PennEast Pipeline Company, LLC
One Meridian Boulevard, Suite 2C01
Wyomissing, PA 19610

September 12, 2016

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

Re: *PennEast Pipeline Company, LLC*, Docket No. CP15-558-000
Comments on Draft Environmental Impact Statement

Dear Ms. Bose:

On September 24, 2015, PennEast Pipeline Company, LLC (PennEast) filed its Application for Certificates of Public Convenience and Necessity and For Related Authorizations with the Federal Energy Regulatory Commission (Commission) for the PennEast Project (Project). On July 22, 2016, Commission Staff issued the Draft Environmental Impact Statement (DEIS) for the Project. In its Notice of Availability for the DEIS, the Commission established a comment deadline of September 12, 2016 for submission of comments on the DEIS.

PennEast hereby submits its comments on the DEIS. Appendix A provides a table containing PennEast's comments and identifying the section and text of the DEIS to which each comment applies. Several comments reference attachments providing further applicable information, which are appended to the end of the table.

Should you have any questions concerning this filing, please contact me at (610) 406-4322.

Sincerely,
/s/ Anthony C. Cox
Anthony C. Cox
PennEast Pipeline Company, LLC,
By its Project Manager
UGI Energy Services, LLC

cc: Medha Kochhar (FERC)
All Parties of Record

Appendix A

PennEast Pipeline Project

Draft Environmental Impact Statement Comments

Docket No. CP15-558-000

FERC EIS: 0271D

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
Executive Summary	ES-6	2nd	No permanent fill or loss of wetland area would result from construction and operation of the Project.	Two small palustrine emergent wetlands would be filled to construct and operate the Kidder Compressor Station.	"Approximately 0.01 acre (604 square feet) of isolated PEM wetlands will be filled to accommodate construction and operation of the Kidder Compressor Station."
Executive Summary	ES-12	1st	"The surveys identified 14 archaeological sites in Pennsylvania…"	23 archaeological sites have been identified in Pennsylvania. This is correctly reported in Section 4.9.2.1.	"The surveys identified 23 archaeological sites in Pennsylvania and six sites in New Jersey."
1.4.2	1-14, 1-15	2nd	"The most frequently received comments concern topics on loss of property value, added responsibility for small emergency response teams, **arsenic release into groundwater from blasting**…." (emphasis added).	PennEast's arsenic study did not just consider blasting; it also considered excavation, placement, and backfilling associated with conventional pipeline installation.	Replace quoted portion of text with the following: "The most frequently received comments concern topics on loss of property value, added responsibility for small emergency response teams, arsenic release due to pipeline construction activities and operation..."
3.0	3-1	2nd	"PennEast's primary objective is to provide approximately 1.1 MMDth/d of year-round natural gas transportation service from northern Pennsylvania to markets in New Jersey, eastern and southeastern Pennsylvania, and surrounding states, through an	The PennEast Project includes multiple delivery points and interconnects with the pipeline grid to serve markets in New Jersey and Pennsylvania in addition to the interconnect with Transco.	Change text to: "PennEast's primary objective is to provide approximately 1.1 MMDth/d of year-round natural gas transportation service from northern Pennsylvania to markets in New Jersey, eastern and southeastern Pennsylvania, and surrounding states, through multiple delivery points and interconnects with

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
			interconnect with the Transcontinental Gas Pipe Line (Transco) pipeline in Hopewell Township, Mercer County, New Jersey."		the pipeline grid, including interconnects with Algonquin Gas Transmission, LLC, Columbia Gas Transmission, LLC, Texas Eastern Transmission, LP, and Transcontinental Gas Pipe Line Company, LLC, among other delivery points."
3.1	3-3	1st	"Under the No Action Alternative, the short- and long-term environmental impacts described in this EIS would not occur, but the objectives of the Project would not be met."	As noted in the second complete paragraph on page 3-3, if the Project is not built, it is likely that a different but similar project or alternative fuel or renewable energy sources would be built, which would also result in environmental impacts. Some of these impacts are likely to be similar to PennEast's.	Change the text to: "Under the No Action Alternative, many of the short- and long-term environmental impacts described in this EIS would not occur, but some effects would occur as discussed below, and the objectives of the Project would not be met."
3.3	3-8	1st	"...about 39 percent of the 115.0 miles of proposed route, is adjacent to existing rights-of-way."	The proposed Project route is 115.1 miles.	Change "115.0-mile-long" to "115.1-mile-long."
4.1.5.5	4-11	1st	"The mineral pyrite has been identified as the primary source of the arsenic; however, hematite and clay minerals are also major sources. Arsenic occurs in some groundwater aquifers due to natural chemical oxidation of pyrite or reduction of iron oxide minerals in the aquifer (NJDEP 2010)."	By way of clarification, pyrite has been identified as the primary source of arsenic in the Lockatong Formation and through hematite coatings on clay minerals (not the clay minerals themselves) in the Passaic Formation. Furthermore, the statement in the second sentence regarding arsenic occurring in groundwater is incorrectly attributed to NJDEP. The quote is actually from Michael Serfes, former NJDEP Research	Change the text to: "The mineral pyrite has been identified as the primary source of the arsenic in the Lockatong Formation, and hematite coatings on clay minerals in the Passaic Formation. Arsenic occurs in some groundwater aquifers due to natural sulfide-arsenide substitution in pyrite and desorption from iron oxide minerals in the aquifer (Serfes, 2016)."

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
				Scientist.	
4.1.5.5	4-12	2nd	"The potential for surface activities to mobilize arsenic that could reach deep water wells is uncertain."	The perceived concern related to naturally occurring arsenic mobilization is specific to the Lockatong Formation and Passaic Formation in New Jersey and not along the full Project alignment. Similarly, the potential for arsenic mobilization under specific environmental conditions is not uncertain, as it has been observed to have been occurring throughout the region due to non-point natural and human processes. However, prior to PennEast's study, the phenomenon had not been specifically investigated with respect to construction of a linear feature.	Change the text to: "The potential for surface activities in New Jersey to mobilize arsenic that could eventually reach deep water wells has never been specifically investigated."
4.1.5.5	4-12	4th	"…**would not result in no detectible risk of arsenic mobilization**; and drilling mud, used for HDD, would not become contaminated with particles of naturally occurring arsenic enriched rock, and that the arsenic and that enriched **rock-mud mixture** would not require handling and disposal as a hazardous waste class. Therefore, there should be no **detectible** risks	It appears that a typographic error existed in this paragraph, as PennEast clarifies that the outcome of the arsenic study concluded that the pipeline construction activities and operation would not result in foreseeable risks from arsenic mobilization in groundwater. Several additional clarifying statements are also suggested to match the intended conclusion of the study.	"…would not result in a significant risk of arsenic mobilization; and drilling mud, used for HDD, would trap particles of naturally occurring arsenic enriched rock within the mud gel, and that the arsenic and that enriched rock-mud mixture would not require handling and disposal as a hazardous waste class. Therefore, there should be no foreseeable risks from arsenic mobilization in groundwater due to Project construction and operation. The study demonstrated that background

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
			from arsenic mobilization in groundwater due to **Project construction**. The study demonstrates that background concentrations would return within a short time after the pipeline is completed and no mobilization would continue during operation." (emphasis added)	A letter from Dr. Michael Serfes, PennEast's retained expert and author of the completed Arsenic Study is provided herein as Attachment 1 to clarify the outcome of PennEast's arsenic study.	arsenic concentrations would return within a short time after the pipeline is completed and should remain so during operation."
4.2.2	4-22	2nd	"…39 percent of the 115.0-mile-long pipeline route, would be constructed adjacent to existing rights-of-way (see section 2.2.1)."	The proposed Project route is 115.1 miles.	Change "115.0-mile-long" to "115.1-mile-long."
4.3.1.2	4-29	Table 4.3.1-3	N/A	Table 4.3.1-3 only addresses Principal Bedrock Aquifers crossed in the New Jersey portion of the Project.	Add Principal Bedrock Aquifers that are crossed by the Pennsylvania portion of the Project, or rename the table to "Principal Bedrock Aquifers Crossed by the New Jersey Portion of the PennEast Pipeline Project".
4.3.1.6	4-32	Last Paragraph	"Groundwater seeps identified at MP 3.1 and MP 13.6 are associated with crossings of waterbodies at these same locations."	The groundwater seep at MP 43.9 is also associated with a waterbody at that crossing location.	Change the text to, "Groundwater seeps identified at MP 3.1, MP 13.6, and MP 43.9 are associated with crossings of waterbodies at these same locations." Add a sentence, "At MP 43.9, the pipeline crosses an unnamed tributary classified as CWF and MF; this tributary will be crossed by HDD."
4.3.2.4	4-51	2nd	"Based on information from PennEast, our review Project mapping, and the information we	This sentence is unclear.	To clarify, change the text to: "Based on information from PennEast, our review Project mapping, and the information we

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			obtained during visits to the Project area, we conclude that the use of the HDD method at the every waterbody crossing…"		obtained during visits to the Project area, we conclude that the use of the HDD method at every other waterbody crossing…"
4.7.1	4-119	2nd	"…about 39 percent, of the 115.0-mile long pipeline route would be constructed adjacent to existing rights-of-way (see section 2.2.1)."	The proposed Project route is 115.1 miles.	Change "115.0-mile-long" to "115.1-mile-long."
4.7.1.6	4-125	3rd	"No certified organic farms would be crossed by or located adjacent to the Project."	Since PennEast's September 2015 filing, Gravity Hill Organic Farm in Titusville, New Jersey has become a USDA Certified Organic Farm. Gravity Hill Organic Farm is located at approximately MP 105.7 in Mercer County, New Jersey. The Farm's certification has been verified via the USDA's "Organic Integrity Database," available at <https://apps.ams.usda.gov/integrity/>.	PennEast's proposed route runs adjacent to Gravity Hill Organic Farm. PennEast will avoid impacts to the farm by utilizing HDD technology to drill under forested lands located adjacent to the farm, and the bore pits will be located greater than 1,000 feet from the property boundary. Although the Project will avoid impacts to Gravity Hill Farm, they will coordinate with the landowner and implement appropriate BMPs to avoid impacts to the farm's operation and organic certification.
4.7.5	4-137	1st	"…about 39 percent, of the 115.0-mile-long pipeline route would be constructed adjacent to existing rights-of-way (see section 2.2.1)."	The proposed Project route is 115.1 miles.	Change "115.0-mile-long" to "115.1-mile-long."
4.7.7.1	4-147	1st	"…about 39 percent of the 115.0-mile-long pipeline route, would be constructed adjacent to existing rights-of-way (see section 2.2.1)."	The proposed Project route is 115.1 miles.	Change "115.0-mile-long" to "115.1-mile-long."
4.9.1.1	4-177	3rd; Table 4.9.1-1	N/A	Documentation of the archaeological survey addendum	Add a sentence: "PennEast submitted an archaeological survey addendum report

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				that PennEast submitted to Pennsylvania SHPO on March 18, 2016 should be added to the 3rd Paragraph and Table 4.9.1-1.	to Pennsylvania SHPO on March 18, 2016."
4.9.1.1	4-179	3rd; Table 4.9.1-2	N/A	Documentation of the archaeological survey report that PennEast submitted to New Jersey SHPO on September 23, 2015 should be added to the text and Table 4.9.1-2.	Add text at beginning of 3rd paragraph: "PennEast submitted an archaeological survey report to New Jersey SHPO on September 23, 2015." Add row to table.
4.9.1.1	4-179	1st; Table 4.9.1-2	N/A	Documentation of the revised archaeological survey report that PennEast submitted to New Jersey SHPO on December 14, 2015 should be added to the text and Table 4.9.1-2.	Add text before last sentence of 3rd paragraph: "PennEast submitted a revised archaeological survey report to New Jersey SHPO on December 14, 2015." Add row to table.
4.9.1.1	4-179	1st; Table 4.9.1-2	In letters dated January 14, 2015, January 24, 2015, and March 31, 2015, PennEast sent Project route updates to the New Jersey SHPO.	Documentation of the Project route updated submitted to New Jersey SHPO on October 24, 2014, January 14, 2015, March 31, 2015, July 17, 2015, October 1, 2015, and February 23, 2016 should be added to the text and Table 4.9.1-2.	Change the text to: "PennEast submitted Project route updates to New Jersey SHPO on October 24, 2014, January 14, 2015, March 31, 2015, July 17, 2015, October 1, 2015, and February 23, 2016." Adjust table accordingly.
4.9.1.1	4-179	1st; Table 4.9.1-2	N/A	Documentation of New Jersey SHPO's response to the Project route updates on January 30, 2015, August 24, 2015 and October 26, 2015 should be added to the text and Table 4.9.1-2.	Add text before 2nd sentence: "New Jersey SHPO responded to PennEast's Project route updates on January 30, 2015, August 24, 2015 and October 26, 2015." Adjust table accordingly.
4.9.1.1	4-179	5th	"In a letter dated March 16, 2016, the New Jersey SHPO provided	New Jersey SHPO provided comments on PennEast's revised	Change the text to: "In a letter dated March 18, 2016, the New Jersey SHPO

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			comments on PennEast's revised archaeological survey report (Ziesing et al. 2015b)."	archaeological survey report in a letter dated March 18, not March 16.	provided comments on PennEast's revised archaeological survey report."
4.9.1.1	4-180	Table 4.9.1-2	Documentation that a route update was sent to New Jersey SHPO on January 24, 2015.	No route update was sent to New Jersey SHPO on January 24, 2015.	Remove row from Table 4.9.1-2.
4.9.1.2	4-181	1st	"No archaeological resources have been identified within this area as a result of studies performed by PennEast and we have not received any specific concerns from tribes for this location."	PennEast identified one (1) Native American site on the north bank of the Susquehanna River.	Change the text to: "PennEast identified one Native American archaeological site, 36LU0110, on the north bank of the Susquehanna River within the proposed Project ROW. The Stockbridge-Munsee Band of Mohicans requested evaluation of the site by letter to FERC dated April 21, 2016. "
4.9.1-4	4-182	1st	"When cultural resources survey and/or evaluation reports are available within a local government's jurisdiction, PennEast would provide the information to the representative of a local government for review and comment."	PennEast has not provided reports to local governments unless requested and only after FERC has confirmed their consulting party status.	Change the text to: "When cultural resources survey and/or evaluation reports are available within a local government's jurisdiction PennEast would provide, if requested, the information to the representative of a local government for review and comment. FERC must confirm the local government's consulting party status in order for information to be released."
4.9.1.4	4-183	3rd	"We have received three requests for consulting party status."	The Society for Pennsylvania Archaeology also requested consulting party status by letter to FERC dated January 29, 2016.	Change the text to: "We have received four (4) requests for consulting party status. These were from Judith Sullivan, Ramapough Conservancy Inc., Marilyn Cummings, Delaware Township Historic Advisory Committee, Karen Lutz, Appalachian Trail Conservancy, and The

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
					Society for Pennsylvania Archaeology."
4.9.2.1	4-184	1st	"Between August 2014 and July 2015, PennEast performed cultural resource surveys for 56.3 miles (approximately 2730 acres) along the proposed pipeline route and where survey permission was granted. An additional 380 acres were surveyed within the study corridor and the limit of disturbance between July 2015 and February 2016."	An additional 8.4 miles of the preferred alignment and associated facilities (380 acres) have been surveyed.	Change the text to: "Between August 2014 and July 2015, PennEast completed archaeological survey along 56.3 miles of the preferred alignment (approximately 2730 acres). Between July 2015 and February 2016, PennEast completed archaeological survey along 8.4 additional miles of the preferred alignment and associated facilities (380 acres)."
4.9.2.1	4-185	2nd	"PennEast will treat 36NM0328 as potentially eligible for the NRHP and agreed to conduct a site evaluation."	PennEast has agreed to evaluate sites 36LU0110, 36CR0149, and 36NM0328.	Change the text to: "The precontact sites 36LU0110, 36CR0149, and 36NM0328 were recommended by PennEast as potentially eligible to the NRHP. The Pennsylvania SHPO concurred that site evaluations should be conducted on 36CR0149 and 36NM0328 and we agree. The Pennsylvania SHPO recommended that PennEast should complete Phase I archaeological survey on 36LU0110 and we agree. PennEast has agreed to conduct site evaluations on 36CR0149 and 36NM0328, and to complete Phase I archaeological survey on 36LU0110.
4.9.2.1	4-185	5th	"PennEast would avoid the portion of the site adjacent to the APE with fencing and monitoring during construction."	PennEast has agreed to complete archaeological survey on site 36LU0337, but did not recommend fencing or monitoring the portion of	Remove the text: "PennEast would avoid the portion of the site adjacent to the APE with fencing and monitoring during construction."

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
				the site adjacent to the APE.	
4.9.2.1	4-186	1st	"PennEast has not filed a site evaluation report, avoidance plan, or the Pennsylvania SHPO comments."	PennEast filed an avoidance plan with the Pennsylvania SHPO on March 18, 2016. PA SHPO comments on the avoidance plan dated April 14, 2016 were filed on May 16, 2016 (Volume III, Attachment 3-4, Part 2).	Change the text to: "PennEast filed an avoidance plan with the Pennsylvania SHPO on March 18, 2016. PennEast filed with FERC the Pennsylvania SHPO's comments on the avoidance plan (dated April 14, 2016) on May 16, 2016 (Volume III, Attachment 3-4, Part 2)."
4.9.2.1	4-186	Table 4.9.2-2	Site 36NM0328 is listed as Pending status for "PennEast Recommended Action"	PennEast has recommended that the site be listed as Potentially Eligible.	Site 36NM0328 should be listed as Potentially Eligible status for "PennEast Recommended Action."
4.9.2.1	4-186	Table 4.9.2-2	Site 36LU0337 is listed as "Portion of site within APE unlikely to contribute to NRHP eligibility" in "PennEast Recommended NRHP Status" column.	PennEast has recommended that the site be listed as Not Evaluated.	Change "PennEast Recommended NRHP Status" column to "Not evaluated."
4.9.2.1	4-186	Table 4.9.2-2	Site 36LU0337 is listed as "Avoidance (fencing and monitoring)" in "PennEast Recommended Action" column	PennEast has recommended that survey be completed on the site. There are no plans for fencing or monitoring at Site 36LU0337 at this time.	Change "PennEast Recommended Action" column to "Complete survey."
4.9.2.1	4-186	Table 4.9.2-2	Site 36LU0337 is listed as "Complete survey and provide report to NJ SHPO. April 14, 2016" in "Pennsylvania SHPO Comment" column.	PennEast will provide the report to the PA SHPO, rather than the NJ SHPO.	Change "Pennsylvania SHPO Comment" column to "Complete survey and provide report to PA SHPO. April 14, 2016."
4.9.2.2	4-193	3rd	"PennEast proposed avoidance strategies at 28HU5778, 28HU579, and the Joseph P. Blackwell Farm."	Replace 28HU5778 with 28HU578.	Change the text to: "PennEast proposed avoidance strategies at 28HU578, 28HU579, and the Joseph P. Blackwell Farm."

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
4.9.2.2	4-193	3rd	"PennEast recommended Site PE-ME27-S1, a historic artifact field scatter located within the Pleasant Valley Historic District, ineligible for the NRHP."	The site is not located within the Pleasant Valley Historic District.	Change the text to: "PennEast recommended Site PE-ME27-S1, a historic artifact field scatter, as ineligible for the NRHP."
4.9.2.2	4-193	3rd	"PennEast recommended Site 28HU577 (a historic period quarry site), Site 28HU578 (a prehistoric lithic scatter), and Site 28HU579 (a multi-component site containing a historic period foundation and artifact scatter, and a prehistoric lithic scatter) as potentially eligible for listing on the NRHP."	Site PE-ME27-S1 has also been recommended as potentially eligible for listing on the NRHP.	Change the text to: "PennEast recommended Site 28HU577 (a historic period quarry site), Site 28HU578 (a prehistoric lithic scatter), Site 28HU579 (a multi-component site containing a historic period foundation and artifact scatter, and a prehistoric lithic scatter), and Site PE-ME27-S1 (a historic period refuse dump) as potentially eligible for listing on the NRHP."
4.9.2	4-184	2nd	"The indirect APE for PennEast was defined as one-quarter mile around the Project."	The indirect APE should be described as "one-quarter mile around aboveground Project facilities".	Change the text to: "The indirect APE for PennEast was defined as one-quarter mile around aboveground Project facilities."
4.9.2.1	4-190	1st	"…on properties located within 0.25 mile of the Project, the indirect APE (table 4.9.2-4)."	The indirect APE is incorrectly designated as 0.25 mile. The indirect APE is defined as properties that may be visually or contextually affected by the construction or operation of the proposed Project.	Change the text to: "…on properties located within 0.25 mile of the Project (table 4.9.2-4)."
4.9.2.1	4-191	2nd	"…historic architectural resources over 48 years of age in the indirect APE."	In this context, the direct APE is being referenced, not the indirect APE.	Change the text to: "…historic architectural resources over 48 years of age in the direct APE."
4.9.2.1	4-191	2nd	"In a letter dated October 21, 2015, Pennsylvania SHPO concurred with the recommendations and	Pennsylvania SHPO disagrees with the recommendations for the following properties: NO-0205, NO-	Change the text to: "In a letter dated October 21, 2015, Pennsylvania SHPO concurred with the recommendations on

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			requested PennEast to develop Historic Resource Survey Forms (HRSF) for these sites."	0060, and NO-0222.	all properties except NO-0205, NO-0060, and NO-0222. PA SHPO requested PennEast to develop Historic Resource Survey Forms (HRSF) for all of the sites."
4.9.2.1	4-191	2nd	"Pennsylvania SHPO also requested a HRSF form to be completed for one additional resource, site NO-0053 (included in table 4.9.2-4), either for the noted individual barn or the entire related farmstead, depending upon the results of additional historical research."	Text does not accurately reflect comment	Change the text to: "Pennsylvania SHPO also requested a HRSF form to be completed for one additional resource, site NO-0053 (included in table 4.9.2-4), if it is determined that the farmstead that appears across the street in an aerial photograph is still extant. Field survey confirmed that the farmstead has been demolished since the aerial photograph was taken, therefore, no additional work is necessary."
4.9.2.1	4-191	3rd	"PennEast has a number of evaluation studies/reports and potential treatment plans pending."	Treatment plans have not yet been identified or discussed with the PASHPO or NJHPO.	Change the text to: "PennEast has a number of evaluation studies/reports, including intensive-level surveys and assessment of effects pending."
4.9.2.1	4-191	Table 4.9.2-4	Title: Aboveground Resources Listed/Eligible to the NRHP or Requiring Additional Documentation Located within the Indirect APE in Pennsylvania	The table is representing resources within the "Direct APE in Pennsylvania".	Change the title to: "Aboveground Resources Listed/Eligible to the NRHP or Requiring Additional Documentation Located within the Direct APE in Pennsylvania."
4.9.2.1	4-192	Table 4.9.2-4	N/A	PA SHPO requested a HRSF for CA-204, which was omitted from this table. Resource No. CA-204 needs to be added to the table.	Add Resource No. CA-204 to table 4.9.2-4.
4.9.2.1	4-192	Table 4.9.2-4	Resource No. NO-0122 is included in table 4.9.2-4.	PA SHPO does not require further documentation for NO-0122; it should be removed from the table.	Remove Resource No. NO-0122 from Table 4.9.2-4.

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
4.9.2.2	4-196	1st	N/A	The Edward Fox House and Farm (ID 2293) was determined eligible for listing in the NRHP. Surveys determined that this site has been demolished.	Add the text: "One (1) resource previously documented in NJ SHPO files that was determined eligible for listing in the NRHP (Edward Fox House and Farm, ID: 2293) was found to be demolished."
4.9.2.2	4-196	1st	"…previously documented architectural resources within the APE."	PennEast recommends adding clarification that the indirect APE includes areas within 0.25 mile of the Project.	Change the text to: "…previously documented architectural resources on properties located within 0.25 mile of the Project."
4.9.2.2	4-196	2nd	"PennEast also conducted surveys for historic architectural resources within the indirect APE in New Jersey."	In this context, the direct APE is being referenced, not the indirect APE.	Change the text to: "PennEast also conducted surveys for historic architectural resources within the direct APE in New Jersey."
4.9.2.2	4-196	3rd	"PennEast has a number of evaluation studies/reports and potential treatment plans pending."	Treatment plans have not yet been identified or discussed with the SHPO.	Change the text to: "PennEast has a number of evaluation studies/reports, including intensive-level surveys and assessment of effects pending."
4.9.2.2	4-196	Table 4.9.2-7	Title: Aboveground Resources Listed/Eligible to the NRHP or Requiring Additional Documentation Located within the Indirect APE in New Jersey	The table is representing resources within the "Direct APE in New Jersey".	Change the title to: "Aboveground Resources Listed/Eligible to the NRHP or Requiring Additional Documentation Located within the Direct APE in New Jersey."
4.9.2.2	4-196	Table 4.9.2-7	Joseph B. Blackwell Farm is listed as "Temporary Survey Code" ME-0218.	This is the correct Temporary Survey Code for Joseph B. Blackwell Farm, but it also has a NJHPO code of 1676 which should be added to the "PennEast NRHP Eligibility Recommendation" column.	Change the text in "PennEast NRHP Eligibility Recommendation" column to "Eligible [SHPO opinion - 9/21/2010], ID # 1676."
4.9.2.2	4-196	Table 4.9.2-7	NJ Route 31 Circle is shown with a "Temporary Survey Code" of 4993	NJ Route 31 Circle does not have a temporary survey code; 4993 is the NJHPO code which should be added	Change the text in "PennEast NRHP Eligibility Recommendation" column to "Eligible [SHPO opinion - 9/21/2010], ID #

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
				to the "PennEast NRHP Eligibility Recommendation" column.	4993."
4.9.2.2	4-197	Table 4.9.2-7	Temporary Survey Code HU-0075 has Perform intensive-level architectural surveys as a "New Jersey SHPO Comment".	HU-0075 is no longer within the APE as a result of route updates, and therefore will not require intensive-level survey.	Remove "Perform intensive-level architectural survey" from the "New Jersey SHPO Comment" for HU-0075 and replace it with the text: "HU-0075 is no longer within the APE as a result of route updates, and therefore will not require intensive-level survey."
4.10.1.4	4-216	Table 4.10.1-6	The SO2 value for the Auxiliary Power Unit is incorrect.	The correct SO2 value for the Auxiliary Power Unit is 0.01.	Update the correct SO2 value for the Auxiliary Power Unit in Table 4.10.1-6.
4.10.1.4	4.217	Table 4.10.1-7	The CO value is incorrect.	The correct CO value is 59.	Update the correct CO value in Table 4.10.1-7.
4.10.1.4	4.217	Table 4.10.1-7	The SO2 value is incorrect.	The correct SO2 value is 842.	Update the correct SO2 value in Table 4.10.1-7.
4.10.1.5	4-222	Table 4.10.1-11	The NO2 - 1-hour (Tier 1) NAAQS value is incorrect.	The correct NO2 - 1-hour (Tier 1) NAAQS value is 188.	Update the correct NO2 - 1-hour (Tier 1) NAAQS value in Table 4.10.1-11.
4.10.1.5	4-222	Table 4.10.1-11	The NO2 - 1-hour (Tier 1) Percent of NAAQS value is incorrect.	The correct NO2 - 1-hour (Tier 1) Percent of NAAQS value is 50.9.	Update the correct NO2 - 1-hour (Tier 1) Percent of NAAQS value in Table 4.10.1-11.
4.10.1.5	4-222	Table 4.10.1-11	The NO2 - Annual (Tier 1) NAAQS value is incorrect.	The correct NO2 - Annual (Tier 1) NAAQS value is 100.	Update the correct NO2 - Annual (Tier 1) NAAQS value in Table 4.10.1-11.
4.10.1.5	4-222	Table 4.10.1-11	The NO2 - Annual (Tier 1) Percent of NAAQS value is incorrect.	The correct NO2 - Annual (Tier 1) Percent of NAAQS value is 7.9.	Update the correct NO2 - Annual (Tier 1) Percent of NAAQS value in Table 4.10.1-11.
4.10.1.5	4-223	Table 4.10.1-11	The SO2 - Annual Background value is incorrect.	The correct SO2 - Annual Background value is 3.8.	Update the correct SO2 - Annual Background value in Table 4.10.1-11.
4.10.1.5	4-223	Table 4.10.1-11	The SO2 - Annual Total Impacts value is incorrect.	The correct SO2 - Annual Total Impacts value is 3.82.	Update the correct SO2 - Annual Total Impacts value in Table 4.10.1-11.

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
4.10.1.5	4-223	Table 4.10.1-11	The SO2 - Annual NAAQS value is incorrect.	The correct SO2 - Annual NAAQS value is 80.	Update the correct SO2 - Annual NAAQS value in Table 4.10.1-11.
4.10.1.5	4-223	Table 4.10.1-11	The SO2 - Annual Percent of NAAQS value is incorrect.	The correct SO2 - Annual Percent of NAAQS value is 4.8.	Update the correct SO2 - Annual Percent of NAAQS value in Table 4.10.1-11.
4.10.1.6	4-224, 4-225	1st	"Some commenters raised concerns regarding potential arsenic contained in the native soils and geology and how these may interact with pipeline methane leaks. Concerns related to arsenic **contamination** are addressed in the geology discussion in section 4.1.5.5 of this EIS. As discussed there, PennEast commissioned a study of potential arsenic mobilization during construction and operation of the proposed Project (Serfes, 2016). This study found no potential for mobilization of arsenic from naturally occurring arsenic-bearing rocks during the operational phase of the Project." (Emphasis added.)	The perceived concern about arsenic mobilization is related to groundwater. While the existing text factually represents PennEast's arsenic study and correctly indicates the outcome, which found no potential for mobilization of arsenic from naturally occurring arsenic-bearing rocks during pipeline construction and operation of the Pipeline, arsenic mobilization concerns are not related to air quality.	Change the text to: "Some commenters raised concerns regarding potential arsenic contained in the native soils and geology and how these may interact with pipeline methane leaks. Concerns related to arsenic mobilization in groundwater are addressed in the geology discussion in section 4.1.5.5 of this EIS. The potential mobilization of arsenic is not considered to be an air quality issue."
4.10.2.3	4-245	Table 4.10.2-7	NSA-22B Exit has incorrect values for Estimated HDD Noise Level, Cumulative Sound Level, and Change in Sound Level.	The correct values are as follows: -Estimated HDD Noise Level: 44 -Cumulative Sound Level: 51 -Change in Sound Level: 1	Update the correct values for NSA-22B Exit in Table 4.10.2-7.
4.10.2.3	4-245	Table 4.10.2-7	NSA-15A Entry has incorrect values for Estimated HDD Noise Level, Cumulative Sound Level, and Change in Sound Level.	The correct values are as follows: -Estimated HDD Noise Level: 61 -Cumulative Sound Level: 61 -Change in Sound Level: 18	Update the correct values for NSA-15A Entry in Table 4.10.2-7.

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
4.10.2.3	4-245	Table 4.10.2-7	NSA-15B Entry has incorrect values for Estimated HDD Noise Level, Cumulative Sound Level, and Change in Sound Level.	The correct values are as follows: -Estimated HDD Noise Level: 58 -Cumulative Sound Level: 58 -Change in Sound Level: 15	Update the correct values for NSA-15B Entry in Table 4.10.2-7.
4.10.2.3	4-245	Table 4.10.2-7	NSA-15C Entry has incorrect values for Estimated HDD Noise Level, Cumulative Sound Level, and Change in Sound Level.	The correct values are as follows: -Estimated HDD Noise Level: 60 -Cumulative Sound Level: 60 -Change in Sound Level: 17	Update the correct values for NSA-15C Entry in Table 4.10.2-7.
4.10.2.3	4-245	Table 4.10.2-7	NSA-16A Exit has incorrect values for Estimated HDD Noise Level, Cumulative Sound Level, and Change in Sound Level.	The correct values are as follows: -Estimated HDD Noise Level: 49 -Cumulative Sound Level: 50 -Change in Sound Level: 7	Update the correct values for NSA-16A Exit in Table 4.10.2-7.
4.10.2.3	4-245	Table 4.10.2-7	NSA-16B Exit has incorrect values for Estimated HDD Noise Level, Cumulative Sound Level, and Change in Sound Level.	The correct values are as follows: -Estimated HDD Noise Level: 51 -Cumulative Sound Level: 52 -Change in Sound Level: 9	Update the correct values for NSA-16B Exit in Table 4.10.2-7.
4.10.2.3	4-245	Table 4.10.2-7	NSA-17 Entry has incorrect values for Estimated HDD Noise Level and Change in Sound Level.	The correct values are as follows: -Estimated HDD Noise Level: 57 -Change in Sound Level: 3	Update the correct values for NSA-17 Entry in Table 4.10.2-7.
4.12	4-273	1st bullet	"…impacts on geology and soils, land use, residential areas, visual resources, air quality, and noise by the Project would be highly localized."	(1) Cultural resources should be added to this list. (2) The air quality described here should be clarified to be air quality from construction activities; air quality from operations is discussed in the second bullet and has a different region of influence.	Change the text to: "…impacts on geology and soils, land use, residential areas, visual resources, cultural resources, construction air quality, and noise by the Project would be highly localized."
4.12.4.2	4-280	2nd	"The Project would cross areas with naturally elevated arsenic concentrations in bedrock. Pipeline construction activities can	Although construction activities may have the potential to cause very limited inadvertent arsenic release under specific environmental	Change the text to: "The Project would cross areas with naturally elevated arsenic concentrations in bedrock. Pipeline construction activities can cause

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
			cause inadvertent arsenic release through blasting and exposure of arsenic containing rock to aerobic ground water, resulting in leaching. See section 4.1.5.5 for details. There is a possibility that the proposed Project, together with others such as the recently completed Northeast Supply Link Project's Stanton Loop, could result in additional arsenic exposure to groundwater in the Hunterdon County area."	conditions through blasting and construction activities, these releases will be temporary and insignificant.	inadvertent, though presumably temporary and insignificant, arsenic release through blasting and exposure of arsenic containing rock to aerobic ground water, resulting in leaching. See section 4.1.5.5 for details. There is a possibility that the proposed Project, together with others such as the recently completed Northeast Supply Link Project's Stanton Loop, could result in additional, but temporary, arsenic exposure to groundwater in the Hunterdon County area."
4.12.4.7	4-283	2nd	"Therefore, the proposed Kidder Compressor Station and interconnect stations are considered non-major sources of emissions, and do not exceed NAAQS, and would not be expected to contribute significantly to cumulative impacts on air quality."	The emissions themselves would not exceed NAAQS; rather, the issue is whether they would cause or contribute to a NAAQS exceedance.	Change the text to: "Therefore, the proposed Kidder Compressor Station and interconnect stations are considered non-major sources of emissions, and do not cause any NAAQS exceedance, and would not be expected to contribute significantly to cumulative impacts on air quality."
4.12.4.8	4-285	1st and 2nd	See Attachment 2.	See Attachment 2.	See Attachment 2.
5.1.12	5-18	1st	"A majority of the impacts associated with the Project in combination with other projects such as residential developments, utility lines, and transportation projects, would be temporary and	PennEast has provided a suggested clarification to reference a prior section of the DEIS for ease of reference for intended readers.	Change the text to: "A majority of the impacts associated with the Project in combination with other projects such as residential developments, utility lines, and transportation projects, would be temporary and relatively minor overall.

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
			relatively minor overall. However, some long-term cumulative impacts would occur on wetland and forested vegetation and associated wildlife habitats. Water resources could potentially be negatively impacted by arsenic released by blasting activities associated with multiple projects."		However, some long-term cumulative impacts would occur on wetland and forested vegetation and associated wildlife habitats. Water resources could potentially, but will unlikely, be negatively impacted by arsenic released by blasting activities associated with multiple projects (see Section 4.1.5.5)."
Appendix C	N/A	Figure 1B	Typical Upward Side Slope Workspace Construction Area	Workspace measurements were incorrect in the Typical Drawing included in the DEIS.	Replace Figure 1B with the revised Figure 1B, provided herein as part of Attachment 3.
Appendix C	N/A	Figure 1C	Typical Downward Side Slope Workspace Construction Area	Workspace measurements were incorrect in the Typical Drawing included in the DEIS.	Replace Figure 1C with the revised Figure 1C, provided herein as part of Attachment 3.
Appendix E	N/A	Section 1.0, 1st bullet	"114 miles of new 36-inch diameter mainline pipeline…"	The Project will consist of 115.1 miles of pipeline.	Change "114 miles" to "115.1 miles."
Appendix E	N/A	Section 1.0, 3rd bullet	"0.6-miles of new 12-inch diameter lateral…"	The Gilbert Lateral will be 0.1 mile.	Change "0.6-miles" to "0.1-mile."
Appendix E	N/A	Section 1.0, 4th bullet	"1.4-miles of new 36-inch diameter lateral…"	The Lambertville Lateral will be 1.5 miles.	Change "1.4-miles" to "1.5-miles."
Appendix E	N/A	Earthquake Probability, 1st paragraph	"A seismic disturbance is any earth movement (natural or manmade) that is caused by a momentary disturbance of the elastic equilibrium of a portion of the earth. URS conducted a seismic hazard evaluation to evaluate the potential seismic hazard of the 114 mile long Project area…"	The proposed Project mainline will be 115.1 miles.	Change "114 mile long" to "115.1 miles long."

DEIS Section	Page No.	Paragraph/ Table/ Figure No.	Text	Comment	Suggested Resolution
Appendix E	N/A	Section 3.0 – Proposed Conditions, 1st paragraph	Approximately 2,431 acres including permanent easement, temporary and additional temporary workspace will be disturbed throughout the project work limits along the 114-miles of proposed pipeline.	The proposed Project mainline will be 115.1 miles.	Change "114-miles" to "115.1 miles."
Appendix I	N/A	Drawing 000-03-02-082	Residential site-specific mitigation plan for Hunterdon County, New Jersey	Road on drawing is incorrectly labeled as Route 513.	Change "Route 513" to "Route 519."

Attachment 1

Solution Geosciences LLC
Michael Serfes, P.G., Ph.D.

September 12, 2016

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

RE: Docket CP15-558- 000, PennEast Pipeline Company LLC
Clarification to Draft Environmental Impact Statement – Section 4.1.5.5

Dear Ms. Bose:

I am the independent expert retained by PennEast Pipeline Company, LLC, and author of the May 2016 Arsenic Study conducted to evaluate the potential concerns maintained by commenters to FERC related to the potential for PennEast proposed construction activities to mobilize naturally-occurring arsenic in certain areas of Hunterdon and Mercer Counties in New Jersey. In July of 2016 the Federal Energy Regulatory Commission (FERC) published the PennEast Pipeline Project-Draft EIS (DEIS) report. Myself, and many other commenters, noted an unfortunate misworded and therefore contradictory statement in section: 4.1.5.5 Arsenic, 4th paragraph, 1st sentence, on page 4-12. The statement on page 4-12 of DEIS reads:

“The results of the study demonstrated that broken fragments of naturally occurring arsenic enriched rock, generated during trenching activities and subsequently returned as trench back fill, would not result in no detectible risk of arsenic mobilization.”

Obviously, the phrase: “would not result in no detectible risk of arsenic mobilization”, is a double negative which infers a positive, and therefore implies a detectable risk, which is confusing. As per my original study (Serfes, 2016), the results from EPA Method 1627: Kinetic Test Method for the Prediction of Mine Drainage Quality, used to evaluate the arsenic leach potential of non-imported fill from the Lockatong and Passaic Formations, demonstrated:

That broken fragments of naturally–occurring arsenic-enriched rock, generated during trenching activities and subsequently returned to the trench as back fill, **will not** result in the significant mobilization of arsenic into the hydrogeological environment.

We may expect that some arsenic will be released soon after backfilling, due to the enhanced reactive nature of the freshly-broken, unweathered, and rough surfaces in the backfill material, resulting in a short-lived peak in dissolved concentrations in the trench cavity. However, background arsenic concentrations will return quickly after the initial weathering phase. Also, the relatively small mass of initial arsenic generated in the trench footprint will expectably be attenuated by adsorption and mixing in the underlying unsaturated zone and aquifer.

Therefore, pipeline construction and operation activities would predictably not result in any significant arsenic related impacts.

Sincerely,

Michael E. Serfes, P.G., Ph.D.

Solution Geosciences, LLC
1131 North New Street
Bethlehem, PA 18018

Serfes, M.E. 2016. Final Report of U.S. EPA Method 1627 Kinetic and HDD Leach Test Results and Implications for Arsenic Mobilization Related to the Proposed PennEast Pipeline. Prepared for: Hatch Mott MacDonald, Inc. for PennEast Pipeline: Draft EIS: Attachment 2-1 – Arsenic Study Report.

Attachment 2

Comments on Section 4.12.4.8 of the Draft EIS for the PennEast Pipeline Project

1. The Commission improperly attempts to analyze GHG emissions from the end use of gas delivered by the Project.

In Section 4.12.4.8 of the Draft EIS, the Commission discusses greenhouse gas ("GHG") emissions from the development and production of natural gas being transported through the proposed pipeline, as well as GHG emissions associated with the end use of the gas. PennEast supports the Commission's conclusion that because the scope and extent of potential GHG emissions from upstream natural gas production are not reasonably foreseeable, NEPA does not require that the Commission consider those impacts. Furthermore, as the Commission has previously found and reviewing courts have confirmed, upstream natural gas development is not proximately caused by the Commission's action with respect to any particular pipeline project or other natural gas infrastructure.[1]

PennEast, however, respectfully disagrees with the Commission's discussion and conclusions regarding GHG impacts associated with emissions from the end use of the natural gas that may be delivered by the Project. As an initial matter, equating a specific project's GHG emissions with a climate-related impact is both scientifically and legally improper. The Council on Environmental Quality's ("CEQ") NEPA regulations require agencies to consider direct effects, indirect effects, and cumulative impacts of a proposed agency action.[2] Because of the global nature of climate change, however, climate change-related impacts are only properly considered in the cumulative impacts analysis. As the Commission has previously concluded, NEPA does not require an agency to evaluate climate impacts as direct or indirect effects.[3]

The Commission asserts that GHG *impacts* from the end use of the gas transported by the Project are reasonably foreseeable,[4] but the Commission fails to identify any GHG-related impact specifically attributable to the Project. This statement, which to PennEast's knowledge has never previously been made by the Commission, is incorrect. Although GHG *emissions* of a project may be reasonably foreseeable, GHG *impacts* are not. Nor could the Commission logically reach this conclusion, given the lack of any standard methodology to determine how an individual project's incremental contribution to greenhouse gas emissions will result in physical effects to the environment, either locally or globally.[5] Any net GHG emissions related to downstream use of the gas being transported, and what other emissions may be offset or displaced as a result of the transported gas, are not reasonably foreseeable, leaving the

[1] *See Dominion Transmission, Inc.*, 153 FERC ¶ 61,284 at p 13 (2015) (citing *Central New York Oil and Gas Co., LLC*, 137 FERC ¶ 61,121 at PP 81-101 (2011), *order on reh'g*, 138 FERC ¶ 61,104 at PP 33-49 (2012), *petition for review dismissed sub nom. Coalition for Responsible Growth v. FERC*, 485 Fed. App'x. 472, 474-75 (2012) (unpublished opinion)).

[2] 40 C.F.R. § 1508.25(c).

[3] *See, e.g., Transcontinental Gas Pipe Line Company, LLC*, 149 FERC ¶ 61,258 at P 109 (2014).

[4] Draft EIS at 4-285 (asserting that "GHG impacts from end use of the gas transported by the Project are reasonably foreseeable").

[5] *See, e.g., Columbia Gas Transmission, LLC*, 153 FERC ¶ 61,064 at P 69 (2015); *Sabine Pass Liquefaction Expansion, LLC, et al.*, 151 FERC ¶ 61,253 at P 45 (2015).

Commission bereft of sufficient information to predict where and how gas will ultimately be consumed.[6] Moreover, such activities lie outside of the Commission's jurisdiction and control, and as a result, do not contribute meaningfully to the Commission's decision making.[7]

2. The Commission should provide greater context to the Proposed Action and No Action Alternative to give clarity to potential GHG emissions outcomes.

If the Commission nevertheless chooses to include an estimate of the potential end-use GHG *emissions* for the Project based on an estimate of the volume of natural gas to be transported in the pipeline, that estimate must be explained in its proper context. In the Draft EIS, the Commission calculated GHG emissions using a numerical extrapolation of potential gas volumes and GHG emissions factors. This presents an incomplete picture for several reasons.

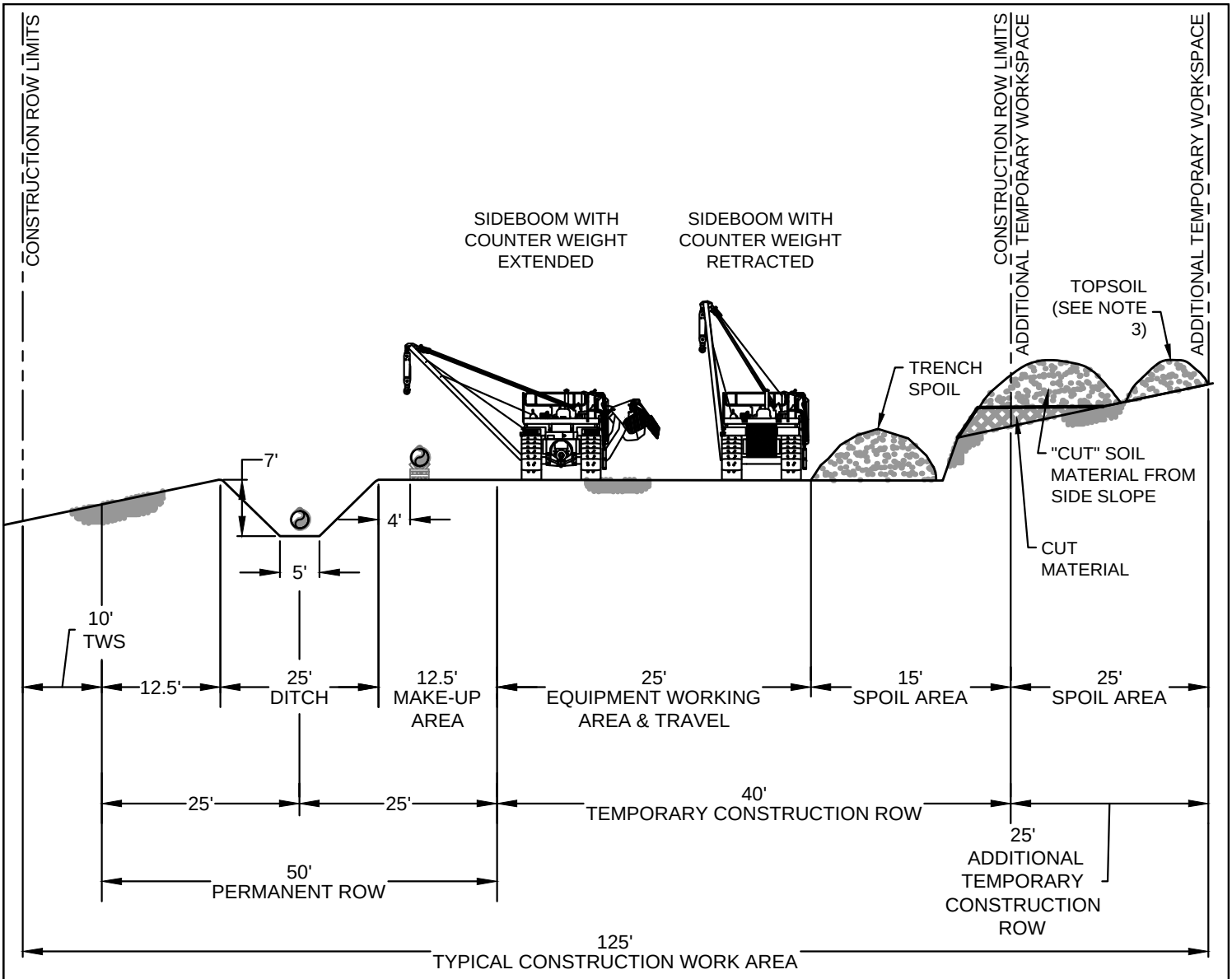
First, it is not reasonable to assume that the 1.1 million dekatherms per day of natural gas that the Project could deliver to customers in the region would result in wholly additive emissions. Indeed, in Sections 4.12.5 and 5.1.12, the Commission acknowledges the potential for natural gas delivered by the Project to displace more polluting fossil fuels. Accordingly, if the Commission presents aggregate potential GHG emissions based on the pipeline's throughput capacity, the Commission must also discuss the likelihood that displacement will occur that will offset some portion (or, possibly, the entirety) of those emissions.

Second, the Commission makes no attempt to compare these potential GHG emissions across the alternatives. Here, the Project is responding to, and not causing, increased demands for natural gas, and under the No Action Alternative described in Section 3.1 of the Draft EIS, it is likely that much of the natural gas would nevertheless make it to market and be consumed, or that an alternative source of energy would be found with different impacts of its own. If the Project is not built, it is reasonable to assume that natural gas from ongoing development throughout the region would still reach their intended markets through alternate pipelines or other modes of transportation.

[6] *See Sabine Pass Liquefaction Expansion, LLC, et al.*, 151 FERC ¶ 61,253 at P 10, 36 (explaining that the Commission has no way of predicting where or how gas from an LNG export facility will be consumed).

[7] *See U.S. Dep't of Transp. v. Public Citizen*, 541 U.S. 752, 768 (2004).

Attachment 3



* DIMENSIONS ARE TYPICAL, SEE ALIGNMENT SHEETS FOR ACTUAL RIGHT-OF-WAY CONFIGURATIONS AND CLEARING LIMITS

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 100 FEET WIDE CONSISTING OF 50 FEET OF PERMANENT EASEMENT, 50 FEET TEMPORARY WORKSPACE AND ADDITIONAL WORKSPACE THAT WILL BE NECESSARY AT ROAD, RAIL AND RIVER CROSSINGS AND OTHER SPECIAL CIRCUMSTANCES, AS REQUIRED. CERTAIN SITUATIONS MAY REQUIRE A NARROWER WIDTH.
2. LEAVE GAPS IN SPOIL PILES AT OBVIOUS DRAINAGES. DO NOT PUSH UPLAND SOILS INTO CANALS OR WETLANDS.
3. DITCH LINE TOPSOIL WHERE REQUIRED BY LAND OWNER.
4. CLEAR AND STAKE ADDITIONAL RIGHT-OF-WAY TO ALLOW FOR EXTRA SPOIL.
5. ENSURE SIDE BOOM TRACTORS ARE EQUIPPED WITH BOOM EXTENDERS AND COUNTER-WEIGHTS IF REQUIRED.
6. USE BACKHOE TO ASSIST BULLDOZERS WITH REPLACING CUTS.
7. EMPLOY EROSION CONTROL MEASURES SUCH AS BREAKERS, CROSS DITCHES, BERMS AND REVEGETATION.

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REVISIONS

NO.	DESCRIPTION	DATE	DRAWN	CK	APPR
A	ISSUED FOR DRAFT RESOURCE REPORT 1	11/4/2014	QPS	QPS	QPS
B	PRELIMINARY ISSUE	12/17/2014	QPS	QPS	QPS
C	FERC DRAFT FILING	4/13/2015	QPS	QPS	QPS
D	FERC FINAL FILING	9/23/2015	HMM	HMM	HMM
E	ISSUED FOR BID	10/23/2015	HMM	HMM	HMM
F	SUPPLEMENTAL FERC FILING	03/18/2016	HMM	HMM	HMM
G	FERC DATA REQUEST	05/16/2016	HMM	HMM	HMM
H	ISSUED FOR DEIS	09/09/2016	DRG(MM)	DOW(MM)	MAW(MM)

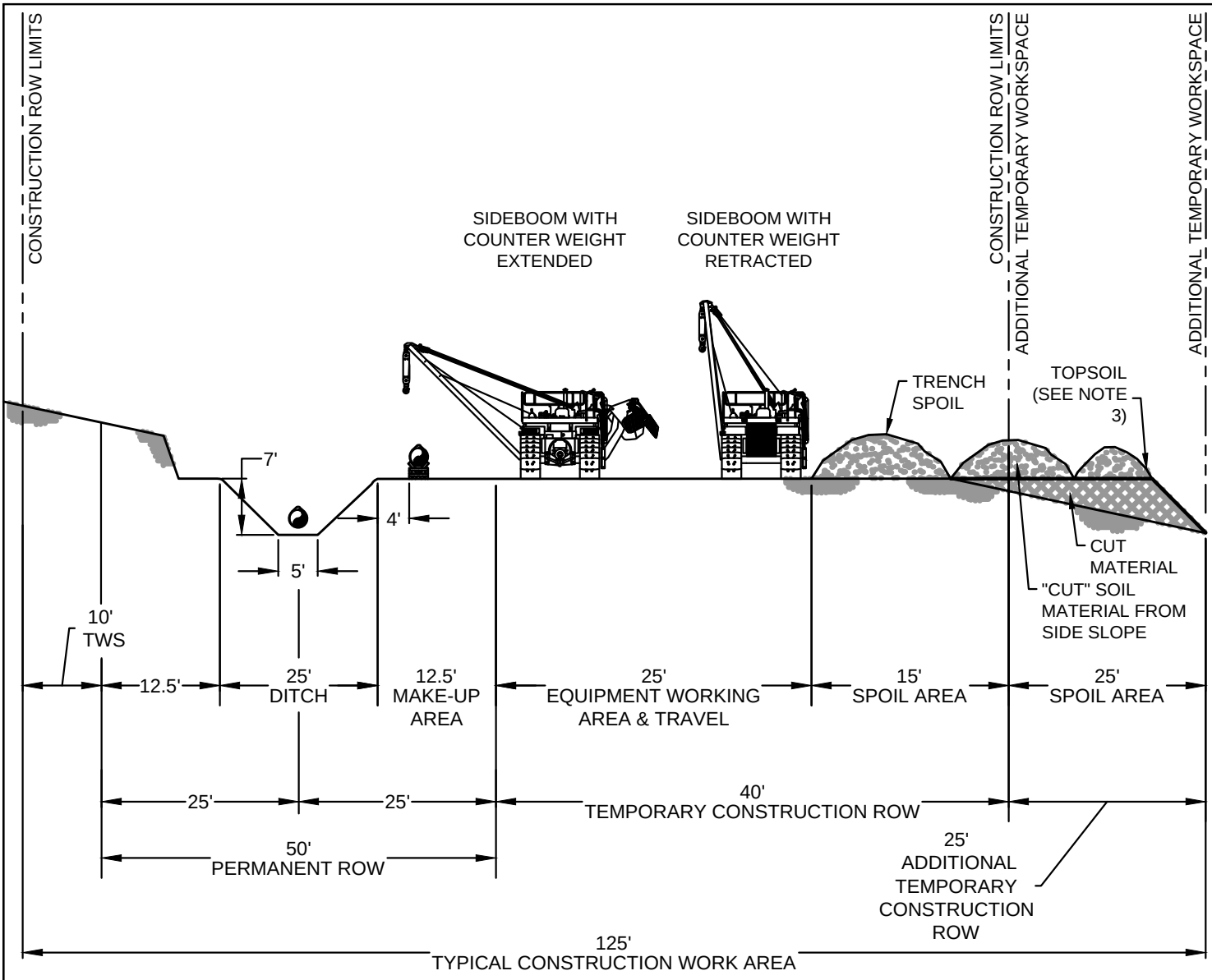
PREPARED FOR

PennEast PIPELINE

PENNEAST PIPELINE PROJECT

TYPICAL UPWARD SIDE SLOPE WORKSPACE CONSTRUCTION AREA

FIGURE NUMBER: FIGURE 1B



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E	ISSUED FOR BID	10/23/2015	HMM	HMM	HMM
F	SUPPLEMENTAL FERC FILING	03/18/2016	HMM	HMM	HMM
G	FERC DATA REQUEST	05/16/2016	HMM	HMM	HMM
H	ISSUED FOR DEIS	09/09/2016	DRG(MM)	DOW(MM)	MAW(MM)

PREPARED FOR

PennEast PIPELINE

PENNEAST PIPELINE PROJECT

TYPICAL DOWNWARD SIDE SLOPE WORKSPACE CONSTRUCTION AREA

FIGURE NUMBER: FIGURE 1C