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August 2, 2019

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Tennessee Gas Pipeline 261 Upgrade Projects  
PROJECT MUNICIPALITY : Agawam and Longmeadow  
PROJECT WATERSHED : Connecticut River  
EEA NUMBER : 15879  
PROJECT PROPONENT : Tennessee Gas Pipeline Company LLC  
DATE NOTICED IN MONITOR : June 26, 2019

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62I) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Final Environmental Impact Report (FEIR) and hereby determine that it **adequately and properly complies** with MEPA and its implementing regulations. The project may proceed to permitting.

Project Description

As described in the FEIR, the project is proposed to increase capacity and enhance reliability of the Tennessee Gas Pipeline (TGP) system to provide gas to Columbia Gas of Massachusetts (CMA) and the Holyoke Gas and Electric Department (HG&E). The Department of Public Utilities (DPU) issued an Order (DPU 17-172) on May 31, 2018 authorizing the transportation contract between TGP and CMA (Precedent Agreement).

The FEIR described three components of the project: construction of a 2.1-mile long pipeline loop in Agawam; replacement of two turbine compressors with a single, larger compressor at TGP's Compressor Station 261 (CS 261) in Agawam; and construction of a new meter station in Longmeadow. It also identified appurtenant structures and access roads and removal of a portion of an inactive

pipeline. The pipeline loop will increase capacity by 17,000 dekatherms per day (Dth/d). In addition, the capacity of CS 261 will increase from approximately 1,191,000 Dth/d to 1,244,000 Dth/d. The new turbine compressor will provide an additional 30,800 Dth/d to the nearest delivery point on the CMA system and 25,000 Dth/d to TGP's regional delivery system.

### *Pipeline Loop*

The pipeline loop will include a 12-inch diameter pipe that will tie in to existing structures at CS 261, cross under Suffield Street to the gas transmission right-of-way (ROW) on the west side of the street, and continue north within or adjacent to the ROW to the terminus of the pipeline loop approximately 500 feet (ft) north of Silver Street. Facilities for the cleaning and inspection of the pipeline loop by "pig" devices will be installed at either end of the project, including a pig launcher at CS 261 and a pig receiver at the northern terminus.

Approximately 1.9 miles (90 percent) of the pipeline loop will be constructed either within the existing ROW (1.5 miles) or on the CS 261 site (0.4 miles). To avoid a residential apartment complex and power line structures, the pipeline route will be located within a new 40-ft wide ROW easement in two areas totaling 0.2 miles. In areas where the pipeline loop will be constructed within the existing ROW, the permanent ROW will be expanded by 20 ft. The project will add a total of 5.51 acres of new ROW. Three new permanent access roads (PAR) to maintain the pipeline are proposed on existing farm roads and utility easements. The PARs will require 1.07 acres of new easements.

Construction activities will affect 32.5 acres of land, including the existing and proposed permanent ROW, a 75-ft wide construction ROW centered on the pipeline loop, additional temporary workspaces (ATWS), the PARs, four temporary access roads (TAR) and a pipeyard. The pipeyard will be located on an 11.3-acre parcel adjacent to CS 261. The pipeyard includes 3.3 acres in Massachusetts and 8 acres in Connecticut.

The pipeline will be installed primarily by the following means:

1. Clearing and grading of the construction zone;
2. Trenching;
3. Delivery and assembly of pipe joints;
4. Lowering of the pipeline into the trench;
5. Backfilling and grade restoration; and
6. Hydrostatic testing.

The trench will be approximately 28 inches wide and the pipeline loop will be buried to a depth of three to five feet. In areas where the pipeline loop will be installed adjacent to the abandoned 6-inch pipe, the trench will be wide enough to install the new pipe and to remove the existing one. Horizontal Directional Drilling (HDD) will be used to install an approximately 0.3-mile long section of the pipeline. Approximately 1.1 miles of the abandoned 6-inch diameter pipe will be removed. A conventional bore technique will be used to install the pipeline loop at the four roadway crossings along the route to avoid disturbing the surface of the road. As described in more detail below, the project will use specialized construction procedures in wetlands and waterbodies to avoid and minimize impacts.

In the section to be installed using HDD, entry and exit points/slurry pits will be located at each end of the pipeline. A drill rig and other equipment will be set up at the entry point and drill a hole to the exit point. The pipeline segment will be prefabricated and hydrostatically tested at the exit end, then pulled back through the hole toward the entry point.

Hydrostatic testing of the pipeline loop will require approximately 70,000 gallons of water. Hydrostatic testing of the new compressor will require 40,000 gallons of water. The water will be obtained from the municipal water service. Upon completion of hydrostatic testing, the water will be transferred to holding tanks, tested and transported for off-site disposal.

#### *Compressor Station*

Two gas turbines with a combined horsepower (hp) of 6,689 hp will be replaced with an 11,107 hp gas turbine. An emergency generator will also be replaced. A 2,600-square foot (sf) building will be constructed and an exhaust stack will be improved and extended from 62.5 ft to 67.5 ft. The new turbine and all associated facilities and construction activities will be located within the fenced area of CS 261.

#### *Longmeadow Meter Station*

The meter station will be constructed on a 1.37-acre portion of the Longmeadow Country Club over which the Proponent will obtain a permanent easement. The site is located south of the intersection of Shaker Road and Hazardville Road. The meter station will provide a second gas delivery point to the CMA system on the east side of the Connecticut River; according to the FEIR, this will increase the reliability and redundancy of the CMA distribution system and increase operational flexibility by allowing bi-directional flow through the pipeline crossing the Connecticut River on the Memorial Street Bridge in Agawam.

The meter station and access roads will occupy 0.53 acres and it will increase impervious area by 0.18 acres (7,952 sf). The facility will include structures owned and operated by TGP and additional structures owned and operated by CMA. Components owned by TGP will include a Remote Terminal Unit (RTU) building with instruments and controls; two 8-inch taps on TGP's 200-1 and 200-2 mainlines; a filter separator; two meters in a 1,250-sf building; interconnecting pipes and valves; and a driveway from Hazardville Road. Components of the meter station to be constructed by CMA include pressure regulation equipment within a 1,400-sf building; an instrument and control (I&C) building; a 512-sf gas odorizer building; a 400-sf gas heating building; a backup power generator; and interconnecting pipes and valves from the TGP meter building to CMA facilities. During the review period, the Proponent described the proposed stormwater management system for the meter station, which will include an infiltration basin with a riprap apron on the western side of the site. Runoff will be directed to the infiltration by overland flow and the system will not include drain pipes or a connection to the Town's stormwater system. The FEIR confirmed that no pig launcher or receiver will be located at the site.

#### Project Site

The pipeline loop and gas compressor will generally be installed within the Proponent's pipeline ROW and CS 261 facility. The 41.07-acre compressor station site is located on Suffield Street near the

Massachusetts-Connecticut state line. The compressor station is adjacent to undeveloped land to the west and east. An apartment complex north of the compressor station and several single-family homes along Suffield Street to the south are at least 500 ft from the station and separated from it by vegetated buffers. The gas compressors and associated equipment are located within a fenced portion of the eastern half of the site that is largely cleared and maintained as lawn. Three small areas of Bordering Vegetated Wetlands (BVW) are located along the perimeter of the station, including an area of BVW that extends through the western half of the site. Office space, a parking lot, Worthington Brook and associated BVW are located on the western half of the site. The pipeyard will be located on land owned by the Proponent that is adjacent to CS 261 and extends south into Suffield, Connecticut. The pipeyard area is maintained as a field; wetlands areas are located along the east and west sides of the pipeyard.

The existing ROW includes a 10-inch pipeline (Line 261B) and an abandoned 6-inch pipeline. It begins at the compressor station and travels in a northerly direction through the residential apartment complex north of CS 261 and across Suffield Street. It passes to the west of residential and commercial properties along Suffield Street and through commercial and industrial parks on Gold Street and Silver Street. The ROW crosses three perennial streams and two intermittent streams. Much of the ROW, particularly its southern half, passes through BVW. Most of the ROW is located within or adjacent to Priority Habitat for State-listed rare species, including the Eastern Box Turtle (*Terrapene carolina*), a Species of Special Concern, and the Eastern Worm Snake (*Carphophis amoenus*), a Threatened species.

The meter station will be constructed in the southeastern section of the Longmeadow Country Club. The Longmeadow Country Club (MHC# LON.220) and Longmeadow Country Club Grounds Building (MHC# LON.1845) are listed in the Massachusetts Historical Commission's (MHC) Inventory of Historic Assets of the Commonwealth and are eligible for listing in the National Register of Historic Places. The FEIR included a letter from MHC, dated April 16, 2019, to the Federal Energy Regulatory Commission (FERC) that determined that the meter station would not affect cultural resources at the Longmeadow Country Club.

### Environmental Impacts and Mitigation

Potential impacts are associated with construction and operation of the pipeline, compressor turbine and emergency generator and meter station. The project will increase emissions of air pollutants from the compressor station, including: Greenhouse Gas (GHG) emissions, measured as carbon dioxide equivalent (CO<sub>2</sub>e), from 102,763 tons per year (tpy) to 114,448 tpy; sulfur dioxide (SO<sub>2</sub>), from 2.2 tpy to 6.6 tpy; and particulate matter (PM) from 9.0 tpy to 9.4 tpy. Operational emissions from the meter station include 72.47 tpy of GHG and 0.016 tpy of volatile organic compounds (VOC). The project will alter approximately 39.2 acres of land, including 25.10 acres for the pipeline loop, 9.31 acres for the gas turbine replacement, 3.81 acres for the pipeyard and access roads, and 0.98 acres for the meter station. It will add 5.64 acres to the permanent ROW, including 5.31 acres in Agawam and 0.53 acres in Longmeadow. Impacts to wetland resource areas include approximately 5.2 acres (approximately 226,500 sf) of BVW, of which 0.55 acres will be permanently converted from one wetland type to another; 0.22 acres (9,583 sf) of Isolated Vegetated Wetlands (IVW); 818 linear feet (lf) of Bank; 7 acres of Riverfront Area; and 0.11 acres of Land Under Water (LUW). The project will impact 7.7 acres of rare species habitat, resulting in a Take of the Eastern Worm Snake and Eastern Box Turtle.

Measures to avoid, minimize, and mitigate project impacts include minimizing expansion of the ROW, use of timber mats to prevent permanent impacts to wetland resource areas during construction, incorporation of noise mitigation measures in the design of the meter station, restoration of wetland areas, off-site wetland restoration and conservation, installation of erosion and stormwater best management practices (BMPs) and replacement of older turbines with a high-efficiency turbine.

### Changes Since the Filing of the DEIR

The project design has not changed significantly since the DEIR. The FEIR provided updated estimates of wetlands impacts based on revisions to the wetland boundary and changes to workspace configurations and pipeline alignment. It provided a detailed description of the Longmeadow Meter Station and an analysis of its environmental impacts.

### Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to a mandatory EIR pursuant to 301 CMR 11.03(3)(a)(1)(a) of the MEPA regulations because it requires Agency Actions and will alter one or more acres of BVW (approximately 5.2 acres). The project will require a Section 401 Water Quality Certification (WQC) and a Non-major Comprehensive Plan Approval from the Massachusetts Department of Environmental Protection (MassDEP) and a Conservation and Management Permit (CMP) from the Natural Heritage and Endangered Species Program (NHESP). Components of the CMA project may require review by the Energy Facilities Siting Board (EFSB). The project is subject to review under the May 2010 MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol (GHG Policy).

The project requires an Order of Conditions (OOC) from the Agawam Conservation Commission (and, if the OOC is appealed, a Superseding Order of Conditions (SOC) from MassDEP), a Section 404 approval by the Army Corps of Engineers under the General Permits for Massachusetts and a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) from the Environmental Protection Agency (EPA). It requires approval from FERC under Section 7(c) of the Natural Gas Act and review by MHC pursuant to Section 106 of the National Historic Preservation Act and M.G.L. c.9, ss.26-27C (950 CMR 70-71).

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations. In this case, MEPA jurisdiction extends to land alteration, wetlands and water quality, rare species, air and GHG emissions.

### Public Comments

I received comments from, Mayor Alex B. Morse of the City of Holyoke, Pipe Line Awareness Network for the Northeast (PLAN) and the Berkshire Environmental Action Team (BEAT). These comments identify opposition to the project because it will promote and expand the use of fossil fuels rather than renewable energy and request a Supplemental FEIR. The City of Holyoke indicates that it

intends to work with the Holyoke Gas and Electric Company (HGE) to meet the City's energy demand without additional gas from CMA.

### Review of the FEIR

The FEIR was generally responsive to the Scope included in the DEIR Certificate. It provided updated project plans for the pipeline loop and compressor station based on refinements to the project design and pipeline alignment, provided revised wetland boundaries and impact estimates, outlined a comprehensive wetland mitigation program, identified potential mitigation measures for impacts to rare species habitat and included additional information about construction techniques and impacts. Regarding the Longmeadow Meter Station, the FEIR provided a description and plans, analyzed alternative locations, reviewed environmental impacts and mitigation measures, and included a GHG analysis and noise study. The FEIR provided an Environmental Construction Management Plan (ECMP) that identified construction-period mitigation measures to minimize impacts on wetlands, water bodies, water quality, air quality and cultural resources. The ECMP included a Spill Prevention and Control Plan, an Invasive Plant Management Plan, an HDD Contingency Plan, and a Fugitive Dust Control Plan. The FEIR included a list of required permits from State, local and federal agencies and reviewed how the project will comply with applicable environmental regulatory standards. It included responses to comments on the DEIR and provided draft Section 61 Findings.

### *Longmeadow Meter Station*

As required by the Scope in the DEIR Certificate, the FEIR provided additional information and analysis of the meter station, including a detailed description and plans, an analysis of alternative locations, description of construction and operation of the facility and identified impacts and mitigation measures. Construction of the meter station is scheduled to begin in the summer of 2019 and commence operations in November 2019. Upon completion of construction of the meter station, new piping will undergo hydrostatic testing with water obtained from the municipal water system. The test water will be conveyed to a storage tank and disposed of at an approved off-site facility.

### *Alternatives Analysis*

In addition to the Preferred Alternative, the FEIR reviewed alternative meter station sites adjacent to the Connecticut River ("CT River" alternative) and a location east of Interstate-91 (I-91) in southern Longmeadow ("Meadows" alternative). The three locations were selected for more detailed analysis from a larger group of sites on the basis of cost-effectiveness, land area and suitability based on environmental and land ownership siting criteria.

The CT River alternative site is owned by TGP and located over 0.5 miles from the nearest residence. The site was not selected because it is located within rare species habitat and the 100-year floodplain, contains habitat for birds and other wildlife, is located adjacent to the Fanny Stebbins Wildlife Refuge and other protected open space, and would require clearing of 0.9 acres of undeveloped land, including 0.3 acres of prime farmland.

The Meadows alternative site is privately owned but the Proponent could acquire the parcel or an easement. It is located within 0.25 miles of 47 residences. The site is not located within rare species

habitat or the 100-year floodplain, but it is adjacent to the Silvio O. Conte National Fish and Wildlife Refuge and conservation and water supply land owned by the Town of Longmeadow. According to the FEIR, the site is located within an area of archaeological resources and historic properties. Construction of a meter station at the site would require disturbance of 1.1 acres of undeveloped land, including a new access road off a residential street.

The Preferred Alternative is a 1.37-acre site located in the southeastern corner of the Longmeadow Country Club. The Proponent will acquire an easement over the site. The site is adjacent to a residential area; the nearest residence is located 41 feet from the site and 178 residences are located within 0.25 miles of the site. The Preferred Alternative does not contain wetlands, the 100-year floodplain or rare species habitat. The wildlife refuges are located more than a mile from the site. It is located near cultural resources located at the country club. Construction of a meter station at the site will require the least amount of land disturbance and will not impact environmental or cultural resources.

### *Climate Change*

The FEIR described potential impacts to the meter station from climate change, reviewed resiliency measures incorporated into its design and quantified GHG emissions from construction and operation of the meter station. According to the FEIR, the meter station is likely to be most vulnerable to secondary effects of extreme weather events, including flooding, erosion, high winds, power outages and damage to roadways caused by severe rain and snow storms. The Proponent maintains a central monitoring center that continually monitors the system's gas pressures, flows and deliveries. Operational and maintenance procedures will be addressed in the Proponent's Emergency Response Manuals, which identify emergency responses, including responses to extreme weather events. The design of the facilities must conform to USDOT regulations, including the use of noncombustible building materials, safe distances between the facility and adjacent buildings and sufficient space within the facility for the movement of firefighting equipment. The meter station will be equipped with a natural gas-fired back-up generator that will automatically generate power if electricity to the site is disrupted.

The FEIR summarized GHG emissions (quantified as CO<sub>2</sub>e) associated with the construction and operation of the meter station. The sources of emissions during construction and commissioning include construction equipment and venting of gas as new equipment is filled with natural gas. Operation of the meter station will include occasional emissions from venting of gas during maintenance procedures and releases of gas from pipes. The GHG emissions from these sources are quantified in Table 1 below.

**Table 1. GHG Emissions - Longmeadow Meter Station**

Source	Duration/Frequency	CO <sub>2</sub> e
Construction equipment	Once	25 tons
Commissioning	Once	0.01 tons
Maintenance venting	Ongoing	0.05 tpy
Non-routine maintenance venting	Once every 3 to 7 years	0.02 to 4.32 tons per event
Fugitive emissions	Ongoing	72.42 tpy

According to the FEIR, anticipated GHG emissions from the meter station fall well below reporting requirements pursuant to federal and state regulations. Emissions of GHG during construction and commissioning will be minimized by using vehicles meeting Tier 3 and 4 emission standards, water rather than gas to pressure test new piping, and the “hot tap” method to connect the meter station to the existing pipeline without the need to vent gas. Emissions from operation of the meter station will be minimized by reducing pressures in pipelines prior to venting for maintenance procedures and odorizing gas to aid in detection of leaks.

### *Air Quality*

The FEIR summarized emissions of air pollutants from construction and operation of the meter station. Emissions released by the meter station will include VOC, carbon monoxide (CO), particulate matter (PM, PM<sub>10</sub> and PM<sub>2.5</sub>), SO<sub>2</sub> and oxides of nitrogen (NO<sub>x</sub>). Sources of air contaminants are the same as GHG emissions and include construction equipment, venting during commissioning and maintenance activities and fugitive releases. Emissions of air pollutants are summarized in Table 2.

**Table 2. Emissions of Air Pollutants (tpy) - Longmeadow Meter Station**

Source	VOC	CO	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
Construction	0.02	0.16	1.19	0.61	0.11	0.0002	0.19
Commissioning	<0.001	-	-	-	-	-	-
Maintenance venting	<0.001	-	-	-	-	-	-
Fugitive components	0.016	-	-	-	-	-	-

The FEIR reviewed the National Ambient Air Quality Standards (NAAQS) and Massachusetts Air Quality Standards (MAAQS) for the region and regulatory requirements for new emissions. Emissions from the meter station are not expected to cause exceedance of air quality standards.

### *Noise*

The FEIR included a noise study of the meter station site to document existing ambient noise levels and to develop a model of sound levels under conditions with the meter station in operation. Noise levels under existing and proposed conditions were evaluated at three residential “noise sensitive areas” (NSA) located from 80 to 250 feet away from the site.

The analysis compared predicted noise levels to noise standards for compressor stations established by FERC and to the sound level thresholds adopted by MassDEP in its Noise Policy. Average day-night noise levels will increase by up to 2.2 decibels (dB) at the NSAs. According to the FEIR, the contribution of the meter station to predicted average sound levels at the NSAs will be less than 50 dB, which is below FERC’s standard of 55 dB. MassDEP’s Noise Policy establishes a threshold of sound levels from new sources to no more than 10dB above the ambient sound level. The analysis indicated that the noise from the meter station, including noise mitigation measures incorporated into its design, will be no more than 5.9 dB above ambient levels. Noise mitigation measures are listed in the Mitigation section below.



### *Wetlands*

As directed by the Scope in the DEIR Certificate, the FEIR included a revised wetlands delineation prepared in consultation with MassDEP. It also evaluated shifts in the pipeline loop alignment, changes in the size and location of workspace, reductions in construction ROW and construction techniques to minimize impacts to wetland resource areas. It clarified the HDD method that will be used in wetland areas to minimize impacts to resource areas.

According to the FEIR, there are no changes to the alignment of the pipeline loop that would minimize impacts to wetlands without impacting existing infrastructure or utilities, requiring an expansion of the permanent ROW easement or posing construction and engineering challenges. The Proponent identified the following project refinements that will avoid or minimize wetland impacts:

- Reduction of the pipeline construction ROW by 10 feet for a distance of 30 feet at Station 86+70 to avoid Wetland FA;
- Modification of pipeline workspace to avoid a portion of Wetland B;
- Modification of workspace for the compressor station project to avoid impacts to Wetland C; and,
- Bending (“roping”) a section of pipeline at Station 19+00 to avoid linear trenching through a 63-ft section of Wetland N.

These design modification will reduce impacts to wetlands by 2,464 sf compared to the design described in the DEIR. The Proponent will also continue to evaluate a change in the pipeline alignment to avoid a potential vernal pool in Wetland F. The FEIR also clarified that the Proponent will minimize HDD entry and exit locations in Wetlands N and M by establishing workspaces with irregular shapes that are smaller than typically used, and may use above-ground tanks, rather than containment pits, to hold slurry.

The FEIR described a wetland mitigation program with several components, including repair or replacement of two culverts in Agawam. One of the culverts is partially collapsed and has caused a sinkhole to form over a sewer line; the outlet of the second culvert has scoured and impedes passage of fish and other animals within the stream. Repair or replacement of these culverts would restore stream continuity and enhance aquatic habitat. The Proponent may also transfer a 6.1-acre undeveloped parcel of land to the Town of Agawam and make a payment to the Massachusetts Department of Fish and Game’s (DFG) in-lieu fee program (ILFP) to fund environmental mitigation projects.

MassDEP comments indicate that the Proponent must provide a complete and detailed compensatory mitigation plan by August 7 to provide adequate time for review prior to the deadline for issuance of a WQC. The information should be provided in sufficient detail so that MassDEP can evaluate the adequacy of mitigation proposed by the Proponent.

### *Rare Species*

The Proponent is conducting surveys of rare species using protocols developed in consultation with NHESP. The results of the surveys will inform the mitigation program for impacts to Eastern Box Turtle and Eastern Worm Snake habitat. Proposed mitigation for impacts to rare species are listed in the

Mitigation section below. NHESP comments do not request further MEPA review and identify additional information that should be provided during permitting, including the mechanism for protecting an approximately 6-acre parcel containing rare species habitat; a plan for providing additional mitigation to ensure a long-term benefit to Eastern Worm Snake and Eastern Box Turtle; and a construction-period species protection plan.

### Mitigation and Draft Section 61 Findings

The FEIR provided draft Section 61 Findings for use by State Agencies. The Proponent has committed to implementing the measures listed below to avoid, minimize and mitigate Damage to the Environment. The Proponent must provide a GHG self-certification to the MEPA Office that is signed by an appropriate professional (e.g., engineer, architect, transportation planner, general contractor) and indicates that all of the required mitigation measures, or their equivalent to achieve emissions reductions identified in the FEIR, have been completed for each building. The certification must be supported by plans that clearly illustrate the GHG mitigation measures have been incorporated into the project.

#### *Wetlands and Water Quality*

- Conduct construction activities in accordance with the ECMP;
- Minimize direct impacts to Wetlands J and N by using HDD to install a 0.3 mile long section of pipeline;
- Avoid construction in waterbodies during periods of high flow and fish spawning and maintain ambient downstream flow rates;
- Implementation of a Stormwater Pollution Prevention Plan (SWPP) during construction, including use of sedimentation and erosion controls around work areas and stockpiles;
- Restore waterbody channels to original conditions;
- Inspect ROW after construction, maintain sedimentation and erosion controls and conduct restoration activities;
- Restore wetlands within the construction ROW to preconstruction condition, except for wetlands within a 10-ft wide area centered over the pipeline, which will be maintained as herbaceous/shrub wetlands;
- Implement a comprehensive wetland mitigation plan, which may include repair/replacement of two culverts, transfer of a 6.1 acre parcel to the Agawam Conservation Commission and payment to the DFG ILFP; and
- Discharge all water used for hydrostatic testing in containment tanks for off-site disposal at an approved facility.

#### *Rare Species*

Implement a rare species mitigation program consisting of:

- Pre-construction surveys;
- A construction-period monitoring program to minimize impacts to rare species;
- ROW maintenance procedures to minimize impacts to rare species habitat; and,

- Acquisition of an undeveloped parcel of land containing rare species habitat that will be transferred to the Agawam Conservation Commission and be protected through a permanent conservation restriction.

#### *GHG Emissions*

- Use of hot-taps to minimize the amount of vented gas when pipelines are connected;
- Cathodic protection of pipes to minimize leaks caused by pipeline corrosion;
- Use of gas odorizer to allow for quicker leak detection;
- Conduct periodic flyovers of the pipeline to inspect the condition of the ROW;
- Maintain readily available leak repair equipment to minimize releases of gas;
- Reduce pressure prior to venting;
- Incorporate design features in the new turbine to minimize the release of natural gas, including a dry seal system;
- Use of an electric start for the new turbine;
- Inspection and maintenance of the compressor units to minimize leaks; and,
- Use of construction vehicles meeting Tier 3 and 4 emission standards.

#### *Climate Change Adaptation and Resiliency*

- Design pipeline crossings of water bodies to minimize impacts from high velocity flows;
- Design facilities in accordance with federal safety standards to protect pipelines, buildings and other structures from storm and fire related damage;
- Use of a backup generator to maintain power at the compressor station and meter station in the event of a loss of power;
- Remote monitoring of gas pressures, flows and deliveries; and,
- Respond to natural disasters and emergencies in accordance with the Proponent's Emergency Response Manual.

#### *Air Quality*

- Use of a SoLoNox combustion control system in the compressor turbine to minimize NOx formation;
- Use of sensors in low temperature conditions to adjust fuel mixture to the compressor turbine;
- Implementation of good combustion practices in the compressor turbine, such as maintaining the proper ratio of air and fuel;
- Use of an oxidation catalyst in the compressor turbine;
- Use of low sulfur natural gas fuel for the compressor turbine;
- Minimize release of gas during venting and use of dry seals;
- Use of low-VOC natural gas; and,
- Limit idling by construction vehicles, comply with MassDEP's Diesel Retrofit Program during construction and require contractors to use ultra-low sulfur diesel in off-road engines;

*Noise*

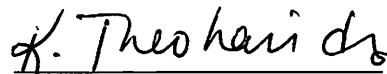
- Use a custom exhaust silencer with the new compressor turbine to reduce operational sound levels compared to existing conditions;
- Use at least one in-duct silencer for the air intake system;
- Place most equipment at the meter station within buildings;
- Install building ventilation systems in the meter station buildings to minimize noise;
- Use of landscaping to minimize noise;
- Use sound curtains if necessary during HDD;
- Conduct construction activities during daylight hours; and,
- Equip construction equipment with mufflers.

Conclusion

Based on a review of the FEIR, comments letters, and consultation with State Agencies, I find that the FEIR adequately and properly complies with MEPA and its implementing regulations. Outstanding issues can be addressed during State and local permitting and review. No further MEPA review is required. The project may proceed to permitting. State Agencies and the Proponent should forward copies of the final Section 61 Findings to the MEPA Office for publication in accordance with 301 CMR 11.12.

August 2, 2019

Date



Kathleen A. Theoharides

## Comments received:

07/24/2019 Berkshire Environmental Action Team (BEAT)  
 07/25/2019 Pipe Line Awareness Network for the Northeast (PLAN) (two comment letters)  
 07/26/2019 Massachusetts Department of Environmental Protection (MassDEP) /  
 Western Regional Office (WERO)  
 07/26/2019 Natural Heritage and Endangered Species Program (NHESP)  
 07/26/2019 Mayor Alex B. Morse, City of Holyoke  
 07/26/2019 Berkshire Environmental Action Team (BEAT)

KAT/AJS/ajs



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Executive Office of Energy & Environmental Affairs

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July 26, 2019

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Massachusetts Environmental Policy Act Office  
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Re: 261 Upgrade Project  
Agawam, FEIR

Dear Secretary Theoharides,

The Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO) appreciates the opportunity to comment on the Final Environmental Impact Report (FEIR) submitted for the proposed 261 Upgrade Project (EEA #15879) in Agawam. Applicable MassDEP regulatory and permitting considerations regarding wetlands, waterways, wastewater, drinking water, air pollution, solid and hazardous waste, and waste site cleanup are discussed.

### **I. Project Description**

The Proponent of the project is Tennessee Gas Pipeline Company, (TGPC) a subsidiary of Kinder Morgan. The 261 Upgrade Project involves construction of approximately 2.1 miles of 12-inch outside diameter gas pipeline in Agawam, and appurtenances including a pig launcher and receiver. The new pipeline is installed to replace and loop an existing main. An abandoned 6-inch gas main will be removed. Most of the new pipeline (work) will be located within the existing TGP Right-of-Way (ROW) or adjacent. The yard/staging area is proposed to be located in Connecticut adjacent to the Compressor Station. In addition, two older compressors and engines will be removed and replaced by one new compressor and engine. One existing building will be removed, and one small building will be added to the compressor station yard. The compressor upgrade and pipeline looping will increase the ability of TGP to deliver gas through the station to meet demand for existing approved contracts. A new Metering Station is also proposed at the Longmeadow Country Club in Longmeadow.

The Agawam portion of the project will require filing a Notice of Intent (NOI) with the Agawam Conservation Commission, a 401 Water Quality Certificate from MassDEP, a permit from Army Corps of Engineers, and review by the Natural Heritage and Endangered Species Program. There are no MassDEP permits associated with the proposed Metering Station in Longmeadow.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

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The FEIR includes the following impacts:

- 39.2 Acres of land; (5.84 Acres of permanent impacts due to buildings pipelines and roads,
- 5.42 Acres of wetland resource (bordering and isolated wetlands); (0.55 acres permanent), and
- 818 linear feet of Bank.

## II. Required Mass DEP Permits and/or Applicable Regulations

### Wetlands and Waterways

310 CMR 10.00

314 CMR 4.00

314 CMR 9.00

### Wastewater

314 CMR 7.00

### Air Pollution

310 CMR 7.00

### Solid Waste

310 CMR 16.000

310 CMR 19.000

### Bureau of Waste Site Cleanup

310 CMR 40.0000

## III. Permit Discussion

### Bureau of Water Resources

#### Wetlands

#### Water Quality Certification

The Proponent submitted a Clean Waters Act Section 401 Water Quality Certificate (WQC) application on October 26, 2018. MassDEP has conducted several meetings and site visits with the Proponent since the submittal of the WQC application. As a result of these efforts, the Proponent has revised resource area delineations and re-quantified impacts to resource areas. A conceptual design for a portion of the requisite compensatory mitigation was submitted to MassDEP in May 2019. However, to date, MassDEP has not received a complete compensatory mitigation proposal. It is MassDEP's understanding that TGPC is working to further develop the mitigation package, but it should be noted that the application is still administratively incomplete due to this outstanding issue, per 314 CMR 9.06(2)(a).

Pursuant to the requirements of FERC, MassDEP must issue its WQC decision by no later than October 26, 2019. In order to allow MassDEP reasonable time to review the complete application, MassDEP has required that a complete, detailed, and thorough compensatory mitigation plan, in compliance with the regulations, be submitted by August 7, 2019. Failure to provide a detailed or complete plan, by this deadline may result in MassDEP issuing a denial of the WQC.

Drinking Water & Wastewater

MassDEP's previous comments remain valid.

Bureau of Air and Waste

Air Pollution

Non-major Comprehensive Plan Approval

MassDEP staff are in the process of reviewing the application as well as all subsequent submittals to determine if the Non-Major Comprehensive Plan Approval (NMCPA) application is complete.

Greenhouse Gas

MassDEP has no additional comments.

Bureau of Waste Site Cleanup

Previous comments remain valid.

**IV. Section 61 Findings**

MassDEP agrees in principle with the Wetlands and Waterways Section 61 Findings but cannot approve of these Findings. A comprehensive and detailed compensation plan has not yet been submitted. MassDEP has authority through the regulatory permitting process for the 401 WQC to determine all potential environmental impacts from the project and to ensure that all feasible measures are taken to avoid, minimize and mitigate any negative impacts, as necessary and to ensure compliance with regulatory requirements and an appropriate compensation package.

MassDEP has also reviewed the Section 61 Findings for the NMCPA permit application and agrees with these Findings.

MassDEP will incorporate Section 61 Finding into any permits issued.

**V. Comments/Guidance**

MassDEP will continue to work with the Proponent to finalize permitting requirements but will not take any action until the Secretary has issued a Certificate.

If you have any questions regarding this comment letter, please contact Catherine Skiba at 413 755-2119 or [catherine.skiba@mass.gov](mailto:catherine.skiba@mass.gov).

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Michael Gorski  
Regional Director

cc: MEPA File





MASSWILDLIFE

## DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581  
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[MASS.GOV/MASSWILDLIFE](http://MASS.GOV/MASSWILDLIFE)

July 26, 2019

Secretary Kathleen Theoharides  
Executive Office of Environmental Affairs  
Attention: MEPA Office  
Alex Strysky, EEA No. 15879  
100 Cambridge St.  
Boston, Massachusetts 02114

Project Name: *261 Upgrade Projects (261B Looping Project)*  
Proponent: *Tennessee Gas Pipeline Company*  
Location: *Agawam, MA*  
Document Reviewed: *Final Environmental Impact Report (FEIR)*  
Project Description: *Construction of underground gas pipeline*  
EEA No.: *15879*  
NHESP Tracking No. *18-37497*

Dear Secretary Beaton:

The Natural Heritage & Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries & Wildlife (Division) has reviewed the *Final Environmental Impact Report (FEIR)* for the *261 Upgrade Projects* (the Project) and would like to offer the following comments regarding state-listed species and their habitats.

Portions of the proposed Project are located within *Priority Habitat* and *Estimated Habitat of Rare Species* as indicated in the 14<sup>th</sup> Edition of the *Massachusetts Natural Heritage Atlas*. Therefore, the proposed Project requires review through a direct filing with Division for compliance with the Massachusetts Endangered Species Act (MESA, MGL c.131A) and its implementing regulations (321 CMR 10.00). The proposed Project will occur within the mapped habitat of Eastern Box Turtle (*Terrapene carolina*) and Eastern Worm Snake (*Carphophis amoenus*). These species are state-listed as Special Concern and Threatened, respectively, and are protected pursuant to MESA.

The Proponent has engaged the Division in pre-filing consultations to discuss potential impacts associated with the Project, and continues to work with the Division to avoid and minimize permanent and temporary impacts to state-listed species and their habitats. The Division is aware that the Proponent has initiated field studies and habitat assessments to identify key habitat areas in which to focus minimization efforts. At this time, a formal MESA filing has not yet been submitted. However, the Division anticipates – based on previously submitted information and ongoing consultations with the Proponent – that the Project, as proposed, will likely result in a Take (321 CMR 10.18 (2)(b)) of the Eastern Worm Snake and Eastern Box Turtle.

Projects resulting in a Take of state-listed species may only be permitted if they meet the performance standards for a Conservation and Management Permit (CMP; 321 CMR 10.23). In order for a project to

**MASSWILDLIFE**

qualify for a CMP, the applicant must demonstrate that the project has avoided, minimized and mitigated impacts to state-listed species consistent with the following performance standards: (a) adequately assess alternatives to both temporary and permanent impacts to the state-listed species, (b) demonstrate that an insignificant portion of the local population will be impacted, and (c) develop and agree to carry out a conservation and management plan that provides a long-term net benefit to the conservation of the state-listed species.

The Proponent has proposed to permanently protect a nearby property as habitat for state-listed species, which appears to represent a suitable option for addressing a portion of the long-term net benefit required by way of a CMP. The Division recommends that the Proponent continue to work proactively with the Division to identify additional mitigation options sufficient to meet CMP standards, which may include protection of additional habitat in the vicinity of the Project site or providing funding to support the long-term conservation of these species. Several outstanding details related to the proposed Project will need to be addressed in order for the Division to be able to issue a CMP for the proposed Project. These details include, but may not be limited to: 1) finalizing the configuration and mechanism of protection of the ±6 acres of suitable habitat to be protected; (2) providing written confirmation from a qualified conservation entity confirming their willingness to hold a conservation restriction; (3) developing a plan to satisfy the remaining long-term net benefit required for Eastern Worm Snake and Eastern Box Turtle under a CMP; and (4) submitting protection plans to protect state-listed species during construction. In addition, the Division recommends that the Proponent continue to work proactively with the Division to refine site plans in order to further minimize impacts to state-listed species and their habitats based on the results of the pre-construction field studies.

The Division will not render a final decision until the MEPA review process and its associated public and agency comment period is completed, and until all required MESA filing materials are submitted to the Division. As the MESA review is ongoing, no alteration to the soil, surface, or vegetation and no work associated with the proposed Project shall occur until the Division has made a final determination. If you have any questions or need additional information, please contact Lauren Glorioso, Endangered Species Review Biologist at (508) 389-6361 or [lauren.glorioso@mass.gov](mailto:lauren.glorioso@mass.gov). We appreciate the opportunity to comment on the proposed Project.

Sincerely,



Everose Schlüter, Ph.D.  
Assistant Director

cc: Deborah McCartney, Tennessee Gas Pipeline Company  
Gina Dorsey, Tennessee Gas Pipeline Company  
Rebecca Weissman, SWCA  
Agawam Board of Selectmen  
Agawam Conservation Commission  
Agawam Planning Department  
DEP Western Regional Office, MEPA Coordinator

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Mayor Alex B. Morse

City of Holyoke

July 26, 2019

Secretary Kathleen A. Theoharides  
100 Cambridge St, Suite 900  
Boston, MA 02114

**Re: Massachusetts Environmental Impact Report,  
Tennessee Gas Pipeline, Project Number ID: 15879**

Dear Secretary Theoharides:

The City of Holyoke respectfully submits these comments on the May 2019 Final Environmental Impact Report issued for the 261 Upgrade Projects (the "Projects"), proposed for Agawam, Massachusetts, with a pipeyard partially in Enfield, Connecticut.

The Projects comprise a 2.1-mile pipeline loop (the "Looping Project") from Compressor Station 261 northwards along Line 261B-100 in Agawam and a replacement of two gas turbines at Compressor Station 261 with a single gas turbine resulting in a 4,418-horsepower increase (the "HP Replacement Project"). The Projects would provide 72,400 Dekatherms per day ("Dth/d") in new capacity, only 63 percent of which is subscribed.

I am writing to urge you to find that the Final Environmental Impact Report for the Tennessee Gas Pipeline 261 Upgrade in Agawam demonstrates that the project is not consistent with the Global Warming Solutions Act of 2009, and to request that the Massachusetts Department of Public Utilities not issue any approvals for the proposed upgrades. The City of Holyoke is committed to carbon-free future for our residents, and is taking action to ensure energy needs are met with clean and renewable resources. The proposed TGP project goes against this commitment which is why I respectfully request your denial of the project.

### **1. General Comments**

The City of Holyoke's Municipal Utility, Holyoke Gas & Electric, has entered into a Memorandum of Understanding with Baystate Gas Company d/b/a/ Columbia Gas of Massachusetts. This MOU was signed on June 6, 2017. In the interim between the execution of this MOU and the issuance of an Environmental Impact Report, I issued a formal policy statement on April 22, 2019 in which I, in my capacity as the Chief Elected Official of the City of Holyoke, stated that I "cannot in good conscience support the building of this pipeline". Subsequently, I filed a Motion to Intervene on May 3, 2019 wherein the following statement was made:

Instead of pursuing pipeline expansion, Holyoke will work to develop and implement better alternatives sooner, which will render the proposed pipeline expansion even more clearly

obsolete. My office will work with HG&E and other stakeholders to develop a plan to implement lower impact energy solutions. We will focus on peak demand reduction by enhancing energy efficiency programs; interruptible service arrangements with institutional customers that have dual fuel capabilities; and expanding access to clean, renewable heating alternatives. HG&E is already committed to plugging 100% of the leaks in its distribution system, which will also help to ease capacity constraints in the short term. These alternatives have the added benefit of positioning the City to provide for its long-term, economic and sustainable energy future in a way that any new gas pipeline capacity cannot accomplish.

It is worth noting that the 5,000 dekatherms per day that HG&E negotiated to receive through its MOU with Columbia Gas of Massachusetts was developed under a future demand scenario that did not take into consideration energy conservation measures. Leak plugging was not considered as a conservation measure, energy efficiency programs targeted at inefficient homes were not considered as a conservation measure, interruptible service agreements were not considered as a conservation measure; business as usual scenarios drove the assumptions under which this agreement was reached.

In the interim, a consensus has coalesced around the following notion: **business as usual is not an acceptable way to address the immediate threat of climate change.** To that end, the City of Holyoke is embarking upon an effort to meet the heating needs of its residential and industrial clients within the 11,800 dekatherms that are currently reserved to HG&E within the existing Northampton Lateral.

Energy conservation, innovation, demand management and regional partnerships will be used to pair down the City's total natural gas consumption. It is worth noting that the City owns and operates a Liquefied Natural Gas facility that compensates for supply constraints during peak events. As this letter is being written, we are actively pursuing partnerships that will facilitate the City's transition to a renewable-energy driven economy that can serve as a model for other small Cities throughout the Commonwealth to follow. Building partnerships takes time and a large driver of coalitions that are forming around this particular energy transition topic would become less urgent if pipeline capacity were upgraded.

Right now, we are endeavoring to chart a course that will allow us to rely upon existing infrastructure and energy conservation initiatives to meet our city's heating needs. The construction of additional pipeline capacity would actively hinder Holyoke's efforts to build a clean energy economy that can sustain itself for decades to come.

As the Commonwealth transitions to a 100% renewable energy mix, electrification of heating elements will become a more widely deployed strategy that will replace natural gas consumption. To a certain extent, this has already begun to take place. For example, American Factfinder demonstrates that **Holyoke already has begun to transition to electric heating.** Consider the following:

- In 2009, 45% of the City relied upon utility gas for heating while 22.2% relied upon electricity.
- In 2017, utility gas had only climbed to 46.9% while electric heating had increased to 31.5%.

This trendline indicates that growth within natural gas has been relatively flat while growth within electric heating has increased steeply. Federal policy should be responsive to local trends. Therefore, it does not appear that natural gas will remain the dominant heating fuel within duration of the upgrades proposed for TGP 261.

I cannot stress this point enough: granting additional pipeline approvals will have the effect of stifling innovation and continuing the lifecycle of an infrastructure component that is approaching the end of its usefulness.

## **2. Wetlands Considerations**

According to the Environmental Impact Report, this project will impact 5.64 acres of wetlands temporarily during construction; permanent alteration consists of 0.49 acres of Bordering Vegetated Wetlands, 0.22 acres of Isolated Vegetated Wetlands, 744 linear feet of Bank and 6.2 acres of Riverfront. Under the Massachusetts Wetlands Protection Act, the construction of utilities, which is a category into which a natural gas pipeline could reasonably be sorted, is eligible for review as a Limited Project under 310 CMR 10.24(7)(b). Limited project status allows applicants to exceed thresholds established in the MA WPA.

In Massachusetts, impacts to jurisdictional resource areas are capped at 5,000 square feet under 310 CMR 10.44(4) and exceeding this threshold would normally require Commissioner of the Massachusetts Department of Environmental Protection to “waive the application of any regulation” for a project under 310 CMR 10.05(10), which is not customarily granted with ease. In effect, the limited project status of this application would limit the ability of local Conservation Commissions and regulators to adequately protect the interests of the Wetlands Protection Act, which include provisions to safeguard water quality, wildlife habitat ecosystem services such as flood damage attenuation.

Granting approval to this project will have the effect of limiting local control over what happens to resources within our municipal administrative boundaries, as approval would place this project beyond the meaningful review threshold of local boards and commissions.

One area the MAWPA does not address is the carbon sequestration that regulated resource areas, such as wetlands, provide across the landscape. Based upon the anticipated wetlands impacts documented within the EIR, 3,922.3 tons of CO<sub>2</sub> and 21.5 tons of CH<sub>4</sub> will be released during the construction process. However, this number is underestimating carbon and methane emissions, as emerging research is working to quantify the carbon storage capacities of wetlands. Based upon existing data, wetlands alterations resulting from the construction process will release between 486 and 1,296 tons of additional CO<sub>2</sub> into the atmosphere. This is not reflected in the GHG budget of the project and should be considered as a component of the total GHG budget for this project proposal.

## **3. Climate Considerations**

Based upon the data contained within “Table 2 Compressor Station Emissions” of the EIR, the Department indicates that there will be an increase in CO<sub>2</sub>e as a result of the proposed upgrade to the Agawam Compressor station. Under existing conditions, it appears that 102,763 tons of CO<sub>2</sub>e are emitted on an annual basis. Under the proposed conditions, it appears that 114,448 tons will be emitted. **This represents an 11.37% increase in CO<sub>2</sub>e emissions** in a time when the United Nations’ Intergovernmental Panel on Climate Change has identified the need to reduce global climate emissions by 45% by the year 2030 in order to avoid an increase in global temperatures of 1.5°C. This is movement, but it is movement in the wrong direction.

Based upon global modeling scenarios, 1.5°C of warming will result in an increase of 1.5 feet of sea level rise with an associated \$10.2 trillion of annual impacts from sea level rise alone. Impacts on GDP from 1.5°C of warming are estimated to result in an 8% reduction of Global GDP.

It should be noted that 1.5°C is the anticipated best-case scenario. Worse outcomes are predicted with 2.0°C of increase in warming. At 2.0°C of warming, global GDP is expected to decrease by 13%. For reference, the global recession of 2008 resulted in a decrease of 4.3% in the national GDP. By comparison, the Great Depression of the 20th Century resulted in a 15% decrease in worldwide GDP. Unless swift, bold action is taken, immediately, to reduce GHG emissions, future generations will exist in a scenario in which the Great Depression happens every year.

Moreover, Departmental Comments associated with the EIR, make the case for a greater investment in renewable energy with the following statement:

The substitute of these non-carbon sources of energy [i.e. wind, solar, hydroelectric generation] for natural gas to be delivered to customers by this project **would minimize** (emphasis added) GHG emissions.... [but] none of these sources are available to the extent necessary and at the same cost of the gas that will be delivered by the project.

-EIR Page 7

This comment is the crux of the problem that society is collectively facing as it seeks to mitigate the impacts of the oncoming climate crisis: rapid investments in renewable energy are necessary for the stability of our global economy and, more importantly, for human civilization, yet policy makers are continuing to grant short-term extensions to a business model that has fundamentally failed to address the long-term needs of the human civilization. Under this scenario, there will never be a financial incentive for heavy investment in transitioning our economy away from fossil fuels.

### **Conclusion**

The time to act to prevent the oncoming climate crisis is now. Climate Change is no longer just an issue for our children and grandchildren, but a clear and present danger that threatens our communities and disrupts our daily lives. As Mayor, it is my duty to ensure a safe climate for the citizens of Holyoke, now, and for generations to come.

To that end, I strongly urge all regulatory agencies to determine that the increases in greenhouse gas emissions associated with this upgrade are incompatible with the needs of the people of the City of Holyoke, its surrounding towns, and our planet.

I ask that you consider the data contained within the Department's comment letter specifically the 11% increase in GHG emissions and the increased impacts to wetlands, to find that this project cannot be approved. It is worth special note that the Massachusetts Global Warming Solutions Act, contains the following language:

In considering and issuing permits, licenses and other administrative approvals and decisions, the respective agency, department, board, commission or authority shall also consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise. M.G.L. c. 30, §61.

Based upon the data contained within the EA, this project should not be granted any permits, any licenses or any administrative approvals under the MEPA Greenhouse Gas Emissions Policy and Protocol, dated 2008. To grant approvals at the state level would have the effect of negating Massachusetts' efforts to mitigate climate change.

Since 2008, reasonably foreseeable climate change impacts have shifted dramatically. Documentation for 2008 framed the climate change debate within the context of decades. In 2018, scientific and policy considerations have narrowed the time to act in a few years. Consider the following: when this upgrade is installed, commissioned and operational in 2021, the industrialized economies of the western world will have fewer than 9 remaining years to take meaningful action on the most pressing issue of our time.

In 2030, a child born today would not even be in high school or eligible to vote. The decisions we make right now on this issue are not ours to make alone: we must ask ourselves what we will say to children struggling to understand our failure to act.

Will we tell them that we were complacent enablers of the systematic dismantling of our world, or

living in?

With Urgency



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July 24, 2019

Secretary Kathleen Theoharides  
Executive Office of Energy and Environmental Affairs (EEA)  
Attn: MEPA Office  
Alex Strysky, EEA No. 15879  
100 Cambridge Street, Suite 900  
Boston MA 02114

**COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT REPORT**  
**Tennessee Gas Pipeline, LLC**  
**261 Upgrade Project / Longmeadow Meter Station**  
**EEA No. 15879 • FERC Docket #CP19-7-000**

Please accept the following comments from Berkshire Environmental Action Team, Inc. (BEAT) and our No Fracked Gas in Mass program, and for the reasons we enumerate, please declare that Tennessee Gas Pipeline Company (Tennessee)'s Final Environmental Impact Report (FEIR) does not adequately and properly comply with the Massachusetts Environmental Policy Act (MEPA).

Tennessee has failed to provide adequate information for state agencies to be able to consider non-pipeline alternatives that would better protect the environment, and Tennessee has failed to be responsive to comments. Tennessee has failed to provide sufficient information for the Massachusetts Department of Environmental Protection (DEP) to know if this project will allow the state to comply with the state's statutory obligation to reduce greenhouse gas (GHG) emissions under the Global Warming Solutions Act.



## **Failure to address Global Warming Solutions Act compliance**

Throughout the first 400 pages of the FEIR, Tennessee's only reference to GHG emissions is in light of USEPA and MEPA reporting thresholds regarding Air Quality. The point brought up by us and numerous other commenters is about the Department of Environmental Protection's statutory requirement to reduce GHG emissions as required by the Global Warming Solutions Act, and upheld by the state's Supreme Judicial Court in 2016 after a unanimous Supreme Judicial Court of Massachusetts (SJC) ruled in favor of CLF and Isabel Kain<sup>1</sup>. The court agreed with us across the board: the emissions reduction mandates in the Global Warming Solutions Act are both real and legally binding, so state agencies must issue regulations to ensure emissions decline steadily and dramatically each year through 2050.

Tennessee's most commonly used response to that argument is the benefit of natural gas over other fossil fuels, as is repeated in copy and paste fashion throughout the FEIR<sup>2</sup>. First of all, this is a false supposition. In Massachusetts, we are strongly encouraging building owners to reduce energy use through energy efficiency measures and then to use beneficial electrification.

Even if you assume that natural gas would displace the use of fuel oil, using natural gas only results in a 1/3 reduction in GHG emissions when considering combustion. It doesn't take into account fugitive emissions.

When finally discussing methane in light of climate impact, Tennessee is choosing a low Global Warming Potential of methane. By citing methane's climate impact below the IPCC's 100-year estimate of 34 times more powerful than CO<sub>2</sub> (25 times used by Tennessee<sup>3</sup>), they are avoiding acknowledging the full long-term impacts of methane emissions. This also does not address the more crucial short-term impact that methane

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<sup>1</sup> Commonwealth of Massachusetts Supreme Judicial Court, Docket SJC-12477, April 13, 2008.  
[http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2018/20180413\\_docket-SJC-12477\\_brief.pdf](http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2018/20180413_docket-SJC-12477_brief.pdf)

<sup>2</sup> *"The 261 Upgrade Projects and the Meter Station Project are consistent with the Commonwealth's energy policy and environmental policy goals regarding the use of natural gas instead of other fossil fuels, ensuring the safe and reliable delivery of natural gas infrastructure ..."* FEIR, page 9-64, response to "J-11"; also page 9-69, response to "K-3"; also page 9-79, response to "M-3" and "M-4"; also page 9-124. Response to "X-3" and "X-4".

<sup>3</sup> *"For example, one ton of CO<sub>2</sub> is equivalent to one ton of CO<sub>2e</sub>, one ton of methane ("CH<sub>4</sub>") is equivalent to 25 tons of CO<sub>2e</sub>"*, FEIR, page G-1 (page 438 of the PDF).

carries over the first 20 years in the atmosphere (86 times the impact of CO<sub>2</sub><sup>4</sup>). Given that the Global Warming Solutions Act goal of 2050 gives us only 30 years, and the IPCC Climate Change report only 12 to drastically reduce our greenhouse gas emissions<sup>5</sup>, the 20-year GWP measure of 86 times more potent is more appropriate. In this light, the short term effects of fugitive methane emissions, though relatively small, have a disproportionate climate impact.

To reach our GWSA goals, we will need to stop adding new sources of combustion and methane emissions altogether. This isn't a gas vs. oil and coal choice, it's a gas vs. electrification powered by solar, wind and storage choice. Massachusetts cannot have increased demand for "natural" gas because our state law, the Global Warming Solutions Act, limits the amount of greenhouse gas that can be emitted. The limit decreases over time and thus our use of "natural" gas must decline.

**Tennessee has failed to satisfactorily answer to our comments on the DEIR:**

***Our comment, marked X-1:***

MEPA GHG Policy and Protocol says that they have to quantify the project's contribution to climate change. Although Tennessee Gas did specify it's expected rise in GHG emissions directly from the HP Replacement Program part of the project (an increase of 11,685 tons per year), we don't see the total contribution to climate change specified in full in the DEIR, especially since it fails to include downstream emissions.

*Their response:*

*A GHG Analysis was prepared for the 261 Upgrade Projects in compliance with the MEPA GHG Policy, and was provided as Appendix J to the DEIR<sup>6</sup>.*

Tennessee's response is limited to compliance with the MEPA GHG Policy and completely fails to account for the emissions that would be produced from the use of the additional "natural" gas that would be burned by adding this capacity. Because Tennessee fails to quantify these downstream emissions, the DEP does not have the

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<sup>4</sup> IPCC, 2013: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA

<sup>5</sup> Ibid.

<sup>6</sup> FEIR, page 9-123 (PDF page 264).

information it needs to assess the impacts this project would have on the state's ability to meet its statutory obligations under the Global Warming Solutions Act. For this reason the Secretary should find that the FEIR does not adequately and properly comply with MEPA.

Tennessee goes so far as to renounce accountability for downstream GHG emissions from the project:

*"Tennessee reiterates that, as set forth in detail in Section 2.0, the Meter Station Project is the result of a specific request from Tennessee's customer, CMA. Tennessee's role as an interstate transporter of natural gas is limited in this scenario. For these reasons, the MEPA review is limited to the Meter Station Project; an analysis of the larger natural gas system and GHG emissions in Massachusetts and the region is beyond the scope of the FEIR."*<sup>7</sup>

***Our comment, marked X3:***

Tennessee should be required to answer:

1. How much natural gas is currently used on the systems this compressor would be supplying?
2. In the new 2019-2021 Three Year Energy Efficiency Plan, how much natural gas on this system will be saved each year? (compounds year after year)
3. If the same amount of money that would fund the proposed expansion was invested in improved energy efficiencies (deep energy retrofits, switching from natural gas heating to high-efficiency heat pumps or geothermal, etc.) instead of this pipeline buildout and compressor station expansion, how much additional natural gas could be saved?
4. Under the new 2019-2021 Three-Year Energy Efficiency plan, how much electric generation will no longer be needed? Will this decrease the need for natural gas to generate electricity in this area?

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<sup>7</sup> FEIR, Page 6-6 (PDF page 120).

*Their response:*

*The Meter Station Project will provide a new delivery point for CMA on the east side of the Connecticut River in Longmeadow, Massachusetts (the nearest existing delivery points are in Agawam and East Longmeadow, Massachusetts). Currently, CMA provides natural gas service to its existing customers on the east side of the Connecticut River by a single pipe that crosses Memorial Street Bridge in Agawam. If something were to happen to that single pipe, delivery of natural gas could be impeded significantly. Adding a new delivery point will enhance reliability and redundancy as well as allowing bi-directional flow east and west across the Memorial Street Bridge to improve operational flexibility. It will reduce the risk of a disruption to CMA's distribution system due to the single source of supply for the City of Springfield and the surrounding communities. The Meter Station Project will enhance system reliability to existing CMA customers and will support the ability of CMW to serve future customers.*

*As described in the FEIR (as well as the DEIR and EENF), Tennessee is required to construct and deliver the Meter Station Project pursuant to a DPU-approved Precedent Agreement with CMA. Tennessee is not in a position to assess CMA's alternatives but must perform as required by Tennessee's customers to comply with the Precedent Agreement.*

*The 261 Upgrade Projects and the Meter Station Project are consistent with the Commonwealth's energy policy and environmental policy goals regarding the use of natural gas instead of other fossil fuels, ensuring the safe and reliable delivery of natural gas infrastructure and upgrading facilities where possible.*

This response, though quite long, in no way answers any of the questions posed and fails to provide MEPA with any pertinent information on emissions and the likelihood of need for this project into the future. Again, citing that part of the project's intended use is to supply gas to ADDITIONAL CMA customers speaks to a planned rise in downstream emissions, an action that would move the Commonwealth further from its Global Warming Solutions Act mandated goals.

***Our comment, marked X-4:***

With the mandated goals of the Global Warming Solutions Act being an 80% reduction of greenhouse emissions by 2050, no new sources of emissions including capacity expansion of existing infrastructure should be considered. At the very least, any new project should be required to

account for all emissions, including downstream use by customers.

*Their reply:*

*Tennessee recognizes that natural gas is one component of the Massachusetts energy portfolio and that Massachusetts has made great strides to increase renewable energy sources. The 261 Upgrade Projects and the Meter Station Project are consistent with the Commonwealth's energy policy and environmental policy goals regarding the use of natural gas instead of other fossil fuels, ensuring the safe and reliable delivery of natural gas infrastructure and upgrading facilities where possible.*

*The FERC is evaluating the information provided in Tennessee's certificate application for the 261 Upgrade Project (FERC Docket No. CP19-7-000) and will make a determination whether the 261 Upgrade Projects are in the public convenience and necessity, under Section 7(c) of the Natural Gas Act when the order is issued in that docket.*

Once again, Tennessee failed to speak to the substance of the comment, ignoring the climate impact of downstream emissions.

Tennessee failed to adequately respond to our comments in which we provided FLIR video evidence of methane leakage. Perhaps Tennessee is unaware of how this specific type of FLIR video works to show methane leakage.

FLIR video used by the Earthworks team is limited to a specific spectrum that captures specific hydrocarbon emissions, including methane. The temperature ratings of the area within the center target appear in the upper left-hand corner of the screen. The camera operator moves the focal point from the extremely hot plume (bright white area) to capture that temperature, then moves to an area well above and away from the plume to capture ambient air temperature and then to the visible emissions plume above the immediate hot emissions. You will see the temperature remains within a few degrees of ambient air temperature (approx. 28°F), showing that the visible plume in that area is NOT a heat reading, but a capture of methane emissions.

Checking Tennessee's reply to our filing of the Earthworks video, Peter Dronkers, the camera operator who shot the video, pointed out that Tennessee specifies in their reply

that there are VOCs and methane in the emissions coming from those stacks<sup>8</sup> at the same time they're trying to establish that the content of the video cannot be conclusively determined. He also pointed out that the argument about water vapor is most likely inaccurate, due to the limited spectrum of the camera's sensors.

*"The camera doesn't really detect water vapor as it assimilates too quickly with surrounding air. It would see the initial heat from a steam source, but not a plume of water vapor beyond the heat of the steam."<sup>9</sup>*

### **Continued denial of segmentation in other filings**

It has also been concerning to see Tennessee's continued insistence on the FERC docket (CP19-7-000) that the Longmeadow Meter Station is not part of this project.

*"As previously stated throughout this proceeding, Tennessee has authority to construct the Meter Station Project pursuant to the Commission's blanket certificate regulations, and Tennessee's blanket certificate, issued in Docket No. CP82-413-000 on September 1, 1982. The Meter Station Project will be constructed and operated in compliance with the applicable standard conditions outlined in the Commission's regulations governing automatic blanket projects, specifically 18 C.F.R. § 157.206(b) (2019), and the Meter Station Project will be included in Tennessee's annual report on blanket projects, filed by May 1 for projects completed during the applicable preceding year.*

*Tennessee respectfully requests that the Commission reject the demand of PLAN, BEAT, and the Town of Longmeadow to declare that the Meter Station Project is a component of the 261 Upgrade Projects. As Tennessee has consistently reported to the Commission in this docket since the certificate application was filed on October 19, 2018, the Meter Station Project is a separate and distinct project from the 261 Upgrade Projects, and has independent utility to meet the requested need of its shipper, CMA. The commenting parties' continuing attacks do not change the facts regarding the separate nature and timing of the Meter Station Project and should not be used to delay the*

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<sup>8</sup> "The exhaust exits the stacks at temperatures ranging from 900o F to 1200o F and is comprised of the primary products of combustion, including water vapor, carbon dioxides ("CO2"), nitrogen, nitrogen oxides ("NOx"), carbon monoxide ("CO"), VOCs, and methane." FEIR, chapter 9, PDF page 336.

<sup>9</sup> Email with Peter Dronkers of Earthworks, FLIR camera technician who captured images of emissions at the Agawam 261 compressor station in January of 2019. Email conversation July 24, 2019.

*construction of the Meter Station Project under the Commission's automatic blanket authority.<sup>10</sup>*

We commend the MEPA office for recognizing the connection between the other elements of the 261 Upgrade Project and the Longmeadow Meter Station and requiring that Tennessee include it in this FEIR. We request that the MEPA office file comments on the reasons for your inclusion of the Longmeadow Meter Station onto the FERC docket<sup>11</sup>.

### **Conclusion**

From the MEPA website:

*The Massachusetts Environmental Policy Act (MEPA) requires that state agencies study the environmental consequences of their actions, including permitting and financial assistance. It also requires them to take all feasible measures to avoid, minimize, and mitigate damage to the environment .*

*MEPA further requires that state agencies "use all practicable means and measures to minimize damage to the environment," by studying alternatives to the proposed project, and developing enforceable mitigation commitments, which will become conditions for the project if and when they are permitted.*

In our previous comments we asked that Tennessee to provide information on "practicable means and measures to minimize damage to the environment" by studying non-pipeline alternatives that would include energy efficiency, demand reduction, and beneficial electrification programs - all programs supported by the state - to reduce "natural" gas demand by as much or more than the increase in "natural" gas capacity proposed by Tennessee.

Tennessee has been unresponsive to this request in our comments and thus has failed to provide the required information on all "practicable means and measures to minimize damage to the environment" by studying alternatives.

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<sup>10</sup> Answer/Response to a Pleading/Motion, filed by Tennessee Gas on July 17, 2019, FERC docket #CP19-7-000, Accession Number 20190717-5107.

<sup>11</sup> Comments may be filed with FERC electronically at <https://www.ferc.gov/docs-filing/efiling.asp>, or sent by mail to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. Please specify docket #CP19-7-00 for the Tennessee Gas 261 Upgrade Project. If necessary, they have a customer service line for questions - 1-866-208-3372.

Because state agencies need the information that Tennessee has failed to provide, the agencies will be unable to take a hard look at the non-pipeline alternatives that would reduce customer demand, not just transport more gas into a region that is weaning itself off of natural gas.

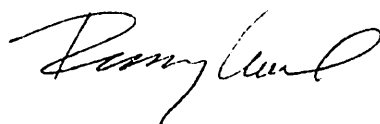
Without this information, the Secretary must decide that the FEIR does not adequately and properly comply with MEPA.

Thank you for considering our comments.

Sincerely,



Jane Winn, Executive Director  
Berkshire Environmental Action Team



Rosemary Wessel, Program Director  
No Fracked Gas in Mass, A Program of Berkshire Environmental Action Team

Cc:

*Massachusetts Governor Charles Baker*  
*Massachusetts Attorney General Maura Healey*  
*Federal Energy Regulatory Commission*  
*United States Senator Elizabeth Warren*  
*United States Senator Edward Markey*





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July 26, 2019

Secretary Kathleen Theoharides  
Executive Office of Energy and Environmental Affairs (EEA)  
Attn: MEPA Office  
Alex Strysky, EEA No. 15879  
100 Cambridge Street, Suite 900  
Boston MA 02114

**SUPPLEMENTAL COMMENTS ON THE  
FINAL ENVIRONMENTAL IMPACT REPORT  
Tennessee Gas Pipeline, LLC  
261 Upgrade Project / Longmeadow Meter Station  
EEA No. 15879 • FERC Docket #CP19-7-000**

These comments are in addition to those previously filed by Berkshire Environmental Action Team and No Fracked Gas in Mass. Tennessee has submitted comments in the FEIR regarding the FLIR video of Tennessee Gas' 261 Compressor Station in Agawam that we had filed for the DEIR as supplemental comments. On July 24, we submitted a response to those comments on the FEIR from one of the FLIR recording team members who shot the video. We will repeat these here for the sake of a complete record and then include additional comments from the second member of the team who responded when she had time to review Tennessee's comments, after we had filed.

*Previously submitted comments regarding input from Peter Dronkers of Earthworks:*

Checking Tennessee's reply to our filing of the Earthworks video, Peter Dronkers, the camera operator who shot the video, pointed out that Tennessee specifies in their reply that there are VOCs and methane in the emissions coming from those stacks<sup>1</sup> at the

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<sup>1</sup> "The exhaust exits the stacks at temperatures ranging from 900o F to 1200o F and is comprised of the primary products of combustion, including water vapor, carbon dioxides ("CO2"), nitrogen, nitrogen oxides

same time they're trying to establish that the content of the video cannot be conclusively determined. He also pointed out that the argument about water vapor is most likely inaccurate, due to the limited spectrum of the camera's sensors.

*"The camera doesn't really detect water vapor as it assimilates too quickly with surrounding air. It would see the initial heat from a steam source, but not a plume of water vapor beyond the heat of the steam."<sup>2</sup>*

*Additional comments from Leann Leiter of Earthworks<sup>3</sup>, citing Tennessee's statements:*

*1. "The mere presence of VOCs and/or methane emissions from the exhaust stacks as alleged by BEAT is not an indication of noncompliance"*

I would assert that even if the facilities are operating within compliance, the FLIR footage provides visual evidence of the pollution burden and community concern created by the facility. We are not asserting a violation or noncompliance has occurred, but rather documenting emissions for use by the community, which may include requesting investigation or action by regulators.

*2. "The replacement of the existing compressor units with one new unit will result in a decrease in methane and VOC emissions at CS 261."*

"As part of the 261 Upgrade Projects that are the subject of the DEIR," this leads me to wonder if other planned "upgrades" will lead to increases in these or other pollutants?<sup>4</sup>

*3. Some of the phrasing in the letter indicates that they assume BEAT filmed the video.*

It's important to note that our thermographers (at Earthworks) are independently trained and certified to utilize this technology for this application. See <https://earthworks.org/cep-faq/>, esp. #s 2, 4, 5, 6.

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*("NOx"), carbon monoxide ("CO"), VOCs, and methane." FEIR, chapter 9, PDF page 336.*

<sup>2</sup> Email with Peter Dronkers of Earthworks, FLIR camera technician who captured images of emissions at the Agawam 261 compressor station in January of 2019. Email conversation July 24, 2019.

<sup>3</sup> Email with Leann Leiter of Earthworks, member of FLIR camera team who captured images of emissions at the Agawam 261 compressor station in January of 2019. Email conversation July 24, 2019.

<sup>4</sup> \*No Fracked Gas in Mass has responded to Leann that not only is this currently proposed upgrade in addition to those recently made for the Connecticut Expansion Project, but the increase in horsepower of the new compressor unit over the two being removed will result in higher CO<sub>2</sub>e emissions overall (Table 5-7 in the DEIR of 11,685 tons per year CO<sub>2</sub>e of GHG emissions), as stated by Tennessee in the DEIR. We cannot predict any additional upgrades that Tennessee may propose in the future.

4. " the FLIR Camera's application for identifying or characterizing combustion emissions from a turbine exhaust is not a demonstrated or verified use."

This statement implies that the camera is being used outside of it's specifications, which I believe to be inaccurate -- the FLIR camera is industry-standard technology for detecting emissions from various sources. More on that here: [https://earthworks.org/publications/flir\\_gasfinder\\_320\\_infrared\\_camera/](https://earthworks.org/publications/flir_gasfinder_320_infrared_camera/)

Thank you for considering these additional comments from the Earthworks Team.

Sincerely,



Jane Winn, Executive Director  
Berkshire Environmental Action Team



Rosemary Wessel, Program Director  
No Fracked Gas in Mass, A Program of Berkshire Environmental Action Team

Cc:

*Massachusetts Governor Charles Baker*  
*Massachusetts Attorney General Maura Healey*  
*Federal Energy Regulatory Commission*  
*United States Senator Elizabeth Warren*  
*United States Senator Edward Markey*

**P♦L♦A♦N**  
**PIPE LINE AWARENESS NETWORK**  
FOR THE **NORTHEAST, INC.**  
[www.plan-ne.org](http://www.plan-ne.org)

July 25, 2019

**VIA EMAIL**

Secretary Kathleen Theoharides  
Executive Office of Energy and Environmental Affairs  
Attn: MEPA Office, EEA No. 15879  
Alex Strysky, MEPA Analyst  
100 Cambridge Street, Suite 900  
Boston MA 02114

**Re: EEA #15879, Tennessee Gas Pipeline 261 Upgrade Projects,  
Agawam and Longmeadow, Comments on FEIR**

Dear Secretary Theoharides:

The Pipe Line Awareness Network for the Northeast, Inc. ("PLAN") submits the following comments in response to the Final Environmental Impact Report ("FEIR") submitted by Tennessee Gas Pipeline Company L.L.C. ("TGP" or the "Applicant") for its proposed 261 Upgrade Projects (the "Projects").

**FEIR's responses to PLAN's Previous Comments**

TGP's responses in the FEIR to many of PLAN's previous comments are inadequate. For example, in response to several of PLAN comments, the Applicant states that the Connecticut Expansion Project is a separate project.<sup>1</sup> We are not raising the issue of possible improper segmentation regarding the Connecticut Expansion at this time; rather, we believe that the newly proposed Projects by the same Applicant, on the same interstate pipeline, at the same site, are relevant to how the agencies should view forward-looking assertions from the Applicant. Shortcomings and failings of the Applicant are demonstrative of their work ethic and relevant to the new proposal.

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<sup>1</sup> See G-12 in the FEIR.

PLAN reiterates that the majority of the environmental issues and impacts raised by the instant Project proposal can and should be avoided by denying permitting for the proposed pipeline loop. Several matters relating to the remaining components of the Projects are discussed below.

### **Meter Station**

The Applicant states, misleadingly, in its response to comment HH-1: “Tennessee is required to construct and deliver the Meter Station Project pursuant to a DPU-approved Precedent Agreement with Bay State Gas Company dba Columbia Gas of Massachusetts (“CMA”). Tennessee is not in a position to assess CMA’s alternatives but must perform as required by Tennessee’s customers to comply with the Precedent Agreement.”

In fact, the referenced precedent agreement (the “Precedent Agreement”) specifies that it is “contingent upon the receipt and continuation of all necessary regulatory approvals or authorizations” and that the Precedent Agreement “shall be void and of no force and effect if any necessary regulatory approval is not so obtained or continued”.<sup>2</sup> Moreover, the publicly available Precedent Agreement does not specify a particular location for the meter station, beyond being “located on Transporter’s [i.e., TGP’s] 200 Line in Zone 6 in Hampden County, Massachusetts.

Multiple portions of the Meter Station would be constructed by CMA and therefore presumed to be subject to the jurisdiction of the Massachusetts Energy Facilities Siting Board (“EFSB”), in conjunction with a 200 psi pipeline that CMA intends to seek EFSB approval to construct. (This new CMA pipeline would connect in Springfield to CMA’s existing system). An EFSB proceeding concerning these facilities will require “a description of the alternatives to the facility, such as other methods of transmitting or storing energy, other site locations, other sources of electrical power or gas, or a reduction of requirements through load management.” MGL ch. 164, section 69J. While that EFSB proceeding will concern CMA’s facilities, not TGP’s, both companies are seeking to preclude the consideration of alternatives which would be reasonable and appropriate for that state agency to consider.

### **Electric Motor-Driven Compression Alternative**

PLAN disputes TGP’s assertions regarding the inappropriateness of an electric motor rather than a gas turbine for the HP Upgrade Project, including TGP’s allegations of siting constraints for a substation. TGP asserts that in addition to the need to site a substation, electric-powered compression would not be as reliable as gas-powered, but the Applicant provides no examples of failures at electric-powered compressor stations. Not only does TGP have other

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<sup>2</sup> Gas Transportation Contract between TGP and CMA dated August 28, 2018 (available in Exhibit I to the FERC Application.)

electric-powered compressor units in the region, these facilities include backup generators to enhance reliability.

Without more thorough analysis of the electric option, FERC is poised to allow TGP to disregard the climate policies of the Commonwealth of Massachusetts, as well as the ongoing shift in the region's electric grid towards renewable electric generation sources with lower greenhouse gas emissions than natural gas.

As included in our comments to FERC, the image below from the Draft Environmental Impact Report for the Projects<sup>3</sup> shows where TGP plans to clear trees for a temporary access road to the pipeyard site that TGP already owns. If a substation is necessary, this pipeyard appears to be one viable location.



Land immediately to the east of the CS 261, closer to the high voltage transmission lines, is another option that would avoid the wetlands to the west.

<sup>3</sup> Available at <https://elibrary.ferc.gov/IDMWS/common/OpenNat.asp?fileID=15150905>, (Attachment A, page 1 of 7, p. 380 of file).

Moreover, requiring electric-driven compression has been shown to reduce not just emissions but also overall costs, which could result in savings for ratepayers.<sup>4</sup>

**Air Quality Monitoring**

TGP reports in its Application to FERC that the nearest air monitoring stations are 5.5 and 11.5 miles away in Springfield and Westfield.<sup>5</sup> Recently, legislation has been filed<sup>6</sup> requiring air monitoring stations to be installed within one half-mile of gas compressor stations. The air permit recently granted for the gas compressor station in Weymouth requires that such an air monitoring station be installed. The same must be required of TGP in Agawam, where the Applicant proposes to increase both horsepower and emissions from Station 261. (Furthermore, even if an electric option is chosen for the HP Replacement Project, large gas turbines will remain in operation at the site; air quality monitoring would still be appropriate given the area's history of NAAQS nonattainment designations.)

Please hold TGP to strict compliance with the regulations and policies of the Commonwealth.

Respectfully submitted,



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(978) 204-3940

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<sup>4</sup> "Install Electric Compressors," PRO Fact Sheet No. 103, *Partner Reported Opportunities (PROs) for Reducing Methane Emissions* (available at <https://www.epa.gov/sites/production/files/2016-06/documents/installelectriccompressors.pdf>).

<sup>5</sup> Resource Report 9 - Air and Noise Quality, at 9-16, available at <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=15078261>.

<sup>6</sup> See <https://malegislature.gov/Bills/191/H2909>.

Rosemary Wessel, Pittsfield, MA.

Berkshire Environmental Action Team / No Fracked Gas in Mass have just contacted Mass DEP with concerns over unacceptable conditions along the Connecticut Expansion ROW reported to them by an abutting landowner.

See email message below:

Hello Mr. Stinson,

On July 23 we were contacted by Sandisfield resident Leslie Desmond, concerning an incident that took place on her property on Hammertown Road on July 16. She was walking along a piece of the property where she's been intending to put up fencing and pasture her horses and encountered what she calls sink holes, falling partially into one.

That evening, a member of our team along with someone who is knowledgeable as a civil engineer, met with Leslie to have a look at her property. The area in question is clearly within the work area limits of disturbance of the Connecticut Expansion pipeline.

Our feeling is that the site is definitely not returned to pre-existing condition after pipeline construction and portions of the pipeline through wetlands was exposed, leaving us wondering about potential for ice damage in winter, which we've heard about leading to rupture with other northern state transmission pipelines in Pennsylvania and Minnesota.

Please go out to inspect the site. The most recent reports from Tennessee filed with DEP are all classified as "acceptable", when this situation clearly is not.

Cc

Secretary of Energy and Environmental Affairs, Kathleen Theoharides  
Massachusetts Office of Attorney General

FERC

PHMSA

Senator Elizabeth Warren

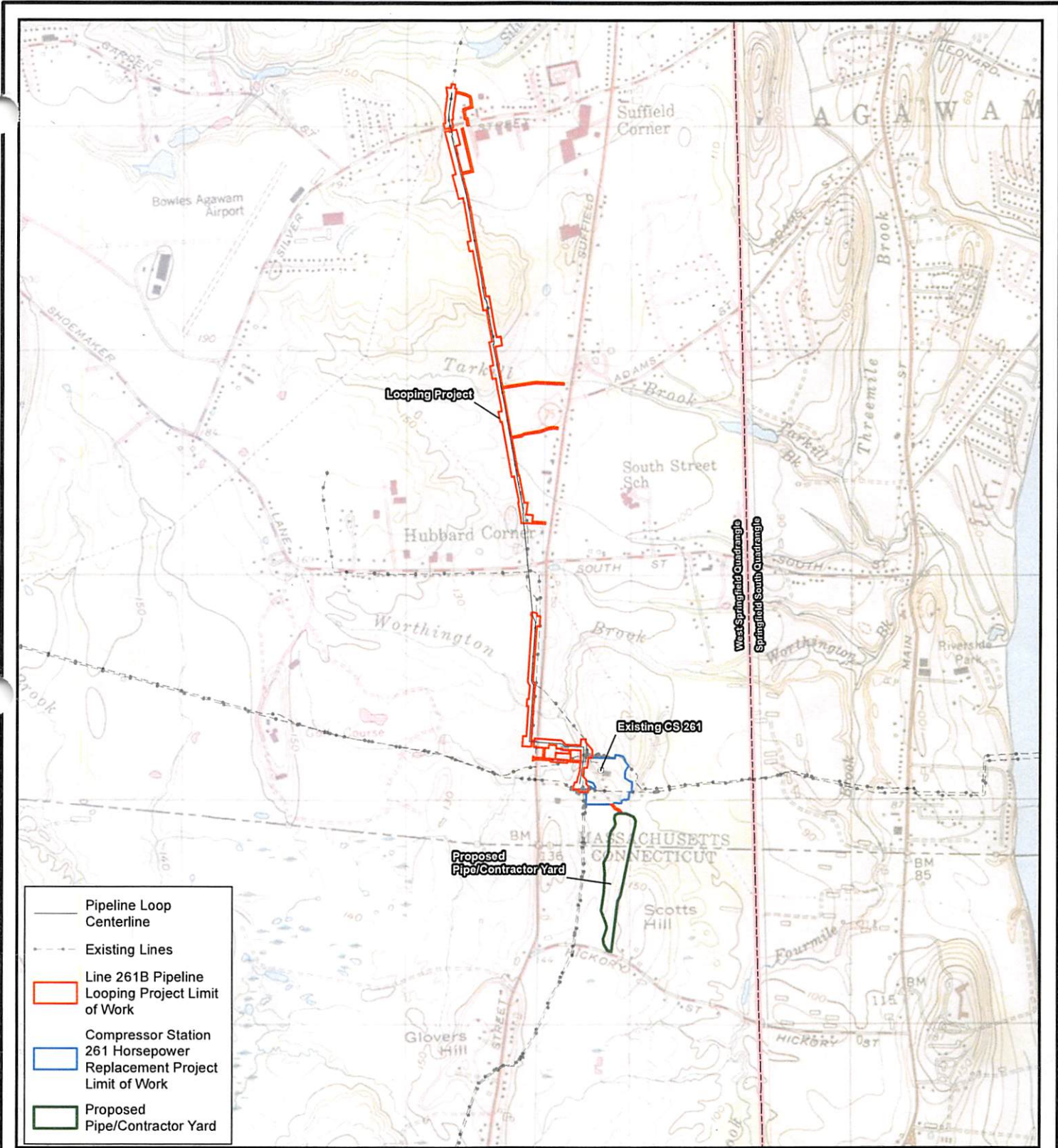
Senator Ed Markey



Document Content(s)

91927.TXT.....1-1

From DEIR



- Pipeline Loop Centerline
- - - Existing Lines
- Line 261B Pipeline Looping Project Limit of Work
- Compressor Station 261 Horsepower Replacement Project Limit of Work
- Proposed Pipe/Contractor Yard

**SWCA**  
ENVIRONMENTAL CONSULTANTS

**Figure 1-2**  
**261 Upgrade Projects**  
**USGS 7.5-Minute**  
**Topographic Quadrangle**

Hampden County, MA, Town of Agawam  
Hartford County, CT, Town of Suffield

08 Oct 2018  
SWCA Project No.: 045687.00

Data Source: USGS Topo Map

0 1,000 2,000 Feet

N

Inset map showing the location of the project area within the surrounding regions of Massachusetts (Westfield, Chicopee, Milbraham, Springfield, West Springfield, Northampton, Southwick, Agawam, Hampden, Southwick, East Longmeadow, East Longmeadow, Suffield, Enfield, Somers, East Windsor Locks, East Windsor) and Connecticut (Granby, Suffield, Enfield, Somers, East Windsor Locks, East Windsor).

Latitude 42.034717° N  
Longitude -72.633895° W

