could be generated closer to the wellheads and then transmitted by transmission lines.</p>	<p>Gas-to-Power/Gas-to-Wire alternatives do not meet the purpose and need of the proposed Project. Multiple studies have concluded that additional pipeline infrastructure is needed in the region to serve increasing demand from LDCs and the power sector. Tennessee will construct, install, and operate the NED Project facilities to meet the growing demand for natural gas transportation capacity in the northeast U.S. Please see Article IX, Public Convenience and Necessity and Compliance with Certificate Policy Statement, in the certificate application and Section 1.1.1, Purpose and Need, in Resource Report 1 of the Environmental Report, included as Exhibit F-1 to the certificate application, for a detailed discussion of the purpose and need for the Project.</p>
	<p>Comments suggesting LNG transport since the cost of transport per mile is less than for natural gas pipelines.</p>	<p>LNG transport does not meet the purpose and need of the Project. Energy must move from where it is produced to where it is consumed for heating and generating electricity. By far, underground pipelines are the safest way to move it. According to the USDOT's PHMSA, transporting oil and gas by truck and rail rather than utilizing buried pipelines poses greater risks to public safety and the environment.</p>
	<p>Comments suggesting building a gas storage facility near power generation plants to provide additional supply when needed instead of building the pipeline.</p>	<p>The NED Project is proposed to meet the growing needs of LDCs, power generators and industrial users for a domestically produced, clean-burning and environmentally friendly energy source to serve New Hampshire and New England. LDC demand growth stems not merely from the needs of their existing customers but also from significant initiatives by LDCs to convert homeowners to natural gas for heating to reduce dependence on more expensive, less environmentally friendly heating oil. Natural gas also benefits the power generation sector as older coal plants are retired and nuclear generating plants are replaced over time. Of additional significance, intermittent renewable generation technologies, such as wind and solar, require additional gas-fired generation for backup.</p> <p>The governors of the region and various customer groups are calling for up to 2.0 billion cubic feet per day of new gas pipeline capacity into the region in order to help bring natural gas prices down. The NED Project assists in achieving those regional energy goals.</p> <p>The NED Project was conceived in response to repeated requests from potential customers and governmental agencies in New England for a pipeline project of sufficient size to meet the growth in natural gas consumption that is forecasted to occur during the next decade in the northeast U.S., predominantly in New England, while keeping delivered gas prices at reasonable levels and minimizing price spikes that have occurred historically, including during the 2013-2014 winter.</p>

Issue	Summary of Comments	Response
	<p>Comments regarding the plan by Spectra Energy to expand the capacity for delivery of gas into New Hampshire along existing Spectra pipelines.</p>	<p>Based on publicly available information, Algonquin Gas Transmission's ("AGT") AIM Project was successful in attracting binding shipper commitments. A certificate order for the AIM Project was issued by the Commission on March 3, 2015 in Docket No. CP14-96-000. The AIM Project began construction in June 2015 and is anticipated to be placed in-service in November 2016. AGT's Atlantic Bridge Project was also successful in attracting binding shipper commitments and has initiated the Commission's pre-filing process in Docket No. PF15-12-000. The Atlantic Bridge Project is anticipated to be placed in service in November 2017. Spectra's Access Northeast Project, which will include approximately 125 miles of pipeline replacement, looping, and laterals, as well as LNG storage, liquefaction, and vaporization facilities, filed a letter requesting to use the Commission's pre-filing process on November 3, 2015.</p> <p>While the projects identified above share the general common goal with Tennessee's NED Project of transporting natural gas to northeast U.S. markets, including New York and New England, there are significant differences. While Tennessee's market area does partially overlap with AGT's and Millennium's market areas (for example in southeastern New York), there also are many other areas where only one or two of the pipeline systems have existing infrastructure, or where one pipeline can offer a more economical solution for transporting incremental gas supplies. In general, Tennessee's existing system serves more of western and northern Massachusetts, while AGT serves southeast Massachusetts. While either pipeline company will serve growing markets in Massachusetts, each company is typically better positioned to serve certain geographic areas due to the location of each company's existing pipeline infrastructure. However, the NED Project uniquely enables service to all areas of Massachusetts given its ability to serve the Tennessee 200 Line system as well as various markets on the AGT system.</p>

Issue	Summary of Comments	Response
		<p>This Project has the potential to provide high pressure volumes to AGT through the Joint Facilities, Maritimes and Northeast Pipeline, and AGT's Hub Line Pipeline system, which are needed to replace the rapidly declining imports from Canada. Additionally, via a backhaul, the Project significantly increases the capacity of Tennessee's 200 Line system and will increase deliverability at an important supply feed to AGT's system via an existing Tennessee-AGT interconnect at Mendon, Massachusetts. New England is experiencing the highest electricity and natural gas prices in the continental United States, which can be mitigated or eliminated through contracting for additional pipeline capacity in the region. Natural gas is the environmentally cleanest fossil fuel, and new supplies of gas capacity will create the opportunity for residences and businesses to convert from oil and other fuels for heating and manufacturing to less expensive and cleaner natural gas. Natural gas-fired generation is a necessary backup source of generation to support the growth in renewable technologies such as wind and solar that have intermittent and non-dispatchable characteristics.</p>
	<p>Comments requesting information as to why Kinder Morgan has not explored upgrading its Concord Delivery Line and/or other Tennessee existing pipelines, like the 200 Line, as alternate options to the NED Project.</p>	<p>Tennessee has evaluated a combination of both the New York and Existing 200 Line Alternatives as compared to the proposed route of the Wright to Dracut Pipeline Segment. This alternative route would cross both undeveloped and developed areas within New York and Massachusetts and would then be co-located with Tennessee's 200 Line and extend southeast, cross the Connecticut border, and rejoin the proposed route at Segment K, MP 2.45 (Figure 10.3-11a and Figure 10.3-11b). Significant rerouting of proposed laterals, and additional new laterals, would be required for this alternative. This alternative is analyzed in Section 10.3.1.2.7, Resource Report 10 of the Environmental Report, included as Exhibit F-1 to the certificate application.</p>
	<p>Comments suggesting other methods for transporting natural gas, such as Compressed Natural Gas, Gas-to-Solid, and Gas-to-Liquid.</p>	<p>Based on commercially available Compressed Natural Gas ("CNG") jumbo tube trailers, such as Marlin CNG Services, located in Hudson, Florida, a daily total of 7,831 truckloads of CNG would be required to supply the NED Project Market Path Component capacity of 1.3 Bcf per day. This is based on each jumbo tube trailer holding 166 Mcf at 3000 psig. Marlin would provide a regulation skid to deliver the gas at the required delivery pressure. Marlin owns 35 tanker trucks. Assuming that Marlin owned 4,000 trailers, which would allow filling the tanks twice per day to reach the required 7,831 loads, the time required to load (2 hours minimum), transport, deliver, drive to the fill point, load, transport and deliver is not physically possible in one day's time. This further assumes that the load point is a producing facility in the Merseles area and that all 4,000 trailers would not be able to instantly deliver their loads once the trailers arrive at the delivery point. Based on this analysis, Tennessee does not consider CNG to be a reasonable alternative to the NED Project.</p>

Issue	Summary of Comments	Response
	Comments requesting an analysis of the Concord Lateral as an alternative to NED.	An analysis of utilizing the Concord Lateral as an alternative to NED will be conducted and supplied to FERC in a supplemental filing.
	Suggestions regarding upgrading existing gas lines, including Portland Gas.	Tennessee does not have the authority to propose upgrades to existing gas lines owned by other companies.
Resource Report 11: Reliability and Safety		
General Safety	Comments stating a concern for the general safety of land and residents in the vicinity of gas being transported under high pressure.	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. Pipeline safety, construction, and maintenance is a highly regulated, strictly monitored practice with continuous involvement from federal, state and local entities, as well as Tennessee engineers and safety experts. The NED Project will be designed, installed, operated, and maintained in accordance with best industry practices and federal safety and operational regulations for interstate natural gas pipelines. These standards and practices have been developed with the benefit of nearly one hundred years of operating experience and increasing regulatory requirements. Pipeline operating conditions will be electronically monitored 24/7, 365 days a year from Tennessee's Gas Control Center in Houston, Texas. Personnel in the Gas Control Center are able to remotely make equipment adjustments and address issues.
	Comments expressing concerns about blasting from nearby areas (e.g., quarry) impacting the pipeline and causing leaks and potential explosions.	Anyone conducting blasting will be required to comply with applicable regulatory requirements for each state to ensure that blasting is conducted in a safe manner and limits potential damage to existing structures in the area, including pipelines. Therefore, blasting from nearby areas will be conducted in compliance with regulatory requirements and permits to ensure that there are no impacts to the NED pipeline. Additionally, Tennessee monitors third-party blasting activities near its facilities to ensure that they are not damaged.

Issue	Summary of Comments	Response
	<p>Comments expressing concerns about the Project facilities becoming a target for terrorists.</p>	<p>Tennessee has established security plans in place to address numerous threat vectors. Details concerning specific security measures are protected against unauthorized disclosure. Tennessee’s security plans are based on established pipeline security guidelines, with an emphasis on a risk-based approach. Security measures are designed to mitigate risks, threats and vulnerabilities at baselines and increased threat levels. Tennessee’s security plan and assessment process is a risk-based approach designed to deter, detect, and delay potential threats to assets; reduce vulnerabilities; and to ensure resiliency to the maximum extent possible Tennessee has an established incident reporting system involving security information and threats. Additionally, Tennessee incorporates the elements of the National Terrorism Advisory System within the process to communicate threatening situations.</p>
	<p>Comment asking if Tennessee will construct a cistern or other water source for dissipation of vapors at the compressor sites where there is no municipal water? Also, will Tennessee maintain a foam bank for fire suppression at the compressor station sites?</p>	<p>A vaporization system is not required. Adequate fire suppression controls will be installed at each compressor station site. Additionally, Tennessee’s Gas Control Center staff are able to shut down facilities remotely if necessary, including depressurizing the piping in a compressor station. The control systems are located in the compressor building which will also have heat, fire, and gas detection equipment.</p>
	<p>Comments expressing concerns about the potential for residents to evacuate in the case of a pipeline emergency if their only egress is cut off by the pipeline.</p>	<p>A catastrophic accident is highly unlikely with modern engineering practices and materials of construction. Under Section 192.615 of the USDOT Regulations, 49 CFR § 192.615, each pipeline operator must establish an Emergency Plan that provides written procedures to minimize the hazards from a gas pipeline emergency. Each pipeline operator must establish and maintain liaison with appropriate fire, police, and public officials to learn the resources and responsibilities of each organization that may respond to a gas pipeline emergency, and coordinate mutual assistance in responding to emergencies. The pipeline operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to the appropriate public officials. Tennessee will continue its existing public education programs and will furthermore comply with these regulations by developing and implementing the Emergency Response Procedure prior to commencement of pipeline operations for the proposed Project facilities.</p> <p>In the unlikely event of emergency response is required, notifications will be made to 911, internal (control center) and external (National Response Center, state agencies and other county/local and tribal notifications as necessary. An incident command system will be activated with Unified Command. Emergency Responders (fire, police etc.) will conduct firefighting, search and rescue, evacuations, road closures, perimeter control, hazmat response. The emergency responders will evaluate whether to evacuate or shelter-in-place where the public is advised to remain in their homes.</p>

Issue	Summary of Comments	Response
		<p>During construction, a travel lane will be established as part of the construction temporary workspace. The travel lane, which provides for efficient construction and safety, allows travel along the pipeline workspace in case of emergency. Access around the construction areas will be provided for landowners.</p>
	<p>Comment requesting that Brookline, New Hampshire, be considered a High Consequence Area ("HCA") because of the crossing of Route 13 (with traffic counts approaching 10,000 vehicles per day), the nearly 20 buildings intended for human occupancy, and the numerous building lots actively on the market within the potential impact circle.</p>	<p>HCAs are defined in the USDOT's regulations, 49 CFR Part 192, as areas where a release could have the most significant adverse consequences and are based upon populations, the current mainline pipe diameter, and maximum allowable operating pressure. Areas within the potential impact radius, as defined in Section 192.903, 49 CFR § 192.903, which contain 20 or more structures intended for human occupancy; buildings housing populations of limited mobility; buildings that would be hard to evacuate (e.g., nursing homes, schools); or buildings and outside areas occupied by more than 20 persons on a specified minimum number of days each year, are defined as HCAs. Brookline does not meet the USDOT criteria for an HCA.</p>
<p>Leaks and Explosions</p>	<p>Comments regarding the potential for leaks and explosions and impacts to residents in the "incineration zone".</p>	<p>'Incineration' zone is not a term used in the USDOT's regulations, 49 CFR Part 192, the Commission's regulations, or by the industry. Per the Commission's landowner notification regulations, Tennessee has identified all landowners located within ½ mile of the proposed compressor station site properties as affected landowners and has provided notification of the Project to these landowners. Notification of the certificate application will be provided to those landowners as well. The ½ mile "FERC Identification Boundary" to determine affected landowners has been referred to by the term "incineration zone" by commenting parties. The use of the term "incineration zone" to refer to the notification area required by the Commission is not based on any regulation or industry practice.</p>
<p>Decommissioning</p>	<p>Comments expressing concerns regarding long-term effects of leaving the pipeline and structures in place after decommissioning.</p>	<p>In the event that the pipeline/facilities are abandoned (or decommissioned) in the future, Tennessee will request abandonment authority from the Commission and comply with the conditions contained in the abandonment order issued by the Commission.</p>

Issue	Summary of Comments	Response
	<p>Comments regarding the expected life of the pipeline and plans for decommissioning and abandonment.</p>	<p>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.</p> <p>Abandonment of unused or retired pipelines is under the jurisdiction of the Commission. The Commission 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.</p> <p>Additionally, a Decommissioning Plan will be submitted as part of the New Hampshire Site Evaluation Committee application.</p>
<p>Pipeline Standards and Inspections</p>	<p>Comments regarding pipeline safety standards in rural areas since they are much lower than in urban areas.</p>	<p>The Commission is not directly responsible for pipeline safety but does approve the siting and abandonment of interstate natural gas pipelines and storage facilities and requires that the pipeline follow appropriate federal and state regulations.</p> <p>The USDOT's PHMSA, acting through the Office of Pipeline Safety ("OPS"), administers the USDOT's national regulatory program to assure the safe transportation of natural gas, petroleum and other hazardous materials by pipeline. The OPS develops regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance and emergency response of pipeline facilities. Pipeline safety regulations are set forth in the 49 CFR Part 192, Transportation of Natural Gas and Other Gas By Pipeline: Minimum Federal Safety Standards.</p> <p>Pipeline Classification Areas range from Class 1 (areas with the least population density) to Class 4 (areas that consist predominately of high rise buildings). The pipeline design is required to take into account the future expansion of an area. In addition, pipeline companies are required by the USDOT's regulations, 49 CFR Part 192, to monitor the population density on a regular basis and to confirm or reduce the maximum allowable operating pressure accordingly should the population density change. Thus, the initial pipeline wall thickness will reflect planning for continued population growth. In addition, Tennessee will operate the pipeline at pressures consistent with the PHMSA regulation as demographics of location change over time.</p>

Issue	Summary of Comments	Response
	<p>Comments questioning what safety precautions are taken regarding software, internet etc. that relays failure messages - for the ensured operation and to keep them safe from hackers?</p>	<p>Tennessee uses state-of-the-art, automated emergency detection systems, including ultraviolet/infrared detectors, gas detectors, and rate-of-rise heat detectors mounted at various points inside the compressor building. Data from these detection systems are fed into the compressor station computer which will, in turn, shut down compressor station operations and isolate the compressor station in an emergency situation. Tennessee's security program employs security measures consistent with the TSA's Pipeline Security Guidelines. Compressor station operations are monitored continuously (24/7 /365) by the Gas Control Center in Houston, Texas, and operations personnel typically staff compressor stations Monday through Friday during normal business hours. Compressor stations may be manned full-time (24 /7) during significant weather events, such as snowstorms.</p>
	<p>Questions regarding how often the pipelines will be "pigged".</p>	<p>The product being transported in the pipeline is pipeline quality natural gas and, as such, the pipeline does not require routine cleaning or pigging. The natural gas has been treated and processed, and impurities removed. The gas is of the same quality that is delivered directly into homes, businesses and schools. Tennessee typically runs cleaning pigs every three to seven years depending on operating conditions. Typically, the vendor of the in-line inspection tools requires that these pigs are run prior to running the in-line inspection tool, which is done approximately every seven years.</p>

Issue	Summary of Comments	Response
	<p>Questions regarding how often the pipeline will be inspected.</p>	<p>The requirements for patrolling and leakage surveys are set forth by the USDOT in 49 CFR Section 192.705, Transmission Lines: Patrolling, and Section 192.706, Transmission Lines: Leakage Surveys. The frequency of the patrolling varies based on the class location (which varies depending on population density). For a class 1 or 2 location, the requirement for patrolling is at least once per year and for a class 3 location is at least twice per year. Highway and railroad crossings are patrolled more frequently. Methods of patrolling include walking, driving, flying or other appropriate means of traversing the permanent easement.</p> <p>Tennessee exceeds the USDOT's requirements and the pipeline system is inspected at least 26 times a year by air, vehicle or foot. On Tennessee's existing system, the company currently performs aerial patrols every other week from April through October and once per month from November through March. These patrols look for ongoing construction activities near the pipeline, signs of any leaks (i.e. dead vegetation), signs of ground disturbance, exposed pipe and any other hazard that could affect the pipeline.</p> <p>Tennessee closely monitors pipeline operations, including line pressure and surveillance of the pipeline to detect leaks and protect against third-party damage. Tennessee also uses state-of-the-art, in-line inspection tools, known as smart pigs, to periodically internally inspect the pipeline in accordance with USDOT regulations, 49 CFR Part 192.</p>
	<p>Comments expressing a concern that the shut-off valves are very far apart in rural areas.</p>	<p>Valve spacing is determined by many factors, but minimum spacing is defined in the USDOT's OPS, PHMSA regulations, 49 CFR Part 192. In areas of low population density (defined as Class 1), valves may be located up to 20 miles apart. In areas of medium population density (defined as Class 2), valves may be located up to 15 miles apart. In areas of high population density (defined as Class 3), valves may be located up to 8 miles apart.</p> <p>As part of the proposed pipeline design, Tennessee will be using remote controlled valves ("RCV") and each MLV will have an automatic closure feature that will close the valve when it senses any abnormal change in pressure. Valve spacing is determined by many factors but minimum spacing is defined in the PHMSA Regulations, 49 CFR Part 192. In areas of low population density (defined as Class 1), valves may be located up to 20 miles apart. In areas of medium population density (defined as Class 2), valves may be located up to 15 miles apart. In areas of high population density (defined as Class 3), valves may be located up to 8 miles apart. The locations of the RCVs are being determined as part of the route evaluation, including the area classifications. All RCVs installed can be locally operated manually. All RCV sites will be fenced and locked to prevent vandalism and impact from off road vehicles.</p>

Issue	Summary of Comments	Response
<p>Public Health</p>	<p>Comments expressing concerns that pipelines and compressor stations pose a threat to human health, including increased cancer risk, due to potential impacts to water and air quality.</p>	<p>The natural gas that Tennessee transports on its existing pipeline system, and will transport through the proposed compressor station, is “pipeline quality” natural gas, as required by Tennessee’s FERC Gas Tariff. This gas will also be the fuel that is used to power the equipment at the compressor station. Pipeline quality natural gas is gas that ultimately is consumed by much of the public and private infrastructure, including homes, businesses, government offices, and schools, among other end-users. This natural gas has already been treated and/or processed prior to its entry into the interstate pipeline network to meet tariff specifications (so the impurities have been removed).</p> <p>Other criteria pollutant (NOx, CO, VOC) emissions will be reduced by installing turbines equipped with lean premix technology. The use of pipeline quality natural gas as fuel used to power the equipment will ensure that emissions of particulates or SO2 will meet current air permitting requirements. The emissions must comply with NAAQS set by the USEPA. The NAAQS are health based standards to provide protection of human health and the environment.</p> <p>Tennessee is working with INGAA to develop a study to document the current federal and state permitting requirements and how they are protective of public human health and the environment. Furthermore, Tennessee’s employees work at the compressor stations. The USEPA air permitting requirements followed by Tennessee provide evidence the emissions from the compressor stations are protective of public health.</p>
	<p>Comments expressing concerns about potential health impacts from compressor station noise and vibrations.</p>	<p>Tennessee will comply with the Commission’s noise level requirement of 55 dBA leq nighttime. Fifty-five decibels is equivalent to a quiet conversation indoors or a running refrigerator. Tennessee uses the latest in noise-dampening technology to reduce noise as much as possible. Station noise is minimized through exhaust silencers, building noise insulation, and quieter compressor generators. These measures allow for compliance with the regulated noise level of 55 decibel to the nearest NSA, such as homes and schools. Where possible, Tennessee will leave a wooded area around a compressor station to minimize the sound and decrease visibility of the compressor station.</p>
	<p>Comment requesting that the entire route of the proposed NED Pipeline be evaluated to determine the impact of further forest fragmentation on the spread of not only Lyme diseases but any of the other 16 pathogens that are spread by ticks in the area. This should include how the new environment created by the NED Pipeline will impact the incidents of these diseases in the Northeast and the economic impact of these increased disease incidents.</p>	<p>Tennessee is proposing to co-locate with existing utility easements for the majority of the route, which will reduce forest fragmentation. Additionally, Tennessee is preparing an interior forest analysis to determine the extent of forest fragmentation and will provide the results of that analysis to the Commission when completed.</p>

Issue	Summary of Comments	Response
<p>Emergency Response</p>	<p>Comments expressing concerns that local emergency responders (e.g., local volunteer fire departments) will not be able to respond adequately to accidents, response time for emergency vehicles, emergency response in remote locations with incomplete cellular phone service/inadequate communication infrastructure, and impassable roads in winter months.</p>	<p>Tennessee communicates regularly 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. Annually, Tennessee’s local employees contact local emergency responders to answer questions and provide additional information related to emergency response, safety and local contact information. As the NED Project is constructed, placed in-service and operated as part of the Tennessee 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.</p> <p>The meetings held in communities along the Tennessee system provide first responders with information about responding to a natural gas incident. In addition, Tennessee periodically conducts mock emergency drills with local responders and, upon request, will hold open houses at its 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.</p> <p>Tennessee will provide free training to emergency personnel prior to the Project facilities being placed in service. A list of the available training is provided below. Tennessee will make contact with applicable emergency responders each year to make sure that the contact information is accurate, answer any questions that they may have, and offer follow up training as needed.</p> <p>The initial and requested follow up training consists of the following:</p> <ul style="list-style-type: none"> • Overview of Pipeline Facilities and Operations • Tour of Facilities (applicable to what is in area) • Properties of Natural Gas • Responding to a pipeline emergency • Communication during an emergency (Incident Command Structure) <p>Tennessee works with emergency responders to schedule the training so that there is minimal financial impact to them. Tennessee does not reimburse emergency responders for any overtime.</p>

Issue	Summary of Comments	Response
Comments Outside the Scope of the Resource Reports		
Fracking	Comments questioning whether the Marcellus Shale holds enough supply to validate the building of this and other pipelines.	Tennessee's system receives natural gas from multiple sources in several regions across the United States and is not dependent on one particular shale area or gas field's performance or field life. Tennessee is a natural gas transportation company, not a drilling and production company. Tennessee's pipeline system serves customers under transportation service agreements. Because Tennessee does not drill for the natural gas, Tennessee has not performed estimates for future projected gas yields in any particular shale areas. Please see Article IX, Public Convenience and Necessity and Compliance with Certificate Policy Statement, in the certificate application and Section 1.1.1, Purpose and Need, in Resource Report 1 of the Environmental Report, included as Exhibit F-1 to the certificate application, for a detailed discussion of the purpose and need for the Project.
	Comments regarding the release of fracked gas through MLVs and compressor stations and the potential impacts to soils and water from the chemicals used in the fracking process that would be released during blowdowns.	The natural gas that Tennessee transports on its existing pipeline system, and will transport through the Project facilities, is referred to as "pipeline quality" natural gas. Pipeline quality gas is gas that ultimately is consumed by the public, including homes, businesses, and schools, among other end-users. This natural gas has already been treated and processed prior to its entry into the interstate pipeline network so the impurities have been removed. Benzenes and other hazardous air pollutants that may be present as a result of production have been removed prior to custody transfer into the Tennessee pipeline system.

Issue	Summary of Comments	Response
Export of Gas	Comments expressing concerns that the gas being transported will be exported and not used in New England.	<p>The NED Project is being developed specifically to provide much needed additional natural gas transportation capacity to the northeast U.S. for regional electric generation and local distribution companies who need the additional transportation capacity to serve increasing customer demand in their service territories, while keeping delivered gas prices at reasonable levels and minimizing price spikes that have occurred historically, including during the 2013-2014 winter. As of the date of the certificate application, on the Supply Path Component (as defined in the certificate application), Tennessee has executed precedent agreements for 751,650 Dth per day of firm transportation capacity with a variety of shippers, including four LDCs, one municipal light department, and two producers. On the Market Path Component (as defined in the certificate application), Tennessee has executed 552,262 Dth per day of long-term firm transportation capacity with a variety of shippers, including seven LDCs, one municipal light department, one industrial end-user, and one holding corporation. The signed precedent agreements, including a summary of those precedent agreements and a list of the end use of the natural gas by the Project Shippers, is set forth in Exhibit I to the certificate application. In addition, through the NED Project, Tennessee is uniquely positioned to serve the growing demand for natural gas to meet the needs of the Northeast and New England's gas-fired electric generation fleet. NED will significantly enhance Tennessee's ability to serve new and existing gas-fired generation customers while increasing electric reliability and lowering energy costs for the New England region. Tennessee is actively engaging EDCs and power generators to discuss Tennessee's new planned enhanced firm services for gas-fired generators, which will provide the opportunity for EDCs to proactively reserve capacity on NED for use by generators, as well as contracting directly by generators.</p> <p>Under the NGA, Tennessee is an open-access interstate pipeline system subject to the regulations and policies of the Commission, which require that transportation capacity be allocated on a not unduly discriminatory basis. Under the Commission's regulations and policies, Tennessee cannot discriminate among customers based on the ultimate destination or use of the gas, including via export. The ultimate destination of the gas and associated volumes is within the sole control of the Project shippers.</p>
Eminent Domain	Comments regarding the use of eminent domain for private gain.	As part of the certificate application, Tennessee has provided information to demonstrate that the Project is in the public convenience and necessity. If the FERC concludes that the NED Project is in the public convenience and necessity and issues a certificate order authorizing the Project, eminent domain authority will be available pursuant to the NGA. However, the use of eminent domain to obtain easements is a last resort and will only be used after extensive consultation and negotiations with affected landowners. Tennessee's goal is to avoid the use of eminent domain and arrive at mutually beneficial terms and conditions with affected landowners to obtain needed easements for the Project.

Issue	Summary of Comments	Response
Scoping Sessions	Comments requesting Scoping Meetings in each town affected by the pipeline route and compressor station locations.	Tennessee is committed to keeping the towns along the proposed NED Project route informed about the project and its developments. Tennessee held 20 open houses for the Project during the pre-filing phase of the Project (Docket No. PF14-22-000), as well as 10 community information sessions. The Commission conducted 14 scoping meetings in the Project area during the pre-filing process. Six additional public meeting sessions will be held in New Hampshire as part of the Site Evaluation Committee application process. Tennessee is open to scheduling additional information sessions in these communities if requested.
Tariffs	Comments expressing concerns about funding of pipeline construction through a tariff.	<p>The proposed NED Project is not relying on subsidies to be built. The NED Project is a stand-alone project that will be owned by two joint ventures and constructed and operated by Tennessee under its exclusive possession and control, as discussed in the certificate application. The Project is supported by the Project Shippers who have entered into precedent agreements with Tennessee.</p> <p>Recent initiatives by the New England Governors and the New England States Committee on Electricity, 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 EDCs (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.</p>

Issue	Summary of Comments	Response
<p>Company Reputation</p>	<p>Comments expressing concerns about Tennessee's safety record.</p>	<p>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 versus other sectors.</p> <p>Kinder Morgan and its Tennessee subsidiary, as well as other Kinder Morgan companies, are committed to public safety, protection of the environment, and operation of its facilities in compliance with all applicable rules and regulations. Natural gas pipelines fall under the regulatory oversight of the USDOT PHMSA. Kinder Morgan has an outstanding safety program and complies with all applicable safety regulations. Kinder Morgan outperforms its peers on a majority of safety and operational measures, and its safety record is posted online.</p> <p>The data available through this link represents the number of USDOT reportable incidents per 1,000 miles of transmission and regulated gathering pipe that Kinder Morgan operates. It is reported using 12-month and three-year average rates, and compares Kinder Morgan's performance to the industry average. In addition, USDOT Incident data categorized as a rupture is also presented as a rate per 1,000 miles of onshore transmission and regulated gathering pipe that Kinder Morgan operates. It is reported using annual and three-year average rates, and compares Kinder Morgan's performance to the industry average. This data shows that for gas pipeline (PHMSA reportable) incident data for a three-year average, Kinder Morgan's transmission and regulated gathering was 0.25 versus 0.38 for the U.S. industry average. For ruptures (defined as a break, burst or failure) on a three year average Kinder Morgan's transmission and regulated gathering was 0.03 versus 0.07 for the U.S. industry average. By both metrics, Kinder Morgan has consistently outperformed the industry average.</p> <p>Kinder Morgan's Environment, Health and Safety Performance measures compared to the rest of the U.S. industry are available on our web page: http://www.kindermorgan.com/pages/ehs/ehs_performance/default.aspx</p>

Issue	Summary of Comments	Response
	Comments expressing a concern about Tennessee's environmental record.	Tennessee's construction projects adhere to the strictest environmental standards for clean air, water, and habitat and the NED Project will undergo a comprehensive environmental review as part of the Commission's certificate process. Tennessee will work with regulatory agencies, landowners, and the broader community to address specific concerns regarding the pipeline route and makes every possible effort to set design criteria that avoid and minimize impacts to critical and sensitive habitats and lands, such as wetlands, threatened and endangered species, culturally sensitive areas and public lands.
FERC Application and NEPA Documentation	Comments requesting that an Environmental Impact Statement be prepared.	The Commission has previously issued a notice as part of the pre-filing process (Docket No. PF14-22-000) that Environmental Impact Statement will be prepared for the proposed Project.
	Comment stating that hyperlinks in the Resource Reports and Attachments do not all work.	Hyperlinks will be enabled in the Environmental Report and attachments. If not directed to the website immediately while using a hyperlink, please copy and paste the url into a browser.

This page intentionally left blank