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COUNTY OF RENSSELAER

October 15, 2015

Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: Northeast Energy Direct
Tennessee Gas Pipeline Company, LLC
Northeast Energy Direct Project
FERC Docket No. PF14-22-000

Dear Sirs:

As the County Executive of Rensselaer County, New York, I have been and continue to be duty bound to preserve the health, safety and welfare of County residents who may be affected by the above-referenced project and to preserve the physical grounds of our County for the benefit of future generations. To that end, I have organized and overseen a large group of County workers who were assigned to perform due diligence on behalf of Rensselaer County to discern and discover what is being proposed by Tennessee Gas Pipeline Company, LLC, a wholly owned subsidiary of Kinder Morgan, a corporation having its offices in Houston, Texas.

The proposed location of a compressor station in Rensselaer County took our due diligence investigation to a higher level, as the potential effects of such a facility upon our population significantly escalates our already heightened concerns. To that end, the purpose of this correspondence is to focus in on potential issues so that your Commission may account for these when making its determination. The poignancy becomes even more crucial in light of the fact that during 2014, 283 "self-reported" pipeline incidents occurred nationwide and resulted in 17 deaths, 94 injuries and over $270 million in property damage. In fact, over the past ten years, there has been an average of more than 310 incidents per year without any indication of significant efforts to reduce the number of incidents. Thus, it is crucial for the applicant to address all issues to the satisfaction of your Commission before construction begins, so that the potential damages and hazards are minimized.

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Our County's rural setting (population of approximately 160,000 people over 665 square miles) means that most of our affected residents and properties receive their potable water by water wells (artesian wells, spring boxes and drilled wells) serving both communities and single homeowners. Thus, potential contamination of sources of drinking water is a major concern. The applicant has been unwilling to disclose a complete list of the chemicals, compounds, potential contaminants, etc., that will be contained in the natural gas to be transported through this proposed pipeline. Hence, our County and other local communities are unable to fully assess the impact of potential contamination that may occur if a leak were to happen.

Additionally, in light of the substantial ongoing rural residential development, it appears that the applicant looks solely at the status quo of development rather than the planning, already approved projects and partially developed projects that are in existence. Thus, we have a great concern that applicant may be myopic in its proposals regarding the depth and thickness of piping, location of shutoff valves and monitoring equipment that it proposes to use. This is further illustrated by the failure of Tennessee Gas Pipeline Company, Inc. to submit drawings for its compressor stations depicting the affected properties within a 1,000 foot radius of the station sites. This makes it much more difficult to fully assess and comment on this project as it would impact the current residents and render it impossible to assess the impact as the area grows, unless, by default the commission and applicant assume that little to no future growth would occur near the pipeline as a result of the pipeline being constructed.

Thus, to the degree possible, our County raises the following concerns regarding the possible gas line.

1. **Drinking Water (public and private)**: There is great potential impact to private wells (i.e. artesian wells, spring boxes, drilled wells, etc.) from construction of the pipeline (maintaining safe set-back distances during construction phase and temporary work areas) and related pyrotechnics (blasting). There appear to be no less than three miles of pipe section (spread throughout the County) which necessitate blasting in order to meet the minimum pipe depths (based on USGS mapping data). There could be impacts not only on private water supplies but also on the 15 public water supply wells within one half mile of the proposed pipeline. The proposal of Tennessee Gas Company, LLC for a well monitoring program for identified wells within 200 feet of proposed blasting is insufficient due to the geography and geology of the land.

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In addition, the 10 mile distance between shutoff valves will allow for long periods of gas release exposing nearby water supplies to contamination, should the pipeline leak.

2. **Compressor Station Impact (noise lighting, traffic, gas and chemical release)**: Air Quality monitoring in the area of compressor station is of great concern as to its close proximity to a highly populated area. The New York State Department of Environmental Conservation (NYSDEC) regulations do not go far enough to sufficiently protect public health (infrequency of a monitoring program and reliance on "self-reporting"). Radon levels from compressor stations receiving predominantly Marcellus Shale unconventional natural gas have radon levels between 28.8 & 58.1 pCi/L. (From PA DEP report January 2015). Stricter oversight is necessary to assure the safety of those who reside in the area surrounding the proposed compressor station.

Noise pollution during operation of the compressor station is of great concern as those who reside in the vicinity of the proposed site have developed their homes to reflect the peace and quiet of a rural setting. This quiet atmosphere should continue after the compressor is constructed. The NYSDEC has set a limit of 55 decibels at the nearest receptor (no limits on site). The background in this area is below this limit (in the area of 35 to 40 decibels) and therefore this compressor station will significantly increase the ambient noise level, which does not factor in "blow down" events that are anticipated to be at higher sound levels. One alternative to reduce noise is for Tennessee Gas Pipeline Company, LLC to utilize electric turbine motors rather than gas powered power plants.

The rural setting of the proposed compressor station site also requires that lighting be kept to an absolute minimum so that the impact on residents of the surrounding properties is minimized.

Facility operations: RR-9 Section 9.1.3.2, which discusses air dispersion modeling, fails to mention four important items. Firstly, air dispersion modeling for compressor stations in New York require the preparation and presentation of a modeling protocol to NYSDEC, and approval of such protocol by the State agency prior to performing dispersion modeling. Secondly, compliance with State and National Ambient Air Quality Standards (NAAQS) must be demonstrated on the entire property line for the compressor station, as well as on lands outside the station parcels.

Thirdly, in addition to the criteria pollutants mentioned in RR-9 Section 9.1.3.2 for air impact analysis, Hazardous Air Pollutants (HAPs) must be analyzed as part of the air permit application in New York. As part of a New York

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air permit application, dispersion modeling must show compliance with Annual Guideline Concentrations (AGC) and Short-Term Guideline Concentrations (SGC) air concentration limits for HAPs. As part of a Massachusetts air permit application, dispersion modeling must show compliance with Acceptable Ambient Level (AAL) and Threshold Exposure Limit (TEL) air concentration limits for HAPs. EPA's AP-42 emission factor database lists 11 HAPs emitted by a gas-fired turbine, including formaldehyde, PAH and benzene. The emissions inventory for stationary fuel-combustion sources (turbines, gas heaters, emergency generators) must include a HAPs emissions inventory, and dispersion modeling needs to demonstrate compliance with the State HAPs limits.

Finally, since Rensselaer County is a Nonattainment Area for the 1997 federal ozone standard, any new major source of NOx emissions (which may include the Market Path Mid Station 1 in the Town of Nassau, New York) is subject to the provisions of Non-Attainment New Source Review. If applicable, the applicant will have to demonstrate through air dispersion modeling that the cumulative impact of all stationary source NOx emissions will comply with the EPA Significant Impact Level (SIL) of 1 µg/m3 for NO2 on an annual basis to demonstrate that the facility will not contribute to an existing violation of the ozone regional air quality standard.

Construction: Section 9.1.4.1 of RR-9 states "Exhaust emissions from diesel and gasoline fueled construction equipment and vehicle engines will be minimized by federal design standards imposed at the time of manufacture". That provision is inadequate since the Project could simply use old construction equipment and off-road vehicles with minimal emission controls. The Project should be required to meet current EPA Tier 2, 3 or 4 emission standards for new equipment, as applicable for each type of construction equipment. In addition, the Project should be required to install diesel particulate filters on all diesel-powered construction equipment to minimize inhalable PM.

Noise: Facility Operations Section 9.2.1.2.2 of RR-9 states:

> "There are no known noise regulations in the State of New York that are applicable to the Project. The NYSDEC produced an environmental guidance document called 'Assessing and Mitigating Noise Impacts' in February 2001. The document does not set any environmental noise goals or limits."

Rensselaer County disagrees with this characterization of the DEC's Program Policy DEP-00-1, "Assessing and Mitigating Noise Impacts," which does set noise goals, and which states (Policy p. 4) that "In the review of an application for a permit, the Department of Environmental Conservation is to evaluate the potential for adverse impacts of sound generated and emanating to receptors outside of the facility or property." The Policy requires measurement of ambient (Leq) sound

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levels at adjacent residential parcels (Policy pp. 11-13), and states that in a non-industrial setting, such as the residences surrounding a compressor station, that the new sound level should not exceed the ambient level by more than 6 dBa at the receptor (Policy p. 14). The Policy goal of ambient + 6 dBA applies to noise from the Market Path Mid Station 1 in the Town of Nassau, New York.

Section 9.2.2.6 of RR-9 lists existing nighttime sound levels of 43.7 dBA to 51.0 dBA, which are unusually high for a rural area. The reference to wind-generated noise in Section 9.2.2.6.1 suggests the measurements were taken on a windy night, and thus do not represent the lowest nighttime ambient sound levels for the Market Path Mid Station 1 in the Town of Nassau, New York. In addition, measurements were made in the month of May when (noise from wildlife native to the area is at its peak, and thus these measurements do not represent the quietest nighttime conditions. The sound level measurements must be retaken on a night with a more typical noise level.

Finally, as part of the noise analysis for a new facility, DEP or DEC requires the applicant to perform a Best Available Noise Control Analysis (BANCT) and to implement all cost feasible sound mitigation measures for each noise source at the facility.

Section 9.2.2.7 of RR-9 only lists existing Leq sound levels, which cannot be used in the DEP Noise Policy impact analysis. One week of continuous 1-hour L90 measurements must be taken at each of the three nearby residential properties (NSA-1 through NSA-3) during a week with calm winds to document the lowest 1-hour L90 level at each receptor.

Construction: Section 9.2.4 of RR-9 states that "[c]onstruction equipment will be operated on an as-needed basis and mostly during daylight hours." Whereas construction activity can create high levels of noise, the Project should commit to only daytime construction, or if construction is done after 7:00 p.m., that any construction activity must meet the operational noise limits (FERC, NYS DEC). Do we want to reference ma at all?

3. **Public Safety (emergency response)**: The following list delineates what should be addressed by both Tennessee Gas Pipeline Company, LLC and FERC.

The current project plan depicting a 10 mile distance between shut off valves on the pipeline is insufficient for fire and EMS personnel to respond and assist those in the area of any mishap.

Further, none of the mutual aid fire departments or ambulance squads in the area of the project are sufficiently trained or equipped for natural gas related problems that may arise in and about the project site.

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Tennessee Gas Pipeline Company, LLC intends to utilize pyrotechnics (dynamite related blasting operations) in construction of the pipeline. These must meet OSHA and NFPA regulations including placards and proper storage of blasting materials. Notification must be made to the local fire departments and ambulance squads.

Clearly, trenching for natural gas piping will be utilized. It is necessary for Tennessee Gas Pipeline Company, LLC to follow the OSHA regulations to include a plan for trench rescue and name a trench rescue team. In addition, confined space work must follow the OSHA regulations to include a plan for a rescue team. There are two teams in the greater capital district, to wit: Colonie Village Fire Department and the NYS-PFPC: NY Task Force 2 regional team. In either case, it would take between two and three hours for either to respond.

The compressor station site plan must include a plan to warn the population in the zone of danger. Tennessee Gas Pipeline, LLC has neither proposed nor proffered such a plan. It is also necessary for it to provide information to the local responders during all phases of the construction and operation of the compressor site.

Safe storage of welding supplies during construction must follow NFPA. Location, placarding and notification made to the local responders.

All excavation work must use the "Dig Safely New York" system at 1-800-962-7962, before any work is done. There are a number of incidences where problems including personal injuries, occurred because this was not done.

Outreach for NY Alert must be made to the community. This includes mailings to residences and businesses in a one mile radius from the pipeline to insure all telephone and cellular telephones of the community will receive warnings and evacuation notices. This should be coordinated so that it is facilitated by the Rensselaer County Bureau of Public Safety which operates the local E 911 system. Local fire departments in municipalities crossed by the pipeline rely on a volunteer call force. This can create difficulty in gathering a sufficient number of firefighters for all emergencies. Because these firefighters have "day jobs," they often don't have time during the day to participate in trainings and exercises to keep up their skills. Purchasing large pieces of firefighting apparatus to fight even routine fires for small, rural towns is proportionately more expensive than in larger cities because the same base level of equipment is needed regardless of population size, but the tax base in a rural town is smaller. Thus, it is requested that Tennessee Gas Pipeline Company, LLC provide 1) a time frame for completing a plan for multi-year training and exercises for local first responders, which include provisions for offering

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trainings in the evenings and on weekends so volunteers may participate. The training should include training on the proper use of gas monitoring equipment; 2) a list of specialized apparatus, equipment, and personal protective equipment, that local fire departments will need if the pipeline is permitted by FERC and constructed; 3) a list of all substances that will potentially be transmitted through the pipeline and the Material Safety Data Sheets for those substances. TGP should be required by FERC to notify municipal officials and local fire departments when pipeline contents change so they will have up to the minute information on what hazards they may need to respond to; 4) Provide information on what methods will be used to ensure that the actual rights of way are delineated on the ground once the pipeline is constructed if approved by FERC; 5) provide information on the proposed spacing of the valves and whether they will be operated remotely or will require TGP staff to physically close them on-site; and 6) provide information on how long it takes to stop a leak based on the proposed spacing and method of operation (e.g. remote or on-site) of the valves and how long it will take for all of the gas to evacuate from the pipe and dissipate to safe levels under different atmospheric conditions.

Tennessee Gas Pipeline Company, LLC should share its knowledge and information regarding the amount of fire protection, water resources that are available, as in most areas surrounding the pipeline there is no public water supply. There has been no contact by Tennessee Gas Pipeline Company, LLC other than the minimum necessary in an attempt to placate those who may oppose the project. Costs as stated above must be estimated and underwritten by this company.

4. **Water Resources (wetlands, water crossings) and Erosion Control**: There are several areas where temporary workspace, access roads, pipe yards, etc. are located within wetlands. This should not be allowed to minimize the impacts on these protected areas, which was noted in both the reports of the U.S. EPA and the U.S. A.C.O.E.

The proposed Environmental Impact Statement (EIS) filed by Tennessee Gas Pipeline Company, LLC contains incomplete soil data. U.S.D.A. soil maps only identify soil conditions down to a maximum depth of 5 feet. Given the 30" main (which may be increased in size to the original 36" diameter initially proposed), the minimum depth of the trench will need to be 4.5′ deep. This is based on two feet of cover. The standard cover is to be three feet and therefore a trench depth of 5.5′ would be required. For road crossings and agricultural areas (which there are significant portions of this project) a minimum of 5′ cover is required. This would require a trench depth of 7.5′. The EIS needs to better identify minimum cover throughout the project to assure this is being followed and then better identify soil conditions and determine method of trenching to be utilized. This is vital in order to accurately determine environmental impacts. In addition, the EIS fails to map and depict all private wells. As a result FERC will be unable to examine the potential impact upon drinking water supplies.

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Mapping of private wells in the EIS is incomplete and does not allow for adequate examination as to potential impacts of drinking water supplies. The EIS needs to better identify all drinking water supplies and show locations so that potential impacts can be determined based on construction methods being utilized in the immediate area as well as soil and ground water conditions in this same area. Related to that is the fact that throughout this project area there are a number of known groundwater aquifers that will be transected by this project. This report does not identify or characterize these resources. It is necessary to identify and characterize (consolidated/unconsolidated, depth…) all potentially affected aquifers in order to determine risk of contamination and further identify mitigation measures to assure the protection of these potable water sources.

Significant concern exists for the protection of the Hudson River. Chemical contamination from the boring process must be addressed by the EIS, as the boring location and the resulting slurry will be between two valuable cultural and natural resources within Rensselaer County (Schodack Island State Park and the Papscanee Island Natural preserve), given the tidal nature of the River in this area impacts to both of these natural resources needs to be addressed.

The impact of stream crossings also affects the Hudson river. The EIS must specify surface water crossings as open trenching is the chosen construction technique. This would be a significant impact not only to the local water body but in some cases these water bodies are tributaries to the Hudson River (either directly or indirectly). Disruption of the water body or the immediate banks should be avoided (US Army Corps of Engineers have also indicated their concern of open trenching of streams in previous comments to FERC).

The apparent testing technique for the finished pipeline will be by hydrostatic pressure that requires the use of a tremendous amount of water (approximately 14,700 gallons per 100 feet of pipe). The EIS must address where this water will come from as well as discharge of this water. Will this water be discharged directly to the environment and if so how, and are there water quality concerns (chemical contamination from the construction and coating process) and potential erosion.

5. **Transportation/Traffic**: The construction of the Northeast Energy Direct Project has the potential to negatively impact the Rensselaer County highway infrastructure. Potential impacts to roads, bridges and culverts include damage caused by the movement of heavy trucks and equipment along State, County and local roads. Statistically, trucks on the nation's highways cause more damage to roads and bridges than passenger cars. One 80,000 pound truck is equivalent to 9600 cars. Most county roads in Southern Rensselaer County experience traffic counts of less than 1000 cars per day. The construction activities will be spread across the southern portion of the County through the Towns of Schodack, Nassau

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and Stephentown. Access to construction sites including the pipe installation and the compressor station will require the use of the existing transportation network and temporary roads.

The following locally numbered routes under the jurisdiction of the Rensselaer County Highway Department are crossed by the pipeline or are contiguous to the construction of the pipeline:

- County Route 33 – East Road (Town of Stephentown)
- County Route 31 – West Road (Town of Stephentown)
- County Route 26 – Garfield Road (Town of Stephentown)
- County Route 23 – South Road (Town of Stephentown)
- County Route 21 – Dunham Hollow Road (Town of Nassau)
- County Route 18 – Hoags Corners Road (Town of Nassau)
- County Route 15 – Nassau-Averill Park Road (Town of Nassau)
- County Route 7 – East Schodack Road (Town of Schodack)
- County Route 4 – Van Hoesen Road (Town of Schodack)
- County Route 6 – Maple Hill Road (Town of Schodack)
- County Route 8 – Stoney Point Road (Town of Schodack)

The condition ratings of Rensselaer County highways and bridges vary across the county. Each year the County Highway Department assigns numerical values to each roadway segment. These ratings represent the observed condition of the pavement. The numerical ratings range from 10 down to 1. A 10 represents a pavement in excellent condition and a 1 represents a pavement in extremely poor condition. Most roads in the project area are rated in the middle range between 5 and 8. Most roads are posted with a weight limit of 10 tons and travel by heavy or oversize vehicles on these roads is restricted. Weight exclusion permits are granted on a case by case basis. The additional truck traffic on County roads would have a significant impact on the integrity of the pavements and accelerate their deterioration. Other factors which need to be considered are the safety, geometry and environmental considerations. Many rural county roads have sharp horizontal and vertical curves with limited sight distance. Roadway widths generally range from 20-22 feet with narrow or no shoulders. County roads are classified as collector roads and are not meant for high traffic volumes with a high percentage of trucks. County roads become increasing difficult to navigate during the winter months due to ice and snow conditions. Recent winters have taken a toll on county roads with extreme freeze thaw cycles on roads with poor soils as a foundation. Trucks travelling on thawing roads in the spring cause exponential damage to susceptible roadways.

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The condition rating of all bridges is determined by biennial inspections conducted by NYSDOT. Bridges with a span of twenty feet and over are inspected. Bridges are rated 1-7 with most County bridges falling into the 4-6 range. A bridge rated 4 is considered structurally deficient and one rated 6 is in good condition. Weight restrictions on bridges are based on the biennial inspections and are legally enforceable. Proposed transport routes may need to be altered to avoid bridge structures with weight restrictions. The county roads listed above with weight restricted bridges are CR 26 - Garfield Road, CR 33 - East Road and CR 21 - Dunham Hollow Road.

Structures less than twenty feet in length, are considered large culverts and are inspected by the municipality having maintenance jurisdiction on a periodic basis. The County rating system for large culverts is somewhat different than for bridges. Culverts are rated good, fair or poor and evaluated for maintenance treatment based on these ratings. There are several large culverts in the fair or poor category that would be negatively impacted by increased truck traffic.

Roughly one third of the county's roads, bridges and culverts are in less than good condition. Available funding at the Federal and State level has significantly diminished in the last few years and is not expected to increase over the next several years. Increased costs to build and maintain roads and bridges have significantly impacted local governments' ability to keep up with maintenance. The NED project will have a significant impact on the condition of roads and bridges further exacerbating the problem of keeping up with maintaining roads and bridges to make them safe for the residents of the area.

Several years ago, our County instituted a policy to seek compensation from users of its roads for damage caused by unusual and extraordinary use. We expect that in light of its location this project will require heavy and extreme truck and equipment traffic to cause substantial damage to our County roads would be unduly burdensome for the residents and taxpayers to bear the cost of damage to highways that were not designed to withstand this uncontemplated use. Part of the plan to be submitted by Tennessee Gas Pipeline Company must be to hold the County residents and taxpayers harmless from this unexpected use and expense.

Quality of Life: This project is proposed to intersect the southern end of the Rensselaer plateau. While it is co-located within an existing utility ROW the increased land that will be required will have a significant impact. For purposes of this document I refer to four separate reports specific to these impacts completed by Dr. David Hunt (1/25/2015, 3/12/2015, 3/21/2015, and most recent one for the Town of Nassau NRC).

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6. **Rensselaer Plateau: Rensselaer County is home to the Rensselaer Plateau** The Rensselaer Plateau is one of the largest and most ecologically intact native habitats in New York State. The preservation of this landscape for future generations is the vision of the Rensselaer Plateau Alliance. The Plateau covers about 118,000 acres in the towns of Berlin, Brunswick, Grafton, Hoosick, Nassau, Petersburgh, Pittstown, Poestenkill, Sand Lake, Stephentown and the Village of East Nassau. The ecologically significant site was noted as a success story by the USDA for the conservation efforts taking place. The proposed pipeline would cross directly through the lower portion of the designated area.

Ecosystem evaluations have been conducted by Dr. David Hunt for both the Towns of Nassau and Stephentown. Of specific concern is the potential impact that this project will have to the Rensselaer Plateau. The Rensselaer Plateau is New York's fifth-largest contiguous forest. The EIS should consider alternate routes that will avoid this ecologically sensitive and culturally important area.

Closing: In addition to the comments submitted herein, our County has participated in the Pipeline Working Group. Through the coordination of the Berkshire Regional Planning Commission, the Pipeline Working Group, which consists of representatives from the City of Pittsfield, Massachusetts, the Towns of Cheshire, Dalton, Hinsdale, Lanesborough, Lenox, Pittsfield, Richmond, Washington and Windsor, Massachusetts, the Dalton Fire District, the Lanesborough Village Fire and Water District, Rensselaer County, New York, and the Towns of Nassau, Stephentown, and Schodack, New York, has identified common impacts and requested mitigation measures related to the proposed pipeline. Those items are specified in comments submitted by the Berkshire Regional Planning Commission on or about October 15, 2015, which comments our County endorses and incorporates herein by reference.

FERC and Tennessee Gas Pipeline Company, LLC must address each of the concerns specified above before the NED is to be considered for approval. In light of the substantial financial mandates imposed upon our County by the State of New York, only 10 cents of each local tax dollar are available to spend on County programs. In addition, the statutory tax cap which according the Comptroller of the State of New York is being reduced from two percent to less than one percent, will bar any unforeseen County expenses as a result of the

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Tennessee Gas Pipeline Company proposed project and may result in a violation of the tax cap ceiling. That violation has the potential of causing an inability of taxpayers to receive deserved State tax refunds.

Thank you for your consideration.

Respectfully Submitted,

RENSSELAER COUNTY, NEW YORK

Kathleen M. Jimino

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County Executive

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