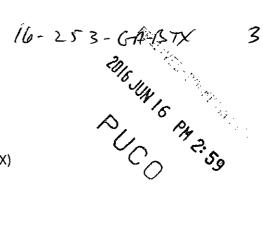
From: Raphael Warren [mailto:rwarrencouncil@gmail.com]

Sent: Wednesday, June 15, 2016 10:22 AM

To: Puco ContactOPSB <contactopsb@puco.ohio.gov>

Subject: Opposition to Duke Proposed Pipeline (Case 16-0253-GA-BTX)



Why I am opposed to the proposed Pipeline

1. Need: Duke has not established a need for this pipeline. Using euphemisms such as reliability is not adequate. Duke must provide data. An estimate of the gas generation from the proposed pipeline is 5.3-6.3 million cubic feet per hour (cfh;

http://www.engineeringtoolbox.com/natural-gas-pipe-calculator-d 1042.html). The inputs into this equation were (a) diameter pipe: 30in, (b) pressure drop: the water column height is 27.7 Aq per psi. For a pressure change from 500psi (transmission line) to 200psi (typical distribution station step-down) the water column change is 8310. For a pressure change from 620psi to 200psi, the water column change is 11634. These pipe pressures were obtained from Duke, in a previous email. (c) pipe length (feet): at 14 miles = 73920 feet. (d) specific gravity for natural gas: 0.6 (this is typical, can be as high as 1.0). The actual cfh amount could be higher if the step-down pressure at the terminus is less than 200psi. This amount of gas is enough to provide a population of 2 million.

Duke has refused to provide information on the 3 transmission gas lines currently serving Hamilton County that would enable a baseline estimate of gas generation as well as their original application for construction. Requests were made a week ago and Duke's representative Warren Walker, claims this information is not readily available! This is likely a reflection of poor record keeping and/or quality assurance. Duke has not provided the data for constructing gas generation as I calculated above for the new line. At the time these three lines were installed (my estimate is late 1960s-early 1970s, Duke has refused to provide the application that was submitted for these lines), the population of Hamilton County had peaked. I assume that Duke (or its predecessor, CG&E) estimated continued population growth when the installations of the original lines were being proposed. Indeed, the opposite was true! From 1970 to 2010, Hamilton County experienced a population decline from 924,000 to 802,000 and only now appears to have stabilized!

If the County needs additional gas, Duke could easily replace/upgrade its existing lines, a practice that is more typical of energy companies versus installation of new lines in urban areas. <u>Duke needs to demonstrate does not represent redundancy to the 3 lines that already exist.</u>

Our entire Ohio/Kentucky system footprint is roughly 60% urban and 40% rural. Rural placement of transmission gas lines has always been the preferred arrangement by the petroleum industry. This naturally relates to risk management. This means there are High Consequence Areas and Low or lesser Consequence Areas. We've been informed that Duke considered 1000 route options, according to Senator Seitz, 100 routes were considered. We've been told that Duke developed an algorithm for determining the best routes. What were the alternative routes? Duke has refused to provide the algorithm used for its route preferences.

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Date Processed 6/16/16

- **2. Jurisdictional Standing:** Since this pipeline is an extension of the interstate Texas Gas transmission (originating in the southern states) and the Tallgrass Energy transmission (originating in the western states) lines, does PUCO have the legal oversight and approval for this transmission line?
- 3. Safety: Other than euphemisms of meeting safety standards (Ohio follows Federal standards), Duke has not provided any additional details. This is quite important as safety standards are evolving in light of the pipeline disaster at San Bruno, CA. (a) For example, the American Petroleum Institute issued its <u>Pipeline Safety Practices (RP1173)</u> last year that includes state of the art quality control practices and standard operating procedures for the industry. Pacific Gas & Electric, the utility associated with the San Bruno disaster, has embraced these new standards. Will Duke? As noted above, the failure of Duke to provide information on its current three transmission lines that serve Hamilton County is a reflection of poor quality assurance. Having worked at a large consumer products company (P&G) these types of information would be readily available, reflecting QA systems in place.
- (b) Duke has not provided an emergency action plan in the event of an accident. This includes coordination with first responders, public facilities (i.e., schools, hospitals, and churches). The harm from any accident in an urban is directly related to several factors including establishing an emergency action. Duke has not agreed to pay for this, which becomes a financial burden for the communities effected.
- (c) Automatic or Remote Shutoff Valves: While not currently Federally mandated, best practices for High Consequence Areas, would dictate the placement of auto shut-off / remote controlled valves at regular intervals along the proposed route (for the proposed area, every 2 miles). The utility of these devices is that they represent the best monitoring device for pipeline compromise and reduce the impact of pipeline failure (manual shut-off valves can take 90 minutes to turn off, a devastating time period in an urban environment). Federal law currently mandates infrequent (≤ one time a year) inspection of pipelines. Indeed, in the wake of the San Bruno disaster Pacific Gas & Electric has installed about 230 auto shut-off and remote valves. Duke has not agreed to this installation citing cost, additional easement area requirement, and potential false positive shut down of the pipeline. The GAO has cited the utility of these devices in preventing disasters. Unlike distribution or service gas lines, transmission lines are not spiked with mercaptans. Mercaptans have the rotten egg odor used to indicate a potential leakage. Natural gas emanating from a transmission line has no odor enabling residents to detect any leak.
- (d) Installation and placement of pipeline in or near Amberley Village could be disastrous. Ridge Rd (one optional route) is the umbilical lifeline of the Village. The police and fire are located along the route and one f the three 911 transmission towers is located in close proximity to Ridge Rd. Ridge Rd enables our first responders (police/fire/ambulance) to respond to any emergency. During the pipeline construction these services will be compromised. If services need to be repurposed/relocated, will Duke pay for this? In the event of an accident that disables Ridge Rd, attending the needs of casualties will be compromised including

transportation to interstates (Ronald Reagan Hwy is the primary connector to these routes). Similar concerns exist for another route that falls near Reading Rd.

- (e) Who will be financially responsible in the event of an accident?
- 3. Environment: Specific to Ridge Rd proposal, the gas line poses an impediment to the environment and development along Ridge Rd. (a) The easements required for this transmission line will require the elimination of old growth trees along Ridge Rd, in Amberley Village. This is in addition to the elimination of trees associated with the Emerald Ash borer. A principal attractive feature of Amberley Village is being a Tree City member. The easement will restrict landscaping creating an ugly landscape. (b) Amberley Village has significant stormwater handling issues (AV is in the Millcreek water basin). Removal of trees and related natural water control systems will add stress to our ecosystem and compromise stormwater handling. (c) Amberley Village is actively considering the development of Amberley Green a 120 acre parcel of land that borders Ridge and Galbraith Roads, and one of the few open prime properties remaining in the County. Placement of a transmission line along this property coupled with environmental easements (removal of trees along Ridge) will compromise our ability develop this property. With development will come risk of a construction related accident. (d) The commercial development of a 2nd parcel of land along Ridge Rd (at 3100 Longmeadow Lane) will similarly be restricted and create a potential safety hazard as described above. (e) Ridge Rd is now among the most congested roadways particularly south of the Ronald Reagan Hwy (recent traffic study shows it is a 'failed road'). Placement of the transmission line in this area will severely restrict any corrective action in this transportation corridor. (f) The City of Blue Ash recently developed Summit Park, a multiuse facility over the former Blue Ash airport site. How will Duke compensate this region after its negative environmental impact?
- **4. Information:** What weren't elected officials in the various municipalities affected by the pipeline not informed of Duke's proposals? Why weren't school officials, parents of children in these schools, first responders, business owners informed of Duke's proposals?

Regards, Ray Warren Amberley Village Councilman 6715 West Farm Acres Dr Amberley Village, OH 45237 513-731-8818

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