

Resource Report 10 Addendum – Alternatives
AES Sparrows Point LNG Terminal & Mid-Atlantic Express
Pipeline

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10. ALTERNATIVES

10.1 Introduction

10.1.1 Project Description

AES Sparrows Point LNG, LLC (“Sparrows Point LNG”) proposes to construct, own, and operate a new liquefied natural gas (“LNG”) import, storage, and regasification terminal (“LNG Terminal”) at the Sparrows Point Industrial Complex situated on the Sparrows Point peninsula east of the Port of Baltimore in Maryland. LNG will be delivered to the LNG Terminal by LNG marine vessels, offloaded from these vessels to shoreside storage tanks, regasified to natural gas on the LNG Terminal site (“Terminal Site”), and the regasified natural gas transported to consumers by pipeline. The LNG Terminal will have a regasification capacity of 1.5 billion standard cubic feet of natural gas per day (“bscfd”), with the potential to expand to 2.25 bscfd. Regasified natural gas will be delivered to markets in the Mid-Atlantic Region and northern portions of the South Atlantic Region through an approximately 88-mile, 30-inch outside diameter interstate natural gas pipeline (Pipeline) to be constructed and operated by Mid-Atlantic Express, L.L.C. (“Mid-Atlantic Express”). The Pipeline will extend from the LNG Terminal to points of interconnection with existing interstate natural gas pipeline systems near Eagle, Pennsylvania. Together the LNG Terminal and Pipeline projects are referred to as the Sparrows Point Project or Project. Both Sparrows Point LNG and Mid-Atlantic Express (hereinafter collectively referred to as “AES”) are subsidiaries of The AES Corporation.

The Project footprint is located in the counties of Baltimore, Harford, and Cecil in Maryland and the counties of Lancaster and Chester in Pennsylvania. The Terminal Site, which is located entirely within Baltimore County, is a parcel located within a former shipyard. The route proposed for the Pipeline (Pipeline Route), which crosses all of the listed counties, includes industrial, commercial, agricultural, and residential lands. Together, the Terminal Site and the Pipeline Route comprise the Project Area.

As described in Section 1.10 of Resource Report 1, *General Project Description*, The AES Corporation is considering the possibility of building a combined cycle cogeneration power plant (“Power Plant”) on the Terminal Site. The Power Plant would be configured with one F-Class combustion gas turbine, one steam turbine, and associated auxiliaries. The Power Plant would operate only on natural gas and would produce approximately 300 megawatts (“MW”) of clean electric power within an area of high energy demand. The Power Plant would be connected to the local utility electric system by an overhead electric power transmission line.

10.2 Objective and Applicability

This Addendum to Resource Report 10, *Alternatives*, updates relevant information regarding the route variations considered for the Project to respond to resource avoidance, State Agency request, or route improvement for construction. Specifically, this Addendum provides information requested by the Federal Energy Regulatory Commission (“FERC” or the “Commission”) Staff in their letter, dated October 22, 2007.

As appropriate, in areas where final route alignment is still awaiting results of on-the-ground resource surveys (e.g., where property access has not been obtained) or where additional surveys are recommended, additional studies will be completed by AES (anticipated spring 2008), and these will be filed with FERC when available.

10.3 Route Variations

Numerous minor route variations were identified and evaluated by Mid-Atlantic Express in its filed Resource Report No. 10. The purpose for developing these route variations was to further refine the primary route in areas of potential environmental, agricultural and cultural resources, and property owner impacts. Areas for focused route variations have been identified during the course of public meetings, field surveys, land owner interaction, and agency collaboration. In order to address the concerns identified in the October 22 letter, Mid-Atlantic Express has identified two additional variations that are presented in revised Table 10.6.4-1, Summary of Variations. The table as revised continues to include for each variation the key criteria for the variation, rationale for variation selection and/or sensitive resources that were avoided by employing the variation. The two additional route variations discussed in this addendum are also shown on Figures 10.6.4-1a and 10.6.4-1b. The variations have been summarized by type of sensitive resource or impact being avoided (or minimized), including the following:

- Landowner/Agency Concerns
- Resources (including wetlands, streams)
- Construction

Per the Staff's October 22 letter, AES undertook further consultation with the Maryland Department of Transportation ("MDOT") State Highway Administration ("SHA"). The purpose of the consultation was to update SHA on the status of the Pipeline and to discuss the contents of the Staff's October 22 letter. Prior to the meeting, AES examined various route variations that it believed could be made to the Pipeline Route such that the provisions of the SHA Utility Policy would be met.¹ Mid-Atlantic Express discussed minor route variations, including a variation that could potentially impact SHA Controlled Access Rights-of-Way ("CAROW"), with SHA at the meeting. As a result of this consultation with the SHA, and subsequent internal discussions, Mid-Atlantic Express has now developed two minor variations (discussed below) that would affect a 5.7 mile section of the overall Pipeline Route. These two variations included a Variation 1a, discussed at the meeting with SHA, and a second variation, Variation 1b, that would avoid encroachment on the CAROW altogether. These variations provide additional options for the FERC to consider, including a route incorporating Variation 1b that eliminates the need for SHA to approve an exception. Importantly, in providing these two variations for consideration, AES is providing the Commission Staff with sufficient data to evaluate the environmental impacts of the Pipeline Route, with an assurance that the Pipeline Route overall can be approved by the Commission regardless of the final outcome of the Utility Policy exception process.

10.3.1 Background

The October 22 letter states that the Pipeline Route as filed does not comply with the Utility Policy, and indicates that at least five segments of the Pipeline between Mileposts ("MP") 3.68 and 9.40 would

¹ Maryland Department of Transportation State Highway Administration Utility Policy (issued July 1989; revised May 1994; revised March 1998) ("Utility Policy"). Section 3.01 B of the Utility Policy states "Longitudinal utility lines are not permitted to be installed within the Right of Way of Through Highway Lines of Existing Expressways or within the Right of Way of highways that are shown in the Highway Needs inventory as future expressways." Section 3.01.A allows crossings of expressways. SHA considers the Pipeline to constitute a "longitudinal utility line" within the meaning of the Utility Policy.

parallel or be constructed within rights-of-way of Interstate 695 ("I-695"). The October 22 letter also indicates that "pipeline construction in the express way [sic] rights-of-way could result in temporary closure of shoulders and have effect on motorists resulting in significant traffic delays."

In light of these indications in the October 22 letter, AES performed an initial assessment of the Pipeline Route alignment as it relates to the CAROW prior to initiating further consultation with the SHA. Available SHA Plat maps and local property maps were obtained that show the extents of SHA-owned properties and CAROW for the I-695 corridor.²

Using the Geographic Information System ("GIS") databases that have been used for routing and SHA Plat maps, AES modified the existing Pipeline Route alignment through the area of concern such that neither the Pipeline nor the Pipeline permanent right-of-way ("ROW") would be placed in the CAROW in a manner that would conflict with the Utility Policy. The permanent ROW was narrowed to 30 feet and the Pipeline centerline was shifted slightly, where necessary, to locate it outside of the CAROW. In addition, the temporary construction right-of-way ("CROW") needed for installation of the Pipeline was narrowed to 45 feet.

During the consultation, SHA representatives stated that the Utility Policy does not prohibit the longitudinal use of right-of-way of a through highway line (or a line shown in the Highway Needs Inventory as a future expressway) that is not designated on the SHA plats with the words "Right of Way of Through Highway." In response to that portion of the October 22 letter that asserted "temporary longitudinal easements" were not permitted in the CAROW, the SHA representatives clarified for AES that the Utility Policy does not prohibit temporary (construction) easements in the CAROW. Finally, SHA representatives noted that utility lines are specifically allowed to be installed within the CAROW as long as the utility owner applies for and is granted an exception from the Utility Policy. Generally, the exception application process includes submission of a cover letter describing the project and the need for an exception to the Utility Policy. The applicant is required to include plans and maps that depict the project location and specifically identify the areas where exceptions are required. Additional information regarding the project need, alternatives assessed, environmental, archeological, cultural and socioeconomic impacts also need to be assessed during the exception review process. After the SHA review and final recommendation process, if the final recommendation is to proceed, a letter is sent to the Federal Highway Administration for their review and concurrence. The entire process, based on these consultations with SHA, is anticipated to take approximately three to five months from submittal.

SHA representatives stressed that the agency's primary focus was the safety of the public (and workers during any construction or maintenance activity), the protection of SHA facilities and structures, and the maintenance of traffic flow.

10.3.2 Route Variation 1a

AES developed Route Variation 1a to avoid longitudinal placement of the Pipeline within the CAROW to the maximum extent practicable; however, Route Variation 1a includes three areas where an exception to the Utility Policy will be required. Based on AES's desktop review and subsequent field visit, it appears that AES will be able to access the modified Pipeline alignment via local access roads thereby not requiring a construction access point from I-695 and avoiding impacts to traffic on I-695.

² Plat Maps were obtained from the Maryland State Archives Digital Image Reference System for Land Survey, Subdivision, and Condominium Plats (<http://www.msa.md.gov/megafile/msa/stagser/s1500/s1529/html/0000.html>)

Exception Area One. The first identified area requiring an exception is the approximately 6,075 linear foot section from approximately MP 3.75 to 4.9 that is located just north of the overpass of Morse Lane, where the northbound and southbound lanes of the I-695 expressway diverge, as shown on Figure 10.6.4-1a. The SHA property in this area was designated for construction of off ramps in 1967, but those ramps were never built and that ramp project is not found in the current Highway Needs Inventory. However, because the area is still designated as CAROW, any placement of a utility line in this area (regardless of whether one might characterize it as a “crossing” of an exit ramp) requires an exception to the Utility Policy.

For purposes of the route variation in this area, AES assumed a typical 100 foot setback from the edge of the roadway for the Pipeline centerline, consistent with the remainder of the Pipeline Route that is located outside of the CAROW. This portion of the route variation will not result in impacts to any additional landowners.

Exception Area Two. The second identified area is the Cove Road crossing from approximate MP 5.5 to MP 6.0, as shown on Figure 10.6.4-1a. The “crossing” in this area applies only to the actual perpendicular installation of the Pipeline across Cove Road rather than the entire installation from the points the exit ramps begin to diverge from and merge into I-695. Accordingly, because the route variation parallels the south side of the Cove Road exit/entrance ramps and this area is designated as CAROW, an exception from the Utility Policy is required in this area. The crossing of Cove Road does not require an exception because it is not prohibited under the Utility Policy.³

The Pipeline CROW and permanent ROW in this portion of the route variation will abut nine new properties, but will not directly impact any of them as the neither the permanent ROW nor the CROW associated with the Pipeline will infringe upon those properties. All nine of the property owners were notified of the Project during the FERC pre-filing process as potential abutters to the project. These land owners would now abut the pipeline ROW and therefore are classified as affected land owners. As requested by the FERC October 22 letter, the landowner mailing list is presented in Appendix 10D.

Exception Area Three. The third identified area is an approximately 250 foot section at approximate MP 9.13, as shown on Figure 10.6.4-1a, located in the vicinity of Chesaco Avenue and I-695 where the SHA property extends beyond the otherwise smooth curvature of the CAROW. The unusual shape of the CAROW in this area was likely related to a parcel purchase when the roadway was constructed. Generally, properties are purchased in their entirety and those portions not needed are offered back to the original owner or adjacent owners. If neither the original owner nor the adjacent owners elect to purchase the excess property, SHA retains ownership of the entire parcel.

The route variation in this area follows the 100 foot setback from the edge of the roadway for the Pipeline centerline, consistent with the remainder of the Pipeline Route. This route modification will not result in impacts to additional landowners.

A summary of the environmental comparisons of the original Pipeline Route and Route Variation 1a is presented in the revised Table 10.6.4-1. The route variation was developed primarily to minimize encroachment into the CAROW. Environmental review indicates that Route Variation 1a will impact one additional wetland complex, but will reduce linear crossings of forested and emergent wetlands by 4.3 and 108.6 feet, respectively. The amount of open and commercial industrial land use crossed by the

³ During the consultation, SHA representatives indicated that Route Variation 1a was preferred to the original route in that it followed along the south (outside) side of the exit and entrance ramps, rather than locating between the ramps and the through highway.

pipeline will be reduced, while the distance of forest land use crossed will increase slightly. Route Variation 1a would be located within 50 feet of three residences while the original Pipeline Route was located within 50 feet of one residence. All landowners directly or indirectly affected by Route Variation 1a have previously been notified of the Project. Impacts to all landowners will be avoided (or minimized) through development of residential mitigation plans for residences within 25 feet of the CROW as described in Resource Report 8, *Land Use, Recreation and Aesthetics*. Route Variation 1a will result in constricted work space adjacent to the CAROW due to the need to maintain adequate safe clearance for workers and equipment. The variation will also result in tight working conditions adjacent to two additional residences that lie within 50 feet of Route Variation 1a. Finally, Route Variation 1a slightly extends the overall length of the Pipeline (211 feet). On the other hand, Route Variation 1a results in fewer environmental impacts, and better addresses the safety and traffic maintenance concerns of SHA. Mid-Atlantic Express would therefore accept Route Variation 1a as the preferred route for the proposed Pipeline.

Mid-Atlantic Express will apply to SHA for exceptions to the Utility Policy for these three areas in December 2007.

10.3.3 Route Variation 1b

Mid-Atlantic Express developed and investigated the potential impacts associated with Route Variation 1b, shown on Figure 10.6.4-1b, in the unlikely event that it is unable to obtain the required exceptions to the Utility Policy from the SHA. Route Variation 1b generally follows the same alignment as Route Variation 1a with the exception of three areas.

The first area where Route Variation 1b differs from Route Variation 1a is the 7,656 linear foot section from approximately MP 3.55 to 5.0, where the Pipeline Route has been modified to be located on the western side of the southbound lanes of I-695 outside of the CAROW. As shown on Figure 10.6.4-1b, Route Variation 1b will depart from the original Pipeline Route alignment at approximate MP 3.55, where it turns in a northeasterly direction until it turns due north, maintaining a 100-foot offset from the CAROW. In the vicinity of Bunny Lane, the variation maintains a 10-foot offset from the CAROW until approximately MP 5.0, where the Pipeline perpendicularly crosses I-695, which is specifically allowed under the Utility Policy, and follows the same route as presented in Route Variation 1a up to MP 5.5. This portion of Route Variation 1b will result in direct impacts to five landowners who were not directly impacted by the preferred Pipeline Route filed with FERC in January 2007. These five landowners were previously notified of the Project during the pre-filing process as potential abutters. Additionally, this portion of Route Variation 1b will result in direct impacts to eight new landowners not previously affected by the Pipeline Route. AES is currently in the process of contacting these landowners to apprise them of this identified route variation.

The second area where Route Variation 1b differs from Route Variation 1a is the Cove Road crossing from approximate MP 5.5 to MP 6.0, as shown on Figure 10.6.4-1b. AES modified the Pipeline alignment in this area to maintain a 5 foot offset from the boundary of the CAROW; eliminating the need to apply for an exception to the Utility Policy. The Pipeline Route will involve a perpendicular crossing of Cove Road within the CAROW, which will be undertaken in accordance with the Utility Policy. The Cove Road modification will result in direct impacts to ten landowners who were notified of the Project during the FERC pre-filing process as potential abutters, but who were not directly impacted by the preferred Pipeline Route filed with FERC in January 2007.

The third area where Route Variation 1b differs from Route Variation 1a is an approximately 500 foot section at approximate MP 9.13, as shown on Figure 10.6.4-1b, located in the vicinity of Chesaco Avenue and I-695 where as noted above the CAROW extends beyond the otherwise smooth curvature of

the expressway. AES shifted the Pipeline Route in this area to maintain a 5 foot offset from the boundary of the CAROW; thereby eliminating the need to apply for an exception to the Utility Policy. Route Variation 1b in this area will not result in impacts to additional landowners.

A summary of the environmental comparisons of the original Pipeline Route and Route Variation 1b is presented in the revised Table 10.6.4-1. Like Route Variation 1a, Route Variation 1b was developed to avoid encroachment into the CAROW; however, in the case of Route Variation 1b this avoidance was complete other than permitted crossings. Mid-Atlantic Express's preliminary environmental review, based on desk top survey and subject to substantiation via field studies, indicates that Route Variation 1b will reduce overall impacts to wetlands. The amount of open land use crossed by the Pipeline will be reduced, while the distance of forest land use crossed will increase by approximately one linear mile. The Pipeline centerline revision will be located within 50 feet of four residences, while the original Pipeline Route was located within 50 feet of one residence. AES will develop residential mitigation plans for any residence within 25 feet of the CROW, as described in Resource Report 8, *Land Use, Recreation and Aesthetics*. Route Variation 1b would result in direct impacts to eight property owners not previously notified of the Project, and fifteen landowners who were notified of the Project during the FERC pre-filing process but who were not directly impacted by the preferred Pipeline Route filed with FERC in January 2007.

APPENDIX 10D

Additional Affected Landowner Mailing List

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Appendix 10D
Additional Affected Landowner Mailing List

LINE LIST #	TAX NUMBER	PROPERTY ADDRESS	OWNER(S)
84	04151700005894	BLETZER ROAD	NEW NORTH POINT COMPANY INC
84.2		BLETZER ROAD	NEW NORTH POINT COMPANY INC
85	04151513401360	8136 BLETZER ROAD	THACH PATRICIA
87.1	04151700008643	BLETZER ROAD	CARLIN VUNCENT F CARLIN M COLLEEN
87.2	UNKNOWN		
87.5			
89	04151518721120	8143 ROSEBANK AVENUE	RUSSELL BRENDA
90	04151503001160	ROSEBANK AVENUE	STATE OF MD STATE ROADS (I-695) 58791 R/W DIST 4
92.2			
133	04152200015742	CHESACO AVENUE	BALTIMORE COUNTY MARYLAND ITEM 53787-53788

Note: NO INFO or blank indicates parcel information limited or not available