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THE OHIO POWER SITING BOARD

IN THE MATTER OF THE APPLICATION OF  
DUKE ENERGY OHIO, INC. FOR A  
CERTIFICATE OF ENVIRONMENTAL  
COMPATIBILITY AND PUBLIC NEED FOR  
THE C314V CENTRAL CORRIDOR  
PIPELINE EXTENSION PROJECT.

CASE No. 16-253-GA-BTX

OPINION, ORDER, AND CERTIFICATE

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## I. SUMMARY

{¶ 1} The Ohio Power Siting Board issues a certificate of environmental compatibility and public need to Duke Energy Ohio, Inc. for the construction, operation, and maintenance of the C314V Central Corridor Extension along the alternate route, subject to the conditions set forth in this Opinion, Order, and Certificate. The conditions attached to the certificate issued herein have been specified, altered, or modified so as to address issues or concerns raised in this proceeding; facilitate ongoing constructive engagement between Duke Energy Ohio, Inc., local officials, and the public; provide for needed monitoring and documentation regarding compliance with the stated conditions; and meet the requirements of R.C. 4906.10.

## II. PROCEDURAL BACKGROUND

{¶ 2} All proceedings before the Ohio Power Siting Board (Board) are conducted according to the provisions of R.C. Chapter 4906 and Ohio Adm.Code Chapter 4906-1, et seq.

{¶ 3} Duke Energy Ohio, Inc. (Duke, Company, or Applicant) is a person as defined in R.C. 4906.01.

{¶ 4} Pursuant to R.C. 4906.04, no person shall construct a major utility facility without first having obtained a certificate from the Board. In seeking a certificate for a gas pipeline, applicants must comply with the filing requirements outlined in R.C. 4906.06, as well as Ohio Adm.Code Chapters 4906-3 and 4906-5.

{¶ 5} On March 8, 2016, Duke filed a pre-application notification letter with the Board regarding its proposal to construct a 30-inch diameter natural gas pipeline, with a length of approximately 12 miles, to be known as the Central Corridor Extension (CCE). Duke noted that the pipeline extension was being planned in order to increase the reliability and dependability of the natural gas delivery system in the central portion of Cincinnati, Ohio.

{¶ 6} On September 13, 2016, Duke filed with the Board an application for a certificate of environmental compatibility and public need to construct the proposed natural gas pipeline extension. As a result of its review of public comments and meetings with elected representatives, community leaders, and members of the public, Duke proposed to reduce the size of the natural gas pipeline to 20 inches in diameter, as well as to reduce the operating pressure from the originally planned 600 pounds per square inch gauge (psig) to 400 psig.

{¶ 7} Also on September 13, 2016, Duke filed a motion for waiver of Ohio Adm.Code 4906-3-03(B), which pertains to the requirements for public informational meetings, to the extent that such a waiver was necessary or appropriate. By Entry issued on October 6, 2016, the motion for waiver was denied and Duke was directed to hold a fourth public informational meeting, given the reduction in the size and pressure of the proposed pipeline.

{¶ 8} On January 20, 2017, Duke amended and refiled its entire application for a certificate of environmental compatibility and public need, which proposes to construct a natural gas pipeline extension, approximately 14 miles in length and 20 inches in diameter, from the Applicant's WW Feed Station to an existing gas pipeline in the village of Fairfax or the city of Norwood area (hereafter, the Project or CCE). The Project would be located entirely in Hamilton County, Ohio. Duke further amended and supplemented its application on February 13, 2017, February 24, 2017, March 3, 2017, and May 11, 2017.

{¶ 9} By letter dated March 3, 2017, the Board notified Duke that its amended application had been certified as sufficiently complete to move forward and directed the Applicant to serve appropriate government officials and public agencies with copies of the complete, certified application.

{¶ 10} On March 21, 2017, Duke submitted the application fee to the Board pursuant to Ohio Adm.Code 4906-3-07(A).

{¶ 11} On March 30, 2017, Duke filed its proof of compliance with the requirements for service of its accepted and complete application, consistent with Ohio Adm.Code 4906-3-07(A).

{¶ 12} By Entry dated April 13, 2017, the effective date of the filing of the application was deemed April 13, 2017, pursuant to Ohio Adm.Code 4906-3-08(A). A procedural schedule was also established for this case, including a local public hearing to occur on June 15, 2017, and an adjudicatory hearing to commence on July 12, 2017. Duke was directed to issue public notices of the application and hearings pursuant to R.C. 4906.06(C) and Ohio Adm.Code 4906-3-09(A).

{¶ 13} On May 31, 2017, the Staff Report of Investigation was filed. In the report, Staff recommended that the Project be installed on Duke's proposed alternate route, subject to numerous conditions.

{¶ 14} By Entry dated June 15, 2017, the following entities were granted intervention in this proceeding: Coprop Inc. (Coprop); RLB Inc. (RLB); Kenwood Mall, LLC (Kenwood Mall); 10149 LLC (10149); BRE DDR Crocodile Sycamore Square LLC (BRE DDR); Interstate Gas Supply, Inc. (IGS); The Jewish Hospital - Mercy Health (The Jewish Hospital); Columbia Township (Columbia); City of Deer Park (Deer Park); City of Reading (Reading); Village of Golf Manor (Golf Manor); Board of County Commissioners of Hamilton County (Hamilton County); Amberley Village (Amberley); Sycamore Township (Sycamore); City of Blue Ash (Blue Ash); Village of Evendale (Evendale); City of Cincinnati (Cincinnati); Pleasant Ridge Community Council (PRCC); City of Madeira (Madeira); and NOPE - Neighbors Opposed to Pipeline Extension, LLC (NOPE).<sup>1</sup>

{¶ 15} The local public hearing occurred, as scheduled, on June 15, 2017.

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<sup>1</sup> By notice filed on March 22, 2019, PRCC withdrew as a party to this proceeding. On March 29, 2019, Coprop, RLB, and 10149 also withdrew as parties to this case.

{¶ 16} On June 21, 2017, at the request of some of the intervenors in this case, the administrative law judge (ALJ) granted a continuance of the adjudicatory hearing, which was rescheduled to commence on September 11, 2017.

{¶ 17} On August 23, 2017, Duke filed a motion to suspend the procedural schedule in this case. Specifically, Duke requested that the filing of testimony by any party, as well as the commencement of the adjudicatory hearing, be delayed until further notice. In support of its motion, Duke stated that, in the course of meeting with affected property owners and municipalities, the Company became aware of additional information concerning site-specific matters. Duke further stated that it was informed of potential concerns with engaging in construction activities in the vicinity of property on which environmental remediation has occurred. According to Duke, some of this information warranted additional examination and, potentially, contribution from entities that were not otherwise participating in this proceeding. In light of the fact that the additional investigation was expected to take some time, Duke proposed to delay the procedural schedule, while the Company worked through these issues, performed any inquiry that may be needed, and solicited input from affected communities and property owners.

{¶ 18} By Entry dated August 24, 2017, the ALJ granted Duke's motion and suspended the procedural schedule until otherwise ordered by the Board.

{¶ 19} On April 13, 2018, Duke filed supplemental information to its application, along with a motion seeking to reestablish the procedural schedule. In the motion, Duke requested that deadlines for the filing of testimony and a date for commencement of the adjudicatory hearing be established. In support of its request, Duke stated that it had completed the necessary investigation of certain site-specific issues. Duke noted that it had confirmed the lack of pre-existing environmental issues of concern along the alternate route that would require route modifications. Duke added that, following meetings with property owners and municipalities, additional information was obtained that resulted in

adjustments to the proposed alternate route, as addressed in the supplemental information filed with the motion.

{¶ 20} On July 26, 2018, Duke further supplemented its application by filing two environmental summary reports.

{¶ 21} On June 29, 2018, Staff filed a letter in response to Duke's filing of its supplemental information. Staff stated that Duke's supplemental information included seven significant adjustments to the proposed alternate route, with the furthest distance between the revised alternate route and the original alternate route being less than 500 feet. Staff also noted that the revisions appeared to impact two additional property owners. According to Staff, Duke's supplemental information did not address whether land use agreements, in addition to those necessary for the original alternate route, would be required for any impacted properties along the revised alternate route. With respect to the procedural schedule, Staff requested that it be provided sufficient time to complete a thorough review of Duke's supplemental information.

{¶ 22} By Entry dated December 18, 2018, the ALJ found that Duke's supplemental information should be considered an amendment of a pending accepted, complete application, in light of Staff's representation that the Applicant's revisions to the proposed alternate route may impact two additional landowners. Therefore, Duke was directed, in accordance with Ohio Adm.Code 4906-3-11(A)(2) and (A)(3), to serve a copy of the application for amendment upon all persons previously entitled to receive a copy of the application and to place a copy of such application for amendment or notice of its availability in all libraries, consistent with Ohio Adm.Code 4906-3-07, as well as to supply the Board with proof of its compliance with the rule. Duke was also directed to notify any additional property owners impacted by the proposed revisions. Finally, the procedural schedule was reestablished, with a second local public hearing to occur on March 21, 2019, and the adjudicatory hearing to commence on April 9, 2019.



{¶ 23} In accordance with the procedural schedule, Staff filed, pursuant to R.C. 4906.07(C), an Amended Staff Report of Investigation (Staff Report) on March 5, 2019 (Staff Ex. 1). Staff notes that its amended report is intended to supersede the report filed on May 31, 2017. As in the earlier report, Staff recommends that the Project be installed on Duke's proposed alternate route, subject to numerous conditions.

{¶ 24} The second local public hearing occurred, as scheduled, on March 21, 2019.

{¶ 25} On March 26, 2019, Duke filed the direct testimony of Gary J. Hebbeler (Duke Ex. 7), Adam Long (Duke Ex. 8), James Nicholas (Duke Ex. 9), Stephen R. Lane (Duke Ex. 10), Daniel P. Earhart (Duke Ex. 12), Julianne Schucker (Duke Ex. 14), and Bruce L. Paskett (Duke Ex. 15).

{¶ 26} On April 2, 2019, Staff filed the direct testimony of Jon C. Pawley (Staff Ex. 2), Jon Whitis (Staff Ex. 3), Scott Glum (Staff Ex. 4), Mark Bellamy (Staff Ex. 5), Robert Holderbaum (Staff Ex. 6), Grant T. Zeto (Staff Ex. 7), Derek F. Collins (Staff Ex. 8), Andrew Conway (Staff Ex. 9), Tim Burgener (Staff Ex. 10), Matthew Butler (Staff Ex. 11), Peter A. Chace (Staff Ex. 12), and Raymond W. Strom (Staff Ex. 13).

{¶ 27} The following intervenor testimony was also filed on April 2, 2019: Jean-Michel Guldmann on behalf of NOPE, Cincinnati, and Hamilton County (NOPE Ex. 19); Howard Miller on behalf of Cincinnati and Hamilton County (City/County Ex. 43); Patrick George Ross on behalf of Reading (Reading Ex. 2); Greg Bickford on behalf of Sycamore (Sycamore Township Ex. 1); Gordon Matthew Perry on behalf of Blue Ash (Blue Ash/Columbia Township Ex. 6); Sam Cordray on behalf of The Jewish Hospital (The Jewish Hospital Ex. 1); and Richard Finan and James Jeffers on behalf of Evendale (Evendale Ex. 1).

{¶ 28} The adjudicatory hearing commenced on April 9, 2019, and concluded on April 11, 2019.

{¶ 29} Timely initial briefs were filed by Duke, Staff, Reading, Sycamore, Blue Ash/Columbia, Cincinnati/Hamilton County, The Jewish Hospital, and NOPE on May 13,

2019. Madeira and BRE DDR/Kenwood Mall also filed initial briefs on May 14, 2019.<sup>2</sup> On June 10, 2019, reply briefs were filed by Duke, Staff, Reading, Sycamore, Blue Ash/Columbia, Cincinnati/Hamilton County, and NOPE.

### III. PROJECT DESCRIPTION

{¶ 30} Duke proposes to construct the CCE as part of its long-term planning process to retire propane-air plants, balance system supply from north to south, and support the replacement of aging infrastructure. According to Duke, the Project would consist of installing approximately 13 or 14 miles of natural gas pipeline,<sup>3</sup> with a diameter of 20 inches, from the southern terminus of Line C314, an existing 24-inch natural gas pipeline at a point near the intersection of Hamilton, Warren, and Butler counties (known as WW Feed Station), to a location along Line V, an existing 20-inch natural gas pipeline, in the Fairfax area for the preferred route or the Norwood area for the alternate route. (Duke Ex. 3 at 2-1 to 2-2.)

### IV. CERTIFICATION CRITERIA

{¶ 31} Pursuant to R.C. 4906.10(A), the Board shall not grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the Board, unless it finds and determines all of the following:

- (1) The basis of the need for the facility if the facility is an electric transmission line or gas pipeline;
- (2) The nature of the probable environmental impact;
- (3) The facility represents the minimum adverse environmental impact, considering the state of available technology and the

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<sup>2</sup> The Board accepts the untimely initial briefs of Madeira and BRE DDR/Kenwood Mall, given that they were filed only one day past the due date and no party has objected to their filing.

<sup>3</sup> The length of the proposed preferred route is 14 miles, while the alternate route is shorter at 13 miles in length.

nature and economics of the various alternatives, and other pertinent considerations;

- (4) In the case of an electric transmission line or generating facility, the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and the facility will serve the interests of electric system economy and reliability;
- (5) The facility will comply with R.C. Chapters 3704, 3734, and 6111, as well as all rules and standards adopted under those chapters and under R.C. 1501.33, 1501.34, and 4561.32;<sup>4</sup>
- (6) The facility will serve the public interest, convenience, and necessity;
- (7) The impact of the facility on the viability as agricultural land or any land in an existing agricultural district established under R.C. Chapter 929 that is located within the site and alternative site of the proposed major facility; and
- (8) The facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of various alternatives.

#### V. CONSIDERATION OF CERTIFICATION CRITERIA

{¶ 32} The Board has reviewed the evidence presented by the parties and has also considered the eight criteria set forth in R.C. 4906.10(A) in evaluating Duke's application.

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<sup>4</sup> The Board notes that R.C. 4906.10 was recently amended, effective October 17, 2019, such that all references to R.C. 1501.33 and 1501.34 were removed.

Any evidence not specifically addressed herein has nevertheless been considered and weighed by the Board in reaching its final determination.

**A. *Public Testimony and Comments***

{¶ 33} As previously noted, the Board held two local public hearings in this matter; the first local public hearing was held on June 15, 2017. A second local public hearing was held on March 21, 2019, as a result of Duke making amendments to the application, as well as to allow interested persons in the local community affected by the Project, specifically those who were not a party to the case and who did not offer testimony at the first local public hearing, the opportunity to testify. A total of 115 persons offered testimony at the local public hearings, raising several concerns and issues regarding the proposed Project.<sup>5</sup> Five witnesses at the local public hearings testified in favor of the CCE, including representatives from the Ohio Gas Association, representatives of the construction trades and operating engineer unions, and the Cincinnati USA Regional Chamber of Commerce. In addition, to date, there have been approximately 1,600 document records of comments filed in the case docket.<sup>6</sup> The concerns raised at the local public hearings and in the public comments may generally be summarized to include the following matters: the Board's jurisdiction; public safety, including evacuation plans and the impact to at-risk populations; evaluations of Staff's investigation of the application; Duke's demonstration of need for the CCE; the effect of the installation of the CCE on residential and business property values; and characteristics of the county that may cause the proposed Project to be unsuitable for the area. The public testimony is addressed further below.

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<sup>5</sup> Some witnesses offered testimony at both local public hearings. Each individual offering testimony has been counted only once.

<sup>6</sup> In most instances, all of the comments submitted to the Board each day are collectively listed on the docket by date. The filed comments for each date may include comments filed by more than one commenter, one commenter who is filing a correspondence to each of the Board members, or comments from various commenters. Further, a person or entity may file more than one correspondence in the docket. Accordingly, the document record of comments cannot be counted as the number of comments filed.

**B. Evidence and Arguments****1. BASIS OF NEED**

{¶ 34} R.C. 4906.10(A)(1) requires that the Board consider the basis of the need for the facility if the facility is a gas pipeline.

**a. Public Testimony**

{¶ 35} At the local public hearings, witnesses offered various reasons that Duke has not met its burden to demonstrate need for the CCE. First, public witnesses stated that the propane-air facilities and caverns are not, as Duke claims, outdated and that the plants could be economically repaired. Some witnesses noted that similar propane-air plants are in operation. Local witnesses asserted that the population of Hamilton County is not growing and is not projected to grow in the near future and that energy conservation is reducing the demand for gas in the area. Further, public witnesses claimed that Duke should consider other alternatives to the proposed Project to replace the propane-air plants, including liquefied natural gas (LNG). Finally, a few witnesses declared that the CCE does not accomplish Duke's purported goal to balance supply on its system from north to south. (Public Tr. I at 27, 59, 64-65, 73, 103, 118-119, 122, 145-146, 172-173, 212, 216, 294; Public Tr. II at 81-82, 120, 164, 223.)

**b. Parties' Positions**

{¶ 36} According to the application, the Project is part of Duke's long-range plan to retire its propane-air peaking plants, balance system supply from north to south, and support the inspection, replacement, and upgrading of aging infrastructure (Duke Ex. 3 at 3-1). Similarly, in its brief, Duke states that the construction of the CCE would enable the Company to retire its propane-air peaking facilities, while maintaining safe and reliable service to customers; improve the balance of supply between wholesale suppliers north of the Cincinnati area and those located south of Cincinnati; and provide sufficient redundancy in the distribution system to allow for the efficient replacement of aging infrastructure in the area. With respect to the first of these objectives, Duke argues that its

propane-air peaking facilities, which date back to the mid-twentieth century and are used on cold winter days, must be retired, as the propane storage caverns located deep underground cannot be inspected or repaired if leaks are detected at the surface. Noting that there are other propane storage caverns in southwestern Ohio that are of comparable age and formation that have been forced into retirement due to unrepairable leaks, Duke emphasizes that a leaking propane storage cavern must be abandoned. Duke adds that the Public Utilities Commission of Ohio (Commission) has previously acknowledged the impacts and risks of geological failure of similar propane storage caverns. *In re Duke Energy Ohio, Inc.*, Case No. 15-218-GA-GCR, et al. (2015 Audit Case), Opinion and Order (Sept. 7, 2016) at ¶ 22. Duke believes that it is prudent and in the public interest to address the risks to its delivery system in a proactive manner. According to Duke, construction of the CCE would permit the Company to retire the propane-air peaking facilities by replacing the ten-percent portion of supply that is currently provided by the caverns. (Duke Br. at 9-11.)

{¶ 37} Aside from its propane-air peaking facilities, Duke notes that it has other aging infrastructure that must be replaced, including pipelines that have reached the end of their useful lives. Duke explains that, when an existing pipeline is replaced for any reason, the Company must ensure that safe and reliable service can continue during the replacement process and, if not, that any resultant outage is brief and does not occur during a cold-weather period. Acknowledging that many repairs and some replacements can be made without causing outages, as was the case with the recent replacement of a very short section of Line A to the north of the central corridor, Duke contends that the CCE will greatly help to facilitate repairs and replacement along the 35 miles of Line A, as well as other lines that are slated for replacement within the next few years. (Duke Ex. 7 at 4; Tr. I at 31; Duke Br. at 11-13.)

{¶ 38} Finally, Duke asserts that improving its balance of natural gas supply is critical, with the Company currently receiving approximately 55 percent of its supply from sources south of the Cincinnati area, all of which passes through a single gate station in Kentucky. Duke notes that more natural gas supply is now available from the north,

whereas no additional gas can be obtained from southern suppliers. Duke asserts that it must be able to rely on receiving 45 percent of its supply from the north and that, while the Project would not eliminate the Company's dependence on southern supply, the CCE would undeniably improve the supply balance for a peak day:

	Without CCE	With CCE on Preferred Route	With CCE on Alternate Route
Percent of Supply from the South	55	45	50
Percent of Supply from the North	35	55	50
Percent of Supply from Propane	10	0	0

Although Duke acknowledges that the change in system balance would be greater with the originally proposed 30-inch pipeline at 600 psig, Duke believes that the CCE, as a 20-inch pipeline at 400 psig, will nonetheless result in a better balance that may mean the difference between a widespread outage in the winter-heating months and no outage at all. (Duke Ex. 8 at 10; Duke Ex. 7 at 5, 11-12; Duke Br. at 13-15.)

{¶ 39} Pursuant to R.C. 4906.07(C), Staff completed an investigation of Duke's application, which included recommended findings regarding the criteria in R.C. 4906.10(A). Addressing the basis of need for the Project, Staff notes, in the Staff Report, that Duke and its subsidiary, Duke Energy Kentucky, Inc., can supply up to 43,000 thousand cubic feet per hour (Mcfh) of natural gas to well over 500,000 residential, commercial, and industrial customers in southwestern Ohio and northern Kentucky. Staff further notes that, during the polar vortex in January 2019 and at times in 2014, the demand on Duke's system was at or near the system maximum of 43,000 Mcfh. Staff adds that natural gas supply for the system is received from 22 stations that connect to interstate pipelines; all of the stations are located in the northern section of Duke's service territory, with the exception of Foster Station, which is in Kentucky. Staff emphasizes that, given that Foster Station is a critical station that typically serves up to 55 percent of the Ohio customer load and up to 60 percent

of the peak design day load in Ohio, a loss of supply from Foster Station on a high-demand day would result in widespread service outages. According to Staff, Duke's modeling indicates that, with the installation of the CCE, Foster Station would serve 45 percent of the Ohio customer load. Although Staff witness Conway later corrected the Staff Report, explaining that Foster Station would serve 50 percent of the Ohio customer load with the CCE in service along the alternate route, Staff believes that a reduction of five percent or any other noticeable amount is beneficial to Duke's overall system. Additionally, Staff notes that, due to pressure limitations around the WW Feed Station lines, Line C314, which was constructed in 2003, has limited capability of supplying gas to the system from the north to Line A and Line WW. Staff states that the Project is expected to bring increased pressure and volumes of natural gas into Duke's system from the north and eliminate some of these system constraints. (Staff Ex. 1 at 25-26; Staff Ex. 9 at 3-4, 5-6; Tr. III at 658-659; Staff Br. at 8-10; Staff Reply Br. at 7-8.)

{¶ 40} With respect to Duke's propane-air peaking plants in Cincinnati, Ohio and Erlanger, Kentucky, which are used to meet demand during peak periods and emergencies, Staff explains that the plants were placed in service in the early 1960s to provide an additional peaking supply and now serve up to ten percent of the current peak day design load. Staff agrees with Duke's position that the propane-air plants and propane storage facilities are now reaching the end of their useful lives and that, if the plants become unavailable, the loss of supply on a high-demand day could result in widespread service outages. Staff adds that these system conditions, including the potential loss of supply, were observed by the auditor selected by the Commission to review Duke's gas procurement practices and policies in the *2015 Audit Case*. Staff notes that, in the management and performance audit report, the auditor commented that Duke's Dicks Creek Plant propane facility is no longer operational and that the potential exists for the Eastern Avenue and Erlanger Plant propane facilities also to become unavailable. According to Staff, the auditor recommended that Duke assess this potential situation, which the Company agreed to do through a Commission-approved stipulation. Aside from the potential unavailability of the



propane-air facilities, Staff states that the operations of some of Duke's customers are intolerant to the propane-air mixture and must curtail their gas use when the propane-air peaking facilities are in operation. Staff concludes that the retirement of the propane-air peaking plants should eliminate the need for these types of associated curtailments. (Staff Ex. 1 at 26; Staff Ex. 9 at 4-5, 6; Staff Br. at 10-12; Staff Reply Br. at 8-9.)

{¶ 41} As another matter, Staff states that Duke has several older natural gas pipelines that were not designed to meet the current pipeline integrity testing requirements. Further, Staff reports that Duke must inspect, test, and upgrade older portions of its backbone system, which brings gas from both the north and the south into the central Hamilton County area. In particular, Staff points out that one such aging pipeline, Line A, has reached maximum capacity and, without upgrades, is not capable of supplying additional natural gas to the area. Although Duke has continued to repair or replace small sections of these older pipelines, Staff agrees with Duke that construction of the CCE would allow the Company to replace this aging infrastructure while maintaining service. (Staff Ex. 1 at 26-27; Staff Ex. 9 at 5, 7; Staff Br. at 12; Staff Reply Br. at 9-10.)

{¶ 42} In terms of load flow studies and contingency analysis, Staff notes that Duke used its modeling software to develop a Gas System Master Plan, which identifies future infrastructure needs for the purposes of maintaining reliability and providing sufficient flexibility to recover from a wide range of service interruption events. According to Staff, Duke's analysis revealed that retirement of the propane-air peaking plants, which have been used anywhere from 9 to 13 days every year since 2015, would cause the system, in the absence of a replacement supply source, to have inadequate supply to serve customers, affecting as many as 50,000 customers on peak winter days. Staff adds that, according to Duke, it is not currently possible, due to system capacity restrictions, to increase flow from the northern gate stations to replace propane-air augmentation. Among its other findings in the Staff Report, Staff also observes that Duke has properly evaluated the anticipated system conditions under peak load in its base case, appropriately accounted for anticipated system growth in terms of regional expansion plans, and referenced the Project for many

years in its long-term forecast. With respect to projected growth, Staff states that Duke has identified several areas of its service territory where it has experienced and anticipates growth, while the Ohio Development Services Agency projects a decline in the Hamilton County population through 2030, followed by an increase from 2030 to 2040. Additionally, Staff emphasizes that Duke considered several other options aside from the Project, with the Company ultimately determining that an extension of Line C314 further south through the central corridor from the existing WW Feed Station to the existing Line V was the best option to minimize overall impacts and meet current and future customer needs. (Staff Ex. 1 at 27-30; Staff Ex. 9 at 7-8; Staff Br. at 13-17; Staff Reply Br. at 10-14.)

{¶ 43} Staff concludes that Duke has appropriately evaluated the condition and needs of its gas supply system and has demonstrated the basis of need for the Project. Staff recommends that the Board find that the basis of need for the CCE has been demonstrated and, therefore, complies with the requirements in R.C. 4906.10(A)(1), provided that any certificate issued by the Board for the Project includes the conditions listed in the Staff Report. (Staff Ex. 1 at 29; Staff Br. at 18.)

{¶ 44} Cincinnati and Hamilton County assert that Duke has not carried its burden to demonstrate need for the Project.<sup>7</sup> First, Cincinnati and Hamilton County argue that the Project does not improve the north/south supply balance in the central corridor, given Duke's decision to reduce the diameter (from 30 inches to 20 inches) and pressure (from 600 psig to 400 psig) of the proposed pipeline. Cincinnati and Hamilton County emphasize that, despite the fact that Duke's consultant, Lummus Consultants, Inc. (Lummus), concluded that the Company's major reliability risk is excessive reliance on Foster Station, Duke ignored the capital expansion projects recommended by Lummus and instead modified the

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<sup>7</sup> Reading states, in its brief, that it adopts the arguments raised by Cincinnati, Hamilton County, and NOPE regarding the need for the CCE (Reading Br. at 11). Sycamore states that it adopts the arguments of Cincinnati, Hamilton County, NOPE, Blue Ash, and Columbia regarding the issues of need (particularly the need to retire the propane-air plants), environmental impact, and safety, as well as the question of whether the Project would serve the public interest, convenience, and necessity (Sycamore Br. at 3). Blue Ash and Columbia note, in their joint initial and reply briefs, that they adopt the arguments of Cincinnati, Hamilton County, and NOPE (Blue Ash/Columbia Br. at 4; Blue Ash/Columbia Reply Br. at 3).

Project in a way that fails to significantly change the north/south supply balance, as the Company conceded in amending its application. Cincinnati and Hamilton County note that the preferred route would only reduce reliance on Foster Station from 55 percent to 45 percent, with the alternate route being worse with a reduction from 55 percent to 50 percent, while, in any event, the Project would not prevent widespread outages if the station is unable to serve load on a cold weather peak day. Cincinnati and Hamilton County conclude that, even if the Project is constructed, Duke's system would remain exposed to the same major reliability risk. Noting that Duke's Gas System Master Plan outlined pipeline routes that would eliminate or greatly reduce the dependency on Foster Station, Cincinnati and Hamilton County claim that a five-percent reduction does not justify the Project's cost to ratepayers of \$160 million or more. (Duke Ex. 3 at 2-1, 3-1, 4-27; Duke Ex. 7 at 16-17; NOPE Ex. 19 at Ex. JMG-7; Tr. I at 33-34, 68-69; Tr. III at 614; Cincinnati/Hamilton County Ex. 18; Cincinnati/Hamilton County Br. at 5-7; Cincinnati/Hamilton County Reply Br. at 2-4.)

{¶ 45} As supported by the testimony of NOPE witness Guldmann,<sup>8</sup> NOPE also takes the position that the Project is not justified by the insignificant five-percent change in the north/south balance. As an initial matter, NOPE points out that Staff witness Conway testified that Duke's dependence on Foster Station is not excessive or even problematic, while Company witness Hebbeler testified that the Company's reliance on the station is not a major risk. NOPE adds that Mr. Conway acknowledged that, even with the CCE in operation, a loss of supply from Foster Station on a peak day would result in widespread service outages. Further, NOPE states that Duke has admitted that the installation of the CCE will not fully resolve its objective to balance its system supply and that unspecified upgrades and enhancements will still be needed. NOPE believes that there are more effective and less impactful options to address this issue. In its reply brief, NOPE also argues that, contrary to Duke's position, the propane-air peaking plants have no impact on the

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<sup>8</sup> Dr. Guldmann's testimony was also offered on behalf of Cincinnati and Hamilton County. Dr. Guldmann is a Professor Emeritus of City and Regional Planning at The Ohio State University, with experience in regional planning, population and economic forecasting, statistical and optimization methods, and energy planning. (NOPE Ex. 19 at 1-2, Ex. JMG-1 at 1.)

north/south balance and that the Company has, therefore, misleadingly attempted to fabricate benefits for its Project. (Cincinnati/Hamilton County Ex. 18; Cincinnati/Hamilton County Ex. 30; Duke Ex. 7 at 16; Tr. I at 73, 168; Tr. III at 541, 614, 662, 670; NOPE Br. at 17-18; NOPE Reply Br. at 9-10.)

{¶ 46} In response to the arguments of Cincinnati, Hamilton County, and NOPE, Duke reiterates that improving the balance of supply is a critical objective, as more than half of its supply comes through a single gate station to the south, with the Company's system analysis showing that it is necessary to move additional supply from the north into the central corridor. In response to the contention that the CCE would not significantly change the north/south balance, Duke asserts that the intervenors failed to factor in the additional improvement in the system balance that would result from the retirement of the propane-air plants, which require natural gas flow to operate. Duke adds that its goal for this Project is to improve the system balance, not to eliminate the issue altogether, as Cincinnati and Hamilton County claim. (Duke Ex. 8 at 3, 10, 13; Duke Reply Br. at 17-19.)

{¶ 47} Turning to Duke's objective of replacing and upgrading aging infrastructure, Cincinnati and Hamilton County maintain that, although the Project may potentially make it more convenient for Duke to replace or upgrade aging infrastructure, the Project is not necessary in this respect. Cincinnati and Hamilton County emphasize that Duke's justification is insufficient as a matter of law, as the Company must establish need for the Project, not mere convenience. Cincinnati and Hamilton County also note that Duke conducted no engineering studies on the issue of whether the Project will facilitate maintenance and replacement work on existing pipelines. Additionally, Cincinnati and Hamilton County state that both Duke and Staff conceded that Duke has been able to complete recent repair or replacement work on Lines A, EE, and V. In response to Duke's position that the Project will benefit customers by avoiding the lengthy outages associated with the repair or replacement of aging infrastructure, Cincinnati and Hamilton County point out that Duke was unable to identify a single instance where customers experienced lengthy outages due to Duke's repair or replacement work in the central corridor. (Duke

Ex. 7 at 14; Tr. I at 27, 32, 158; Tr. III at 648-649; Cincinnati/Hamilton County Ex. 2; Cincinnati/Hamilton County Ex. 14; Cincinnati/Hamilton County Ex. 15; Cincinnati/Hamilton County Ex. 39; Cincinnati/Hamilton County Br. at 8-9; Cincinnati/Hamilton County Reply Br. at 4-5.)

{¶ 48} Like Cincinnati and Hamilton County, NOPE asserts that the Project is not needed to facilitate the replacement of Duke's existing infrastructure. NOPE points out that Duke witness Hebbeler testified that the Company is capable of taking actions to minimize or eliminate outages during replacements, such as bringing in laterals and scheduling the replacements to occur when gas use is at its lowest. Noting that Duke has already replaced portions of Line A without any outages, NOPE emphasizes that the Company admitted that it can perform maintenance, repairs, and replacements on its backbone system lines without the CCE in operation. Responding to Staff's position that it is impossible to take Line A out of service without disruption to customers during the peak winter season, NOPE claims that Staff unreasonably assumed that Line A cannot be replaced in sections and that those sections cannot be replaced outside of the peak winter season. In response to Duke's claim in its brief that Line A and others are slated for replacement in the next few years, NOPE asserts that the claim is not supported by any evidence and, in fact, is contrary to the Company's position in discovery that these lines would be replaced over the next 20 years. NOPE believes that this 20-year period will enable Duke to replace the lines in sections or in other ways that would minimize or eliminate outages. (Cincinnati/Hamilton County Ex. 31; Cincinnati/Hamilton County Ex. 33; Cincinnati/Hamilton County Ex. 39; Cincinnati/Hamilton County Ex. 40; Tr. I at 27, 29-30, 32, 154; Tr. III at 631-632; Staff Ex. 1 at 28; NOPE Br. at 18-19; NOPE Reply Br. at 11-12.)

{¶ 49} Duke responds that NOPE confuses maintenance and repair work with wholesale replacements and assumes that small projects and large projects can be addressed in similar ways. Acknowledging that part of Line A was recently replaced, Duke notes that the work occurred in an area where the replacement was much easier to complete. Duke asserts that Cincinnati, Hamilton County, and NOPE fail to realize that not every portion of

its system can be addressed in precisely the same manner, as the system differs throughout as to age, geography, and other factors. Further, in response to NOPE's claims that Duke admitted in discovery that it can replace its backbone system lines without the CCE in operation, the Company states that its responses to generally-worded discovery requests do not support NOPE's arguments on more specific issues. In response to the contention that Duke has not identified any instances where customers experienced lengthy outages due to repair or replacement activities, the Company notes that this is not surprising, given its obligation to ensure safe and reliable service. Duke reiterates that the CCE would enable the replacement of the substantial amount of infrastructure that is reaching the end of its useful life. (Tr. I at 27; Cincinnati/Hamilton County Ex. 31; Cincinnati/Hamilton County Ex. 33; Duke Reply Br. at 14-17.)

{¶ 50} Regarding the retirement of Duke's propane-air peaking plants, Cincinnati and Hamilton County assert that the plants do not need to be retired and, regardless, the Project is not a viable solution to address this issue. Cincinnati and Hamilton County argue that the evidence indicates that Duke intends to continue using the propane facilities even after the CCE is constructed; the retirement of the facilities is not an urgent issue, given that Duke continually monitors them to ensure their safe and reliable operation; Duke has conducted no studies or analysis regarding the facilities' retirement or longevity; and Duke is unaware of any specific safety concerns, defects, or inoperable conditions associated with the facilities. Cincinnati and Hamilton County add that Duke was unable to identify a single instance where the propane facilities failed to provide needed supply or pressure to the system, failed to operate during a peak day, caused firm customer curtailments or interruptions, or resulted in widespread outages. In their reply brief, Cincinnati and Hamilton County note that Duke failed to cite to any record evidence on this issue and that the Company again conflates need with convenience, which cannot justify the premature retirement of valuable utility assets. Cincinnati and Hamilton County also point out that a consultant retained by Duke recently concluded that the storage caverns were not leaking and that the limestone in the caverns was suitable for continued use in propane storage

service. According to Cincinnati and Hamilton County, Duke's arguments regarding the retirement of similar, unidentified propane storage caverns should be disregarded, because they have no bearing on this case and are speculative in the absence of any supporting evidence. (Tr. I at 151-157, 171-172, 204, 226-227; Cincinnati/Hamilton County Ex. 13c; Cincinnati/Hamilton County Ex. 17; Cincinnati/Hamilton County Ex. 22; Cincinnati/Hamilton County Ex. 37; Cincinnati/Hamilton County Br. at 9-11; Cincinnati/Hamilton County Reply Br. at 5-10.)

{¶ 51} NOPE agrees with Cincinnati and Hamilton County that Duke has not proven the need to retire the propane-air peaking plants. NOPE emphasizes that Duke's position is based solely on Company witness Long's testimony that the Company must plan to proactively retire the plants, because it is not possible to maintain or update the storage caverns. According to NOPE, Mr. Long acknowledged that there have not been leaks or other problems and that the plants have provided safe and reliable service, with no outages to customers even during repair work. NOPE adds that Mr. Long has no expertise with respect to propane-air facilities, as he is not a geologist, and that Mr. Long admitted that his testimony was based on the opinions of third-party experts. Because these experts did not provide testimony or other evidence, NOPE asserts that Mr. Long's testimony should be disregarded. With respect to Staff's position on this issue, NOPE claims that Staff witness Conway's testimony was replete with confirmation biases, overstated the findings of the consultants in the *2015 Audit Case* and the Gas System Master Plan, and, at best, indicates that Duke may need to repair or replace certain equipment at the propane-air plants. In addition, NOPE contends that the propane-air plants have not yet reached the end of their useful lives, given Duke's admission that it plans to continue to use the plants for several years. Finally, with respect to Duke's six propane-intolerant customers, NOPE points out that the Company has admitted that such customers can be supplied from a portion of its system that is segregated from the propane-air plants. In its reply brief, NOPE argues that maintenance requirements associated with the propane-air facilities do not constitute need for the Project and that Duke's claims regarding the storage caverns are not supported by

substantial evidence. (Cincinnati/Hamilton County Ex. 8; Cincinnati/Hamilton County Ex. 22; Cincinnati/Hamilton County Ex. 28; Cincinnati/Hamilton County Ex. 41; Duke Ex. 8 at 7; Tr. I at 156, 170-172, 177-178, 185; Tr. III at 619-620, 646, 681-682; NOPE Ex. 19 at Ex. JMG-7; Staff Ex. 1 at 26; NOPE Br. at 12-17; NOPE Reply Br. at 3-6.)

{¶ 52} In response to the arguments raised by Cincinnati, Hamilton County, and NOPE, Duke reiterates that, if the storage caverns fail or otherwise experience problems, there is no maintenance or repair solution and customers would experience outages on a high-demand day. Duke also emphasizes again that there is no physical means to inspect the propane storage caverns or to determine whether there are defects developing in the caverns deep underground and, therefore, no ability to study or analyze their remaining years. Duke asserts that it is proposing to retire the propane-air peaking facilities due to the risk of cavern failure rather than any need to repair equipment or inconvenience associated with operating the facilities. With respect to Duke witness Long's expertise, the Company responds that Mr. Long is responsible for the propane storage caverns and, in providing his testimony, reasonably relied on the experts retained by the Company to evaluate the caverns. Regarding the findings by Lummus in the Gas System Master Plan, Duke notes that Lummus was retained to provide recommendations to the Company, not to dictate the Company's future actions, and, even so, it is evident that Lummus believes that the storage caverns must be retired. Duke states that, in recommending that the Company evaluate the decommissioning of the propane-air plants, Lummus found, among other things, that propane is a more serious safety hazard than natural gas; rock-mined storage caverns are not a standard means of propane storage; such caverns would likely not be permitted if built today; and the Company's storage caverns have been encroached upon, thereby increasing their risk, and are showing signs of nearing the end of their useful lives. Duke adds that Dr. Guldmann did not question these findings. With respect to the *2015 Audit Case*, which involved a review of Duke's gas cost recovery rider, the Company asserts that there was no need for the auditor in that case to evaluate the integrity or longevity of the propane storage caverns. Addressing the significance of Duke's intention to retire the propane-air facilities



several years after the Project is in operation, the Company responds that, as a prudent and responsible operator, it plans to test the system with the CCE providing peak day supply and pressure from the north, without using the propane-air facilities, to ensure adequate winter reliability; during this period, the propane-air facilities would stand ready if needed. Duke concludes that, as Dr. Guldmann acknowledged, it would be foolhardy to wait to retire the propane-air facilities until after the storage caverns have failed. (Tr. I at 177, 195, 217-218; Tr. III at 524-527, 567; NOPE Ex. 19 at Ex. JMG-7; Duke Ex. 8 at 14; Duke Reply Br. at 6-14.)

{¶ 53} NOPE also argues that Duke has not accurately described its system capacity and future load projections and, therefore, has not shown that the Project is needed. Specifically, NOPE states that Duke's modeling indicates that, in the absence of the propane-air plants, and assuming a peak demand of 45,500 Mcfh, the system would be unable to maintain service to all of the Company's customers. According to NOPE witness Guldmann, a peak demand of 45,500 Mcfh is not a reasonable modeling target, given that the population of Hamilton County is expected to decline over the next 20 years, with Duke's Gas System Master Plan projecting limited customer growth and flat demand. Dr. Guldmann concluded that the increase in the peak hour flow from 43,000 Mcfh to 45,500 Mcfh is not consistent with population forecasts and that, even without the propane-air plants, the current system could serve peak day demand for the foreseeable future. As a result, NOPE asserts that Duke has failed to sustain its burden of proof on the issue of need and that the Company's application should be rejected until the system is modeled with accurate projections and information. (Duke Ex. 3 at 3-7, 3-9; NOPE Ex. 19 at 5-6, 8, 10-11, 16-18, 21; Tr. III at 695, 702; Cincinnati/Hamilton County Ex. 44; NOPE Br. at 10-12; NOPE Reply Br. at 6-9.) Acknowledging that Duke's load modeling is based on peak demand of 45,500 Mcfh, the Company responds that this figure is reasonable and falls between the two forecasts provided in the Lummus report of 44,411 Mcfh and 45,843 Mcfh. Duke adds that NOPE witness Guldmann did not question the methodology used by Lummus or its

expertise. (Duke Ex. 3 at 3-7, 3-9; Tr. III at 520, 561; NOPE Ex. 19 at 11, Ex. JMG-7; Duke Reply Br. at 3-6.)

*c. Conclusion*

{¶ 54} Upon thorough review of the evidentiary record, the Board finds that Duke has demonstrated the basis of need for the CCE, in accordance with R.C. 4906.10(A)(1). As noted above, Duke's objectives for the Project are threefold; the Company seeks to retire its propane-air peaking facilities, to improve the north/south supply balance in its system, and to facilitate the replacement of aging infrastructure. In describing the first of these objectives in its application, Duke notes that the propane-air plants and associated storage facilities, which were built in the 1960s to provide an additional peaking supply, should now be retired, as they are approaching the end of their useful lives and rely on outdated technology that is both costly to maintain and impracticable to repair. Given that the propane-air plants provide approximately ten percent of Duke's peaking supply on a high-demand day, the Company represents that customers would experience widespread service outages in the event of a failure of the propane-air system. Duke adds that, when the plants are in operation, the propane-air mixture has the potential to reach around half of its distribution system in central Hamilton County, which has inhibited growth to certain propane-intolerant customer operations, such as natural gas vehicle facilities. (Duke Ex. 3 at 2-2, 3-1, 3-10, 3-12.)

{¶ 55} In support of its position that the propane-air facilities must be retired, Duke offered the persuasive testimony of Company witnesses Hebbeler and Long,<sup>9</sup> both of whom agreed that the facilities are at the end of their useful lives. Mr. Hebbeler emphasized that, if the propane-air plants are removed from service without a viable alternative in place,

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<sup>9</sup> As of April 1, 2019, Mr. Hebbeler serves as Vice President, Special Projects, for Duke Energy Business Services LLC, and, before that appointment, was in the role of Vice President, Gas Operations (Duke Ex. 7 at 1; Tr. I at 14). Mr. Long is employed as General Manager of Pipeline Operations for Duke Energy Corp., Piedmont Natural Gas, and oversees natural gas facilities, propane facilities, liquefied natural gas facilities, pipeline control systems, and control room operations located in service areas in Ohio, Kentucky, Tennessee, North Carolina, and South Carolina (Duke Ex. 8 at 1; Tr. I at 144).

Duke would be unable to serve approximately 50,000 customers on peak winter days due to capacity and pressure limitations on its system. Based on his 20-year experience in the pipeline industry, Mr. Long explained, in depth, the history and operations associated with the propane-air facilities and stated that the use of propane for peaking purposes, particularly under circumstances where the propane is stored underground in mined limestone caverns, is extremely rare for natural gas distribution companies. Because the propane storage caverns cannot be inspected, upgraded, repaired, or replaced and may fail at any moment, Mr. Long testified that the outmoded propane-air facilities must be retired, once a viable alternative is in place to ensure that reliable service continues under all conditions, including extremely cold weather. Mr. Long offered that, based on Duke's engineering review, the Project will facilitate the retirement of the propane-air system, as the CCE will increase the Company's supply portfolio and allow it to draw sufficient gas from the north to offset the ten percent of supply currently obtained through the propane-air peaking facilities, while also providing a safer, more reliable alternative that affords greater flexibility in managing the system. Staff agreed with Duke's assessment that the propane-air peaking plants and propane storage facilities are reaching the end of their useful lives. (Duke Ex. 7 at 6, 8, 9-10; Duke Ex. 8 at 1, 2-4, 5, 7, 13-16; Tr. I at 194-195, 206-207; Staff Ex. 1 at 26; Staff Ex. 9 at 4.)

{¶ 56} Aside from the testimony of Duke's own witnesses, the Company's consultant, Lummus, recommended, in the Gas System Master Plan Study 2015-2035, that the Company consider the decommissioning of the propane-air facilities and storage caverns for a long list of reasons, including the fact that the caverns "have been encroached upon by several types of establishments, creating risks that did not exist when the caverns were constructed," "are not a standard means of storage for propane,"<sup>10</sup> and "are showing signs that they are near the end of their useful life" (NOPE Ex. 19 at Ex. JMG-7 at 91-93). Although Lummus acknowledged that "the economics favor the continued use" of the

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<sup>10</sup> In fact, Lummus noted that Duke's "usage of underground mined caverns for propane storage is virtually unique in the industry" (NOPE Ex. 19 at Ex. JMG-7 at 74).

propane-air facilities for peaking service, Lummus stated that “the long term continued use of these plants is not recommended” and concluded that Duke should consider the use of short-term interstate supply contracts for peaking supplies in tandem with a new pipeline expansion (NOPE Ex. 19 at Ex. JMG-7 at 94-95). No party disputed the findings in the Lummus report, which was offered into evidence by Dr. Guldmann on behalf of NOPE, Cincinnati, and Hamilton County, and the Board finds that the report is compelling evidence of Duke’s need to retire the propane-air facilities.

{¶ 57} Although the intervenors emphasize that Duke is unaware of any leaks or other problems with the propane-air facilities, which have continued to provide safe and reliable peaking service, there is nothing in the record that contradicts Mr. Long’s and Mr. Hebbeler’s testimony that the facilities are at the end of their useful lives (Duke Ex. 7 at 6, 8, 9; Duke Ex. 8 at 7, 13, 15-16). The Board agrees with Duke that prudent system planning requires a proactive approach that includes the periodic retirement of outdated facilities. As Mr. Long explained, Duke’s system planners must continually assess the state of the Company’s facilities; monitor their current age and useful life; decide whether they are repairable; and, if not, determine whether new facilities will be needed upon their retirement to ensure consistent and reliable service to customers. (Duke Ex. 7 at 8, 11; Duke Ex. 8 at 8-10, 15.) The intervenors also focus on the fact that the propane-air plants will remain operational for several years after the CCE is placed in service. However, Duke reasonably explained that the retirement of the propane-air peaking plants is dependent on current system usage and the adjustment of demand and system configurations following the installation of the CCE. Mr. Long confirmed that, depending on the in-service date of the CCE, Duke hopes to begin the decommissioning process for the propane storage caverns after the winter of 2020-2021. (Cincinnati/Hamilton County Ex. 41; Duke Ex. 8 at 9; Tr. I at 151.) Finally, we are not persuaded by NOPE’s claims that Duke has inaccurately modeled its system capacity and that, even without the propane-air plants, the current system could serve peak day demand for the foreseeable future. Staff reviewed Duke’s analysis and found that the Company properly evaluated the anticipated system conditions under peak

load. Duke's analysis is also consistent with the Lummus report, which forecasts the peak hourly flow for 2014 through 2035, with a one-percent probability of exceedance, at more than 45,500 Mcfh. (Staff Ex. 1 at 27; NOPE Ex. 19 at Ex. JMG-7 at 48-49.)

{¶ 58} The Board, therefore, finds that the need for the Project has been demonstrated based on the need to retire the aged and outdated propane-air facilities. The record, however, also reflects that the CCE will improve the north/south system supply balance, which we find is further evidence of need. Although Duke acknowledged that the Project, as proposed, will not eliminate its substantial dependence on Foster Station, the CCE would begin to address the issue, with the station serving approximately 45 to 50 percent of peak day load rather than 55 percent. As Duke witnesses Hebbeler and Long explained, Duke is currently unable to draw additional supply from the south through Foster Station, based on capacity availability and pressure requirements to that point, and additional supply from the north is likewise unavailable under the current configuration of the Company's pipelines. However, Mr. Hebbeler stated that, with the CCE in service, Duke will be able to bring increased pressure and volume of natural gas into the system from the north, while also permitting the Company to take full advantage of the capacity of existing Line C314. Mr. Long testified that the additional gas supply from the north and added pressure from the central corridor facilities will enable Duke to maintain service to customers on peak days and more effectively balance the overall system at all times, while obviating the need for the continued operation of the propane storage caverns. Lummus also indicated that Duke's reliance on Foster Station "reveals a significant exposure to reliability" and noted the potential for far-reaching consequences in the event of a transportation disruption at the station. Lummus concluded that Duke's dependence on Foster Station, which Lummus believes poses the "greatest threat" of customer outages in the Company's system, should be addressed through a new pipeline expansion. Staff, as well, agreed that a loss of supply from Foster Station on a high-demand day would result in widespread service outages. (Duke Ex. 3 at 2-3, 3-1, 3-2, 3-4; Duke Ex. 7 at 9-10, 11-12, 14-

15; Duke Ex. 8 at 8, 13, 14; NOPE Ex. 19 at Ex. JMG-7 at 5, 58-59, 90; Staff Ex. 1 at 25; Staff Ex. 9 at 3-4.)

{¶ 59} The intervenors contend that the Project, as proposed, does not sufficiently address the north/south balance issue and, therefore, the Project and its associated costs are not justified. The intervenors also emphasize that the Lummus report addresses other pipeline expansion scenarios, aside from the central corridor option, that would either more fully mitigate or entirely resolve Duke's over-reliance on Foster Station. Mr. Hebbeler explained, however, that Duke elected to reduce the planned size and pressure of the CCE in response to public concern, forgoing the system balance that would otherwise have been realized through a larger pipeline and instead adopting a more systematic approach over a longer period of time. Mr. Hebbeler stated that the Project, in its current form, will nonetheless improve the balance of supply and allow for increased pressures and volumes of gas to be brought into Duke's system from the north, as well as facilitate the retirement of the propane-air peaking plants and upgrade existing infrastructure without service interruptions. Staff likewise found that the Project will result in a significant and beneficial reduction in Duke's reliance on Foster Station. Based on this evidence, the Board agrees that the CCE is an important and reasonable step in Duke's system planning efforts, will mitigate the Company's dependence on Foster Station, and will support the Company's need to improve the north/south balance in its system, particularly in conjunction with the retirement of the propane-air peaking facilities. (Duke Ex. 3 at 3-4, 3-5; Duke Ex. 7 at 11-12, 15, 16-17; Staff Ex. 1 at 25; Staff Ex. 9 at 5-6; Tr. I at 36, 68-69, 70; Tr. III at 657-660.)

{¶ 60} Finally, the Board finds that the Project will facilitate Duke's replacement of aging pipelines. Duke witness Hebbeler testified that the Company has an obligation to replace infrastructure that is near the need of its useful life, as well as to ensure that its system is compliant with integrity testing and other gas pipeline safety regulations, which may require that a pipeline be taken out of service. At the same time, Duke must continue to provide safe and reliable service to its customers. More specifically, Mr. Hebbeler explained that Line A, which was constructed between the 1940s and 1960s and is a critical

component of Duke's system, must be replaced, in order to conform to the current pipeline safety regulations. Although Mr. Hebbeler acknowledged the intervenors' contention that Line A could be replaced in short sections, the witness also explained that customers served by each section would experience lengthy outages, whereas, with the CCE in service, Duke expects to replace Line A without customer service interruptions. Staff concurred that the Project will enable Duke to replace Line A while also maintaining service. We agree that Duke must be able to properly inspect, test, and upgrade its existing infrastructure and, as Lummus also recognized, the Company's system must have sufficient flexibility, as well as reliability. In combination with Duke's other objectives, we find that the Project will support the Company's need to upgrade and replace aging pipelines and related infrastructure. (Duke Ex. 3 at 2-3; Duke Ex. 7 at 12-14; Tr. I at 27-28, 31; Staff Ex. 1 at 26-27; Staff Ex. 9 at 5, 7; NOPE Ex. 19 at Ex. JMG-7 at 60.)

## **2. NATURE OF PROBABLE ENVIRONMENTAL IMPACT**

{¶ 61} R.C. 4906.10(A)(2) requires that the Board determine the nature of the probable environmental impact of the proposed facility.

### ***a. Socioeconomic Impacts***

#### **i. Public Testimony**

{¶ 62} Public witnesses testified that the proposed Project along either route would be near recreation centers, schools, stadiums, and athletic/activity fields. According to these witnesses, construction of the CCE along the alternate route would affect access to businesses in Reading, particularly businesses along a section of Galbraith Road with only one means of access or egress. Witnesses also noted that Reading has land reserved for the expansion of the Life Sciences Complex, which would be impacted by the construction of the CCE along the alternate route. According to testimony offered at the local public hearings, the impact of construction on traffic would limit residents' ability to access their homes, particularly in Reading where the streets are narrow and some of the homes are adjacent to the sidewalk. Public witnesses also questioned how, without the details of why

the costs of the preferred and alternate routes are different, Staff can rely on such information as a reason to recommend the alternate route over the preferred route. Public witnesses also noted that there will be an aesthetic impact to property and the community as a result of the installation of the Project, including removal of a tree line installed to reduce noise and improve privacy, and the destruction of a property owner's garden. Witnesses also noted that, given that the CCE must be marked, the possibility exists for persons who wish to inflict harm on a particular segment of the community to use this pipeline to harm persons and property in the area. (Public Tr. I at 34, 46-49, 72, 77, 82, 88-89, 91, 93, 98-99, 148, 151, 188, 199, 297, 312.)

{¶ 63} Many public witnesses also were concerned about the effect that installation of the Project will have on residential property values and the value of businesses along the installed route, and the growth potential of businesses that wish to expand (Public Tr. I at 130, 151, 165, 171, 189, 195, 239, 272, 273, 297, 311; Public Tr. II at 111-112).

## **ii. Parties' Positions**

{¶ 64} Duke notes that data regarding the Project's socioeconomic and ecological impacts, as well as impacts on public services and facilities, was provided in the application and data request responses, reviewed by Staff, and included in the Staff Report for consideration by the Board (Duke Br. at 15).

{¶ 65} Addressing land use impacts in the Staff Report, Staff states that the preferred route is 13.9 miles long and would require a construction right-of-way that crosses 723 properties, while the alternate route is 12.9 miles long, with a construction right-of-way that would cross 471 properties. According to Staff, the Project would require a construction workspace with a width of up to 80 feet and a permanent right-of-way of 30 feet in width along the pipeline route; all facilities would be underground, with the exception of two regulator stations, two valve stations, and pipeline markers. The existing regulator station at the northern end of the Project, known as WW Feed Station, would be expanded by 0.4 acres through a new easement. At the southern end of the preferred route, the new Fairfax



Station would be constructed on 0.6 acres of a larger commercial property, while, for the alternate route, the existing Norwood Station would be expanded by 0.5 acres within an existing easement. Staff adds that, due to the fact that the right-of-way for both the preferred and alternate routes would primarily affect land categorized as industrial/ commercial, road right-of-way, parks and recreation, and woodlots, the potential land use impacts are similar for the two routes, although the alternate route covers slightly less residential acreage at 0.7 acres as compared with the preferred route's 1.9 acres. In addition to the above-ground facilities, Staff notes that direct land use impacts would be mostly temporary and would include site clearing, grading, construction activity, and restoration, but may also include loss of vegetation or landscaping if it impedes construction or maintenance of the pipeline. Indirect land use impacts, according to Staff, involve limits on future use of the right-of-way, including limitations on planting incompatible vegetation and erecting structures, and increased demand for housing and services due to construction activities, job growth, or population change. Staff notes that the Project is not expected to require the removal of any residences or cause any permanent impacts to residential or other structures, although the preferred route has 115 residences within 100 feet and 3,153 residences within 1,000 feet, as compared to 182 residences within 100 feet and 2,186 residences within 1,000 feet for the alternate route. (Staff Ex. 1 at 30-33; Staff Ex. 10 at 3; Staff Br. at 19.)

{¶ 66} Noting that both routes pass through Sycamore and Columbia townships, Staff states that the preferred route also impacts Blue Ash, Cincinnati, Deer Park, Fairfax, Madeira, Montgomery, Sharonville, and Silverton, while the alternate route affects Amberley Village, Blue Ash, Cincinnati, Evendale, Golf Manor, Reading, and Sharonville and is also within 1,000 feet of Norwood. Staff explains that Duke did not identify, following consultation with local officials and review of land use planning documents for these communities, any land use planning conflicts with any known developments or plans in the vicinity of the Project. Given that the Project is expected to increase natural gas supply, Staff believes that it would also contribute to the development potential of the region. (Staff Ex. 1 at 33; Staff Ex. 10 at 3-4; Staff Br. at 19.)

{¶ 67} Staff notes that the right-of-way for the preferred and alternate routes would consist of approximately 14 percent and 7 percent, respectively, of land designated for parks and recreation purposes, which would mostly impact the Kenwood Country Club along the preferred route, while affecting a number of different facilities within or adjacent to the alternate route. Staff further notes that the impact to these parks and recreation facilities would predominantly be temporary in nature and occur during construction; surface impact areas would be reseeded or repaved. In terms of cultural, archaeological, and architectural resources located in the area of the CCE, Staff reports that literature reviews indicate that there are zero and five Ohio Archaeological Inventory sites within 1,000 feet of the preferred and alternate routes, respectively; 230 and 116 Ohio Historic Inventory (OHI) resources within 1,000 feet of the preferred and alternate routes, respectively; three cemeteries within 1,000 feet of both routes; and one historic district within 1,000 feet of the alternate route. Addressing the aesthetic impact associated with the Project, Staff states that, given that the pipeline would be buried, permanent visual impacts would mainly result from the introduction of new man-made elements at the location of the pipeline markers, valve stations, and regulator stations, which would have facilities with a maximum height of 15 feet and utilize security fencing. (Staff Ex. 1 at 34-35; Staff Ex. 2 at 3-4; Staff Ex. 10 at 4; Staff Br. at 21-22; Staff Reply Br. at 15-16.)

{¶ 68} Finally, with respect to the economic impact of the Project, Staff states that Duke's total intangible and capital cost estimates for the preferred and alternate routes are \$128.2 million and \$111.7 million, respectively, with the Applicant projecting to remit first-year property taxes to local municipalities in the amount of \$3.3 million for the preferred route and \$2.9 million for the alternate route. Having considered the socioeconomic impacts associated with the Project, Staff concludes that, although the CCE would cause both direct and indirect impacts to land use, Duke has proposed construction management and restoration activities that would mitigate the impacts, while Staff has recommended conditions that would, among other things, minimize the impacts of the few above-ground components of the Project. (Staff Ex. 1 at 35-36; Staff Br. at 22-23.)

{¶ 69} Cincinnati and Hamilton County take the position that the true cost of the Project will far exceed Duke's cost estimates, which do not include estimated overhead or allowance for funds used during construction (AFUDC) in the amount of \$50 million. According to Cincinnati and Hamilton County, Duke also failed to factor in the cost of decommissioning the propane-air facilities or the cost associated with the future reliability upgrades and enhancements that will be required as a result of the Company's decision to reduce the proposed CCE from 30 inches to 20 inches. (Duke Ex. 7 at 16-17, 31; Tr. I at 17-18, 44-45, 52-54, 151, 168-169; Cincinnati/Hamilton County Br. at 14-15.)

{¶ 70} Reading argues that the construction of the alternate route in the location and manner proposed by Duke would significantly disrupt the lives of residents along the route through lane closures, elimination of off-street parking, and, for residents of Third Street, loss of access to their homes. Additionally, Reading maintains that the location of the alternate route will have an adverse impact on its Life Science Expansion Site, which was acquired through a substantial investment from the state, by reducing the city's ability to effectively market the site for economic development, particularly if the location of the pipeline eliminates the ability to add rail service to the site. Acknowledging that Duke has made adjustments to the alternate route through the site, Reading notes that it remains concerned that the presence of the CCE will affect its ability to obtain a prospective buyer. Reading adds that the construction of the alternate route would disrupt the use of the city's primary recreational facilities, which are used year round. In its reply brief, Reading emphasizes that the alternate route would run directly through this recreational area, as well as along West Street, which is the only access point into the facilities. (Reading Ex. 2; Reading Br. at 3-4; Reading Reply Br. at 2-3.) In response, Duke states that it has already addressed the impacts to the Life Science Expansion Site, specifically by moving the proposed centerline to the edge of the property in question, adjacent to existing railroad tracks (Duke Ex. 6 at 7; Duke Reply Br. at 21).

{¶ 71} In its reply brief, Reading asserts that Staff's analysis overlooked the fact that residents within 100 feet of the centerline will have the highest likelihood of disruption and

displacement during construction. Reading emphasizes that, as reflected in the constructability review prepared for Duke, the Project's impact is not the same for homes located within 500 to 1,000 feet from the centerline than it is for homes that are within 100 feet. Reading believes that, as residences within 100 feet of the alternate route are more likely to be affected during construction, they should be accorded a greater priority than the more remote residences along the preferred route. (Reading Reply Br. at 1-2.)

{¶ 72} Blue Ash and Columbia argue that Duke's projected property tax benefits appear to be based on pure speculation, as Company witness Hebbeler did not perform or verify the calculations or explain the basis for an increase in the amount projected to be apportioned to Blue Ash. Blue Ash and Columbia believe that Duke has provided insufficient information regarding the economic benefits that it touts in support of the Project. Blue Ash and Columbia also point out that Duke and Staff did not request or consider Blue Ash's most recent Comprehensive Development Plan, which was revised in early 2016, and instead relied on an outdated plan from 2003. (Blue Ash/Columbia Ex. 6 at 9-10; Tr. I at 116-119; Tr. II at 305-306; Duke Ex. 7 at 31-32; Blue Ash/Columbia Br. at 24-26, 29; Blue Ash/Columbia Reply Br. at 6.) Duke responds that more precise economic impacts to local communities cannot be determined until a specific route is selected (Duke Reply Br. at 21-22).

### iii. Conclusion

{¶ 73} The Board finds that the probable socioeconomic impacts associated with the Project have been evaluated and determined. Specifically, Staff reviewed demographics information for Hamilton County, as well as impacts on the following: land use; residential structures; land use plans and regional development; parks and recreation; cultural, archaeological, and architectural resources; aesthetics; and economics. Following its review, Staff found that the Project will result in direct and indirect impacts to land use. Aside from the loss of incompatible vegetation and the installation of above-ground structures such as pipeline markers, which comprise a small portion of the Project, the direct impacts will mostly occur on a temporary basis during the one-month construction period at any given

property. Staff found that Duke's proposed construction management and restoration activities will mitigate these temporary impacts, while Staff's recommended conditions will minimize the impact of the above-ground components of the Project. In terms of indirect impacts, Staff noted that the Project will result in permanent restrictions on future use of the right-of-way, which would be mitigated by landowner compensation through the easement acquisition process. Staff added that Duke does not expect to remove any permanent structures for construction or operation of the Project. Staff also noted that the Project is expected to support regional development by increasing the supply of natural gas. We agree with Staff's conclusions in this area of the Staff Report. (Staff Ex. 1 at 30-36; Staff Ex. 10 at 2-4.) Additionally, to further facilitate efforts to support regional development, the Board has added a condition to the certificate that calls for Duke to establish an ongoing process through which the Company shall engage local officials and other owners and operators of natural gas distribution and transmission systems to identify opportunities and options for promoting regional expansion and accommodating load growth. It is the Board's view that public convenience and necessity require this type of process and engagement with a scope that is comprehensive rather than on a project-by-project basis.<sup>11</sup>

{¶ 74} With respect to the position of Cincinnati and Hamilton County that the cost of the Project will exceed Duke's estimate, as overhead and AFUDC were not included, we note that the Company projected that the total intangible and capital costs for the preferred and alternate routes are \$128.2 million and \$111.7 million, respectively. Ohio Adm.Code 4906-5-06(C) requires an applicant to "submit estimates of applicable capital and intangible costs for the various components of gas pipeline facility alternatives" by category, which must include: land and land rights; structures and improvements; pipes; valves, meters, boosters, regulators, tanks, and other equipment; and roads, trails, or other access. Duke provided and updated this cost information in this proceeding, as required by the rule.

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<sup>11</sup> As discussed below, this condition is consistent with Duke witness Long's testimony describing the Company's ongoing obligation to continually assess the state of its facilities and the current and prospective demand of its customers through system planning efforts premised on providing access to a safe and reliable supply of natural gas (Duke Ex. 8 at 8-10).

(Duke Ex. 6 at 13; Duke Ex. 7 at 30-31; Staff Ex. 1 at 35-36). Similarly, Ohio Adm.Code 4906-5-06(D)(5) requires an applicant to “provide an estimate of the increase in tax revenues as a result of facility placement.” Again, Duke provided the required information, estimating that the total first year property tax revenues, based on 2018 tax rates, would be \$3.3 million and \$2.9 million for the preferred and alternate routes, respectively.<sup>12</sup> Duke also provided a breakdown of its estimates by local taxing authority. (Duke Ex. 6 at 13-14; Staff Ex. 1 at 36.) We find that Duke has provided sufficient cost and tax estimates, consistent with the Board’s rules, to determine the expected economic impact of the Project and to compare the preferred and alternate routes. Further, the inclusion in rates and charges of any AFUDC is a matter for determination by the Commission in a future rate case.

{¶ 75} With respect to the argument that Duke did not consider Blue Ash’s most recent Comprehensive Development Plan, we note that Ohio Adm.Code 4906-5-07(D) requires an applicant to provide both a description of the impact of the facility on regional development, referring to pertinent formally adopted regional development plans, and an assessment of the compatibility of the proposed facility and the anticipated resultant regional development with current regional land use plans. Duke provided this information in its application (Duke Ex. 3 at 7-20 to 7-22). Although we agree that an applicant should attempt to obtain the most recent land use planning documents in the course of preparing its application, we find that Duke has provided sufficient information to comply with the rule.<sup>13</sup> Further, as addressed further below, Staff has recommended that Duke be required to initiate a consultation process with all development, planning, or land use authorities whose jurisdictions are crossed by the Project, including a process with procedures for sharing information about the CCE and consulting on proposed developments within an

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<sup>12</sup> Mr. Hebbeler testified that the estimated annual property taxes associated with the preferred and alternate routes are \$2.8 million and \$2.2 million, respectively; however, as he noted, these estimates are based on 2016 tax rates (Duke Ex. 7 at 31-32).

<sup>13</sup> The Board encourages all certificate applicants to review the planning documents of units of local government and consult with local officials to identify and avoid conflicts. Proactive efforts to seek and obtain the input of such officials should reduce the risk of potential conflicts and controversy and facilitate the Board’s ability to make the findings required by R.C. 4906.10.

agreed-upon consultation zone, in accordance with the recommended practices published by the Pipelines and Informed Planning Alliance. This condition is intended to ensure that future developments are compatible with the Project. (Staff Ex. 1 at 33-34, 62.)

{¶ 76} Finally, addressing Reading's concerns, we note that Duke, in the supplemental information filed in April 2018, relocated the alternate route to the edge of the Life Science Expansion Site (Duke Ex. 6 at 7; Staff Ex. 1 at 9). As noted above, Staff has addressed the Project's impact to residences and parks and recreation facilities, including those in Reading, and recommended conditions in the Staff Report to mitigate the impact (Staff Ex. 1 at 31-32, 33, 34, 61-62). To the extent that Reading advocates in favor of the preferred route over the alternate route, its arguments are addressed below.

**b. Ecological Impacts**

**i. Public Testimony**

{¶ 77} Public testimony offered raised certain ecological concerns, namely the impact of the installation of the proposed Project on Mill Creek and area terrain. Public witnesses argued that the terrain and characteristics of Hamilton County and the greater Cincinnati area, with its steep slopes, landslides, earthquakes, sinkholes and karst, make the area unsuitable for the installation of the CCE. (Public Tr. II at 58-59, 181-182, 195, 208, 213-214.)

**ii. Parties' Positions**

{¶ 78} Staff notes that Duke has identified the various soil types that would be crossed by either the preferred or alternate route and indicated that a geotechnical investigation would be conducted prior to construction to obtain further site-specific detailed information and engineering properties of the soils for construction design purposes. With respect to surface waters, Staff states that the preferred route centerline crosses 24 streams, with a construction work area affecting 37 streams (4,544 linear feet), while the alternate route centerline crosses six streams, with a construction work area affecting 14 streams (733 linear feet). According to Staff, Duke proposes to open cut eight

perennial streams along the preferred route and two perennial streams along the alternate route, with vehicle access across streams being necessary during construction. In terms of wetlands, the preferred route centerline would cross three wetlands, with a construction work area affecting 13 wetlands (1.6 acres), while the alternate route centerline crosses ten wetlands, with a construction work area affecting 18 wetlands (0.9 acres). In addition, Staff states that sedimentation in the local watercourse may occur as a result of construction activities, while portions of each route would cross within 100-year floodplain areas. (Staff Ex. 1 at 37-38.)

{¶ 79} Addressing threatened and endangered species, Staff notes that Duke did not identify any listed plant or animal species during field surveys, although the Project would be located within the historical range of certain state- or federal-endangered or threatened animal species. Among its recommended conditions in this area, Staff advises that, in the event that Duke encounters listed plant or animal species during construction, the Applicant should contact Staff, the Ohio Department of Natural Resources (ODNR), and the U.S. Fish and Wildlife Service (USFWS), as applicable, and immediately halt activities that could adversely impact the identified plant or animal species until an appropriate course of action has been agreed upon by the Applicant, Staff, and the appropriate agencies. Staff further advises that, if Duke encounters any listed plant or animal species prior to construction, the Applicant should include the location and address how impacts would be avoided in the final access plan to be provided to Staff. (Staff Ex. 1 at 39-43.)

{¶ 80} With respect to vegetation, Staff notes that the preferred and alternate routes cross through several vegetative communities; impacts on vegetation along both routes would be limited to clearing within the 80-foot construction right-of-way and along access roads, as well as operational maintenance. Staff adds that trees adjacent to the proposed right-of-way, which are significantly encroaching or prone to failure, may require clearing to allow for safe operation of the pipeline. According to Staff, Duke anticipates minimal use of herbicides, if any, to be applied according to the manufacturer's specifications. (Staff Ex. 1 at 43-44.)



{¶ 81} NOPE claims that Duke and Staff failed to consider whether landslides may impact the operation of the CCE, despite the fact that landslides are common in at least some of the areas where the Project would be sited. In response, Duke states that Company witness Lane testified that the soils in the area of the Project are suitable for both the construction and operation of the CCE (Tr. II at 329; Duke Reply Br. at 23). NOPE also points out that Duke has not yet conducted the geotechnical investigation referenced in the Staff Report. Finally, NOPE states that Duke has not yet determined how many trees would be removed along the preferred and alternate routes. NOPE concludes that Duke has not provided sufficient information to permit the Board to determine the nature of the probable environmental impact of the Project. (Tr. II at 328, 330, 332, 489-490; Staff Ex. 1 at 37; NOPE Br. at 19, 21-22; NOPE Reply Br. at 13.)

### iii. Conclusion

{¶ 82} The Board finds that the probable ecological impacts associated with the Project have been determined in the following areas: geology, slopes, and foundation soil suitability; surface waters; threatened and endangered species; and vegetation (Staff Ex. 1 at 37-44). With respect to NOPE's concerns, we note that the Project's impact on trees and other vegetation has been evaluated by Staff, including the magnitude of the impact by total acres (Staff Ex. 1 at 43-44). Additionally, Duke witness Lane testified that the geology, slopes, and foundation soil in the area of the Project are suitable for the CCE.<sup>14</sup> Mr. Lane explained that landslides are not anticipated to be an issue during construction of the Project, as slopes in the area of both proposed routes are, in general, relatively shallow and neither route is dominated by areas having a severe potential for erosion. Mr. Lane added that areas with steeper slopes will be crossed using horizontal directional drilling (HDD) or the pipeline will be installed perpendicular to the slope. (Duke Ex. 10 at 3-4; Tr. II at 329-330.) Staff likewise noted that the majority of slopes along both routes are relatively shallow and do not pose site conditions that would prevent construction of the CCE (Staff Ex. 1 at

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<sup>14</sup> Mr. Lane is employed by Duke Energy Business Services LLC as Lead Environmental Specialist (Duke Ex. 10 at 1).

37). We address in a later section the geotechnical investigation referenced in the Staff Report (Staff Ex. 1 at 37).

*c. Superfund Site*

*i. Public Testimony*

{¶ 83} Persons offering testimony at the local public hearings testified that the installation of the proposed Project adjacent to Pristine, Inc. (Pristine) on contaminated land could impact the aquifer systems, including the drinking water supplied to Golf Manor and Reading, among other municipalities (Public Tr. II at 56-58, 72).

*ii. Parties' Positions*

{¶ 84} Staff reports that the alternate route would cross properties adjacent to Pristine, which is currently managed as a Superfund site by the U.S. Environmental Protection Agency (U.S. EPA), due to a history of liquid waste treatment operations causing soil and groundwater contamination. Staff notes that all remedial construction activities at the site have been completed, including treatment of contaminated soil and sediment, construction of a low permeability cap, and construction and operation of a groundwater extraction and treatment system. Staff adds that groundwater extraction, treatment, and monitoring work began in 1997 and is ongoing. (Staff Ex. 1 at 44.)

{¶ 85} As a result of the alternate route's proximity to the Pristine site, Staff states that Duke has contacted appropriate officials with the U.S. EPA and Ohio Environmental Protection Agency (Ohio EPA) to coordinate proposed construction activities, as well as performed an investigation of the site based on the location of the pipeline, depth of the proposed pipeline excavation, and depth of the pipeline in HDD locations. Because the location of the proposed pipeline is east of the groundwater contamination and at a shallower depth, and soil contamination was limited to the Pristine site and has been addressed through remediation, Staff indicates that Duke believes that contamination from the Pristine site is not expected to impact conditions along the alternate route. Noting that a section of the pipeline near the Pristine site would be in close proximity to remedial

components such as site monitoring wells, extraction wells, and underground piping connected to the extraction wells, Staff advises that Duke should coordinate with Gutteridge, Haskins, and Davey Services Inc. (GHD), which handles the operation and maintenance of the Pristine site, to avoid impacts to this remedial infrastructure. (Staff Ex. 1 at 44; Staff Ex. 4 at 2-3; Staff Br. at 24-25; Staff Reply Br. at 4-6, 15.)

{¶ 86} Acknowledging that the alternate route would be located approximately 100 feet from the boundary of the Pristine site, Duke argues that the construction, operation, and maintenance of the CCE would have no impact on the site or the surrounding area, including remediation efforts. Duke adds that the installation of the Project near the Pristine site would bring no increased risk of exposure for the general public or risk of harm to the individuals installing or maintaining the CCE. Duke notes that Company witness Schucker concluded that there would be no impact on the remediation of the Pristine site, as there were no impacts to soils or groundwater in this area of the CCE and the groundwater flows to the south and southwest of the site, away from the proposed alternate route. Additionally, Duke points out that testing performed by its contractor, Burns & McDonnell, confirmed that soil and groundwater impacts did not extend east of the site boundary, with the on-site contamination migrating away from the alternate route, both horizontally to the south/southwest and vertically to the lower aquifer, which is found at depths of 75 feet or more below ground surface, far deeper than is planned for the CCE. (Duke Ex. 14 at 2-3, 5, 8-12; Duke Br. at 16-17.)

{¶ 87} Given the industrial nature of portions of the alternate route, Duke states that Burns & McDonnell also conducted an environmental screening to identify potential environmental impacts associated with the current and historical usage of properties along the alternate route, adjoining properties, and adjacent off-site sources, as well as tested soil, groundwater, and geotechnical samples. Duke concludes that, although none of the samples exceeded the applicable screening standards, Company witness Earhart advises that construction considerations along the alternate route should include soil and

groundwater management, as well as worker health and safety protocols. (Duke Ex. 12 at 2-5, 8, 10-11; Duke Br. at 17-18.)

{¶ 88} NOPE responds that Duke conducted insufficient sampling, as only one or two soil or water samples were taken from each of the properties identified by the Company. NOPE adds that no similar analysis was conducted for the preferred route. With respect to the Pristine site, NOPE points out that, although Duke witness Schucker reviewed publicly available information, Ms. Schucker did not conduct any sampling in the area where the CCE would be located or evaluate potential surface water and stormwater runoff issues related to construction of the Project. NOPE concludes that Duke's analysis of these issues resulted in insufficient information to determine the nature of the environmental impact associated with the Project. (Tr. II at 367-369, 371, 375-376; NOPE Br. at 20-21; NOPE Reply Br. at 13-14.)

{¶ 89} In response to intervenor claims that Staff's recommendations are based on something less than the "fully developed information" required under Ohio Adm.Code 4906-3-05, Staff responds that Duke provided supplemental information and environmental summary reports after Staff initially recommended approval of the alternate route. Staff asserts that, with this supplementing of the application by Duke, the information on the alternate route became even more fully developed. Staff adds that it properly evaluated the supplemental information and updated its report appropriately. (Staff Reply Br. at 2-6.)

### iii. Conclusion

{¶ 90} The Board finds that the potential for impacts associated with the Project's proximity to the Superfund site has been reviewed and determined. Although Staff witness Glum recommends that Duke be required to locate and avoid impact to the wells, piezometers, underground piping, and any other relevant remedial components at the Pristine site, in coordination with GHD, Mr. Glum concluded that the Project will have no

impact on groundwater or soil contamination at the site.<sup>15</sup> Duke witness Schucker agreed.<sup>16</sup> (Duke Ex. 14 at 7-12; Staff Ex. 1 at 44; Staff Ex. 4 at 2-3.) In response to NOPE's argument that Duke has provided insufficient information to determine the Project's environmental impact, we note that Ms. Schucker thoroughly explained her evaluation of the Pristine site, while Duke witness Earhart addressed the environmental screening that Burns & McDonnell performed.<sup>17</sup> (Duke Ex. 12; Duke Ex. 13; Duke Ex. 14.) Duke has, therefore, provided sufficient information for the Board to determine the probable environmental impact associated with the CCE.

*d. Public Services and Facilities*

{¶ 91} Staff states that the principal impact on public services would be temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary during pipeline installation. Additionally, Staff indicates that the Project area includes a number of major highways, state routes, and a railroad, although there would be no impacts to any bridges in the area. According to Staff, construction noise would result from excavation, pipeline installation, backfilling, traditional boring, and HDD, as well as the construction of the valve stations and regulator stations. Staff notes that the total duration of construction of the pipeline is expected to be from 12 to 16 months, with construction at any one location along the Project typically occurring over a period of less than one month. Staff adds that the operation of the CCE would produce audible noise only at valve stations and regulator stations at less than ambient noise levels at all sensitive noise receptors, with temporary operational noise from infrequent maintenance related to right-of-way clearing and integrity checks. (Staff Ex. 1 at 45-46; Staff Ex. 3 at 2-3; Staff Br. at 25-28.)

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<sup>15</sup> Mr. Glum is the Ohio EPA Site Coordinator for the Pristine site (Staff Ex. 4 at 2).

<sup>16</sup> Ms. Schucker is employed by Jacobs Engineering Group as Senior Project Manager, Global Environmental Solutions (Duke Ex. 14 at 1).

<sup>17</sup> Mr. Earhart is employed by Burns & McDonnell as Project Manager in the Environmental Services Division (Duke Ex. 12 at 1).

{¶ 92} Consistent with the Staff Report, the Board finds that the Project's probable impacts with respect to public services and facilities have been evaluated and determined (Staff Ex. 1 at 45-46).

*e. Conclusion*

{¶ 93} In sum, following its review of the socioeconomic, ecological, and other impacts, Staff recommends that the Board find that Duke has demonstrated the nature of the probable environmental impact for the proposed facility, and, therefore, complies with the requirements specified in R.C. 4906.10(A)(2), provided that any certificate issued by the Board include the conditions specified in the Staff Report (Staff Ex. 1 at 46; Staff Br. at 28). Based on the evidence in the record, and consistent with our findings above, we agree that the nature of the probable environmental impact associated with the Project has been determined, in accordance with R.C. 4906.10(A)(2).

**3. MINIMUM ADVERSE ENVIRONMENTAL IMPACT**

{¶ 94} Pursuant to R.C. 4906.10(A)(3), the proposed facility must represent the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, along with other pertinent considerations.

*a. Public Testimony*

{¶ 95} Public witnesses contended that Duke failed to evaluate whether there are better alternatives to the Project or better routes for the CCE. Witnesses also testified that the Project, if approved, will impose an imbalance in benefits in comparison to costs and risks to be incurred by communities in Hamilton County. (Public Tr. I at 143-144, 146.)

*b. Parties' Positions*

{¶ 96} Duke states that its preferred and alternate routes both represent the minimum adverse environmental impact, as they were highly rated in the Company's route selection study, ranking sixth and third, respectively, and were selected from the study's

top group of routes based on qualitative factors such as constructability. According to Duke, its route selection study is the outcome of a process designed to identify practical route corridors that would achieve the technical aims of the Project, while avoiding or minimizing impacts on the existing natural and built environment. Duke explains that, as part of its basic requirements for the Project, the Company sought to construct a pipeline from the terminus of Line C314 to a portion of Line V, within a study area consisting of approximately 90 square miles from Interstate 275 to the north, the Mill Creek Valley to the west, the Duck Creek Valley to the south, and the Little Miami River to the east, although routes through Madeira and Indian Hill were also considered. Duke adds that, following the completion of the route selection study, an engineering consultant evaluated the possible routes based on engineering and constructability considerations. Finally, Duke states that, in response to public concerns, routes to the east of the original study area were analyzed and eliminated as a result of similar or greater impacts overall, even without factoring in the impacts from an additional lateral line that would have been required. (Duke Ex. 9 at 4-6, 11-12, 14; Duke Br. at 18-20.)

{¶ 97} In the Staff Report, Staff describes in detail the route selection process employed by Duke for the CCE, including the route selection study. Staff notes that Duke used a study area bound on the north and south by the origin and terminus for the Project and on the east and west by prominent physical features, such as highways, highly-developed areas, and forested areas. Staff adds that, after initial public comment, Duke further evaluated routes outside of its study area, to the east, and determined that routes in this area would cause more overall impact than the routes evaluated within the study area. Staff believes that Duke defined the study area using reasonable criteria to encompass all practical routes, considering the needs and context of the Project. Additionally, Staff explains that Duke proceeded to place initial routes by using a constraint map. According to Staff, Duke sought to avoid sensitive areas; utilize existing infrastructure corridors, when possible; place routes within industrial areas and outside of residential areas to the extent feasible; and work around a number of technical constraints, such as by leaving adequate

spacing from existing structures and rights-of-way. Staff finds that the initial routing constraints identified by Duke represent reasonable limitations for pipeline routing, considering the needs of the Project, the physical characteristics of the area, and applicable technical guidelines and standards. (Staff Ex. 1 at 48; Staff Br. at 31-33.)

{¶ 98} Next, Staff states that Duke adjusted the initial routes by conducting a windshield survey of the area and a constructability review of the routes with an engineering consultant. Staff further states that, as a result, Duke reduced the potential alignments from 100 route segments and over 75,000 possible route combinations to 28 route candidates within five general corridors, which were evaluated and scored based on criteria addressing a range of ecological, social, and technical considerations. According to Staff, Duke then chose three routes within different corridors to present at the initial public informational meetings, based on the scoring and certain qualitative factors, including constructability and avoidance of routing through private backyards. Staff adds that, based on feedback from the public, Duke rejected one of the three routes and made several modifications to the other two, which were presented in the application. (Staff Ex. 1 at 48-49; Staff Br. at 33-34; Staff Reply Br. at 17.)

{¶ 99} Aside from this process, Staff notes that Duke conducted further investigation (environmental assessments, geological testing, surveying, and utility location) related to the alternate route after Staff recommended, in its initial report, that it be approved by the Board. Staff explains that, following this further review and additional meetings with stakeholders, Duke modified the alternate route at locations where there was potential to reduce impacts to municipalities, businesses, and residents. Staff finds that Duke's route selection process resulted in the selection of two routes that provide distinct alternatives for the Board's consideration, while minimizing potential impacts, based on the criteria used to evaluate the routes. (Staff Ex. 1 at 47, 49; Staff Br. at 29, 34; Staff Reply Br. at 17.)



{¶ 100} Staff states that it has assessed the impacts of the preferred and alternate routes, which Staff believes are both viable, despite the fact that each presents unique issues. After consideration of the impacts associated with both routes, Staff concludes that the Project would result in both temporary and permanent impacts to the area, with the alternate route presenting fewer potential economic, ecological, and cultural resource impacts. Further, because the alternate route is one mile shorter in length, Staff notes that it would cost \$16.5 million less to construct and present a lower potential for disruption of residences during construction, as it crosses 252 fewer properties and impacts 967 fewer residences within 1,000 feet. Additionally, according to Staff, the alternate route would result in fewer impacts to streams, wetlands, and aquatic wildlife habitat; affect 114 fewer OHI structures within 1,000 feet; and involve the expansion of the existing Norwood Station rather than require the construction of a new station as with the preferred route. Staff, therefore, concludes that the alternate route represents the minimum adverse environmental impact when compared to the preferred route. Accordingly, Staff recommends that the Board find that the alternate route represents the minimum adverse environmental impact and, therefore, complies with R.C. 4906.10(A)(3), provided that any certificate issued by the Board for the Project include the conditions specified in the Staff Report. (Staff Ex. 1 at 49-50; Staff Br. at 34-36; Staff Reply Br. at 18.)

{¶ 101} Cincinnati and Hamilton County contend that, in selecting the preferred and alternate routes, Duke failed to consider safer routing options that are also less disruptive and more viable. Cincinnati and Hamilton County note that the record reflects that Duke had decided as early as 2014 to site the Project through the congested central corridor and that the location of the CCE was, therefore, a predetermined outcome for the Company in this proceeding, with the recent route selection study being heavily influenced and controlled by Duke through subjective criteria. Cincinnati and Hamilton County add that, according to Duke's route selection consultant, Dr. Nicholas, the Company determined the study area and dictated the start and end points for the Project, which resulted in Duke's failure to consider the western route options proposed by Lummus, another consultant

retained by the Company to recommend capital improvements. Cincinnati and Hamilton County maintain that these western route options would have enabled the retirement of the propane-air facilities and substantially reduced Duke's reliance on Foster Station, contrary to the Company's statement to Staff on this issue. Acknowledging that the study area was eventually expanded to the east, Cincinnati and Hamilton County argue that the eastern routes were unreasonably dismissed by Duke, because they would require the construction of at least one additional high-pressure lateral across the central corridor, thereby negating any advantage from a siting perspective. Cincinnati and Hamilton County note that Dr. Nicholas had no personal knowledge regarding the basis for this claim by Duke and that no other Company witness addressed this issue. Cincinnati and Hamilton County also point out that Dr. Nicholas confirmed that an eastern route would impact fewer residential areas, while Lummus found that an eastern route would completely eliminate the excessive reliance on Foster Station. Cincinnati and Hamilton County conclude by urging the Board to deny the application and encourage Duke, in collaboration with stakeholders, to evaluate all possible routes, including the western and eastern options outside of the central corridor, which Cincinnati and Hamilton County believe would have less impact on residences and businesses, while achieving the Company's stated objectives. (Duke Ex. 9 at 2, 13-14; Tr. I at 18-19, 149; Tr. II at 251, 253, 256-262, 269-270, 272, 276-277, 281-282, 286, 300-301; NOPE Ex. 19 at Ex. JMG-7; Staff Ex. 1 at 28; Cincinnati/Hamilton County Br. at 12-14; Cincinnati/Hamilton County Reply Br. at 10-12.)

{¶ 102} NOPE argues that Duke and Staff failed to meaningfully consider whether non-pipeline alternatives would meet the Company's stated needs. Consistent with NOPE witness Guldman's testimony, NOPE advocates for the evaluation of other potential options, such as replacing the propane-air plants with modern technology or above-ground storage, constructing a peaking plant that uses LNG, and increasing pipeline peaking services. NOPE adds that Duke has not evaluated whether its already planned system upgrades will obviate the need for a replacement peaking service or whether they will improve the north/south system balance. NOPE believes that Duke should be required to

evaluate whether these planned upgrades would eliminate the stated need for the Project before the Board approves the application. In its reply brief, NOPE emphasizes that Staff failed to consider non-pipeline alternatives in its evaluation of whether the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3), which requires that the nature and economics of various alternatives be considered. Acknowledging that Staff conducted some analysis of non-pipeline alternatives in the context of its review of the need for the Project, NOPE contends that Staff's analysis is faulty in several respects, not consistent with the evidence of record, and limited in scope, given that Staff did not consider other non-pipeline options aside from maintenance of existing infrastructure. (NOPE Ex. 8; NOPE Ex. 19 at 14, 20-21, Ex. JMG-7; Tr. I at 160, 163-165, 176, 181-182; Cincinnati/Hamilton County Ex. 11; NOPE Br. at 22-24; NOPE Reply Br. at 16-19.)

{¶ 103} Duke responds that none of Dr. Guldmann's recommendations is viable. With respect to replacing the propane-air plants with modern technology or above-ground storage, Duke notes that Dr. Guldmann is not a geologist and has no experience in this area and, in any event, did not explain how his recommendation is feasible in any regard. Next, Duke states that LNG storage, in the vast quantity that would be needed, would not be possible or desirable. According to Duke, the use of increased peaking services from interstate pipelines is not an option due to capacity and pressure limitations. Finally, Duke states that Company witness Long refuted the argument that planned system upgrades may alone suffice, because these projects will not provide sufficient capacity and pressure. (Duke Ex. 7 at 9-10; Tr. I at 180-181; Tr. III at 516-517; Duke Reply Br. at 24-26.)

{¶ 104} With respect to the route selection study, NOPE agrees with Cincinnati and Hamilton County that the study area was limited by Duke to begin at the existing Line C314 and to end on Line V, which essentially restricted the routes under consideration to the densely populated central corridor. According to NOPE, the testimony of Duke witness Nicholas on this point should be disregarded, as Dr. Nicholas offered no support for his contention that routes outside of the central corridor would require at least one additional high-pressure lateral that would need to be constructed across the central route area to

achieve the goals of the Project, which would result in greater overall impact. NOPE adds that Duke appears to have limited the study area to the central corridor to take full advantage of the capacity of Line C314. NOPE argues that Duke should have informed Staff and the Board of its plan to construct a pipeline in the central corridor as part of its application for approval of Line C314 and that the Company should not now be permitted to benefit from overbuilding the capacity of the line. Aside from the routing limitations in the route selection study, NOPE also claims that the study is flawed because it did not evaluate routes based on income levels in the affected communities or impacts to minority populations. In its reply brief, NOPE responds that the study area did not encompass the entire region, as Duke and Staff claim. With respect to potential western options, NOPE asserts that Duke and Staff failed to properly evaluate the options identified in the Gas System Master Plan, which NOPE believes would have fewer residential and other land use impacts. Regarding possible eastern routes, NOPE states that there is no evidentiary basis for Duke's and Staff's shared contention that a lateral line would be required or that such routes would have a similar or greater impact, particularly in light of the fact that there are significantly fewer residences within 200 feet. (Duke Ex. 7 at 9, 14; Duke Ex. 9 at 13; NOPE Ex. 3 at 13; NOPE Ex. 19 at 29, 32; Tr. I at 63-64, 67; Tr. II at 251, 253, 271-272, 275-276, 279-280; Tr. III at 642-643; NOPE Br. at 24-26; NOPE Reply Br. at 20-22.)

{¶ 105} Regarding the need for a high-pressure lateral for routes outside of the study area, Duke responds that the capacity and pressure needs in the central corridor are such that the increased capacity and pressure must be provided in a particular physical area, specifically Line V in the central corridor. Duke believes that it is indisputable that, if a new line is built outside of this area, a second new line would also be required to bring capacity and pressure into the central core. With respect to the fact that Duke witness Nicholas was unable to explain this need, the Company notes that the witness is a routing expert, but not a system design expert. (Duke Reply Br. at 26-27.)

{¶ 106} Further, NOPE contends that Duke and Staff failed to consider less adverse route alternatives, including those identified in the Gas System Master Plan prepared by

Lummus, which evaluated several options for the specific purposes of decommissioning the propane-air plants and decreasing the reliance on Foster Station. NOPE emphasizes that, based on reliability, flexibility, and regional expansion, the C-1 option, the central corridor option, was poorly ranked by Lummus, while the W-1 and W-2 options to the west were highly ranked. With respect to the W-1 option in particular, NOPE states that Dr. Guldmann found that this option would have far less impact on residences and other land uses, while reducing Duke's reliance on Foster Station to 21.6 percent. NOPE states that Dr. Guldmann's analysis indicates that there are 44 and 532 residences within 100 feet and 1,000 feet, respectively, of the W-1 option. Addressing the Staff Report's finding that the western options would not allow for the retirement of the propane-air plants or improve reliability in the area, NOPE states that Staff recognized at the hearing that its conclusion was based on modeling of another western option and not the W-1 option identified in the Gas System Master Plan. NOPE points out that all of the options identified by Lummus assume that the propane-air plants are inoperable. As another option, Dr. Guldmann recommends that Duke be required to consider looping Line A, which would consist of installing a new pipeline directly next to the existing Line A, with as much of the new line in the current right-of-way as possible, to eliminate disruption of new populations and land use activities. Finally, in light of the risks associated with excavation or pipeline malfunctioning as addressed by Dr. Guldmann, NOPE asserts that less impactful options must be evaluated. NOPE adds, in its reply brief, that Duke and Staff failed to consider socioeconomic factors, such as the fact that some residents would lose access to their homes during construction along the alternate route. Further, NOPE contends that Duke failed to adequately justify its method for eliminating alternatives. Noting that Duke points to constructability as justification for its chosen routes, NOPE responds that the Company provided no constructability guidelines to the siting team, offered no evidence on this issue at the hearing, and failed to consider extraordinary construction impacts that would result for The Jewish Hospital along the preferred route and for residents in Reading along the alternate route. (NOPE Ex. 19 at 21-33; Staff Ex. 1 at 28; Tr. II at 255-256, 314, 317, 319, 468; Tr. III at

551-554, 640-643; Cincinnati/Hamilton County Ex. 9; Reading Ex. 4; NOPE Br. at 26-30; NOPE Reply Br. at 22-25.)

{¶ 107} Duke responds that approximately half of the W-1 option is located in Kentucky and that Dr. Guldmann was unaware of the resulting jurisdictional issues. Duke notes that, although Dr. Guldmann suggested that the W-1 option could be relocated to the Ohio side of the river, he performed no analysis regarding the consequences of this type of re-routing and, therefore, his claims of lesser residential impacts should be disregarded. Duke also notes that, although Lummus suggested a number of possible expansion scenarios, it left the ranking of those expansion scenarios to the Company, which is contrary to NOPE's characterization of the Lummus report. Addressing the contention that Duke simply ignored other route options proposed by Lummus, in light of the fact that the parameters provided to Dr. Nicholas were directed at the central corridor, the Company states that this argument from Cincinnati and Hamilton County is purely speculative. Finally, with respect to Dr. Guldmann's recommended looping option, Duke states that Line A is located throughout dense residential areas in the central corridor. (NOPE Ex. 19 at Ex. JMG-7; Tr. III at 548-549; Duke Ex. 5; Duke Reply Br. at 27-29.)

{¶ 108} Blue Ash and Columbia contend that the Board should deny Duke's application, because the Company has not presented adequate information to demonstrate that the Project represents the minimum adverse environmental impact, as required under R.C. 4906.10(A)(3). Blue Ash and Columbia assert that Duke has adopted a "wait and see" approach, preferring to wait until after a certificate is issued to provide intervenors with information regarding the environmental or aesthetic impacts of the Project, particularly with respect to Staff's recommended screening plan for the valve station that would be installed near the entrance to Summit Park, which is a recreation area visited by more than 850,000 people each year. Blue Ash and Columbia maintain that Duke and Staff failed to consider the potential risks associated with a high-pressure pipeline in this highly congested recreational area. Blue Ash and Columbia add that Duke has not addressed limitations on future construction, potential traffic impacts, or final construction or engineering plans with

the intervenors. Blue Ash and Columbia conclude that Duke has failed to provide information that is necessary to facilitate their meaningful participation in this proceeding. (Tr. I at 93-96; Tr. II at 299-300, 305-306, 321, 343-344; Tr. III at 608-609; Blue Ash/Columbia Ex. 6; Staff Ex. 1 at 8, 67; Blue Ash/Columbia Br. at 26-30; Blue Ash/Columbia Reply Br. at 5; 7-8.) Duke responds that the questions raised by Blue Ash and Columbia cannot be answered until a specific route is chosen (Duke Reply Br. at 21-22).

{¶ 109} For its part, Reading emphasizes that, following the release of Staff's initial report recommending approval of the alternate route, Duke admitted that it had not evaluated the alternate route with the level of detail necessary to pursue its construction. Reading points out that, although Duke subsequently conducted additional investigation of the alternate route, the Company failed to provide Staff with a copy of the Western Route Constructability Review dated June 8, 2016, which, according to Reading, addresses construction challenges expected along the narrow streets of the city. Reading concludes from these circumstances that Staff's recommendation was based on something less than "fully developed information" on the alternate route, as required under Ohio Adm.Code 4906-3-05. According to Reading, Duke's after-the-fact investigation may have been conducted in a way intended to justify Staff's recommendation and, regardless, undermines public confidence in the Board's process. To illustrate the problem, Reading highlights the fact that neither the existence of the Pristine Superfund site nor Reading's Life Science Expansion Site was disclosed to Staff in advance of its initial report, despite being matters of public record. Reading adds that Staff should have been informed that residents along Third Street will be displaced from their homes for a month during construction. More specifically, Reading claims that Duke should have identified each house in Reading where access might be lost or restricted during construction, the anticipated length of time of such loss of access, and the specific steps to be taken to mitigate the anticipated loss of access, including compensation for the residents who will be displaced from their homes. Further, in light of the higher number of residences within 100 feet of the alternate route when compared to the preferred route, Reading questions Staff's conclusion that the alternate

route presents a lower potential for disruption of residences during construction. (Tr. II at 376-377, 468; Tr. III at 691-692; Reading Ex. 2; Reading Ex. 4; Reading Br. at 5-9.) In response to Reading's concerns, Duke states that the constructability review indicates that, although Third Street is narrow, it could be kept open during construction, with some restrictions on access to homes if conventional construction techniques are used. Duke adds that it has not shown any unwillingness to use unconventional techniques, where needed, and that the Company is amenable to working with residents to ensure minimal disruption by taking actions such as plating over driveways to allow for access. (Reading Ex. 4 at 49; Duke Reply Br. at 21.)

{¶ 110} Reading also takes issue with the technical constraint criteria used in Duke's route selection study, which were intended to include placement of the routes along interstates at least ten feet outside of Ohio Department of Transportation (ODOT) rights-of-way, as well as outside of the rights-of-way along other roads, including city streets. Reading argues that Duke strictly adhered to ODOT's wishes, but largely ignored the preferences of local governments. Reading claims that, as a result, the interstate rights-of-way, which represent the largest contiguous properties, were effectively eliminated from the siting process, leaving the pipeline to be constructed through residential, commercial, and recreational areas. Reading emphasizes that the best scoring prospective route (Route 3) was eliminated from further consideration due to its location within the right-of-way along Interstate 71. (Duke Ex. 3 at App. 4-1; Evendale Ex. 1 at 7; Reading Br. at 10.) Duke responds that the technical constraints associated with interstates are not within its control. Duke adds that Reading has not offered any evidence showing that construction within the interstate rights-of-way would be feasible or that such a route would not have been eliminated based on other considerations. (Duke Reply Br. at 29-30.)

{¶ 111} As another matter, Reading notes that it has been informed by the Metropolitan Sewer District of Greater Cincinnati that it intends to construct a major stormwater project along West Street in Reading, which is required by a global consent decree with the U.S. EPA and Ohio EPA. Reading contends that this project is located in the



same area proposed as the location for the alternate route and, therefore, the Board should consider this issue in its route selection. (Reading Ex. 2; Reading Ex. 3; Reading Br. at 11.) Noting that Duke and Staff have failed to address this major environmental issue, NOPE asserts that the Company's application should be rejected until the alternate route's impact on the sewer project is properly determined (Reading Ex. 2; NOPE Br. at 20; NOPE Reply Br. at 12-13). In its reply brief, Duke states that the sewer project can and will be avoided, in the same manner as other underground utilities are addressed (Duke Reply Br. at 21).

{¶ 112} Reading concludes that, if Duke's application is not denied as Reading recommends, the Board should either reopen the route selection process or condition the Company's certificate to require construction along the preferred route or Route 3, which lies in close proximity to the preferred route. According to Reading, the preferred route best meets all of Duke's long-term objectives for the Project. Reading also emphasizes that the alternate route will increase system dependency on Norwood Station, limiting the flexibility for natural gas pipeline testing and replacement, and offers less opportunity to directly offset gas flow from Foster Station, providing a decrease in reliance from 55 percent to 50 percent, as compared with a decrease from 55 percent to 45 percent afforded by the preferred route. In its reply brief, Reading requests that the Board direct Staff to revisit the siting process and consider all possible routes, particularly those within ODOT rights-of-way for Interstate 71 and Interstate 75. Reading asserts that most of the concerns expressed by the communities and citizens near both of the proposed routes could have been largely mitigated, or outright eliminated, if Duke had not summarily excluded ODOT rights-of-way along interstate highways from consideration. Reading believes that, if the state is to approve the construction of a major utility facility, available rights-of-way under state control should be considered for use first, ahead of private property and land controlled by local governments, and eliminated from consideration only for compelling reasons. (Duke Ex. 3 at 2-7; Tr. I at 43; Tr. III at 657-659; Reading Br. at 11-13; Reading Reply Br. at 4-6.)

{¶ 113} In its reply brief, Reading also asserts that, if the Board is persuaded by Duke's professed basis of need, the Board should closely consider whether the construction

of the CCE along the alternate route will meet the Company's objectives, given that the alternate route would offer less opportunity to directly offset gas flow from Foster Station and limit the Company's flexibility with respect to the testing and replacement of aging pipelines without causing outages (Tr. I at 43; Tr. III at 657-659; Duke Ex. 3 at 2-7; Reading Reply Br. at 4).

{¶ 114} Like Reading, Sycamore believes that Duke failed to adequately investigate less invasive routes. Sycamore asserts that other potential routes, specifically the W-1 and W-2 options as proposed in the Lummus report, would result in less impact to the community at large than the preferred and alternate routes, particularly in terms of population exposure and ability to provide a better north/south flow. However, in the event that the Board determines that a certificate should be issued, Sycamore recommends that the Project be constructed along the alternate route. Sycamore notes that the alternate route would have less impact on residential, recreational, and other sensitive land uses; would have less adverse environmental impact to streams and woodlots; would be constructed at less cost to ratepayers; and would avoid the preferred route's considerable impact to the schools, churches, hospitals, and retail locations in the Kenwood area in the southern part of the township. (Sycamore Ex. 1; NOPE Ex. 19 at 24, 27; Staff Ex. 1; Tr. II at 310-315; The Jewish Hospital Ex. 1; Duke Ex. 7 at 31; Sycamore Br. at 5-10.)

{¶ 115} In their joint brief, BRE DDR and Kenwood Mall state that their sole position in this case is that, if the application is granted, Duke should be required to install the CCE along the alternate route. In support of their position, BRE DDR and Kenwood Mall emphasize that Staff twice recommended adoption of the alternate route to the Board. Further, BRE DDR and Kenwood Mall argue that the alternate route is superior to the preferred route based on nearly every objective measure, including land use impacts during construction, permanent land use impacts, avoidance of residences, properties crossed, streams crossed, cost, and length. According to BRE DDR and Kenwood Mall, the only land use category for which the alternate route will have a notably greater impact is existing road rights-of-way, which is a more desirable outcome than impacting other land uses. BRE DDR

and Kenwood Mall also note that the alternate route ranked higher than the preferred route in Duke's route selection study. Finally, BRE DDR and Kenwood Mall contend that the preferred route would unnecessarily disturb an important retail area. (Staff Ex. 1; Duke Ex. 3 at App. 4-1; BRE DDR/Kenwood Mall Br. at 1-6.)

{¶ 116} The Jewish Hospital asserts that the preferred route would impose several adverse impacts on its services and facilities. First, The Jewish Hospital states that the preferred route would cross and run along its underground electric lines and, given the close proximity, may result in damage to the lines or an electric service disruption, requiring the use of a backup power supply and modification of the typical functioning of the hospital. The Jewish Hospital adds that the preferred route is in close proximity to its underground diesel fuel storage tanks and its Gamma Knife, which is an advanced radiation treatment powered through a radioactive nuclear fuel source overseen, in part, by the Department of Homeland Security. Further, The Jewish Hospital notes that patient and emergency medical service access to the hospital may be impeded by the Project, particularly during construction. Finally, The Jewish Hospital points out that its facilities are running at or above their capacity and that the Project would preclude any expansion beyond its current footprint. The Jewish Hospital concludes that, although Duke identified the hospital as a sensitive land use, Duke did not undertake any further analysis or consult with the hospital when planning the route and, therefore, failed to address the adverse impacts to the hospital in the application. For these reasons, The Jewish Hospital requests that the Board approve the alternate route, in order to avoid the adverse impacts to the hospital. (The Jewish Hospital Ex. 1 at 3-8; Tr. II at 310-320; The Jewish Hospital Br. at 2-6.)

{¶ 117} As a general matter, Madeira argues that Duke's application should be denied, because Duke has not provided adequate evidence supporting any of the criteria in R.C. 4906.10(A), particularly with respect to the preferred route. Madeira maintains that, if the Board grants Duke's application, the certificate should be issued subject to Staff's recommended conditions, including that the CCE be constructed along the alternate route. (Madeira Br. at 3-6.)

*c. Conclusion*

{¶ 118} As an initial matter, the Board finds that Duke and its siting consultant, CH2M, completed a reasonable route alternatives analysis, consistent with Ohio Adm.Code 4906-5-04, and utilized an appropriate route selection process within the constraints of the Project. Duke witness Nicholas testified that his consulting team assisted the Company with the development of a practical siting methodology, the selection and evaluation of route alternatives, and the preparation of a route selection study.<sup>18</sup> According to the route selection study, the siting team considered over 75,000 route combinations and compared them based on 25 different siting criteria encompassing ecological, land use, and technical considerations. To identify and evaluate potential route options, the siting team also conducted numerous windshield surveys, two helicopter surveys, a constructability review, and a detailed evaluation of standards and guidelines for pipeline construction in the vicinity of railroads. This process reduced the number of potential routes to 28, which were then scored and ranked according to the siting criteria, and the team selected three routes from the list of the top ten performing routes, each representing different route corridors, which were presented at the initial public informational meetings. Based upon continued review and evaluation, as well as public input, Duke eliminated one of the three route options, with the remaining two options proposed as the preferred and alternate routes. Upon review of the route selection study, the testimony of Dr. Nicholas, and the other evidence addressing Duke's route selection process, we agree with Staff's position that the Company and its consulting team conducted an appropriate route selection study and applied reasonable evaluation criteria encompassing a range of impacts and incorporating public feedback. (Duke Ex. 9; Duke Ex. 3 at 2-4 to 2-8, App. 4-1; Staff Ex. 1 at 47-49; Staff Ex. 10 at 4.)

{¶ 119} Although intervenors argue that Duke exerted too much influence in the identification of the study area and determined the starting and ending points for the

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<sup>18</sup> At the time of the route selection study, Dr. Nicholas was employed by CH2M and served as the lead siting consultant (Duke Ex. 9 at 2).

Project, Dr. Nicholas testified that the study area was based on physical limitations, as well as the Company's system needs. The route selection study describes the physical characteristics, land use features, and constraints in the area, while Duke witness Long testified that the results of Duke's pipeline simulation modeling, as addressed in the application, confirmed that a pipeline between WW Feed Station and Line V will improve overall reliability and satisfy the Company's system planning objectives. Although Duke specified that potential routes should begin at the terminus of the existing Line C314, Dr. Nicholas noted that no specific end point was designated; rather, the potential routes were merely to end at a point along Line V, which generally runs east to west. Contrary to the intervenors' arguments, the record also reflects that, aside from the preferred and alternate routes, the route selection process used by Duke and CH2M included consideration and evaluation of multiple alternative routes, consistent with R.C. 4906.10(A)(3) and Ohio Adm.Code 4906-5-04. Duke also retained an engineering consultant, Willbros Group, to review the candidate routes for constructability, which resulted in the adjustment of certain route segments and the addition of several additional routes for evaluation. As the route selection study describes, the siting team ultimately identified 28 routes in several main corridors that were reviewed in detail: western route options; central options, including options parallel to the Indiana and Ohio Railroad; options parallel to the I-71 corridor; and options parallel to both I-71 and the railroad. CH2M noted that additional route opportunities were also considered outside of the study area, including routes to the east through Madeira and Indian Hill that were identified by the engineering consultant as part of the constructability analysis. In addition, although Reading claims that route options tracking interstates were unreasonably eliminated due to ODOT's restrictions, the application and route selection study indicate that Duke investigated the possibility of construction within the right-of-way along I-71 and consulted with ODOT regarding its existing regulations and policies, which confirmed that longitudinal placement of utility infrastructure within interstate rights-of-way is not generally permitted for several reasons, including maintenance access, potential road expansions, public safety, and utility construction and repair activities. As a result, the siting team considered routes parallel to

I-71, yet outside of the right-of-way. (Duke Ex. 8 at 12-13; Duke Ex. 9 at 6, 11-12; Duke Ex. 3 at 3-5 to 3-10, 4-15, App. 4-1 at 1-3 to 1-7, 2-6 to 2-9; Tr. II at 250-251, 308-309.)

{¶ 120} The intervenors claim that Duke unreasonably dismissed the eastern routes that were studied. Dr. Nicholas, however, explained that the siting team re-evaluated routes to the east of the study area in response to initial feedback from the public. Although Dr. Nicholas acknowledged that the eastern routes have less dense residential development, the witness stated that the eastern routes are also significantly longer, which would result in similar or greater overall impacts as compared to the central routes, and would require at least one additional lateral westward into the denser central core area to achieve the Project's objectives. The intervenors emphasize that Dr. Nicholas was unable to explain the basis for this claim and that Duke offered no other witness to address the need for a lateral line. Duke's application indicates that the Company's system modeling study revealed that an eastern expansion option beyond the I-275 loop would require at least one additional large diameter, high-pressure pipeline into the central core area. Duke provided the testimony of Mr. Long in support of its system modeling efforts and the witness confirmed that each system expansion scenario was modeled to determine its ability to meet system planning objectives. Nothing precluded the intervenors from questioning Mr. Long on this issue. Additionally, the intervenors contend that Duke failed to adequately consider western routes. As noted above, the route selection study indicates that six different western routes within the study area were among the 28 routes that were evaluated by the siting team in detail. Beyond the study area, Duke's application reflects that three western scenarios outside of the I-275 loop were part of the system modeling study, although these options were ultimately rejected because they would not allow for retirement of the propane-air facilities or facilitate replacement work in the central core area. Again, as the system modeling expert, Mr. Long could have been questioned with respect to these options. Finally, the intervenors argue that Duke should have considered the western and eastern expansion scenarios identified by Lummus in the Gas System Master Plan Study, which would have fulfilled the Company's objectives for the Project. The study was based on the

existing Ohio and Kentucky transmission and distribution systems of Duke Energy Corporation and, as Dr. Guldmann acknowledged, the western options evaluated by Lummus were based partly in the Kentucky portion of the system, beyond the Board's purview. The eastern expansion scenario would entail the construction of a 30-inch pipeline with a length of 44 miles; the intervenors have not explained how a much longer pipeline can be expected to have fewer overall impacts. Although NOPE also claims that the western expansion scenarios were more favorably ranked by Lummus, the Lummus report makes clear that its ranking of the expansion options is only an example to demonstrate how the options might be weighted by Duke. In the report, Lummus merely concluded that Duke should implement at least one of the seven new pipeline expansions. Finally, we disagree with NOPE's contention that Duke failed to seriously consider non-pipeline alternatives. Both Duke and Staff addressed a number of alternative projects, while the non-pipeline options suggested by Dr. Guldmann are not consistent with the key recommendations in the Lummus report that the Company should decommission the propane-air facilities, implement one of the pipeline expansion options, and identify a new peaking supply. (Duke Ex. 9 at 12-13; Duke Ex. 8 at 12-13; Duke Ex. 3 at 4-2 to 4-4, 4-25 to 4-27, App. 4-1 at 2-7; NOPE Ex. 19 at Ex. JMG-7 at 1, 64-67, 69-70, 90-95; Tr. I at 174, 176; Tr. III at 548-549; Staff Ex. 1 at 28-29.)

{¶ 121} Turning to the specific routes proposed in this proceeding, the Board finds, based on the evidence of record, that the alternate route represents the minimum adverse environmental impact, consistent with R.C. 4906.10(A)(3). Dr. Nicholas explained that a review of constructability factors ultimately determined which two routes were proposed by Duke as the preferred and alternate routes. Although Duke's application indicates that the preferred route would better address the Company's objectives for the Project, Mr. Hebbeler testified that the Company seeks a certificate to construct, operate, and maintain the CCE along either the preferred or the alternate route, while Dr. Nicholas opined that Staff should determine which of the two routes is selected. Following an independent evaluation of each route, Staff concluded that the alternate route is best suited for the Project

for a variety of reasons, including length, cost, and expected impacts. In particular, Staff emphasized that the alternate route is approximately one mile shorter, will cross 252 fewer properties, and is expected to cost approximately \$16.5 million less to construct than the preferred route. Acknowledging that the preferred route would impact 67 fewer residences within 100 feet of the centerline of the CCE than the alternate route, Staff placed importance on the fact that the alternate route would impact 967 fewer residences within 1,000 feet of the centerline than the preferred route. Staff also noted that the alternate route would result in fewer impacts to streams, wetlands, and OHI structures within 1,000 feet. Finally, Staff highlighted the fact that the alternate route would require only an expansion of the existing Norwood Station, whereas implementation of the preferred route would require the construction of a new regulator station. The Board agrees with Staff's assessment of the potential impacts and, as discussed above, we find that various alternatives have been considered and appropriately eliminated. (Duke Ex. 3 at 2-7; Duke Ex. 7 at 34; Duke Ex. 9 at 14, 15; Staff Ex. 1 at 49-50; Staff Ex. 6 at 3.)

{¶ 122} The intervenors assert that Duke has not provided sufficient information for the Board to make the necessary determination under R.C. 4906.10(A)(3). We find, however, that Duke appropriately explained the Project's likely impacts in its application, supplements, and supporting testimony as referenced throughout this Order. As the intervenors note, Duke acknowledged in its April 2018 supplemental filing that it had focused more on the preferred route and that additional investigation of the alternate route was necessary after Staff recommended its adoption in Staff's initial report, with Mr. Hebbeler explaining that, at that point, the Company determined that advancement of the design for the alternate route was merited (Duke Ex. 6 at 1; Duke Ex. 7 at 19). Although the Board generally expects that an applicant will have fully investigated both of its proposed routes and include "fully developed information" on both routes in the application, as required by Ohio Adm.Code 4906-3-05, the fact remains that, in this case, Duke has provided the information delineated in R.C. 4906.06(A) and the Board's rules; concomitantly, Staff has received the information necessary to investigate the application, as required by R.C.



4906.07(C). As discussed further below, intervenors have been afforded ample opportunity to fully participate in this proceeding; as well, intervenors have had full access to all of the information provided by Duke through the discovery process.

{¶ 123} Nonetheless, the Board believes that Duke must continue to involve and inform local officials as the Company proceeds with the Project, particularly with respect to the traffic and other construction-related concerns identified by Reading, Blue Ash, Columbia, and other intervenors. Although we find that the evidence indicates that the alternate route represents the minimum adverse environmental impact and that Duke has already taken steps to minimize the impacts to affected property owners, the Company must continue to work with the local communities along the alternate route throughout the remainder of the siting process, as addressed further below.

#### 4. ELECTRIC POWER GRID

{¶ 124} R.C. 4906.10(A)(4) provides that, in the case of an electric transmission line or generating facility, the Board must ensure that such facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that such facility will serve the interests of electric system economy and reliability.

{¶ 125} According to the application, the Project consists of a natural gas pipeline (Duke Ex. 3 at 2-1). Staff, therefore, notes that R.C. 4906.10(A)(4) does not apply, given that the CCE is not an electric transmission line (Staff Ex. 1 at 51; Staff Br. at 36).

{¶ 126} Because the Project is not an electric transmission line or generating facility, the Board finds that R.C. 4906.10(A)(4) is not applicable under the circumstances (Staff Ex. 1 at 51).

## 5. AIR, WATER, SOLID WASTE, AND AVIATION

{¶ 127} Pursuant to R.C. 4906.10(A)(5), the facility must comply with Ohio law regarding air and water pollution control, withdrawal of waters of the state, solid and hazardous wastes, and air navigation.

{¶ 128} Duke notes that the Project would not produce air pollution and, therefore, would not impact any air quality limitations, while fugitive dust would be controlled as recommended in the Staff Report. Duke further notes that the Project would not use significant amounts of water, other than for hydrostatic testing, with discharge to be completed under the terms of the applicable permits. Duke adds that, in the Staff Report, Staff recommends limitations to control solid waste and states that there are no identifiable impacts on aviation considerations. (Duke Br. at 20-21; Duke Reply Br. at 30.)

{¶ 129} Addressing air requirements, Staff states that the operation of the CCE would not produce air pollution and that fugitive dust would be controlled, when necessary, through irrigation and/or mulching, or other best management practices, as appropriate. Staff adds that the construction and operation of the Project, as described in the application and data request responses and in accordance with the conditions recommended in the Staff Report, would be in compliance with air emission regulations in R.C. Chapter 3704, as well as the rules adopted under it. (Staff Ex. 1 at 52.)

{¶ 130} With respect to water, Staff states that the planned construction and operation of the CCE would comply with the requirements of R.C. Chapter 6111 and its corresponding rules. Further, Staff notes that neither construction nor operation of the Project would require the use of significant amounts of water; therefore, requirements under R.C. 1501.33 and 1501.34 are not applicable. Staff further notes that Duke plans to withdraw approximately 1.1 million gallons of water from local fire hydrants or, if necessary, from nearby bodies of water for the purpose of hydrostatic testing. According to Staff, once the testing is complete, the water will be discharged into the local sewer in accordance with state and local authorizations and permits. (Staff Ex. 1 at 52.)

{¶ 131} Turning to solid and hazardous waste requirements, Staff notes that, as construction work proceeds, Duke will keep the right-of-way clean of all rubbish and debris resulting from the work and that refuse would be properly placed in an approved landfill or other appropriate location. In terms of trees and other vegetation, Staff states that, where trees must be cleared from the right-of-way, the resulting brush would be windrowed or chipped, while all excess vegetation would be properly disposed of in accordance with the property owner's preference. Finally, Staff explains that the solid waste generated during the construction or operation of the CCE would be secured and removed from the Project area and disposed of at a licensed disposal facility. Staff concludes that, with these measures in place, Duke's solid waste disposal plans would comply with the applicable requirements in R.C. Chapter 3734 and the rules adopted under it. (Staff Ex. 1 at 52-53.)

{¶ 132} Regarding aviation requirements, Staff notes that the height of the tallest above-ground structure of the proposed CCE and associated construction equipment would be approximately 15 feet or less. Staff adds that, in accordance with R.C. 4561.32, Staff contacted the ODOT Office of Aviation during the review of Duke's application, in order to coordinate the review of potential impacts of the Project on local airports. According to Staff, as of the date of the filing of the Staff Report, no such concerns were identified. (Staff Ex. 1 at 53.)

{¶ 133} Having addressed the issues of air, water, solid waste, and aviation, Staff recommends that the Board find that the CCE complies with the requirements specified in R.C. 4906.10(A)(5), provided that any certificate issued by the Board for the Project includes the conditions listed in the Staff Report (Staff Ex. 1 at 53; Staff Br. at 36-38).

{¶ 134} Based on the record, the Board finds that the Project, subject to the conditions set forth in this Opinion, Order, and Certificate, will comply with R.C. Chapters 3704, 3734, and 6111, R.C. 1501.33, 1501.34, and 4561.32, and all rules and regulations thereunder, to the extent applicable, consistent with R.C. 4906.10(A)(5) (Staff Ex. 1 at 52-53).

## 6. PUBLIC INTEREST, CONVENIENCE, AND NECESSITY

{¶ 135} Pursuant to R.C. 4906.10(A)(6), the Board must determine that the facility will serve the public interest, convenience, and necessity.

### a. Pipeline Safety

#### i. Public Testimony

{¶ 136} By far, the primary concern raised by witnesses at the local public hearings was safety. Public witnesses stated that, in the event of a pipeline leak, breach, rupture, or fire, individuals and families would need to evacuate their homes, and the same would be true at other places where persons congregate, such as elder care facilities, schools, daycares, recreation facilities, businesses, religious institutions, and hospitals. Several public witnesses expressed concern as to the ability to expediently and safely evacuate at-risk populations, such as schools with young children, daycares, and elder care and medical facilities. Some witnesses addressed the associated possible health risk in the event of a leak or rupture of a pipeline, often noting the potential impact radius or high consequence area. One public witness noted that the Board must consider that this pipeline, if approved, will be in service for decades and that Duke's commitment to safety may change. Public witnesses also stated that it is often third parties that damage a natural gas line and that, despite industry efforts to prevent such incidents, the number of third-party damage incidents increased from 2015 to 2017. (Public Tr. I at 19, 23, 35, 60-61, 67, 71, 103, 123, 126, 159, 184-185, 205-206, 229-230, 232, 254, 268, 289, 295; Public Tr. II at 23, 37, 41-43, 52, 64-65, 83, 95, 126, 137.)

#### ii. Parties' Positions

{¶ 137} Noting that safety is its top priority, Duke emphasizes that, in response to public concerns about the Project, the Company substantially reduced the size and pressure of the CCE and agreed to implement additional safety measures. Duke adds that, although it changed the size and pressure of the CCE, the resulting re-categorization of the pipeline as a high-pressure distribution line, as opposed to a transmission line, was not the

Company's goal; rather, it was to increase the level of safety. Stating that the Project will far exceed state and federal safety requirements, Duke affirms its commitment to enhance the safety factors for the CCE as if it were a transmission line. Among other safety measures, Duke states that the CCE will be constructed of pipe with a wall thickness that is more than twice what is required even for a transmission line in a Class 4 location;<sup>19</sup> will have shut-off valves every five miles, consistent with Class 4 transmission requirements; will be installed with approximately 48 inches of cover, which is twice what is required for distribution lines and a foot more than what is required for transmission lines; will have warning tape in the ground above the pipeline; and will be subject to a number of assessments and tests, consistent with transmission requirements. Duke believes that the Board should conclude that the CCE, as proposed, will serve the public interest, convenience, and necessity, in light of the need for the Project and the expected safety of the pipeline, as well as the safety improvements that will directly result from the retirement of the propane-air peaking facilities. In its reply brief, Duke emphasizes that the CCE would be operated with enhanced safety practices, as well as constructed in accordance with transmission line requirements. In response to intervenor claims that Duke should have calculated a potential impact radius, the Company states that the gas pipeline safety regulations in 49 C.F.R. Part 192 do not require such calculation for a distribution line. Further, Duke states that it actively works to reduce the risk of third-party damage and will operate the CCE consistent with its integrity management plan. (Staff Ex. 1 at 54-55; Duke Ex. 2 at 2-1; Duke Ex. 15 at 39-40; Duke Br. at 21-23; Duke Reply Br. at 30-32.)

{¶ 138} Addressing safety considerations in the Staff Report, Staff states that, pursuant to the gas pipeline safety regulations in 49 C.F.R. Part 192, which Ohio has adopted under Ohio Adm.Code 4901:1-16-03, there are construction and operation standards that

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<sup>19</sup> Pursuant to 49 C.F.R. 192.5, a Class 4 location is any class location unit where buildings with four or more stories above ground are prevalent; a class location unit is an onshore area that extends 220 yards on either side of the centerline of any continuous one-mile length of pipeline. Duke's application indicates that Class 4 locations comprise less than 20 percent of the preferred and alternate routes; however, the Company represents that it plans to design and construct the entire length of the CCE to the more stringent design specifications and requirements for Class 4 locations (Duke Ex. 3 at 7-1).

differ depending on whether a pipeline is classified as a gathering, transmission, or distribution line. Because the CCE does not meet the criteria for a gathering line or a transmission line, Staff believes that the CCE should be classified as a high-pressure distribution line. Staff indicates that its review verified that the standards and procedures to be followed by Duke for the construction, operation, and maintenance of the CCE will meet or exceed the applicable specifications for distribution lines under the gas pipeline safety regulations. Given that the CCE would operate at a relatively high pressure, and in order to account for any potential future increases in operating pressure, Staff recommends that the CCE be constructed in accordance with the requirements for transmission lines to provide an extra margin of safety. Staff concludes, based on the information provided in the application, that Duke will be able to construct, operate, and maintain the CCE, in accordance with the gas pipeline safety regulations, along either of the proposed routes. In its brief, Staff adds that the CCE will be subject to safety inspections, including a review of materials used, welding procedures, employee qualifications, construction practices, and pressure testing. Staff also notes that Duke is required to have both an emergency response plan and an integrity management plan to ensure the long-term integrity of its pipeline system. Finally, Staff explains that the above-ground valve stations will enable Duke to isolate the pipeline during an emergency. In its reply brief, Staff adds that the gas pipeline safety regulations require that pipelines be constructed, maintained, and monitored in accordance with law and do not impose fail-proof standards. (Staff Ex. 1 at 54-55; Staff Ex. 12 at 3-6, 8-12; Staff Br. at 39-40; Staff Reply Br. at 19-23.)

{¶ 139} NOPE believes that the CCE is more properly classified as a transmission line and that it is not in the public interest to regulate it as a distribution line.<sup>20</sup> Although Duke and Staff assert that the CCE would be regarded as a distribution line under 49 C.F.R. 192.3 because it would operate at a hoop stress of 19 percent of the specified minimum yield

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<sup>20</sup> In its brief, Reading notes that it adopts the arguments raised by NOPE, Cincinnati, and Hamilton County regarding pipeline safety (Reading Br. at 11). Asserting that Duke has failed to provide adequate evidence concerning the safety of the CCE, Madeira adopts the arguments of NOPE, Cincinnati, and Hamilton County on this issue (Madeira Br. at 5).

strength (SMYS) and be located within a distribution center, NOPE points out that there would be no service lines on the CCE. Because the CCE would not distribute gas directly to end-use customers, and given its similarity in size and pressure to other transmission lines in Duke's system, NOPE concludes that the CCE does not fit the mold of a distribution line. Further, NOPE believes that the interpretation letter from Pipeline and Hazardous Materials Safety Administration (PHMSA) cited by Staff instead supports NOPE's view that the CCE is more properly classified as a transmission line. According to NOPE, the categorization of the CCE as a distribution line as a result of the reduction in size and pressure violates the intent of the pipeline safety regulations. Acknowledging that the CCE would be constructed in accordance with the requirements for transmission lines, NOPE points out that there are regulatory differences with respect to the operation and management of transmission and distribution lines under 49 C.F.R. Part 192. NOPE emphasizes that Duke will not be required to adhere to the more stringent transmission integrity management program requirements or consider the consequences of a failure within the impact zone based on the calculation of a potential impact radius. (NOPE Ex. 1; Tr. I at 58-60; Tr. II at 418; Tr. III at 730; NOPE Ex. 13 at 3-5; NOPE Ex. 16; NOPE Ex. 18; NOPE Ex. 19 at 27; Staff Ex. 1 at 54-55; Staff Ex. 12 at 11-12; NOPE Br. at 35-39; NOPE Reply Br. at 28-30.)

{¶ 140} Additionally, NOPE states that the application and Staff Report failed to address the public's legitimate concerns regarding safety, particularly the risks associated with third-party damage to the CCE. NOPE asserts that, contrary to incident statistics and other sources, including Staff witness Chace, Duke witness Paskett minimized these safety concerns in claiming that distribution lines will leak rather than rupture, even in situations where an outside force damages the pipeline. NOPE points out that third-party damage is the most significant threat to distribution system integrity and that Duke admits that such damage is the leading risk to its system. NOPE adds that leaks can be dangerous and lead to explosions. In its reply brief, NOPE disputes Duke's claim that the reduction in the size and pressure of the CCE has addressed public concern. NOPE also claims that Duke and Staff have both failed to acknowledge that, as proposed, the CCE remains an unusually

high-pressure pipeline to site through densely populated communities or that there is a heightened risk of excavation-related incidents. In light of this risk, NOPE concludes that, consistent with past practice, Staff should have meaningfully evaluated less impactful options that would impose far less risk from third-party damage. *In re Northeast Ohio Natural Gas*, Case No. 99-541-GA-BTX, Opinion, Order, and Certificate (July 17, 2000) at 10. NOPE reiterates that there are alternatives in less populated areas that would meet Duke's objectives for the Project. (Tr. I at 74-77; Tr. II at 388-391; Tr. III at 730, 737; NOPE Ex. 13; NOPE Ex. 14 at 2, 4, 19, 23; NOPE Ex. 15 at 1; NOPE Br. at 39-42; NOPE Reply Br. at 25-28.)

{¶ 141} According to Blue Ash and Columbia, Duke has not satisfied the statutory requirements under R.C. 4906.10(A)(6). Blue Ash and Columbia argue that Duke has not evaluated serious safety concerns in several respects and has provided little or no information to the intervening parties on certain key considerations. First, Blue Ash and Columbia contend that Duke witness Hebbeler conceded that the Company provided inconsistent information regarding the potential impact radius for the CCE. Blue Ash and Columbia emphasize that, although Mr. Hebbeler testified that there is no requirement to establish a potential impact radius for a distribution line, a list of frequently asked questions about the Project on Duke's website indicates that the potential impact radius for the CCE is 326 feet on either side of the center of the pipeline, while a discovery response from Duke states that the potential impact radius is 308.58 feet. According to Blue Ash and Columbia, Duke must provide the Board and intervenors with sufficient information to conduct an effective evaluation of the impact of the Project before a certificate is issued. *In re Application of Middletown Coke Co.*, 127 Ohio St.3d 348, 2010-Ohio-5725, 939 N.E.2d 1210, ¶ 2. Additionally, Blue Ash and Columbia assert that Duke also provided inaccurate and inconsistent information regarding high consequence areas near the CCE. Blue Ash and Columbia point out that Mr. Hebbeler testified that, given the CCE's status as a distribution line, high consequence areas are irrelevant, which is inconsistent with Duke's stance in discovery and on its website, where Duke indicated that the CCE, in its entirety, would be classified as a pipeline sited in high consequence areas. (Tr. I at 97-101, 105-108, 112-114; Tr.



II at 411-413; NOPE Ex. 17; Blue Ash/Columbia Ex. 1 at 6, 10; Blue Ash/Columbia Ex. 2; Blue Ash/Columbia Ex. 6; Blue Ash/Columbia Br. at 8-15; Blue Ash/Columbia Reply Br. at 3-4, 5.)

{¶ 142} Arguing that Duke has not provided sufficient information regarding the consequences of a pipeline failure, Blue Ash and Columbia urge the Board to disregard the testimony of Duke witness Paskett. Blue Ash and Columbia note that Mr. Paskett emphasized that distribution pipelines, due to their relatively low operating pressures, will leak rather than rupture, although Mr. Paskett eventually conceded that Duke cannot rule out the potential risk of a pipeline rupture. Blue Ash and Columbia assert that Mr. Paskett's testimony is counter to the position taken by Staff witness Chace, as well as data compiled by PHMSA, which indicates that third-party excavation damage can cause distribution pipelines to rupture and that the number of serious incidents involving distribution pipelines has increased over the past ten years. Further, Blue Ash and Columbia argue that Duke has attempted to minimize the potential risks associated with natural gas leaks, despite the fact that Company witnesses Hebbeler, Paskett, and Long acknowledged that pipeline leaks can be dangerous. Blue Ash and Columbia add that, despite the fact that third-party damage is the leading cause of damage to Duke's system, the application and Staff Report do not address this issue with respect to the Project. Finally, Blue Ash and Columbia stress that Duke has not provided any kind of evacuation or emergency response plan or training to the affected local municipalities or their first responders. Blue Ash and Columbia reiterate that Duke's application must be denied under R.C. 4906.10(A), because the Company has provided insufficient, contradictory, misleading, and inaccurate information, which Staff relied on without independent verification. (Duke Ex. 7 at 22; Duke Ex. 15 at 9; Tr. I at 75-76, 102-103; Tr. II at 388, 391, 423, 427-429; Tr. III at 727, 737-739; Blue Ash/Columbia Ex. 3; NOPE Ex. 14; NOPE Ex. 15; Blue Ash/Columbia Br. at 15-23; Blue Ash/Columbia Reply Br. at 4-5, 8-9.)

{¶ 143} In its reply brief, Sycamore contends that both Duke and Staff have failed to account for the fact that the leading cause of pipeline explosions is breach of the pipeline by

third parties. Sycamore adds that, of Duke's proposed safety measures, only the Company's plan to place warning tape in the ground above the CCE addresses this issue and, in any event, such plan may prove ineffective in preventing third-party damage. Sycamore concludes that Duke has a multitude of options other than the CCE and the danger that it would pose to highly populated areas such as Kenwood. (Sycamore Reply Br. at 3-4.)

***b. Public Interaction and Participation***

{¶ 144} Staff also describes, in the Staff Report and its briefs, the various opportunities for public interaction and participation in this proceeding. Aside from the public hearings and public comments discussed in this Order, Staff notes that Duke held four public informational meetings regarding the Project, which provided the large number of attendees at each meeting an opportunity to speak with representatives of the Company and to offer feedback. Staff states that Duke made several modifications to the Project based on the feedback received from the public during the first three meetings. Staff adds that Duke has also met with local officials, businesses, community groups, and the media in the communities affected by the Project. Noting that Duke has committed to continue to communicate updates with the public and to respond to questions and concerns, Staff recommends that the Company be required to develop a public information program that informs affected property owners, tenants, and local government officials of the nature of the Project, specific contact information of personnel familiar with the Project, the proposed timeframe for construction of the Project, and a schedule for restoration activities, as well as to develop a complaint resolution procedure to address potential public grievances resulting from the construction and operation of the CCE. (Staff Ex. 1 at 55-56; Staff Br. at 40-43; Staff Reply Br. at 23-25.)

{¶ 145} Staff concludes that Duke has submitted detailed information on relevant items of public interest, convenience, and necessity, including noise, aesthetics, environmental concerns, social and economic impacts, long-term natural gas supply, and health and safety considerations. Following its review, Staff believes that the information is sufficient to support the fulfilment of the statutory criterion. Staff adds that the comments

received from members of the public and local officials have informed its investigation, while many of the potential impacts and concerns raised in the comments have been addressed in the Staff Report, minimized by Duke, and mitigated by Staff's recommended conditions. (Staff Ex. 1 at 57; Staff Br. at 43-44; Staff Reply Br. at 25-26.)

{¶ 146} Cincinnati and Hamilton County emphasize that an overwhelming majority of the public opposes the construction of the Project through dense and congested residential, commercial, and industrial areas. Cincinnati and Hamilton County assert that Duke has largely dismissed local residents' legitimate concerns about the siting of the Project and denied that the health and safety risks from pipeline accidents are significantly greater in densely populated areas. Cincinnati and Hamilton County also note that Duke's public outreach efforts have been marked by missteps and errors, such as when Duke mistakenly assured local residents in a leaflet about the Project that no residential properties are crossed along the alternate route, as well as when Duke admitted that the frequently asked questions on its website contained inaccurate and inconsistent information in several respects. Cincinnati and Hamilton County conclude that Duke should be required to restart its need analysis and public engagement process. (Tr. I at 45, 51-52, 56-57, 97-101, 107-108, 122; Tr. II at 300, 463; Tr. III at 706-707, 714-719, 724-725; Staff Ex. 1 at 57; Cincinnati/Hamilton County Ex. 1; Cincinnati/Hamilton County Ex. 35; Blue Ash/Columbia Ex. 1; Cincinnati/Hamilton County Br. at 2-4.)

{¶ 147} Citing the thousands of public comments submitted to the Board, as well as the considerable testimony from the general public and various local officials offered at the local public hearings, NOPE contends that the public interest reflects overwhelming opposition to the Project. NOPE believes that the application and Staff Report ignore the safety concerns of the public and other adverse impacts of the Project on the local communities. In response to Staff's assertion that it is taking measures to ensure that the gas pipeline safety regulations are met with respect to the CCE, NOPE states that, in the absence of evidence as to what those measures are, the safety deficiencies in Duke's application have not been cured. NOPE adds that Staff has not addressed Duke's safety

record, which includes multiple PHMSA violations in the last few years. (NOPE Ex. 6; NOPE Ex. 7; Tr. I at 79, 109-111; Tr. III at 715, 720; NOPE Br. at 31-34; NOPE Reply Br. at 30-31.)

{¶ 148} Blue Ash and Columbia argue that, despite the vehement public opposition to the Project, Duke has continued to proceed with its plans to construct the CCE in a densely populated area, which is an indication that Duke has not adequately evaluated the social impact of the Project and has advanced its own interests over those of the public. Blue Ash and Columbia add that Duke has not sought their input regarding the pipeline routing and avoidance of impacts. (Staff Ex. 1 at 56-57; Blue Ash/Columbia Ex. 6 at 10-12, 28-29, 32-33; Tr. II at 300-301; Tr. III at 714-719, 724-725; Blue Ash/Columbia Br. at 23-24; Blue Ash/Columbia Reply Br. at 5.)

{¶ 149} Sycamore also contends that Duke has failed to meet its burden of proof to demonstrate that the Project will serve the public interest, convenience, and necessity. According to Sycamore, Duke has failed to address the effect of the proposed routes on the affected communities with local officials. Sycamore adds that Duke engaged in no discussions with the township regarding the routing for the Project or safety plans in the event of a pipeline failure. (Sycamore Br. at 4-5.)

{¶ 150} In light of the preferred route's adverse impacts discussed above, The Jewish Hospital believes that approval of the preferred route by the Board would be counter to the public interest and contrary to R.C. 4906.10(A)(6), whereas adoption of the alternate route would be consistent with Staff's recommendation (The Jewish Hospital Br. at 6).

### *c. Conclusion*

{¶ 151} The Board finds that the Project will serve the public interest, convenience, and necessity, as required under R.C. 4906.10(A)(6). As Duke witness Hebbeler testified, the Company's customers depend on natural gas for, among other things, their heating, water heating, and business and process needs and the Company must, therefore, ensure

reliable service through a proactive approach of continually monitoring and assessing its system and supporting infrastructure. Mr. Hebbeler thoroughly explained the critical importance of avoiding widespread service outages and concluded that it is imperative for Duke to maintain and upgrade its system, as reflected by its proposal to construct the CCE. Duke witness Long also addressed the Company's obligation to continually assess the state of its facilities and the current and prospective demand of its customers and emphasized that the Company's system planning efforts are premised on the safe and reliable provision of natural gas to customers. As addressed above with respect to the need for the Project, we find that the CCE will enable Duke to meet its three system planning objectives of retiring its outmoded propane-air facilities, improving the system's north/south supply balance, and facilitating the replacement and upgrading of aging infrastructure, all of which are consistent with the public interest. Staff, following its review of the application, noted that Duke provided detailed information in fulfillment of the public interest, convenience, and necessity criterion, including information pertaining to noise, aesthetics, environmental concerns, social and economic impacts, long-term natural gas supply, and health and safety considerations. (Duke Ex. 7 at 8, 9-15; Duke Ex. 8 at 8-10; Staff Ex. 1 at 57.)

{¶ 152} In the section of the Staff Report addressing R.C. 4906.10(A)(6), Staff focused on two key issues - pipeline safety and public interaction and participation. With respect to the first, the Board notes that safety in the construction, operation, and maintenance of facilities is of paramount importance where natural gas is involved. However, the Board also recognizes that natural gas is a necessity for Duke's customers, particularly during the winter heating season, as Mr. Hebbeler noted. Upon review of the record, we agree with Staff that Duke has established that the CCE will be constructed, operated, and maintained in accordance with the gas pipeline safety regulations and, in some respects, will exceed the gas pipeline safety requirements. Although the CCE will be classified as a high-pressure distribution pipeline under 49 C.F.R. 192.3, Duke has committed to adhere to certain requirements for transmission pipelines. In support of the application, Mr. Hebbeler testified that the design and construction plan for the CCE reflect that Duke will apply

enhanced design, construction, and assessment criteria to ensure the continued integrity of the pipeline for its useful life. Specifically, with respect to enhanced design criteria, Mr. Hebbeler explained that the CCE will have a wall thickness of 0.438 inches, which is more than twice the wall thickness required by the gas pipeline safety regulations for a transmission line in a Class 4 location; will accommodate the passage of in-line inspection tools; will have five-mile valve spacing, consistent with the valve spacing requirements for transmission lines in a Class 4 location; and will have four remote control valves to allow Duke to monitor the pipeline with the ability to immediately shut down the flow of natural gas, if necessary. Addressing enhanced construction criteria, Mr. Hebbeler testified that the CCE will be installed and pressure tested in accordance with transmission line requirements to ensure safety, minimize stresses, and protect the coating from damage, which will include weld x-rays and inspections by qualified personnel. Mr. Hebbeler added that the CCE will be installed at a depth of 48 inches of cover, which is twice the depth required for distribution lines and a foot deeper than the requirement for transmission lines, and will be subject to hydrostatic pressure testing, as well as strength testing, after installation. Regarding enhanced operation and assessment criteria, Mr. Hebbeler stated that Duke will use an in-line inspection device to assess the integrity of the CCE prior to its in-service date, again within ten years, and then every seven years thereafter. Mr. Hebbeler concluded that Duke has developed the CCE with safety as a priority, as evidenced by its overall design, selection of high-quality pipeline materials, construction plan, x-ray inspections, enhanced post-construction pressure testing, lower operating pressure, and more robust integrity assessment using in-line inspection tools. Duke witness Paskett<sup>21</sup> agreed that the Company intends to exceed the gas pipeline safety requirements, in order to ensure the long-term safety and reliability of the CCE. Acknowledging these commitments, Staff witness Chace recommended that Duke take additional steps to construct the CCE entirely in accordance with more stringent gas pipeline safety requirements for transmission lines, including the following: allowance for the passage of internal inspection devices, as specified in 49 C.F.R.

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<sup>21</sup> Mr. Paskett is employed by Structural Integrity Associates, Inc. as Senior Associate and Chief Regulatory Engineer (Duke Ex. 15 at 1).

192.150; use of sectionalized block valves such that each point on the pipeline will be within 2.5 miles of a valve in Class 4 locations, or within 4 miles of a valve in Class 3 locations, in accordance with 49 C.F.R. 192.179; maintenance of at least 12 inches of clearance from any other underground structure not associated with the pipeline, consistent with 49 C.F.R. 192.325; and placement of underground warning tape above the pipeline to caution excavators. (Duke Ex. 3 at 7-1 to 7-5; Duke Ex. 7 at 8, 20-21, 23-26; Duke Ex. 15 at 13-14, 39-41; Staff Ex. 1 at 55, 64-65; Staff Ex. 12 at 9-10.)

{¶ 153} The Board is persuaded by the testimony of these witnesses and concurs with the position of Duke and Staff that the construction, operation, and maintenance of the CCE has been planned to meet or exceed the applicable gas pipeline safety regulations. We note that Duke is a natural gas company as defined in R.C. 4905.03 and an operator as defined in R.C. 4905.90, and, pursuant to R.C. 4905.90 through 4905.96, is subject to the ongoing jurisdiction and supervision of the Commission with respect to safety matters. Duke is, therefore, required to comply with Ohio Adm.Code Chapter 4901:1-16, which sets forth the safety standards and requirements for intrastate gas pipeline facilities subject to the Commission's jurisdiction. Pursuant to Ohio Adm.Code 4901:1-16-03(A), these rules adopt the federal gas pipeline safety regulations contained in 49 C.F.R. Parts 40, 191, 192, and 199. Mr. Chace described the measures, including inspections of operators and pipeline infrastructure, used by the Commission to enforce the gas pipeline safety regulations and stated that a safety inspection involving a review of the materials used, welding procedures, employee qualifications, construction practices, and pressure testing of the CCE will be conducted by a PHMSA-qualified field investigator. As explained by Mr. Chace, Duke, its personnel, and the CCE will be subject to ongoing safety inspections by the Commission. (Duke Ex. 7 at 23-26; Staff Ex. 1 at 54-55; Staff Ex. 12 at 3, 4-5.)

{¶ 154} For these reasons, the Board concludes that both Duke and Staff have thoroughly addressed the safety considerations related to the Project, as raised by the intervenors and the public, and that the Company has provided sufficient information on this issue. Although particular emphasis has been placed on the risks associated with

excavation damage caused by third parties, Duke has recognized its obligation, in accordance with 49 C.F.R. 192.614, to carry out a written program to prevent damage to the CCE from excavation activities. Under this section, a damage prevention program must, at a minimum, include the identity, on a current basis, of persons who normally engage in excavation activities in the area in which a buried pipeline is located; provide for notification of the public and excavators in the area regarding the program's existence and purpose, and how to learn the location of underground pipelines before excavation activities begin, with notification provided as often as needed to make them aware of the damage prevention program; provide a means of receiving and recording notification of planned excavation activities; provide for actual notification of persons who give notice of their intent to excavate regarding the type of temporary marking to be provided and how to identify the markings; provide for temporary marking of buried pipelines in the area of excavation activity before, as far as practical, the activity begins; and provide for inspection of pipelines that an operator has reason to believe could be damaged by excavation activities, with the inspection to be done as frequently as necessary during and after the activities to verify the integrity of the pipeline and, in the case of blasting, to include leakage surveys. Duke has also recognized its duty, under 49 C.F.R. 192.616, to develop and implement a written public awareness program that, among other things, must include provisions to educate the public, appropriate government organizations, and excavators on the use of a one-call notification system prior to excavation and other damage prevention activities, possible hazards associated with unintended releases from a gas pipeline facility, physical indications that such a release may have occurred, steps that should be taken for public safety in the event of a gas pipeline release, and procedures for reporting such an event. Additionally, as Duke has acknowledged, the Company is required, pursuant to 49 C.F.R. 192.1007, to maintain a written integrity management program that must, among other things, identify threats (including the threat of excavation damage), evaluate and rank risk, identify and implement measures to address risks, measure performance, monitor results, evaluate effectiveness, and report results. Duke witnesses Hebbeler and Paskett, as well as Staff witness Chace, addressed the integrity management requirements and we, therefore, cannot agree with the



intervenor's contention that Duke and Staff have failed to recognize the risk associated with excavation damage. Finally, as Mr. Chace explained, Duke is also required under the gas pipeline safety regulations to have an emergency response plan, which is reviewed as part of the safety inspections conducted by the Commission. As set forth in 49 C.F.R. 192.615, the plan, among other things, must include written procedures to minimize the hazard resulting from a gas pipeline emergency, provide employee training on emergency procedures, and coordinate with appropriate fire, police, and other public officials with respect to gas pipeline emergencies. Duke's compliance with all of these gas pipeline safety requirements will be the subject of ongoing safety inspections by the Commission. (Duke Ex. 3 at 7-1 to 7-5; Duke Ex. 7 at 18-19; Duke Ex. 15 at 19-20, 24; Staff Ex. 12 at 3-4, 10-12; Tr. I at 114-115.)

{¶ 155} Although NOPE argues that the CCE should be classified as a transmission line, Mr. Hebbeler, Mr. Paskett, and Mr. Chace agreed that the CCE does not meet the definition in 49 C.F.R. 192.3. The regulation provides that a transmission line means a pipeline, other than a gathering line, that: (1) transports gas from a gathering line or storage facility to a distribution center, storage facility, or large volume customer that is not downstream from a distribution center; (2) operates at a hoop stress of 20 percent or more of SMYS; or (3) transports gas within a storage field. The parties have focused on the first part of the definition and offered varying opinions as to whether the CCE will transport gas to a distribution center, which is not a defined term. Mr. Chace noted that PHMSA has interpreted "distribution center" to mean "the point where gas enters piping used primarily to deliver gas to customers who purchase it for consumption as opposed to customers who purchase it for resale." As the CCE will be used to deliver gas to consumers, with the gas supplied from an upstream delivery point that qualifies as a distribution center, Mr. Chace concluded that the CCE is appropriately classified as a distribution line,<sup>22</sup> while Mr. Hebbeler and Mr. Paskett agreed that the CCE will be located entirely within the

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<sup>22</sup> A distribution line under 49 C.F.R. 192.3 is a pipeline other than a gathering or transmission line.

distribution center that serves the greater Cincinnati area. (Duke Ex. 7 at 5, 21; Duke Ex. 15 at 10-11, 13-14; Staff Ex. 12 at 9; NOPE Ex. 16.)

{¶ 156} NOPE also argues that, if the CCE is classified as a distribution line, Duke will not be required to adhere to the more stringent transmission integrity management program requirements, which require the calculation of a potential impact radius. Mr. Chace, however, disagreed with the contention that the CCE will be less safe as part of Duke's integrity management plan for distribution lines, given that the distribution integrity management requirements are more flexible and will enable the Company to create a monitoring and inspection plan using tools and methods that are appropriate for the CCE. Further, as both Mr. Paskett and Mr. Chace explained, transmission integrity management plans under 49 C.F.R. 192.937 must include periodic assessment of pipelines in high consequence areas<sup>23</sup> for structural integrity using any of several specified methods, one of which is internal inspection by way of instrumentation attached to a device that travels along the inside of the pipe. Mr. Hebbeler stated that Duke has agreed to use in-line inspection devices and to test the CCE using this method on a regular basis. With respect to NOPE's claim that Duke and Staff should have evaluated options in less populated areas, we find, as noted above, that sufficient alternatives were both appropriately reviewed and eliminated. As Mr. Chace testified, pipelines are able to be constructed in populated areas, with the gas pipeline safety regulations subjecting such lines to a greater level of safety precautions. (Duke Ex. 7 at 18-19, 25; Duke Ex. 15 at 21-22; Staff Ex. 12 at 5-6, 11-12.)

{¶ 157} Finally, with respect to public interaction and participation, the Board finds that the intervenors and the public have been afforded a full and fair opportunity to participate in this proceeding, including four public informational meetings, two local public hearings, and a three-day adjudicatory hearing followed by briefing. In addition, the Board's public comment process has been extensively utilized, with thousands of comments from members of the general public, local organizations, and local officials having been filed

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<sup>23</sup> Under 49 C.F.R. 192.903, high consequence areas include Class 3 and Class 4 locations, among others.

in the docket. Duke, in both its application and the supporting testimony of Mr. Hebbeler, also described its efforts to engage with local officials and the public and to respond to their questions and concerns about the Project, including various meetings arranged at the request of numerous local groups and officials. In addition to meetings and presentations, Duke used a variety of communication methods to convey information about the Project and to gather feedback from stakeholders, such as comment cards, questionnaires, public notices, brochures, and letters, as well as a website, e-mail, and hotline dedicated to the Project. Mr. Hebbeler also testified that, if a certificate is issued by the Board, Duke will continue to engage with its customers, the public, and affected property owners, while the dedicated website, e-mail, and hotline will also continue to be available. In the Staff Report, Staff also described the various opportunities for public participation in this case and noted that attendees at Duke's public informational meetings were able to speak directly to representatives from the Company regarding the Project. Among its proposed conditions, Staff recommends that Duke be required to develop a public information program to inform affected property owners, tenants, and local government officials of the nature of the Project, specific contact information of personnel familiar with the Project, the proposed timeframe for construction, and a schedule for restoration activities. Staff also recommends that Duke be required to develop a complaint resolution procedure to address potential public grievances resulting from the construction and operation of the Project. We agree that these conditions are appropriate and that Duke should continue to maintain its dedicated website, e-mail, and hotline for the Project, as well as take steps to ensure that affected property owners along the alternate route, local officials in the area, and the general public are accurately informed and appropriately involved in the remainder of the siting process. (Duke Ex. 3 at 6-1 to 6-10; Duke Ex. 7 at 26-30; Staff Ex. 1 at 55-57, 60-61.)

#### 7. AGRICULTURAL DISTRICTS

{¶ 158} Pursuant to R.C. 4906.10(A)(7), the Board must determine the facility's impact on the agricultural viability of any land in an existing agricultural district established

under R.C. Chapter 929 that is located within the project area of the proposed major utility facility.

{¶ 159} Consistent with the testimony of Duke witness Lane, the Company indicates that there is no active agricultural land affected by the CCE (Duke Ex. 10 at 8; Duke Br. at 23; Duke Reply Br. at 32). Staff states that Duke's preferred and alternate routes do not cross any agricultural land or agricultural district parcels and, therefore, no agricultural district impacts are expected from the Project. Accordingly, Staff recommends that the Board find that the requirements of R.C. 4906.10(A)(7) are inapplicable to the CCE. (Staff Ex. 1 at 58; Staff Br. at 44.)

{¶ 160} Because the Project will not cross any agricultural land or agricultural district parcels, the Board finds that R.C. 4906.10(A)(7) is not applicable to the certification of the CCE (Duke Ex. 3 at 7-19; Duke Ex. 10 at 8; Staff Ex. 1 at 58).

#### 8. WATER CONSERVATION PRACTICE

{¶ 161} Pursuant to R.C. 4906.10(A)(8), the proposed facility must incorporate maximum feasible water conservation practices, considering the available technology and the nature and economics of the various alternatives.

{¶ 162} Staff states that, because the CCE would not require the use of water for operation, water conservation practice, as specified under R.C. 4906.10(A)(8), is not applicable to the Project (Staff Ex. 1 at 59; Staff Br. at 45). Duke agrees that water conservation issues are not relevant with respect to the CCE (Duke Br. at 23; Duke Reply Br. at 32).

{¶ 163} Because the Project does not require the use of water for operation, the Board finds that R.C. 4906.10(A)(8) is not applicable to the certification of the CCE (Staff Ex. 1 at 59).

## VI. CONDITIONS

{¶ 164} The Ohio Supreme Court has recognized that the Board is vested with the authority to issue certificates upon such conditions as the Board considers appropriate. As acknowledged by the Court, the construction of power siting projects subject to the Board's authority necessitates a dynamic process that does not end with the issuance of a certificate. The Court concluded that the Board has the authority to allow Staff to monitor compliance with the conditions that the Board has set. *In re Buckeye Wind, LLC*, 131 Ohio St.3d 449, 2012-Ohio-878, 966 N.E.2d 869. Such monitoring includes the convening of preconstruction conferences and the submission of final construction plans by an applicant. Additionally, as with all certificates, the Board emphasizes that, if Staff should discover, through its continued monitoring and review of the progress of the Project, that Duke is not complying with any of the conditions adopted below, Staff should bring such concern to the attention of the Board. If Duke fails to comply with any of the established conditions, the Board may take appropriate action to ensure compliance, in accordance with R.C. Chapter 4906.

{¶ 165} In the Staff Report, Staff recommended that 38 general, socioeconomic, ecological, public service, safety, air, water, and solid waste conditions be made part of any certificate issued by the Board for the Project (Staff Ex. 1 at 60-65). Staff reiterates in its briefs that any certificate issued by the Board for the CCE should incorporate and require strict compliance with these conditions, as either amended or supplemented through its testimony (Staff Br. at 45; Staff Reply Br. at 26).

{¶ 166} In their brief, Cincinnati and Hamilton County propose that the Board amend and supplement certain conditions recommended by Staff (Cincinnati/Hamilton County Br. at 15-17). The Board notes that, in their respective reply briefs, neither Duke nor Staff directly responded to Cincinnati's and Hamilton County's proposals to supplement or amend the conditions as set forth in the Staff Report.

**A. General Conditions**

{¶ 167} As their first recommendation, Cincinnati and Hamilton County propose that, if the Board approves Duke's application, the Board should amend the conditions in the Staff Report to hold the Company accountable for more conservative safety and property-owner friendly construction, operation, and maintenance specifications. Among the revisions proposed, Cincinnati and Hamilton County recommend "strengthening" Condition 1, which generally provides that the Project shall be installed on Duke's proposed alternate route, utilizing the equipment, construction practices, and mitigation measures as presented in the application, as amended and supplemented, and consistent with the recommendations in the Staff Report. However, Cincinnati and Hamilton County did not offer any specifics or clarification regarding their recommendation to modify Condition 1. (Staff Ex. 1 at 60; Cincinnati/Hamilton County Ex. 43 at 4-5; Tr. III at 591.)

{¶ 168} The Board finds that Cincinnati and Hamilton County have failed to provide any specific recommendation regarding amendments to Condition 1. Without specifics as to how Cincinnati and Hamilton County recommend that Condition 1 be revised, the Board finds that the condition is reasonable and that it should generally be adopted as recommended by Staff, with the clarification that the installation of the CCE is subject to the Board's specified conditions. (Staff Ex. 1 at 60; Cincinnati/Hamilton County Ex. 43 at 4-5; Tr. III at 591.)

{¶ 169} Second, Cincinnati and Hamilton County propose that Staff's recommended conditions generally be more inclusive by involving Cincinnati, Hamilton County, other affected jurisdictions, and associated local agencies regarding the CCE implementation, notifications, and other communications. Specifically, Cincinnati and Hamilton County request that, with respect to conditions that require Duke to provide Staff with plans and drawings prior to the preconstruction conference and to provide Staff with plans and permits prior to construction, the Company be required to provide such information to Cincinnati, Hamilton County, and other affected jurisdictions and associated local agencies

that request such information and that their representatives be permitted to attend the preconstruction conference. (Cincinnati/Hamilton County Ex. 43 at 5.)

{¶ 170} The Board finds that the conditions referenced by Cincinnati and Hamilton County that require Duke to provide Staff with plans, permits, and other information are imposed to facilitate Staff's review and evaluation of information in compliance with the certificate issued by the Board. To that end, the Board directs that Duke provide the information required pursuant to Conditions 21, 22, and 24, which address laydown areas, floodplain permits, and a frac-out contingency plan, respectively, at least 30 days prior to the preconstruction conference with Staff. The Board also directs that the information required pursuant to Conditions 21, 22, and 24, among others, be filed by Duke in the docket for this proceeding. Further, in light of the purpose for holding a preconstruction conference with Staff, the Board finds it would be more effective and efficient for the Applicant, after its preconstruction conference with Staff, to hold separate preconstruction consultations with the affected jurisdictions. Accordingly, the Board amends Staff's proposed Condition 14, which requires Duke to initiate a consultation process with all development, planning, or land use authorities with jurisdictions crossed by the CCE. After the preconstruction conference with Staff and prior to the commencement of construction along the designated route, Duke shall conduct a consultation with the development, planning, or land use authorities for the affected jurisdictions crossed by the pipeline. Duke may conduct multiple preconstruction consultations with affected jurisdictions or hold a single consultation with all affected jurisdictions. Duke shall notify Staff of each consultation's date, time, and location at least two weeks prior to the scheduled consultation and, if requested by Staff, provide conference call information for the consultation. (Staff Ex. 1 at 60-61, 62, 63; Cincinnati/Hamilton County Ex. 43 at 5.)

{¶ 171} As proposed by Staff, Condition 10 recommends that the Board direct that, after the commencement of commercial operation, Duke submit to the Commission, in the Company's next long-term gas forecast, the status of its plans for the retirement of the propane-air plants (Staff Ex. 1 at 61). In their brief, Cincinnati and Hamilton County assert

that the propane-air peaking facility decommissioning is critical to Cincinnati's and Hamilton County's future energy management and infrastructure design. Cincinnati and Hamilton County request that Condition 10 be revised to specify a more deliberate plan of action for Duke to decommission its propane-air peaking facilities and that Cincinnati, Hamilton County, and their residents be afforded increased transparency in the planning and implementation of the decommissioning process. (Cincinnati/Hamilton County Ex. 43 at 5.)

{¶ 172} As noted in the application, one of Duke's propane-air peaking plants is located in Cincinnati, Ohio (Duke Ex. 3 at 2-2). Beyond that fact, Cincinnati and Hamilton County fail to offer any explanation as to why the decommissioning of Duke's propane-air plant is critical to Cincinnati's and Hamilton County's future energy management and infrastructure design and to area residents. Further, Cincinnati and Hamilton County do not offer any explanation of what the intervenors mean by "a more deliberate plan of action for decommissioning." Nonetheless, the record evidence is clear that, depending on when the CCE is constructed and operational, Duke plans to retire the propane storage caverns after the winter of 2020-2021. The Board also recognizes that construction of the Project could be delayed for a number of reasons and that Duke's plan to retire the caverns likewise may be delayed. However, given that the East Works peaking plant is located in Cincinnati, the Board finds it reasonable to direct Duke to apprise Cincinnati and Hamilton County officials of the status of plans for the retirement of the propane-air plant. Accordingly, Duke shall, within seven calendar days of filing with the Commission any long-term forecast report that addresses the retirement of the Ohio propane-air peaking facilities, including the caverns, send notice to Cincinnati and Hamilton County, until the decommissioning of the Ohio propane-air peaking facilities is completed. The notice shall include, at a minimum, the Commission case number for Duke's long-term forecast report and summarize its proposed actions regarding the Ohio propane-air peaking facilities with references to the report. (Duke Ex. 3 at 2-2; Duke Ex. 8 at 9; Tr. I at 148, 151, 152; Staff Ex. 1 at 61.)



{¶ 173} Cincinnati and Hamilton County also propose that the conditions of any certificate issued for the CCE specify a deliberate plan of action for Duke to inspect, service, and replace Line A upgrades, as needed, and to include increased transparency as to planning and implementation for Cincinnati, Hamilton County, and residents (Duke Ex. 7 at 16; Cincinnati/Hamilton County Ex. 43 at 6).

{¶ 174} The inspection and maintenance of Line A, including upgrades, are regulated, like the remainder of Duke's system, as part of the pipeline safety regulations and are enforced by the Commission (Staff Ex. 12 at 3; Duke Ex. 7 at 13). Depending on the size of the pipeline upgrade or replacement, the project will be subject to notice requirements as specified in the Ohio Administrative Code. Accordingly, the Board finds that the issuance of the certificate for the CCE does not necessitate a more deliberate plan of action as to Line A of Duke's system. Accordingly, we deny Cincinnati's and Hamilton County's request to impose an additional condition on this Project.

{¶ 175} Similarly, Cincinnati and Hamilton County request that the Board direct Duke to confer and collaborate early and often with local governments as part of its planning process for the additional upgrades and enhancements to address the north-south balance of supply on its system (Duke Ex. 7 at 16; Cincinnati/Hamilton County Ex. 43 at 6).

{¶ 176} The Board would certainly encourage Duke to communicate with the local officials and the residents of the communities that may be affected by the installation of upgrades and enhancements to its system. The Board finds that R.C. 4906.06 and the administrative rules, in particular Ohio Adm.Code 4906-3-03, 4906-3-07, and 4906-3-09, adequately provide for notice based on the scope of a project. However, and as discussed above, ongoing system planning communication and coordination to identify and address the need for system-wide upgrades and enhancements useful in addressing regional expansion plans and potential load growth in the area are, in the Board's view, required for purposes of the public convenience and necessity. Accordingly, the Board has added a

condition to the certificate to facilitate such system-wide planning communication and coordination.

**B. *Socioeconomic Conditions***

{¶ 177} In the testimony of Staff witness Pawley, the reference to “gas transmission line” in Staff’s recommended Condition 11 was modified, such that “transmission” was removed.<sup>24</sup> Duke witness Hebbler proposed that the reference to “gas transmission line” be revised to “high-pressure distribution line.” No party opposed the revision of Condition 11, as presented by Staff. The Board finds that Condition 11 shall be clarified and adopted as otherwise presented in the Staff Report. (Staff Ex. 1 at 61; Staff Ex. 2 at 3; Tr. I at 134.)

{¶ 178} As noted above, Condition 14 addresses Duke’s consultation process with affected development, planning, or land use authorities. The condition, as recommended by Staff, specifies that Duke shall propose a process that includes procedures for sharing information about the pipeline and consulting on proposed developments within an agreed-upon consultation zone, in accordance with the recommended practices published by the Pipelines and Informed Planning Alliance (Staff Ex. 1 at 62). The Board finds that this condition should be supplemented to clarify that Duke’s process should adhere to the Pipelines and Informed Planning Alliance Report, BL05 (November 2010) at 26-29.

**C. *Ecological Conditions***

{¶ 179} As recommended by Staff, Condition 24 provides that, prior to construction, Duke shall provide a frac-out contingency plan detailing monitoring, environmental specialist presence, containment measures, cleanups, and restoration (Staff Ex. 1 at 63). The Board finds that further details should be incorporated as a part of this condition to provide clarity regarding the role and authority of the environmental specialist. Accordingly, the Board amends Condition 24 as provided below.

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<sup>24</sup> Condition 11 addresses the Phase I cultural resources survey program (Staff Ex. 1 at 61).

{¶ 180} The Board also revises proposed Condition 25, which addresses potential mussel impacts at stream crossings (Staff Ex. 1 at 63). The Board finds that, prior to any in-water work, Duke shall, if it determines that no mussel impacts would occur at stream crossings, file information to demonstrate the Company's rationale for reaching such determination.

{¶ 181} Similar to the revisions made to Condition 24, the Board finds that Condition 28, which requires Duke to have a qualified environmental specialist on site during construction activities that may affect sensitive areas, shall be modified to clarify the independent status, role, and authority of the environmental specialist to be retained by the Company. Accordingly, Condition 28 shall be supplemented as noted below.

{¶ 182} Further, Duke has identified the types of soils to be crossed along either route and committed to conduct a geotechnical investigation prior to construction of the CCE. The Board directs that, as a condition of the certificate, Duke conduct a geotechnical investigation of the area along the alternate route and file, for review by Staff and ODNR-Division of Geologic Survey, the results of the investigation, at least 30 days prior to the preconstruction conference. (Duke Ex. 3 at 8-53 to 8-56; Staff Ex. 1 at 37.) A new condition for this purpose has been included in the list of the Board's conditions below.

***D. Public Services, Facilities, and Safety Conditions***

{¶ 183} Cincinnati and Hamilton County propose that, as an example of a more property-owner friendly condition amendment, Staff's recommended Condition 30, which addresses construction activities, be revised from Staff's more liberal construction times of 7:00 a.m. to 7:00 p.m. Cincinnati and Hamilton County propose daily work times of 8:00 a.m. to 4:00 p.m. (Cincinnati/Hamilton County Ex. 43 at 5; Staff Ex. 1 at 64.) In its application, Duke proposes preferred time of day restrictions for commercial areas, industrial areas, and residential and institutional areas for the construction phase of the Project. Duke requests that, where daytime construction requires operation of earth moving and excavating equipment in residential and institutional areas, such activities be generally

permissible roughly between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday, with any weekend work to be planned to avoid interfering with the hours of any nearby houses of worship. Duke also requests the flexibility to work with the municipalities or local governmental authorities to adjust the construction hours and activities as agreed to by the Company and the local authorities. (Duke Ex. 3 at 7-6; Tr. I at 135.)

{¶ 184} Additionally, in response to Reading's concerns regarding residents along Third Street having access to their homes during construction, Duke represented that it will plate over driveways or take other actions, where necessary, to allow for ongoing access to residences during construction (Duke Reply Br. at 21).

{¶ 185} The Board notes that sensitive receptors include residences and religious institutions along the route of the Project. Some portions of the route pass through commercial areas. To facilitate the timely construction of the CCE and minimize the interruption from construction to the extent practicable, and recognizing that shorter work hours will extend the time to complete construction, the Board finds that Condition 30 shall be revised as noted below. Further, Condition 30 shall also be revised to accommodate extended construction hours and activities by agreement of the affected jurisdiction and Duke. The Board also supplements this condition to specify that Duke shall use construction techniques that will ensure that access to residences remains available throughout construction. (Duke Ex. 3 at 7-6; Tr. I at 135; Staff Ex. 1 at 64.)

{¶ 186} Staff proposed Condition 32 relates to Duke's Transportation Management Plan and Road Use Agreement (Staff Ex. 1 at 64). The Board finds that the proposed condition should be supplemented to clarify that Duke shall bear the cost of any road modifications or damage sustained to construct or repair government-maintained roads and bridges as a result of construction or maintenance activities.

{¶ 187} Cincinnati and Hamilton County point out that, in the application, Duke states that it plans to design and build the entire pipeline to design specifications and requirements for Class 4 locations; however, Staff's recommended Condition 33(b) appears

to allow construction pursuant to Class 3 or Class 4 locations. Cincinnati and Hamilton County contend that the condition should be amended to require the entire CCE to be designed and constructed pursuant to Class 4 specifications. (Duke Ex. 3 at 7-1; Duke Ex. 5 at 7-1; Cincinnati/Hamilton County Ex. 43 at 4-5; Staff Ex. 1 at 65.)

{¶ 188} The Board finds that, given Duke's commitment, as stated in its application, to design and build the CCE consistent with Class 4 location specifications, the entire Project should comply with such requirements and, therefore, Condition 33(b) should be amended accordingly (Duke Ex. 3 at 7-1; Cincinnati/Hamilton County Ex. 43 at 5; Staff Ex. 1 at 65; Tr. III at 593.)

{¶ 189} The Board also finds that Duke shall provide the fire and police departments, emergency responders, and local officials in the affected local jurisdictions contact information for at least two employees of the Company that are knowledgeable about gas pipeline safety and that can educate and assist, as needed, local officials, businesses, schools, and the community on gas pipeline safety issues, including evacuation and emergency response planning. Accordingly, a new condition has been included, as noted below, for this purpose.

#### *E. Conclusion*

{¶ 190} Consistent with the above findings, the Board finds that Duke's certificate for the construction, operation, and maintenance of the Project shall be subject to the following 41 conditions. As Duke satisfies the conditions specified below, the Company shall timely file, in this proceeding, documentation sufficient to demonstrate such compliance and Staff shall promptly file a letter setting forth its position regarding compliance with each such condition.

- (1) The facility shall be installed on the Applicant's alternate route, utilizing the equipment, construction practices, and mitigation measures as presented in the application filed on September 13, 2016,

and further clarified by the amended application, supplemental information, and replies to data requests, as well as the recommendations in the Staff Report and the conditions specified herein (Staff Ex. 1 at 60).<sup>25</sup>

- (2) The Applicant shall conduct a preconstruction conference prior to the start of any construction activities. Staff, the Applicant, and representatives of the prime contractor and/or subcontractors for the Project shall attend the preconstruction conference. The conference shall include a presentation of the measures to be taken by the Applicant and contractors to ensure timely compliance with all conditions of the certificate, and discussion of the procedures for on-site investigations by Staff during construction. Prior to the conference, the Applicant shall provide a proposed conference agenda for Staff review to ensure compliance with this condition. The Applicant may conduct separate preconstruction conferences for each stage of construction. (Staff Ex. 1 at 60.)
- (3) At least 30 days before the preconstruction conference, the Applicant shall file, for review by Staff to ensure compliance with this condition, one set of detailed engineering drawings of the final Project design, including the facility, temporary and permanent access roads, construction staging areas, and any other associated facilities and access points, so that Staff can determine that the final Project design is in compliance with the terms of the certificate. The final Project layout shall also be provided to Staff in hard copy and as geographically-referenced electronic data. The final design shall include all conditions

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<sup>25</sup> The Board's modifications to Staff's recommended conditions have been underlined, where feasible, for ease of comparison and convenience.

of the certificate and references at the locations where the Applicant and/or its contractors must adhere to a specific condition in order to comply with the certificate. (Staff Ex. 1 at 60.)

- (4) At least 30 days prior to the preconstruction conference, the Applicant shall file for Staff's review a public information program that informs affected property owners and tenants of the nature of the Project, specific contact information of Applicant personnel who are familiar with the Project, the proposed timeframe for Project construction, and a schedule for restoration activities. The Applicant shall give notification to property owners and tenants at least 30 days prior to work on the affected property. (Staff Ex. 1 at 60.)
- (5) At least 30 days prior to the preconstruction conference, the Applicant shall file a complaint resolution procedure to address potential public grievances resulting from Project construction and operation. The resolution procedure must provide that the Applicant will work to mitigate or resolve any issues with those who submit either a formal or informal complaint and that the Applicant will immediately forward all complaints to Staff. (Staff Ex. 1 at 60-61.) If the complaint cannot be resolved informally between the parties, the complainant has the option of filing a formal complaint.
- (6) The certificate shall become invalid if the Applicant has not commenced a continuous course of construction of the proposed facility within five years of the date of issuance of the certificate (Staff Ex. 1 at 61).
- (7) As the information becomes known, the Applicant shall file notice of the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation (Staff Ex. 1 at 61).

- (8) At least two weeks prior to the preconstruction conference with Staff, the Applicant shall provide a schedule of construction activities and the acquisition of the corresponding permits for each activity. Prior to the commencement of construction activities in areas that require permits or authorizations by federal or state laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall file copies of all permits and authorizations, including all supporting documentation, within seven days of issuance or concurrently upon receipt by the Applicant, whichever comes earlier. (Staff Ex. 1 at 61.)
- (9) Within 60 days after the commencement of commercial operation, the Applicant shall file a copy of the as-built specifications for the entire facility. If good cause prevents the Applicant from submitting a copy of the as-built specifications for the entire facility within 60 days after commencement of commercial operation, the Applicant may file a request for an extension of time for the filing of such as-built specifications. The Applicant shall also provide as-built drawings to Staff in both hard copy and as geographically-referenced electronic data. (Staff Ex. 1 at 61.)
- (10) After the commencement of commercial operation, the Applicant shall include, in the next long-term gas forecast filed with the Commission, the status of its plans for the retirement of the propane-air plants (Staff Ex. 1 at 61). Further, the Applicant, within seven calendar days of filing a long-term forecast report with the Commission that addresses the retirement and decommissioning of the East Works caverns and propane-air peaking plant, until the decommissioning of the propane-air facilities is completed, provide notice to Cincinnati and Hamilton County officials and adjacent property owners that includes the case



number of the long-term forecast report and a summary of the Applicant's course of action and timeline.

- (11) At least 30 days prior to construction, the Applicant shall finalize a Phase I cultural resources survey program (which may include archaeological and architectural components) for the gas line, laydown areas, and any access roads acceptable to Staff and the Ohio Historic Preservation Office (OHPO). If the resulting survey work discloses a find of cultural significance, or a site that could be eligible for inclusion on the National Register of Historic Places, then the Applicant shall prepare a mitigation or avoidance plan. Any such mitigation or avoidance effort, if needed, shall be developed in coordination with the OHPO and filed for Staff's review to ensure compliance with this condition. (Staff Ex. 1 at 61; Staff Ex. 2 at 3.)
- (12) In order to minimize construction impacts in active parks and recreational areas, the Applicant shall coordinate the timing of construction in such areas to be done during off-season or off-peak times and months as necessary to avoid prolonged field or park closures, unless an agreement is reached between the affected parties that allows construction to occur while the outdoor space is active (Staff Ex. 1 at 61-62).
- (13) Damage to lawns, grass areas/parks and recreation, and parking areas as a result of this Project will be restored by the Applicant to original conditions upon completion of construction and subsequently monitored for further remedial measures for settling, cracking, and sinking during operation of the facility. Unless otherwise directed by the property owner, concrete panels (if applicable) shall be replaced in their entirety rather than cut and patched. (Staff Ex. 1 at 62.)

- (14) After the preconstruction conference with Staff, the Applicant shall schedule and notify, at least two weeks in advance, all affected jurisdictions of a preconstruction consultation with the local authorities for development, planning, and land use for those affected jurisdictions. The notice to local authorities shall include an agenda of matters to be discussed at the consultation and provide an opportunity for local authorities to raise concerns and collaborate on construction impacts. At the Applicant's discretion, the Applicant may conduct multiple preconstruction consultations with local authorities or hold a single consultation with the local authorities for development, planning, or land use. The Applicant shall notify Staff of the date, time, and location of each consultation at least two weeks prior to the scheduled consultation and, if requested by Staff, provide conference call information for the consultation. In addition, the Applicant shall initiate a consultation process and procedures with all development, planning, or land use authorities whose jurisdictions are crossed by the pipeline for sharing information about the pipeline and consulting on proposed developments within an agreed-upon consultation zone, in accordance with the recommended practices published by the Pipelines and Informed Planning Alliance Report, BL05 (November 2010) at 26-29 (Staff Ex. 1 at 62).
- (15) To minimize potential impacts on the viewshed, the Applicant shall install and maintain green landscape screening and vegetation around regulator and valve stations. The Applicant shall coordinate with local zoning officials and adjacent property owners to develop a screening plan to be filed for review by Staff to ensure compliance with this condition. (Staff Ex. 1 at 62.)

- (16) The Applicant shall design all required security lighting to be directed downward so that it does not present a nuisance to neighboring properties (Staff Ex. 1 at 62). To the extent reasonably practicable, the Applicant should consider use of motion sensitive security lighting, provided the Applicant judges that such motion sensitive lighting will adequately address security and safety objectives, while minimizing the associated light impacts.
- (17) The Applicant shall collaborate with landowners of properties on which pipeline markers would be located to design and locate pipeline markers in a manner that is compatible with the surrounding landscape, to the extent practicable, while meeting all federal requirements. The Applicant shall inspect the markers annually and maintain them in good condition. (Staff Ex. 1 at 62.)
- (18) The Applicant shall adhere to seasonal cutting dates of October 1 through March 31 for removal of any trees greater than or equal to three inches in diameter, unless coordination efforts with ODNR and USFWS allow a different course of action (Staff Ex. 1 at 62).
- (19) At least 30 days prior to the preconstruction conference, the Applicant shall file a construction access plan for Staff's review prior to the preconstruction conference. The plan would consider the location of streams, wetlands, wooded areas, and sensitive plant species, as identified by the ODNR Division of Wildlife, and explain how impacts to all sensitive resources will be avoided or minimized during construction, operation, and maintenance. The plan shall show surface water resource crossing methods. The plan would include the measures to be used for restoring the area around all temporary access

points and a description of any long-term stabilization required along permanent access routes. (Staff Ex. 1 at 62.)

- (20) The Applicant shall contact Staff, ODNR, and USFWS within 24 hours if state or federal threatened or endangered species are encountered during construction activities. Construction activities that could adversely impact the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and the appropriate agencies. (Staff Ex. 1 at 62-63.)
- (21) At least 30 days prior to the preconstruction conference, the Applicant shall file, for Staff's review and confirmation that it complies with this condition, a Project construction plan that includes the specific locations of its laydown areas. If the specific locations chosen appear to have additional adverse impacts, the Applicant shall either propose different specific locations without such impacts or refile its application. (Staff Ex. 1 at 63.)
- (22) At least 30 days prior to the preconstruction conference, the Applicant shall file a copy of any floodplain permit required for construction of the Project or a copy of correspondence with the floodplain administrator showing that no permit is required (Staff Ex. 1 at 63).
- (23) The Applicant shall not cross streams by fording for construction access and shall instead employ timber matting or other methods that avoid or minimize stream bed disturbance (Staff Ex. 1 at 63).
- (24) At least 30 days prior to the preconstruction conference, the Applicant shall file a frac-out contingency plan detailing monitoring, containment measures, cleanup, and restoration (Staff Ex. 1 at 63) and including the presence of an environmental specialist on site. The Applicant shall

retain an independent and qualified environmental specialist, as mutually agreed by Staff and the Applicant, to be on site during HDD, including preparation and post-drilling activities. The environmental specialist shall have the authority to direct the Applicant and its contractors to revise or halt construction, on the basis that HDD construction activities do not comply with the conditions of the certificate issued by the Board, permits issued for construction of the Project and/or applicable laws or regulations. The Applicant shall inform Staff and, if required, the appropriate Board entity (ODNR, Ohio Department of Health (ODH), OEPA, or Ohio Department of Agriculture (ODA)) of instances where construction was required to be revised or halted and could not be resumed within a reasonable period at the direction of the environmental specialist. The environmental specialist shall be familiar with the laws and regulations regarding HDD in Ohio and shall be present at the preconstruction conference with Staff.

- (25) Prior to any in-water work, the Applicant shall file information indicating that no mussel impacts would occur at stream crossings and demonstrating the rationale for such determination. If this is not possible, then the appropriate surveys shall be performed in coordination with ODNR and Staff. If mussels found in the Project area cannot be avoided, a professional malacologist shall collect and relocate the mussels to suitable and similar habitat. All surveys, assessments, and relocation plans shall be completed in accordance with the Ohio Mussel Survey Protocol and filed for review by Staff and ODNR to ensure compliance with this condition. (Staff Ex. 1 at 63.)

- (26) The Applicant shall conduct no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat (Staff Ex. 1 at 63).
- (27) Construction of in-stream portions of the Project shall be conducted during base flow periods or periods slightly above normal flow to allow the Sloan's crayfish to relocate out of the area as in-water work begins. If below base flow periods have created isolated pools potentially confining the Sloan's crayfish, any pools proposed to be impacted shall be cleared of the Sloan's crayfish by an ODNR approved biologist using a sweep seine technique. Any captured Sloan's crayfish shall be relocated upstream and outside of the Project area. (Staff Ex. 1 at 63.)
- (28) The Applicant shall retain an independent and qualified environmental specialist, as mutually agreed by Staff and the Applicant. The environmental specialist shall be on site during construction activities that may affect sensitive areas, as mutually agreed upon between the Applicant and Staff, and as shown on the Applicant's final approved construction plan. Sensitive areas include, but are not limited to, areas of vegetation clearing, designated wetlands and streams, and locations of threatened or endangered species or their identified habitat. The environmental specialist shall be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during Project construction. (Staff Ex. 1 at 63.) The environmental specialist shall have the authority to direct the Applicant and its contractors to revise or halt construction, on the basis that construction activities do not comply with the conditions of the certificate issued by the Board, permits issued for construction of the Project and/or applicable laws or regulations. The Applicant shall inform Staff and, if required, the appropriate Board entity (ODNR,

ODH, OEPA, or ODA) of instances where construction was required to be halted and could not be resumed within a reasonable period at the direction of the environmental specialist.

- (29) The Applicant shall avoid damage to or interference with remedial components associated with the Pristine Superfund site. The Applicant shall locate and avoid impact to the wells, piezometers, underground piping, and any other relevant remedial components in coordination with the GHD site engineer for the Pristine site. (Staff Ex. 1 at 63-64.)
- (30) General construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m., except when construction is in residential neighborhoods and their immediate vicinity. When construction will involve noise that will increase the noise above ambient levels in or immediately adjacent to residential areas, such construction activities shall generally be limited to 8:00 a.m. to 4:00 p.m., excluding HDD, which may necessitate an extension of construction commencing before 8:00 a.m. and/or extending beyond 4:00 p.m. to complete HDD. Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. By agreement of the Applicant and any local governmental authority, extended construction hours may be implemented. The Applicant shall use construction techniques that will ensure that access to residences remains available throughout construction. The Applicant will notify property owners or affected tenants, within the meaning of Ohio Adm.Code 4906-3-09, of upcoming construction activities, including potential for nighttime construction activities. (Staff Ex. 1 at 64.)

- (31) Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authorities regarding any temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. (Staff Ex. 1 at 64.)
- (32) The Applicant shall promptly repair and bear the cost of damage to government-maintained (public) roads and bridges caused by construction or maintenance activity. Any damaged public roads and bridges shall be repaired promptly to their previous conditions by the Applicant under the guidance of the appropriate regulatory agency. Any temporary improvements shall be removed unless the County Engineer requests that they remain. The Applicant shall provide financial assurance to the counties that it will restore the public roads that it uses to their conditions prior to construction or maintenance. The Applicant shall develop a Transportation Management Plan and enter into a Road Use Agreement with the County Engineer prior to construction and subject to Staff review and confirmation that it complies with this condition. The Road Use Agreement shall contain provisions for the following: (a) a preconstruction survey of the conditions of the roads; (b) a post-construction survey of the condition of the roads; (c) an objective standard of repair that obligates the Applicant to restore the roads to the same or better condition as they were in prior to construction; and (d) a timetable for posting of the construction road and bridge bond prior to the use or transport of heavy equipment on public roads or bridges. (Staff Ex. 1 at 64.)
- (33) The Applicant shall construct the CCE in accordance with requirements for transmission lines to provide an extra margin of safety, above and



beyond the construction activities already listed in the application. These requirements include:

- (a) Design and construct the pipeline to allow for the passage of instrumented internal inspection devices as specified in 49 C.F.R. 192.150. The application mentions the installation of a launcher and recovery system for internal inspection devices but does not explicitly state the pipeline will be constructed in accordance with 49 C.F.R. 192.150.
- (b) Install the line with sectionalized block valves spaced so that each point on the pipeline will be within 2.5 miles of a valve in accordance with 49 C.F.R. 192.179(a)(1) for Class 4 locations.
- (c) Install the line with at least 12 inches of clearance from any other underground structure not associated with the pipeline in accordance with the requirements of 49 C.F.R. 192.325.
- (d) Install underground warning tape above the pipeline to caution excavators of the buried pipeline below.

(Staff Ex. 1 at 64-65.)

- (34) The Applicant shall file notice with the Commission's Gas Pipeline Safety Section at least two weeks prior to the preconstruction conference so that welding qualifications, welding procedures, and nondestructive testing procedures may be reviewed in advance (Staff Ex. 1 at 65).

- (35) The Applicant shall remove all temporary gravel and other construction staging area and access road materials after completion of construction activities, as weather permits, unless otherwise directed by the landowner. Impacted areas shall be restored to preconstruction conditions in compliance with the Ohio EPA General National Pollutant Discharge Elimination System (NPDES) permits obtained for the Project and the approved Stormwater Pollution Prevention Plan (SWPPP) created for the Project. (Staff Ex. 1 at 65.)
- (36) All construction debris and all contaminated soil shall be promptly removed and properly disposed of in accordance with Ohio EPA regulations (Staff Ex. 1 at 65).
- (37) At least seven days before the preconstruction conference with Staff, the Applicant shall file, for Staff's review, a copy of all NPDES permits, including its approved SWPPP, approved Spill Prevention, Control, and Countermeasure procedures, and its erosion and sediment control plan. The Applicant must address any soil issues through proper design and adherence to Ohio EPA best management practices related to erosion and sedimentation control. (Staff Ex. 1 at 65.)
- (38) The Applicant shall comply with fugitive dust rules by the use of water spray or other appropriate dust suppressant measures whenever necessary (Staff Ex. 1 at 65).
- (39) At least 30 days prior to the preconstruction conference with Staff, the Applicant shall file, for review by Staff and ODNR-Division of Geologic Survey, the results of the geotechnical investigation of the area along the designated alternate route.

- (40) The Applicant shall provide the fire and police departments, emergency responders, and local officials in the affected local jurisdictions contact information for at least two employees of the Applicant that are knowledgeable about gas pipeline safety and that can educate and assist, as needed, local officials, businesses, schools, and the community on gas pipeline safety issues, including evacuation and emergency response planning.
- (41) In furtherance of the public interest, convenience, and necessity, the Applicant shall develop and implement an ongoing system planning communication and coordination process to identify and address the need for system-wide upgrades and enhancements useful in addressing regional expansion plans and potential load growth in the area. This ongoing process shall include local planning officials, the Board's staff, and owners and operators of other natural gas distribution and transmission systems that are interconnected with the Applicant's system or could be so interconnected for such purposes.

## VII. CONCLUSION

{¶ 191} Based on the record in this proceeding, the Board concludes that all of the elements established in accordance with R.C. Chapter 4906 are satisfied for the construction, operation, and maintenance of the Project, along the alternate route, as described in Duke's application, as amended and supplemented, subject to the conditions set forth in this Opinion, Order, and Certificate. Accordingly, based upon all of the above, the Board hereby issues a certificate to Duke in accordance with R.C. Chapter 4906.

## VIII. FINDINGS OF FACT AND CONCLUSIONS OF LAW

{¶ 192} Duke is a person under R.C. 4906.01(A).

{¶ 193} The proposed gas pipeline is a major utility facility as that term is defined in R.C. 4906.01(B).

{¶ 194} On March 8, 2016, Duke filed a pre-application notification letter informing the Board of public informational meetings for its proposed facility.

{¶ 195} Duke held public informational meetings regarding the CCE on March 22, 2016, and March 23, 2016.

{¶ 196} On March 29, 2016, Duke filed its confirmation of notification to property owners and affected tenants of the date of the public informational meetings.

{¶ 197} On April 4, 2016, Duke filed proof of its publication of the notice regarding the public informational meetings in accordance with Ohio Adm.Code 4906-3-03.

{¶ 198} On July 5, 2016, Duke filed proof of its publication of notice regarding a third public informational meeting, which was held on June 15, 2016.

{¶ 199} On September 13, 2016, Duke filed its application for a certificate of environmental compatibility and public need to construct the CCE.

{¶ 200} On January 20, 2017, Duke amended and refiled its entire application for a certificate of environmental compatibility and public need.

{¶ 201} On February 2, 2017, Duke filed proof of its publication of notice regarding a fourth public informational meeting, which was held on January 26, 2017.

{¶ 202} Duke further amended and supplemented its application on February 13, 2017, February 24, 2017, March 3, 2017, and May 11, 2017.

{¶ 203} By letter dated March 3, 2017, the Board notified Duke that its amended application had been found to be sufficiently complete pursuant to Ohio Adm.Code Chapter 4906-1, et seq.

{¶ 204} On March 21, 2017, Duke submitted the application fee to the Board pursuant to Ohio Adm.Code 4906-3-07(A).

{¶ 205} On March 30, 2017, Duke filed its proof of compliance with the requirements for service of its accepted and complete application, consistent with Ohio Adm.Code 4906-3-07(A).

{¶ 206} On April 13, 2017, the ALJ issued an Entry establishing the effective date of the application as April 13, 2017, and adopting a procedural schedule for this case, including dates for a local public hearing and adjudicatory hearing.

{¶ 207} On May 5, 2017, and May 18, 2017, Duke filed proof of service and initial publication regarding the date, time, and location of the public hearing and adjudicatory hearing, including proof of notice of the public hearing and adjudicatory hearing to affected property owners and elected officials, in substantial compliance with Ohio Adm.Code 4906-3-09(A)(1).

{¶ 208} The Staff Report of Investigation was filed on May 31, 2017.

{¶ 209} On June 9, 2017, Duke filed proof of service and second publication regarding the date, time, and location of the public hearing and adjudicatory hearing, including proof of notice of the public hearing and adjudicatory hearing to affected property owners and elected officials, in substantial compliance with Ohio Adm.Code 4906-3-09(A)(2).

{¶ 210} By Entry dated June 15, 2017, Coprop, RLB, Kenwood Mall, 10149, BRE DDR, IGS, The Jewish Hospital, Columbia, Deer Park, Reading, Golf Manor, Hamilton County, Amberley, Sycamore, Blue Ash, Evendale, Cincinnati, PRCC, Madeira, and NOPE were granted intervention. Subsequently, Coprop, RLB, 10149, and PRCC withdrew as parties to this case.

{¶ 211} The local public hearing was held on June 15, 2017.

{¶ 212} On August 23, 2017, Duke filed a motion to suspend the procedural schedule, which was granted by Entry dated August 24, 2017.

{¶ 213} On April 13, 2018, Duke filed supplemental information to its application, along with a motion seeking to reestablish the procedural schedule.

{¶ 214} On July 26, 2018, Duke further supplemented its application.

{¶ 215} By Entry dated December 18, 2018, the procedural schedule was reestablished, including dates for a second local public hearing and the adjudicatory hearing. In the Entry, Duke was also directed to issue public notice of the hearings and the recent amendment to the application.

{¶ 216} Staff filed an Amended Staff Report of Investigation on March 5, 2019.

{¶ 217} Duke filed proof of publication of public notice of the hearings and the amendment to the application on March 19, 2019.

{¶ 218} The second local public hearing was held on March 21, 2019.

{¶ 219} Duke filed its direct testimony on March 26, 2019. Staff and intervenor testimony was filed on April 2, 2019.

{¶ 220} The adjudicatory hearing commenced on April 9, 2019, and concluded on April 11, 2019.

{¶ 221} Initial briefs were filed by Duke, Staff, Reading, Sycamore, Blue Ash/Columbia, Cincinnati/Hamilton County, The Jewish Hospital, NOPE, Madeira, and BRE DDR/Kenwood Mall on May 13, 2019, and May 14, 2019. Reply briefs were filed by Duke, Staff, Reading, Sycamore, Blue Ash/Columbia, Cincinnati/Hamilton County, and NOPE on June 10, 2019.

{¶ 222} Adequate data on the proposed gas pipeline has been provided to make the applicable determinations required by R.C. 4906.10(A). The record evidence in this matter provides sufficient factual data to enable the Board to make an informed decision.

{¶ 223} The record establishes the need for the Project, consistent with R.C. 4906.10(A)(1).

{¶ 224} The record establishes the nature of the probable environmental impact from construction, operation, and maintenance of the CCE, consistent with R.C. 4906.10(A)(2).

{¶ 225} The record establishes that the Project, subject to the conditions set forth in this Opinion, Order, and Certificate, represents the minimum adverse environmental impact, considering the available technology and nature and economics of the various alternatives, and other pertinent considerations, consistent with R.C. 4906.10(A)(3).

{¶ 226} The record establishes that the CCE is not an electric transmission line or generating facility and that R.C. 4906.10(A)(4) is, therefore, inapplicable.

{¶ 227} The record establishes that the Project, subject to the conditions set forth in this Opinion, Order, and Certificate, will comply with R.C. Chapters 3704, 3734, and 6111; R.C. 1501.33, 1501.34, and 4561.32; and all rules and regulations thereunder, to the extent applicable, consistent with R.C. 4906.10(A)(5).

{¶ 228} The record establishes that the CCE, subject to the conditions set forth in this Opinion, Order, and Certificate, will serve the public interest, convenience, and necessity, consistent with R.C. 4906.10(A)(6).

{¶ 229} The record establishes that, because the Project will not cross any agricultural land or agricultural district parcels, R.C. 4906.10(A)(7) is not applicable.

{¶ 230} The record establishes that, because the use of water for operation of the CCE is not required, R.C. 4906.10(A)(8) is inapplicable.

{¶ 231} The evidence supports a finding that all of the criteria in R.C. 4906.10(A) are satisfied for the construction, operation, and maintenance of the Project as proposed by Duke, subject to the conditions set forth in this Opinion, Order, and Certificate.

{¶ 232} Based on the record, the Board should issue a certificate of environmental compatibility and public need, pursuant to R.C. Chapter 4906, for the construction, operation, and maintenance of the Project, along the alternate route, subject to the conditions set forth in this Opinion, Order, and Certificate.

#### IX. ORDER


{¶ 233} It is, therefore,


{¶ 234} ORDERED, That a certificate be issued to Duke for the construction, operation, and maintenance of the Project, along the alternate route, subject to the conditions set forth in this Opinion, Order, and Certificate. It is, further,





{¶ 235} ORDERED, That a copy of this Opinion, Order, and Certificate be served upon all parties and interested persons of record


## THE OHIO POWER SITING BOARD

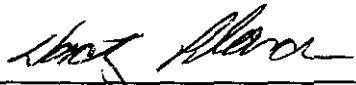
  
Sam Randazzo, Chairman  
Public Utilities Commission of Ohio

 for  
Lydia Mihalik, Board Member  
and Director of the Ohio  
Development Services Agency

 for  
Mary Mertz, Board Member  
and Director of the Ohio  
Department of Natural Resources

 for  
Amy Acton, M.D., MPH, Board  
Member and Director of the Ohio  
Department of Health

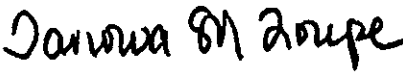
 for  
Laurie Stevenson, Board Member  
and Director of the Ohio  
Environmental Protection Agency

  
Dorothy Pelanda, Board Member  
and Director of the Ohio  
Department of Agriculture

  
Greg Murphy, Board Member  
and Public Member

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