



**Office of Board of Selectmen
Town of Mason**

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October 15, 2015

Kimberly D. Bose,
Secretary Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426


Comments of the Board of Selectmen, Town of Mason NH
Re: Tennessee Gas Pipeline Company, L.L.C. ("TGP")
Docket No. PF14-22-000: Proposed Northeast Energy Direct ("NED")


Dear Ms. Bose:


The Town of Mason, Board of Selectmen respectfully submits the Town's official comments related to the proposed NED and Fitchburg lateral pipeline. Our comments diligently address several areas of concern raised by the Residents, Board of Selectmen, Conservation Commission, Pipeline Advisory Committee and our Environmental Consultant.

Please feel free to contact the Board of Selectmen with any questions you may have.

Regards,


Bernard J O'Grady, Chairman


Louise M Lavoie, Selectman


Charles V Moser, Selectman

General Request

1. In order to assess potential Affected Environments, the degree and severity of Environmental Consequences and proposed Mitigation (40 CFR 1508.20) actions for the proposed NED Pipeline, adequate detail is necessary (40 CFR 1501.2(b)). Therefore, special studies (40 CFR 1502.25), conducted by those with special expertise (40 CFR 1508.26) are

necessary as part of the NEPA planning process for this project. To meet these requirements, please include as part of the Environmental Impact Statement:

- Quantitative Pipeline Risk Assessment (Department of Transportation);
- Social Impact Assessment;
- Engineering Study on Infrastructure Impact; (NH DOT regulations as condition of approval)
- Cultural Resource Surveys;
- Environmental Due Diligence Reports, including Phase I reports for any identified impacts;
- Wetland Delineations by Environmental Protection Agency (EPA) and Army Corps of Engineers 1987 manual which is the most common delineation standard that all NH Certified Wetland Scientists are required to know how to follow. We suggest requiring the ACOE Standard, and requiring a NH Certified Wetland Scientist do the actual field work.
- Air quality Studies (EPA);
- Water quality Studies (EPA);
- Sole Source Aquifer Assessment, (EPA);
- Natural Resource Study; to include a Natural Resource Inventory
- Endangered Species Study (U.S. Fish and Wildlife Service & NH Natural Heritage Bureau) NHHNB is clearing house for vast majority of rare plant and animal species tracked by the State of NH including, rare natural communities which are tracked by NHHNB.

Geology and Soils

Forest

Productive forest soils may be impacted during the construction of the proposed pipeline. Please identify the areas of productive forest soils to be impacted and identify mitigation efforts in light of removing this resource for future use as productive soils for our forests.

Frozen Ground During Winter

Our soils in the winter are to know to experience various levels of freezing and thawing, which can affect a variety of types of infrastructure. Please provide information on how the proposed pipeline will be installed that will not be affected by periodic freezing and thawing.

Horizontal Directional Drilling (HDD)

Since HDD or other types of drilling may be used for pipeline installation under wetlands and stratified drift aquifers please provide a thorough description of all drilling processes to be used, including the types of equipment, processes, and material used.

Steep Slopes

Please identify all steep slopes along the pathway of NED and the Fitchburg lateral and provide a mitigation plan for erosion control.

Farmland

1. Please assess the long-term impact on crop yield from soil disturbance and increased ground temperature in farmlands adjacent to pipeline.
2. Significant farmland soils may be impacted during the construction of the proposed pipeline. Please identify the areas of significant farmland soils to be impacted and identify mitigation efforts in light of removing this resource for future use as productive farmland.

Blasting

1. Please locate on a map all potential blasting areas and list the anticipated depths and composition of the explosive charges.
2. Please assess the affects and impacts of blasting to soils, vegetation, wildlife and local hydrology within 1500 feet of the centerline of blast site.
3. Please compare the technology of hammering versus blasting to trench for pipe in bedrock. Determine which method has the least risk to water quality and quantity, especially on the quality and stability of aquifers and water supplies.

Faults

Please explain the measures being taken to minimize the consequences to the covered segment of the pipeline from outside force damage due to future potential seismicity associated with the Campbell Hill Fault Zone.

Water Resources and Wetlands

Water Quality, Aquifers, Wetlands, Surface Water

1. We are requesting that private well owners within 1500 feet of the proposed NED and/or Fitchburg lateral pipeline have their wells tested at Kinder Morgan and their affiliates expense by a state certified laboratory for flow rate, general water quality parameters, dissolved metals, and oil and hazardous materials likely to be used in the installation, maintenance, and future monitoring/operation of the pipeline. Given the seasonal variations that affect groundwater hydrology in the Northeast, initial testing to establish background concentrations should include testing representative of all 4 seasons. Well testing should occur before, during and after construction.
2. Please identify the oil and hazardous materials likely to be used during the installation, operation, maintenance and monitoring of the pipeline. With regards to herbicide use along the pipeline route, please detail targeted species, the amount to be applied and the location and frequency of application. Please describe what steps will be taken to ensure that non-target species are protected and impacts to groundwater will be avoided.
3. Please develop a conceptual site model that portrays the current understanding of the hydrologic and geologic setting of the pipeline.
4. Please determine how bedrock aquifer characteristics such as storativity, transmissivity, hydraulic conductivity and fracture density may be affected by blasting.
5. Please determine how bedrock well characteristics such as flow (measured in gallons per minute), discoloration, recharge and water quality may be affected by blasting.
6. Please define required mitigation measures for the substantial loss of well water to residents that occurs as a result of blasting.

7. Please define required mitigation procedures if, after blasting, water begins to
 - a. taste different
 - b. my clothes start to stain
 - c. water-using appliances begin to clog
 - d. water becomes cloudy after blasting
 - e. sand deposits in drinking water

8. Please explain how impacts from the pipeline will remain below the NH State anti-degradation thresholds (WQS regulation (40 CFR 131)).

9. In order to accurately assess the direct effects of hydrostatic water withdrawals and discharges, please evaluate the hydrogeologic dynamics (infiltration, aquifer communication and specific capacity) along the pipeline routes affected. For water withdrawals, please include estimates of drawdown and radius of drawdown and describe any potential impacts (water loss, water quality degradation, etc.) to private well owners. For discharges please include aquifer mounding calculations and breakout distance assessments, as applicable.

10. Please assess the wetland functions and values for all wetlands impacted by the construction of the pipeline using the Method for Inventorying and Evaluating Freshwater Wetlands in NH (Stone and Mitchell 2013). We ask that all impacted wetlands be fully restored to background conditions and that restoration plans be designed and implemented by restoration experts from the USDA Natural Resources Conservation Service

Storm Water Management

Since during the construction of the proposed pipeline the natural flow of storm waters will be rerouted please prepare a comprehensive Storm Water Management Plan showing proposed methods of protection for surface and ground water resources, including wetlands. This Plan should include how storm water will be stored/managed during and after construction.

Riparian Buffers

Loss of riparian buffers will result from the construction of the proposed pipeline. As such, please provide a detailed plan that includes specifics on riparian restoration planting and maintenance to ensure success of the restoration effort. Only native plants should be used for the riparian restoration.

Non-point Source Pollution

Pollutants and sediments introduced during and after construction will have detrimental effects on watersheds and their associated water bodies and wetlands. Please provide a Watershed Management Plan that identifies construction areas, staging areas, and access roads, and how each watershed will be protected from the introduction of pollutants and sediments.

Vernal Pools

Vernal pools should be mapped and verified using standards set forth in NH Administrative Rules Sections Env-Wt 101.106 Vernal Pool, Env-Wt 101.75 Primary Vernal Pool Indicators, and Env-Wt 101.86 Secondary Vernal Pool Indicators. All verified vernal pools should be mapped within 1,000 feet of all areas of disturbance, including pipeline installation, staging areas, and

access roads. A construction schedule is requested to show seasons of activity and timeline for each phase of construction.

Wetlands Mapping

1. It is well known that the National Wetlands Inventory (NWI) is inadequate in its efforts to map all wetlands along the route of the proposed pipeline. All wetlands along the proposed route should include a jurisdictional wetlands delineation.
2. Describe barrier construction techniques used to prevent cross-connection of separate aquifers / watersheds via axial leakage along trench fill.

Vegetation and Wildlife

1. Wildlife and plant surveys should be performed during all seasons of the year sufficient to understand the presence and distribution of all species and natural communities present that are tracked by the State of New Hampshire. These surveys should be performed in the field, by professionals with specific knowledge of, and experience with the species/natural communities in southern NH / northern MA. Additionally, a new request for data from the NH Natural Heritage Bureau should be submitted to determine what new records if any have been added since the last request.
2. Detailed information should be submitted on the potential direct and indirect impacts due to the proposed pipeline during construction, maintenance and monitoring/operation, and how these activities may impact these resources into the future.
3. All locations of invasive plants should be mapped within the vicinity of the proposed pipeline, including adjacent areas outside the right-of-way. Please describe steps to be taken to ensure that invasive species aren't introduced or spread during construction, including the removal of invasive plants during and after construction, as well as soils containing roots and seeds of invasive plants and to ensure invasive species are not established and are not present on or near the construction activity for a period of five years following the construction activities.
4. A plan should be developed to demonstrate how construction activities will avoid all direct and indirect impacts to NH State-listed species and natural communities. In the event that such impacts are completely unavoidable, design, implementation and monitoring of plant restoration activities should be performed by qualified professional botanists experienced in the restoration of rare plant populations and natural communities.
5. The cumulative impact on wildlife habitat and fisheries from the loss of mature forest cover along the proposed pipeline pathway should be assessed. This assessment should specifically include reference to the effects on coldwater trout populations in all streams located within 50 feet of the proposed pipeline maintenance corridor/right-of-way. We ask that the mitigation by avoidance be the preferred mitigation strategy for potentially impacted coldwater trout streams.
6. The construction and installation of the proposed pipeline will contribute further fragmentation of the landscape, affecting native plants and wildlife and promoting the introduction and spread of invasive species. Please prepare a plan that demonstrates

how increased fragmentation will be minimized as a result of the pipeline.

7. Identify areas of wildlife corridors and prepare a plan that demonstrates how the pipeline construction will avoid disruption of these natural corridors.

Cultural Resources

1. Please require mitigation procedures for artifacts of the 18th and 19th century settlements such as stone walls, old cellar holes, wells, historic mill foundations and granite quarries, Native American settlements or burial grounds when they are encountered during construction.
2. Please describe means used to establish and record the precise location of boundary walls (which often define legal parcel boundaries in New England) prior to disturbance and to re-establish these legal boundary monuments after construction.

Land Use Recreation and Visual Resources

1. Please describe the mitigation measures to minimize the impacts to residents' quality of life from the destruction of the vegetative visual buffer that currently separates many property owners from the existing power line right-of-way,
2. Several parcels crossed by the proposed route are conservation properties funded through state-sponsored funding programs (LCIP and LCHIP). State laws that authorize these programs specifically forbid activities such as pipeline construction within these properties (New Hampshire RSA 227-M:14 and RSA 162-C:10). We request that you mitigate the impacts to these properties via re-routing to avoid them.
3. The Mason RR Trail is proposed to be crossed by the main pipeline and by the Fitchburg lateral. Please describe how impacts to the trail from pipeline construction and operation will be mitigated, the trail restored, and/or equivalent land provided. This recreational trail was acquired with a grant from the Land and Water Conservation Fund, which requires that equivalent property be provided if there is any loss of recreational land.
4. Please require KM to place high-quality gates at all pipeline road crossings, unless specifically requested not to do so by landowners. Utility rights-of-way are vulnerable to unauthorized trail use by OHRVs causing erosion and sedimentation damage.

Socioeconomics

1. Please statistically assess the near and long-term impacts of pipeline rights-of-way on re-sale and investment value of real estate crossed by the pipeline.
2. Identify all potential impact to town infrastructure including roads, culverts and bridges. We request Kinder Morgan and their affiliates fund an independent engineering study to assess and baseline the current condition of roads and byways in the Town of Mason. The engineering study shall include an estimate of the daily traffic counts and vehicle weights both empty and loaded to capacity. The engineering study shall include a plan

for Kinder Morgan and affiliates to restore road beds, surfaces, culverts and bridges impacted by construction and construction traffic.

3. Please provide a compensation plan for the full or partial loss of income from landowner sugar bush, orchard and forest resources as a result of both temporary and permanent pipeline construction activities.

Air Quality and Noise

1. Please assess the long-term impacts on residents' mental and physical health from noise and fugitive emissions at pipeline appurtenances and compressor stations. We request that the best available technology for noise reduction and containment be used such that nighttime noise levels are at or below historical ambient background levels of 35 dB.
2. Identify the number and locations of all blow down valves and pigging stations planned in the Town of Mason describing the processes and what substances will be discharged in the form of gas, liquid or solid. Provide a written plan on how these processes will be monitored, how frequently these processes will be monitored, how substances will be disposed of and what are the potential health risks to the local human, wildlife and plant populations
3. To maintain compliance with the National Ambient Air Quality Standards (NAAQS) and New Hampshire's Env-A 1002 regulations, we request that air quality monitoring be conducted during the implementation of the entire project. Specifically, monitoring should include a filter-based PM_{2.5} federal reference method (FRM) device; a beta attenuation monitor (BAM) PM₁₀ (federal equivalent method) FEM monitor; periodic metals testing; and, a meteorological station for wind direction and wind speed. Further, we request that the best available technology for fugitive emissions reduction and containment be used.
4. To comply with the new federal rule to cut methane emissions by up to 45 percent of 2012 levels by 2025, please determine the expected methane emissions from all NED facilities and ensure that these facilities use the best technology to minimize emissions.

Alternatives

1. Please consider requiring relocation of the proposed Fitchburg lateral to be co-located with existing right of ways State Route 31 or State Route 13 for the following reasons:
 - Less impact on private property
 - Less eminent domain
 - Less deforestation
 - Eliminate wetland impacts and aquifer and further maintenance to wetlands
 - Less negative visual impact to landscape
2. In Resource Report 10, KM fails to address no-action alternatives for the proposed laterals. It asserts that these laterals "will accommodate delivery point requests of certain Project shippers." But no shippers, nor the amounts they want delivered, are identified.

Without this information, how can the need for each lateral be established? Please require that KM demonstrate the need for each lateral individually so that its public necessity can be determined.

3. Resource Report 10's overview of alternative energy sources for the no-action alternative is seriously substandard. Please require KM to develop a meaningful analysis of energy alternatives to NED, with facts and figures on the projected contributions from the full diversity of energy sources now or soon to be available to New England, including energy efficiency, wind, solar, hydro, geothermal, and LNG. A comprehensive no-action alternative should quantify a diverse set of energy sources against the NED proposal, comparing benefits and costs over the project's proposed lifetime.
4. NH's 2014 10 Year Energy Strategy finds that "Energy efficiency is the cheapest, cleanest, most plentiful energy source." (page 23) Yet RR10 dismisses energy conservation's contribution to supply as "not feasible in the short-term." (Page 10-3) without providing any evidence. An immediately implementable conservation measure to increase gas supply is to fix the numerous leaks that have been discovered throughout the distribution system. Please require KM to quantify the contribution to supply that would result from fixing natural gas pipeline leaks, using recently developed data for Massachusetts.

Cumulative Impacts

1. In order to continue to assess the cumulative impacts from the installation of the pipeline and confirm ongoing compliance with Federal and State soil gas and groundwater standards relative to potential future releases of oil and hazardous materials and/or flammable gasses for the protection of public health and safety, we are requesting follow up testing of soil gas and groundwater to be conducted over the useful lifetime of the pipeline. Please scientifically determine the frequency of such testing that would be protective of public health and safety via scientific methods that include factors related to the migration potential and velocity of oil and hazardous materials and/or flammable gasses in the subsurface.
2. To avoid segmented review and over-building, please combine the pipeline proposals from Kinder Morgan, Spectra Energy, Portland Natural Gas, and their various partners into a single regional Environmental Impact Statement and one coordinated FERC process. Taken together, these pipeline projects are proposing to double the amount of natural gas coming into New England, far beyond the most aggressive demand forecasts. Because these projects share a common geography and timing, the National Environmental Policy Act (NEPA) review requires such a comprehensive analysis, as stated in the Council on Environmental Quality's (CEQ) guidance on programmatic NEPA reviews, issued December 18, 2014. Please undertake a combined NEPA review to determine which project, if any, would satisfy the need with the least impact to the environment and affected land owners.

Public Safety

- Please list the pollution likely to be generated by the proposed action. We request that pollution prevention be included in all alternatives, whenever feasible. Where actual pollution prevention methods cannot be instituted, recycling, energy recovery, treatment and disposal actions should be employed as much as practicable. (Pollution Prevention Act, 1990)
- Please evaluate the vapor intrusion pathway for vapor forming chemicals and flammable gasses associated with the installation, maintenance and use of the pipeline.
- Explain how subsurface leaks of flammable gasses and/or oil and hazardous materials will impact soil gas and specify mitigation techniques to address this.
- Explain how subsurface leaks of oil and hazardous materials will impact identified wetland soils and biota and specify mitigation techniques to address this.
- Given the proximity of the pipeline to occupied structures, explain how (a) the installation of a pipeline does not create a critical exposure pathway (310 CMR 40.0006) to human receptors for vapor phase emissions of measurable concentrations of oil and hazardous materials in the living or working space of pre-school, daycare, school or occupied residential dwelling; or (b) ingestion, dermal absorption or inhalation of measurable concentrations of oil and hazardous materials from drinking water supply wells located at and servicing a pre-school, daycare, school or occupied residential dwelling.
- Identify and require mitigation plans for any potential condition of substantial release migration via the soil gas pathway.
- Define the procedure for mitigating imminent hazard releases.
- Please create a conceptual site model that includes the geologic and hydrologic factors that are anticipated to contribute to the cumulative risks associated with the installation, operation and maintenance of the NED and Fitchburg lateral pipeline. Please quantify those risks along the pipeline and present the data using a risk-based approach. Please include a similar risk assessment for all alternative routes.
- Please require appropriate security measures are planned and in place to prevent and deny Internet hackers from taking control of the direct and remote controlled computer systems at compressor stations and pipeline appurtenances along the pipeline.
- Please require the identification of an existing adequate alternative drinking water source that will meet the consumptive, hygiene, and firefighting requirements of the town's population for at least six months (49 CFR 195.6 (5)(c)), in the event of aquifer contamination from the NED or Fitchburg lateral pipeline.

- Please evaluate added costs to town for extra police work and training, etc. required by the presence of the pipeline, and describe how these costs will be repaid by the pipeline owner.
- Please require a comprehensive public safety plan is developed by Kinder Morgan and its affiliates for the Town of Mason and neighboring mutual aid towns which provides clear line of sight on emergency planning, training, preparedness, accountability for cost of training and acquiring necessary capital equipment to successfully respond to pipeline emergencies/failures.

Facts:

- Mason is a small town with a limited tax base, total operating expenses \$1.6M.
- The annual budget for our volunteer fire department is \$65,000.
- Town of Mason and surrounding towns with volunteer departments rely on availability of volunteers and mutual aid of nearby towns who also run with volunteers and have limited budgets.
- There is limited access to water, there are no pressurized hydrants, tanker shuttles are required to provide water supply to active scenes.
- There is limited accessibility to the proposed pipeline routes, especially back country land locked areas.
- The Town of Mason and surrounding mutual aid communities will suffer irreparable harm in the form of burdensome increased property taxes if forced to absorb the future cost of training and acquiring necessary public safety equipment to adequately support potential pipeline failures/emergencies.
- The Town of Mason property owners unaffected by direct impact on their property by the proposed NED and/or the Fitchburg Lateral pipeline will suffer undue harm by having to absorb additional property taxes as a result of impacted property owners demanding property tax abatements for devalued properties along NED and/or the Fitchburg lateral pipeline.

Request:

We are requesting Kinder Morgan and its affiliates provide a public safety plan for the Town of Mason and neighboring mutual aid towns.

- The public safety plan must address, but not be limited, to key points of concern.
 - What is the emergency notification process for municipalities and the public?
 - What is KM and its affiliates plan to respond to emergency situations (minutes, hours, days)?
 - What are the evacuation plans for homeowners potentially blocked in on dead end roads, cul-de-sacs, etc., during a pipeline emergency?
 - Who is responsible for providing resources to deal with pipeline emergencies?
 - In event of a pipeline emergency where does KM and its affiliate's responsibility begin and end? Where does the Town of Mason pick up?
 - In the event of a pipeline emergency who shoulders the cost of services incurred by the Town of Mason? Are Kinder Morgan and its affiliates responsible?
 - Who is responsible to fund/provide personnel training and equipment necessary or the Town of Mason to successfully respond to a pipeline emergency?