

**COMMONWEALTH OF PENNSYLVANIA**  
**Department of Environmental Protection**  
**Bureau of Air Quality**  
July 25, 2017

**SUBJECT:** General Conformity Plan Approval Review Memo  
Transcontinental Gas Pipe Line Company, LLC  
Lancaster County  
Plan Approval 36-001GC

**TO:** Krishnan Ramamurthy  
Acting Director  
Bureau of Air Quality

**THROUGH:** Chris Trostle  
Chief, Mobile Sources Section  
Bureau of Air Quality

**FROM:** Sean C. Wenrich  
Chief, New Source Review Section  
Bureau of Air Quality

On July 14, 2017, the Department received a plan approval application to memorialize the use of emission reduction credits (ERCs) as offsets for a project in Lancaster County. The project involves construction activities related to the Atlantic Sunrise pipeline project and must satisfy requirements specified by the Federal Energy Regulatory Commission's (FERC) General Conformity Determination for the project. The application contains all necessary forms, including a general information form (GIF), compliance review form, municipal notifications, and a \$1,000 application fee. The project covers eight municipalities in Lancaster County, all of which were appropriately notified on July 12, 2017.

The Atlantic Sunrise Project (Project) is an expansion of the existing Transcontinental Gas Pipeline Company, LLC's (Transco) interstate natural gas transmission pipeline system that will enable Transco to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania to its existing market areas. The Project includes modifications to the existing Transco Mainline system to reverse the direction of flow, enabling new north-to-south capabilities (multi- and/or bi-directional flow) to transport product from this new source of natural gas to existing markets.

This plan approval is solely for the purpose of memorializing the use of ERCs as offsets as required by General Conformity. There are no stationary air contaminant sources associated with this project. Requirements such as Best Available Technology (BAT), New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Prevention of Significant Deterioration (PSD), or Nonattainment New Source Review (NNSR) are not applicable in this case. Pursuant to 25 Pa. Code §127.208(2), the transfer and use of ERCs as offsets are required to be granted in a plan approval or operating permit. A plan approval was

chosen as the appropriate mechanism since there will be no operating permit associated with this project.

General Conformity requirements are promulgated at 40 CFR Part 93, Subpart B (relating to determining conformity of general Federal actions to state or Federal implementation plans) and adopted and incorporated by reference in their entirety in the Pennsylvania Code at 25 Pa. Code Chapter 127, Subchapter J (relating to general conformity), Section 127.802. The General Conformity Rule ensures that federal actions comply with the national ambient air quality standards. The Atlantic Sunrise project construction activities exceed the 100 ton per calendar year *de minimis* threshold of emissions for nitrogen oxides (NO<sub>x</sub>) as described in 40 CFR § 93.153(b). When the *de minimis* threshold is exceeded, General Conformity requires that all direct and indirect project emissions be mitigated or offset to ensure that a project in a nonattainment or maintenance area for the National Ambient Air Quality Standards (NAAQS) conforms to the State Implementation Plan and that air quality is not adversely affected.

The temporary construction emissions estimates from the Project indicate that the Project triggers the General Conformity Rule for NO<sub>x</sub> which is a precursor pollutant for both ozone and particulate matter with an aerodynamic diameter of 2.5 microns or less (PM<sub>2.5</sub>) for calendar year 2017 in Lancaster County, Pennsylvania. Lancaster County is currently designated as a nonattainment area for the 2008 Ozone NAAQS and a maintenance area for the 2006 24-hour PM<sub>2.5</sub> NAAQS.

Transco estimated that 105.4 tons of NO<sub>x</sub> would be required to be offset. This was determined using EPA's MOVES 2014 modeling software and AP-42 emission factors. FERC approved this NO<sub>x</sub> emission estimation in January 2017. The use of 106 tons of NO<sub>x</sub> ERCs as offsets satisfy the requirements of 40 CFR §93.158(a)(2), as stated in the FERC approval. The Pennsylvania DEP submitted comments to FERCs on December 29, 2016 concurring that the use of 106 tons of NO<sub>x</sub> ERCs as offsets satisfies the General Conformity requirements. In addition, the company does not need to obtain two sets of offsets for NO<sub>x</sub> emissions even though NO<sub>x</sub> is regulated as a precursor both for ozone and PM<sub>2.5</sub>.

The 106 tons of NO<sub>x</sub> ERCs were generated from the shutdown of the Harford County Resource Recovery Facility in Harford County, MD on March 17, 2016. This was a municipal waste combustor that provided steam to the Edgewood Area of the Aberdeen Proving Ground.

Harford County, MD is located on the Pennsylvania border and shares a point border with Lancaster County where the Susquehanna River crosses the Pennsylvania-Maryland border. This interstate ERC trading is allowed under 25 Pa. Code §127.208(5) since Pennsylvania and Maryland have an ERC reciprocity agreement entered into on January 18, 2002. Harford County is a nonattainment area for the 2008 Ozone NAAQS and a maintenance area for the 1997 PM<sub>2.5</sub> NAAQS. The nonattainment levels for Ozone and PM<sub>2.5</sub> NAAQS are the same in both Harford County, MD (as part of the Baltimore area) and Lancaster County, PA, satisfying the requirements of 25 Pa. Code §127.208(6).

Since both Maryland and Pennsylvania are both within the ozone transport region and neither Lancaster County, PA nor Harford County, MD are located in ozone nonattainment areas classified above moderate, both counties are considered to be in a single nonattainment area in accordance with 25 Pa. Code §127.208(9) and the ERCs are allowed to be used as offsets under 25 Pa. Code §127.208(10). For the PM<sub>2.5</sub> and Ozone NAAQS, Transco's plan approval application shows that emissions from the Baltimore area contribute to the Lancaster area

through the use of the Hybrid Single Particle Lagrangian Integrated Trajectory Model (HYSPLIT) in conjunction with previous air quality modeling performed by the Virginia Department of Environmental Quality, demonstrating that the identified ERC's contribute at least 1 part per billion (ppb) or more to the ozone pollution concentration in Lancaster County. The HYSPLIT analysis done originally from Howard County, MD and shows that NO<sub>x</sub> emissions from Howard County contribute to Lancaster County. Howard County is located within the Baltimore maintenance area just as Harford County is. Subsequently, Transco revised the HYSPLIT analysis to include Harford County. Harford County is closer to Lancaster County than Howard County and lies within the HYSPLIT trajectories from Howard County. Therefore, the conclusions reached by the HYSPLIT analysis for Howard County are valid for Harford County. This meets the requirements of 25 Pa. Code §127.208(11)(ii).

Since the shutdown of the Harford County Resource Recovery Facility, no new NO<sub>x</sub> requirements have been promulgated for municipal waste combustors. Therefore, the 106 tons of NO<sub>x</sub> ERCs do not need to be reduced in accordance with 25 Pa. Code §127.206(c).

On July 5, 2017, the Department received a letter from Karen Irons of the Maryland Department of the Environment (MDE). In the letter, MDE approved the release of the 106 tons of NO<sub>x</sub> ERCs from the Maryland ERC registry to the Pennsylvania ERC registry for use as offsets for the Atlantic Sunrise Project in Lancaster County.

Based upon my review of the plan approval application, I recommend that Plan Approval 36-001GC be issued to Transcontinental Gas Pipe Line Company, LLC to memorialize the use of NO<sub>x</sub> ERCs as offsets for the Atlantic Sunrise project located in Lancaster County.