

Marcellus Hearing Talking Points

Slide 1

Good morning Mr. Chairman and Members of the Committee. My name is Stan Chapman and I am Vice President of Marketing, Development, and Asset Optimization for Tennessee Gas Pipeline, a wholly owned subsidiary of El Paso Corp. Thank you for the opportunity to share with you our thoughts regarding the developing energy sector in the state of Pennsylvania.

Slide 2

El Paso Corp, for those not familiar with it, is an integrated energy company whose mission statement is to, “provide natural gas and related energy products in a safe, efficient, and dependable manner.” To accomplish this, El Paso is comprised of 3 business units: El Paso Production Company, El Paso Midstream Group, and the El Paso Pipeline Group. El Paso Production is a top 10 independent producer which is well situated in key US production basins as well is in offshore Brazil and onshore Egypt. For purposes of this testimony I should note that El Paso Production currently does not have any drilling operations or acreage in the Marcellus Shale. El Paso Midstream Group was recently created to capture midstream opportunities that fit the company’s pipeline and production profile, including addressing processing issues related to Marcellus gas in southwest Pennsylvania. The El Paso Pipeline Group operates the largest natural gas pipeline network in the United States. It is comprised of 5 distinct pipelines which access major markets across the US: El Paso Natural Gas, Colorado Interstate Gas, and Wyoming Interstate in the western US; Southern Natural Gas in the southeast; and Tennessee Gas Pipeline Company in the Northeast. For the balance of my testimony today I will be speaking on behalf of Tennessee Gas Pipeline Company and its current undertakings in Pennsylvania and the Marcellus Shale.

Slide 3

I’d like to start by giving you some detailed information about Tennessee Gas Pipeline. Originally built in the 1940’s to serve a plant during World War II, Tennessee has been safely and reliably delivering natural gas to its customers for nearly 70 years. Its pipeline system spans from Texas to New England and, in contrast to a typical gathering system, is comprised of over 13,700 miles of pipe, generally between 24” to 36” in diameter, along with over 1.4 million horsepower of compression which typically runs at pressures of up to 1150 psig. Its design capacity of over 7 billion cubic feet per day is enough to supply natural gas to over 35 million households. As a common carrier (or open access provider), Tennessee does not drill for or produce natural gas, nor does enter into purchases or sales of natural gas as its main course of business. Instead it transports natural gas for third parties, typically Local Distribution Companies, Marketers, or End Users, who pay a fee in order to reserve space in our pipeline. Tennessee is primarily regulated by the Federal Energy Regulatory Commission (“FERC”), but also answers to or works closely with other agencies such as the Department of Transportation and its Office of Pipeline Safety, the Environmental Protection Agency, and various state and local agencies across its pipeline network. Within the state of Pennsylvania, Tennessee currently operates what we refer to as our “300 Line” which consists of approximately 750 miles of mostly 24” pipe and 8

compressor stations which generate a total capacity of approximately 700,000 dth/d. It has 42 active delivery meters, 33 active receipt meters, and serves 8 Local Distribution Companies.

Slide 4

Prior to getting into details about the Marcellus Shale, I'd like to take a minute to talk about a few macro trends within the natural gas industry which will help to put the balance of this presentation in perspective. On the supply side, production of gas from the traditional supply source, the Gulf of Mexico is continuing to decline. High exploration and production costs associated particularly with deepwater drilling have caused growth in new production to lag behind the decline in existing production. In short, new reserve and production additions are not keeping up with the pace of on-going production declines. Between 2008 and 2018, El Paso estimates that Gulf of Mexico supply will decline by 24% and it will fall from 10% of total US / Canadian supply to 7%. In Canada, from where the US typically imports significant quantities of natural gas, production is projected to fall by 7% over the same forecast period. Recent technological improvements in horizontal and multi-lateral drilling have allowed for increased domestic natural gas reserves to be produced which will offset the declines expected in the Gulf of Mexico and Canada. More specifically, growth associated with shale supplies in the Arkansas, Texas, and Louisiana areas are expected to grow 168% during the forecast period such that region will account for 22% of total US / Canadian supplies by 2018. Growth in the Appalachian region, including the Marcellus Shale, is expected to increase over 350% and its share of total US / Canadian supply will increase from 3% to 8% by the end of our forecast period. Absent the technological improvements and increased drilling activity, it is likely that increased imports of potentially more costly foreign LNG would be required to balance out demand.

On the demand side of the equation, most of the growth in the US is on the Atlantic coast. During the 2008 thru 2018 forecast period, overall US demand is expected to grow at a rate of approximately 1.4%. Regionally, growth in the southeast is expected to increase by 3.9% over the forecast period driven mainly by demographics and an increase in natural gas fired power generation. The northeast is expected to grow at a slower pace of around 1%, also driven by power generation. The balance of the US is expected to grow at around .6%, which is comprised of negative growth in California and other western states due to conservation and a greater reliance on renewable resources, offset by positive growth in the mid-west and other parts of the US. Canada is expected to see growth of over 2% driven by increased demand associated with drilling for oil (where natural gas is often used to generate steam which in turn "lifts" heavy oil to the surface) and conversions of coal-fired power generation to natural gas. By looking at the respective maps, one can see that the potential clearly exists for new supplies in the Haynesville area to feed growing demand in the southeast, while growing Marcellus supplies will likely fill demand in the northeast and possibly mid-west.

Slide 5

Let's look in more detail and discuss the potential growth of Marcellus volumes. Absent new restrictions on drilling, various consultants have reported that growth out of the Marcellus region is expected to be between 2 - 3 billion cubic feet per day by 2014, but it's quite possible that it could be over 5 bcf/d.

Furthermore, by the year 2017 Marcellus production could be as high as 7 bcf/d. This forecasted increase in production has led to an increase of infra-structure in the area, particularly with respect to producer requests for new interconnects into Tennessee's 300 Line system in northern Pennsylvania. Over the past year or so, Tennessee alone has received 40 requests for new interconnects with a combined capacity of nearly 5 bcf/d. Fifteen of those requests have been placed in service with a capacity of 1.2 bcf/d. Currently, Tennessee is consistently receiving about 550,000 dth/d of Marcellus Shale production into its 300 line, which is up from about 250,000 dth/d at the start of the year.

Slide 6

New infra-structure will likely be needed in order for this production to get to market as existing forward-haul pipeline capacity is fully contracted both on Tennessee and on other pipelines in the area. Furthermore, this pipeline capacity is typically constrained (i.,e., full) during peak winter periods. For example, Tennessee's 300 Line in northern Pennsylvania currently consists primarily of a single 24" line with a capacity of 700,000 dth/d which typically runs full during the winter season, even prior to the increased Marcellus production. It is quite possible that in the not too distant future Marcellus production will increase to the point where Tennessee will not have sufficient pipeline capacity to handle the increased production even during traditional off-peak summer periods. Perhaps the only point of non-constraint is backhaul transportation, or transportation which is flow counter to the traditional south to north flow on the Tennessee system. In that regard, Tennessee has recently sold significant quantities of backhaul transportation to producers which will allow them to move Marcellus gas to points west and south to markets in and between Pennsylvania and Louisiana.

Slide 7

In order to address the need for new pipeline capacity, numerous new pipeline projects have recently been proposed. In the aggregate, over 8 bcf/d of new projects have recently been announced, including 1.7 Bcf/d of new project across northern Pennsylvania and 2.2 bcf/d of new projects across southern Pennsylvania. Some of these projects will compete against one another meaning that clearly not all will be built. However certain projects such as Tennessee's in northern Pennsylvania are fully contracted with binding precedent agreements and are in various stages of the FERC approval process.

Slide 8

With respect to Tennessee's expansions, earlier this year we announced 2 new expansion projects which combined represent a total capital investment of approximately \$1 billion and which will create approximately 1 bcf/d of new capacity. Our 300 Line Project, anchored solely by Equitable Resources, a company headquartered in Pittsburgh, will provide for the transportation of Appalachian supplies to delivery points in the northeast; while our Northeast Upgrade Project is designed to move Marcellus production for the account of 2 producers also to major markets in the northeast, as well as providing access to additional backhaul capacity. Various Pennsylvania Local Distribution Companies will have access to this new supply as it will pass within the path of their interconnects on the Tennessee system. In addition to these projects, Tennessee announced a new open season on May 5, supported by 2

anchor shippers, to move Marcellus gas to markets in Niagara, and an announcement regarding binding agreements for capacity from Marcellus to New England is expected by the end of the month.

As far as new construction is concerned, with the exception of 2 new compressor stations in western Pennsylvania, virtually all the new pipeline looping will be within a 25 – 50 foot path of Tennessee’s existing right of way which will minimize many environmental concerns and significantly reduce the impact to landowners and communities. Throughout the expansion process Tennessee will not only be in close communication with the FERC, but will also reach out to various stakeholders to proactively address any concerns that may arise. For an expansion to be approved, the FERC must first find that Tennessee’s application is in “the public convenience and necessity”. This process typically takes one year to complete and includes, among other things, a comprehensive environmental review. Challenges typically faced in receiving approvals and placing the project in on time and on budget include an extensive permitting process by federal, state and local authorities. Issues such as eminent domain may arise, but Tennessee generally views this as an item of last resort and has a favorable history of reaching mutual agreement with any affected landowners. It is important to note the neither Tennessee nor any other natural gas pipeline regulated by FERC have eminent domain rights until after the project has received its certificate of public convenience and necessity from FERC. Once placed in-service, pipeline expansions will provide additional transportation options to access new low cost and environmentally friendly natural gas supplies. Furthermore, the addition of a second loop in northern Pennsylvania will make Tennessee’s system more reliable in its ability to serve its customers, especially during times of planned or unplanned outages. During construction, which may last from 1 to 1 ½ years, the expansion will provide for jobs in affected local communities as workers will be required for various construction related activities. In addition, other out of state workers will pump money into the local economy through spending on hotels, temporary office space, food, etc.

Slide 9

In summary, my presentation here today can be summed up in a few simple bullets. Supply patterns are changing. Flows from traditional supply points such as the Gulf of Mexico and Canada are down, but they will be offset, at least in part, by supplies from various shale regions, including Marcellus. Post recession, demand across the US will grow, predominately in the northeast, and will be driven mainly by power generation. Together, changes in supply and demand will require new infrastructure in gathering, processing, and pipelines. Tennessee Gas Pipeline is uniquely situated to ensure that these abundant domestic supplies of natural gas can safely, efficiently and dependable reach consumers throughout the northeast. For your later viewing, I’ve also attached in the Appendix a few pictures of some of our existing right of way and compressor stations that are located in Pennsylvania (slides 12 and 13), as well as pictures of a typical pipeline ditch during construction and its subsequent restoration.

I appreciate the opportunity to speak with you all today and look forward to any questions you may have.

Thank you.