Before the
North Carolina Utilities Commission

Docket No. G-9, Sub 781

General Rate Case

Rebuttal Testimony
of
Adam Long

On Behalf Of
Piedmont Natural Gas Company, Inc.

Piedmont Natural Gas

August 25, 2021

Q. Please state your name and business address.

A. My name is Adam Long and my business address is 4720 Piedmont Row Drive Charlotte, North Carolina.

Q. By whom and in what capacity are you employed?

A. I am employed by Piedmont Natural Gas Company, Inc. ("Piedmont" or the "Company"), as Vice President – Gas Pipeline Operations.

Q. Have you previously testified in this proceeding?

A. No, I have not.

Q. Please describe your educational and professional background.

A. I have a BS in Mechanical Engineering from North Carolina State University, 1996. I have more than 20 years of pipeline facility and LNG experience.

Q. What is the purpose of your rebuttal testimony?

A. My rebuttal testimony addresses several matters raised in the direct testimony of Public Staff witness Dustin R. Metz.

Q. Which issues identified in Public Staff witness Metz's testimony are you addressing?

A. In my rebuttal testimony, I respond to witness Metz's recommendations that:

(1) All of the Robeson LNG plant and related transmission lines 456 and 457 costs should be removed from Rate Base;

(2) The Commission should order that a study of Piedmont's allocation methodology for North Carolina transmission plant be conducted prior to the earlier of the Company's next general rate case or its 2023 annual prudence review proceeding; and

(3) The Commission should order that a study of an updated regression analysis "to determine a more accurate breakdown of system usage among customer classes and the North Carolina and South Carolina jurisdictions."

Q. Are any other rebuttal witnesses addressing Mr. Metz's proposals?

A. Yes, Ms. Kally Couzens will address Mr. Metz's original proposal to change demand cost allocation factors which, as I understand it, has been superseded in supplemental testimony by Mr. Metz.

Inclusion of the Robeson LNG Plant Costs in Rate Base

Q. Do you agree with witness Metz's proposal to exclude all Robeson LNG related capital costs (including lines 456 and 457) from rate base in this proceeding?

A. No, I do not. One of the major drivers for this rate case was the roll-in of Robeson LNG plant costs into our rates so as to mitigate the impact of regulatory lag associated with this large investment by the Company and incorporate the facility into our rate base and rates.

Q. What is your position on Mr. Metz's conclusion that the plant is not presently in-service and has not been closed to plant from an accounting perspective and, therefore, does not qualify for treatment as rate base at this time?

A. I actually agree with Mr. Metz on this point but his conclusions in this regard do not tell the whole story.

Q. Please explain.

A. Construction of the Robeson Plant and associated facilities, including lines 456 and 457 (which connect the plant to our transmission system), has been ongoing for some time now. Substantial construction on the plant is complete and the facility has been under the operational control of Piedmont for several weeks. Our employees are currently completing the commissioning process for the plant, upon which the plant will be fully functional and capable of performing all functions integral to the operation of an LNG plant, to include liquification of natural gas, storage of that gas in the LNG tank for an indefinite period, revaporization of that gas, and redelivery of revaporized gas to our transmission system.

Q. When do you expect that state of events to be achieved?

A. We are on track for the completion of commissioning to occur on or before August 31, 2021 or 6 days from the date of this testimony. At that time, we will ask our accountants to close the LNG project to plant and the facility will be available to serve our system needs.

Q. Will the plant be completely done with all construction related activity at that time?

A. Actual construction related activity will be complete at that time but our contract with the General Contractor for this project also anticipates that testing of various systems and components of the plant will continue for several months after commissioning has concluded.

Q. Does this testing impact the availability of the plant for use to serve customers?

A. No. The testing is designed to confirm the operational parameters of the plant facilities to determine if they correspond to design parameters and to provide baseline plant performance metrics which will help us manage the operations of the plant in an efficient manner going forward. They will not preclude operation of the plant during the period they are being conducted and, in fact, the plant will be operating (primarily liquifying gas) during this period.

Q. Do you expect that the plant will engage in the large scale revaporization of gas in the next several months?

A. No. The Robeson plant is a peaking asset and it is intended to primarily be used to inject gas into our transmission system for a 5-day period in peak or near peak winter conditions. Those type of conditions will not occur in the next few months so based upon the seasonal aspects of a LNG peaking plant, there is no anticipated need to revaporize significant

quantities of LNG during warm to hot weather. Further, it does not make operational sense to inject significant quantities of natural gas into our system during the summer when such additional supplies are not needed. Instead, we will focus on completing the task of filling the tank during the next few months (it is currently approximately 15% full) in order to be ready to redeliver its full capacity when it may be needed this winter. Having said that, if Piedmont needs to revaporize gas for reasons other than cold weather in the next few months, the Robeson plant will have the capability to do that and to support system operations in that regard.

Q. Do you plan to update testimony filed with the Commission to confirm the achievement of this state of events?

A. Yes, we will update our testimony to confirm achievement of the completion of commissioning, closure of project costs to plant, and the availability of the facility for service to customers to ensure the record is clear that as of the time of hearing the facilities are eligible for rate base treatment.

Study of Transmission Line Allocation Factors

Q. What is your position on witness Metz's suggestion that the Commission order a study of the way in which transmission assets are allocated between jurisdictions?

A. As I explain briefly below, we believe that our existing methodology for allocating transmission plant is appropriate but, as a rule, Piedmont is not

opposed to the concept of studying how it allocates transmission facilities costs as suggested by Mr. Metz.

Q. What is your reaction to Mr. Metz's rationale as to why a transmission study should be conducted?

A. My sense is that Mr. Metz may be importing concepts of cost allocation from the electric side which are generally not used on the natural gas side of utility operations due to inherent differences in how those respective systems are designed and operate. For example, his testimony does not demonstrate a recognition that when we design our system and system expansions, all of our efforts are driven by the need to provide safe and reliable service to our firm heat-sensitive human needs customers in the most adverse weather conditions that can be reasonably anticipated without interruption or curtailment. We believe that we have a legal and moral obligation to achieve this goal and all of our actions in designing the construction and operations of our system are directed towards the achievement of this goal.

Q. Are electric utilities the same?

A. I don't believe that they are. While I am confident that electric utilities strive to provide reliable service, outages on electric distribution systems are common and pose no particular threat, in and of themselves, to the safety or future continuity of service to customers upon restoration of service. The same is not true of natural gas companies.

Q. Please explain.

A. If we have a system outage in the provision of natural gas, it sets up a very complicated, time consuming, and potentially dangerous set of circumstances that must be negotiated before service can be restored. Specifically, every single piece of gas-burning equipment operated by customers in the impacted area of the outage must be checked by a Piedmont employee to ensure they are ready to safely resume the receipt of gas upon restoration of service. Once that has been accomplished, and gas is again flowing on Piedmont's system, Piedmont must then revisit each and every customer to ensure that their equipment is reactivated and working properly. For a significant outage, this process can easily take weeks or even months to perform and is why Piedmont strives to never have an outage. Because of these facts, we place an enormous emphasis on anticipating possible demand from our customers in the worst weather conditions we can reasonably anticipate and we construct our system to serve that demand.

Q. What are your concerns with Mr. Metz's proposal to study transmission cost allocation?

A. I am in disagreement with several aspects of Mr. Metz's testimony including (1) his contention that demand costs should be allocated on the basis of some form of analysis of historic system usage rather than design day requirements, (2) his contention that our transmission system is

designed to serve our LNG plants and therefore should be subject to allocated between North Carolina and South Carolina in the same manner that our LNG plants are allocated, and (3) his apparent conclusion that we operate our North Carolina and South Carolina systems as a unified whole which justifies allocating some portion of the North Carolina transmission system to South Carolina.

Q. Why do you disagree with the notion that system costs should not be allocated on the bases of historical usage?

A. Well, I don't disagree with it on absolute basis. For example, my understanding is that we do allocate and recover gas supply commodity costs and volumetric-based upstream gas costs across Piedmont's customers in North Carolina and South Carolina on the basis of customer usage and recover them through the purchased gas cost adjustment procedures and rates established by this Commission and by the Public Service Commission of South Carolina. My problem with using actual historic usage as an allocator for fixed costs though is, as is discussed above, the cause of incurring fixed costs is the fact that we construct our system to meet the demand of our firm customers on the coldest day reasonably foreseeable. Accordingly, we believe the costs should be recovered on that basis (i.e. fixed) rather than on the basis of some historical usage.

Q. What is your position on Mr. Metz's contention that Piedmont's "transmission system must logically be considered an integral extension of the LNG facilities."?

A. I disagree. I believe that Mr. Metz has it backwards. We built our LNG plants to support our transmission system (which pre-existed the construction of all of our LNG plants) not the other way around. Further, the existence of our LNG plants had zero effect on the size and location of our transmission assets[1] and those assets are operated completely independently from the LNG plants. Further, these assets are indifferent as to whether the gas moving through them originates from flowing gas on an interstate pipeline or from one of our LNG plants. Finally, our transmission assets in North Carolina are designed to meet the needs of our firm North Carolina customers on a design day and no part of their design is influenced by the fact they may be moving some gas that originated from one of our LNG plants. This is consistent with the fact that, from an operational perspective, LNG's primary function is to serve as a source of supplemental supply when demand is high.

Q. In support of his Transmission allocation study proposal, Mr. Metz asserts that Piedmont's LNG plants utilize its transmission system almost 100% of the days in the year and that the hydraulic benefits of

[1] Several of our plants do have short dedicated transmission lines to connect them to our transmission system which is an exception to the statement above.

LNG supply are also provided year-round. How do you respond to that?

A. I think Mr. Metz is overstating our LNG plants' actual usage of our transmission system. His conclusions rely on the inclusion of boil-off gas into his calculations and boil-off gas simply doesn't represent any kind of "use" of Piedmont's LNG facilities. Boil-off gas is an unavoidable byproduct of the storage of LNG in a tank where the ambient air temperature outside the tank is significantly higher than temperatures within the tank. It is the product of a small amount of LNG voluntarily revaporizing on its own. The daily amounts of gas that result from this process are fairly small. As a byproduct of the LNG storage process, Piedmont has to either vent this gas to the atmosphere, recapture and liquify it, or inject it into its transmission system. Piedmont utilizes the third option as it is the simplest and the most environmentally sensible solution. Excluding boil-off gas, Piedmont uses its LNG facilities to inject natural gas into the transmission system 3 to 10 days a year, depending on weather conditions, or withdraw gas into its LNG plants approximately 40 to 100 days per year.

Q. In support of his transmission allocation study suggestion, Mr. Metz states that Piedmont does not plan for future capacity and storage resources to meet North Carolina and South Carolina demand on a separate basis. Do you agree with this contention?

A. No. While that statement is true with respect to upstream capacity and storage, it is not true with respect to on-system transmission. Piedmont plans for, designs, and constructs transmission capacity for its North Carolina and South Carolina systems on a separate and independent basis.

Q. Beginning on page 15, line 10 of Mr. Metz's direct testimony he implies that Piedmont's North Carolina transmission system supports peak day deliveries in both North Carolina and South Carolina. Do you agree?

A. I do not. The North Carolina transmission system supports deliveries solely to North Carolina customers. The fact that the supplemental on-system supplies provided by Piedmont's North Carolina LNG plants allow us flexibility in regard to the scheduling of deliveries off of Transco in a way that benefits South Carolina is not facilitated by our North Carolina transmission system in any way.

Q. What is your reaction to Mr. Metz's suggestion that Piedmont's North Carolina transmission system should be allocated between North Carolina and South Carolina?

A. I believe that suggestion is contrary to how those assets were designed and operate. As I mention above, our transmission system in North Carolina is designed to serve the design day needs of our firm customers in North Carolina. Our North Carolina transmission system is not designed to deliver gas to customers in South Carolina and is, in fact, incapable of

delivering gas outside of our North Carolina service territory as a result of the fact that Piedmont's systems in North Carolina and South Carolina (and Tennessee) are not contiguous or connected and are each wholly contained within the borders of their respective states.

Q. How does Piedmont currently allocate the costs of its transmission systems in the states in which it operates?

A. Because none of our three transmission systems are connected and because they each serve a single state and do not contribute to service provided in other states, we directly assign the costs of each of those systems to the states in which they operate.

Q. Given that your LNG plants are all in North Carolina, do you allocate their costs to just North Carolina?

A. No. Because they are a source of supply for our North Carolina system they supplement our ability to bring gas into the State from interstate pipelines like Transco. One of the incidental benefits of having LNG plants connected to our North Carolina transmission system is that it provides some flexibility in regard to scheduling deliveries off of Transco in South Carolina because gas flowing toward North Carolina can be diverted to a delivery point in South Carolina. This occurs when we are able to increase deliveries off of Transco in South Carolina because we are injecting vaporized LNG into our North Carolina system (thereby reducing our need for flowing Transco gas in North Carolina). This

combination of supply assets allows us to utilize our North Carolina LNG plants in conjunction with our Transco delivery rights to benefit both States. This benefit is recognized by allocating a portion of the LNG plant costs to South Carolina. We make this allocation on the basis of the relative design day obligations between the two states (because our need for upstream capacity and peaking capacity is based upon projected design day demand in each state) and we believe that this is the proper approach for the reasons discussed above.

Q. So, Piedmont allocates supply and interstate transportation costs across the two states based upon design day analyses but retains the cost separation of the respective intrastate transmission systems?

A. Yes, that is correct and as I previously explained, the LNG facilities are considered supply assets, which allow us to leverage our scheduled deliveries from our interstate transport providers.

Q. Have the allocation methodologies you describe been approved by the North Carolina Utilities Commission?

A. I am not a regulatory expert but my understanding is that the Company's allocation methodologies as presented in this proceeding have been consistently utilized for decades and approved on numerous occasions throughout that period by both the North Carolina Utilities Commission and the Public Service Commission of South Carolina.

Q. Could you summarize your testimony on Mr. Metz's recommendation that the Commission initiate a study on the allocation of Piedmont's transmission costs?

A. Yes. I disagree with a number of the premises upon which Mr. Metz's study recommendation is based. Having said that, if the Commission reaches the conclusion that such a study is necessary, Piedmont will support and participate in that process.

Study of Updated Regression Analysis

Q. What is your reaction to Mr. Metz's proposal to conduct a study of Piedmont's regression analysis to determine a more accurate breakdown of system usage?

A. As was the case with his proposal to study transmission cost allocation, he has not provided a compelling case for the need for such study, particularly in light of the fact that Piedmont's existing practice has been in place for many years and has formed the basis for the calculation of rates (and allocation of costs) in both North Carolina and South Carolina for decades. As was the case with his previous suggestion for a study though, if the Commission determines that such a study is needed, Piedmont will participate fully in that process.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.