

**Responses of Tennessee Gas Pipeline
To NHPUC Staff Questions
In Wholesale Investigation (IR 15-124)**

General

1. **The developers of the Access Northeast project propose to make available a total of 0.9 Bcf/day of incremental firm natural gas capacity to affiliated EDCs and LDCs of Eversource Energy and National Grid. Subject to the approval of state regulators, the EDCs will purchase under long-term contracts specific amounts of the available firm gas capacity and then resell that capacity to New England electric generators using competitive auctions that target gas-fired generators. The auction winners are expected to utilize the capacity to access low cost gas supplies particularly during the coldest winter months.**

Response:

This question as posed contained a number of different components. Thus, for purposes of responding, please note that the question has been broken into three distinct parts.

- a. **Please state how much incremental firm natural gas capacity TGP proposes to make available to New England EDCs and LDCs via the Northeast Energy Direct (NED) pipeline project and identify the EDCs and LDCs that would procure such capacity.**

Response:

Currently, Tennessee Gas Pipeline (“Tennessee”) has secured long-term commitments for approximately 550,000 Dth/d from New England LDCs for service on the NED Project. Tennessee has announced that it will proceed with the NED Project based on a 30-inch pipeline design which will be scalable up to 1.3 Bcf/d if contracted accordingly (please see the press release attached as Exhibit A). Tennessee will install compression facilities to provide the capacity to serve its binding contractual commitments. Based on the 30-inch design, Tennessee could make approximately 750,000 Dth/d available to EDCs. As of this writing, no gas-fired generator in New England has executed an agreement. Tennessee would be pleased to engage in negotiations with any New Hampshire EDC to discuss arrangements for NED Project capacity. Tennessee has already had detailed discussions with both Eversource and National Grid as to how the NED project is needed to serve key generators that are not accessible by other pipeline projects. Tennessee trusts that this proceeding will provide direction to foster the best solution for reducing New Hampshire electric rates and enhancing the reliability of New England’s gas-fired generation.

- b. **Please state how much of the available capacity would be targeted to EDCs.**

Response:

As a threshold matter, Tennessee is prepared to provide as part of its NED Project as much pipeline capacity as necessary for EDCs that contract for such capacity, up to the 1.3 Bcf/d size of the NED Project, minus the secured long-term commitments. The scalability and significant capability of the NED Project will provide an important resource for serving gas-fired generation in the New England wholesale electric market.

Tennessee submits that the question of how much capacity New Hampshire EDCs should contract for in the aggregate and as individual companies, and how that capacity should be allocated among pipeline projects, is a matter that should be guided largely by the NHPUC in an appropriately open and transparent process. Tennessee recommends that the NHPUC provide goals and standards to be used by Tennessee and its EDC counterparts to determine the pipeline project and service solution providing the level of capacity at the most prudent cost and commercial terms that best suit the EDCs and gas-fired generators for purposes of lowering regional wholesale electricity costs. Answering these questions based on the best information available is essential to determining which approach to contracting for capacity will best serve the public interest in New Hampshire. These questions should not be unilaterally and completely decided individually by EDCs and/or their affiliates in closed-door bilateral negotiations with pipelines without guidance from the NHPUC. Tennessee submits that the most efficient approach to answering these questions would be for the NHPUC to provide such guidance as a result of an appropriately open and transparent proceeding, and then authorize EDCs to enter into negotiations with individual pipelines. The EDCs may then submit executed contracts to the NHPUC for expedited review and approval, given that regulatory guidance will have already been provided and the parties, thus fully informed, will have reached commercial arrangements reasonably achieving such goals.

- c. Explain the process TGP believes should be used to get EDC-purchased capacity into the hands of New England gas-fired generators.**

Response:

There are a number of ways in which pipeline capacity purchased by an EDC could be made available to gas-fired generators in New England, either directly through an EDC releasing its capacity to gas-fired generators or indirectly through an EDC releasing its capacity to an independent third-party, *i.e.*, an Asset Manager, that then provides either the pipeline capacity or a delivered service (both gas supply and transportation) to gas-fired generators. TGP submits that the most reasonable and efficient way in which to have the pipeline capacity contracted by EDCs be utilized by gas-fired generators is best determined by the NHPUC, EDCs and other interested stakeholders. Tennessee does not intend to be directly involved in the decision-making associated with any such individual capacity releases or assignments, but rather will facilitate the outcome of the transfer of that capacity just as it does today through the capacity release mechanism in its tariff. Currently, Tennessee provides the platform to implement capacity release transactions in accordance with its

Federal Energy Regulatory Commission (“FERC”)-approved tariff provisions, but does not determine the terms and conditions of the capacity release transactions that are offered and implemented between releasing shippers (assignors) and replacement shippers (assignees). However, Tennessee will work with its shippers to obtain any waivers or modifications of FERC’s capacity release or shipper-must-have-title regulations as may be necessary to allow the EDCs and/or their respective Asset Managers to make the capacity available in a timely manner to the electric generators.

While the ultimate decision as to whether to make capacity available to the secondary market lies with the holder of the capacity and not with Tennessee, in order to optimize the value of the EDCs’ pipeline capacity, both to increase supply available to the market and to offset costs that are passed on to EDC ratepayers, it would be prudent to make any capacity not purchased by gas-fired generators available in the secondary market so that parties other than gas-fired generators (*e.g.*, industrial customers) that need the capacity can acquire and utilize such capacity. Clearly, in order to maximize the benefits associated with reducing wholesale electric prices for consumers, gas-fired generators should be given first priority in using pipeline capacity contracted by EDCs. However, while electric ratepayers will receive substantial benefits from reduced wholesale electric costs, in order to provide EDCs the opportunity to mitigate the pipeline capacity costs being paid by ratepayers, EDCs should also attempt to sell any capacity unused by generators into the secondary market, similar to how LDCs release their unused capacity today.

That being said, in order to assist in the NHPUC’s evaluation of this issue, the existing FERC-approved capacity release and capacity assignment provisions allow contracting parties reasonable flexibility to be able to place natural gas transportation capacity rights with those that need such capacity. Specifically, FERC capacity release regulations provide the ability of contract holders to utilize Asset Managers for purposes of managing the underlying transportation contract(s). Asset Managers are commonly utilized by Tennessee’s shippers, and the structure of Asset Management agreements can be largely customized by an EDC, specifically defining the rights and responsibilities of the Asset Manager, and the benefits and costs of such an agreement. Tennessee notes that the NHPUC (and other New England regulatory bodies) has past experience overseeing LDCs’ use of Asset Managers and that these LDC/Asset Manager relationships have often proven to be beneficial and cost-effective.

As discussions between stakeholders continue over the most efficient way to make capacity available to gas-fired generators, it is possible that the need for additional flexibility in the FERC capacity release regulations and pipeline tariffs may be identified. FERC regulates interstate pipelines’ capacity release programs to enhance the efficiency and effectiveness of FERC’s open access regulatory regime. Based on Tennessee’s review of FERC policy and precedent in this area, Tennessee believes that, in the event enhancements to the capacity release rules are required, it is reasonable to expect that solutions can be achieved to address these issues. In the past, FERC has adapted its capacity release regulations and

required changes to pipeline tariffs to specifically accommodate state-level programs that have been shown to be in the public interest.

Specifically, in June 2008, in response to the requests of various participants within the natural gas industry, FERC issued Order No. 712, which modified its policies and regulations concerning the release of capacity by firm shippers on interstate pipelines.¹ These modifications were made to recognize that the natural gas markets in general, and secondary release markets in particular, had undergone significant change and that change was required to better integrate capacity with the underlying gas transactions. The modifications made by FERC, which may be instructive to the NHPUC, included:

- 1) the accommodation of Asset Management Arrangements (“AMA”) in which capacity holders release their capacity to asset managers that have greater expertise in maximizing the value of pipeline capacity; and
- 2) capacity releases made to retail marketers participating in state-approved retail access programs, whereby LDCs, to various degrees, exited the business of selling natural gas and transferred this function to competitive energy suppliers.

First, with respect to AMAs, the FERC expanded its definition of the function, clarifying that AMAs no longer had to deliver on behalf of the releasing shipper an amount of gas equal to the daily contract demand on every day, but rather could more flexibly deliver “up to” such demand as required by the releasing shipper for at least five-twelfths of the duration of the AMA. The FERC concluded that this maintained the basic function of AMAs of using the releasing shipper’s capacity for a specific purpose, i.e., supplying the releasing shipper up to a defined extent, but allowed the Asset Manager to utilize any excess capacity for other transactions, as may be specified in the Asset Management Agreement. In addition, FERC provided that AMAs could be flexible enough to “allow diverse parties to enter into AMAs and for those parties to be able to maximize the value of pipeline capacity within the context of an AMA”,² allowing for releasing shippers to only release a portion of its capacity.

Second, another outcome of Order No. 712 that Tennessee submits is helpful in the instant proceeding is what FERC did with respect to capacity release transactions in the area of state-mandated retail unbundling programs. Previously, FERC required LDCs to request a waiver of its capacity release bidding regulations for purposes of retail access programs in certain circumstances. In Order No. 712, however, FERC expanded its rules to provide a blanket exemption from capacity release bidding requirements much like that clarified in the case of AMAs. In doing so, FERC recognized that state retail access programs were generally good public policy developments, and modified its own regulations to generally support them while providing protections against unsupported uses of such capacity, such as utilizing the underlying capacity for purposes for which it was not originally generally

¹ *Promotion of a More Efficient Capacity Release Market*, 123 FERC ¶ 61,286 (2008) (“Order No. 712”).

² *Id.*, p. 146.

intended. Again, FERC recognized developments within the industry, listened to relevant stakeholders, and provided reasonable and flexible guidance to the benefit of the market and its various needs.

Though the circumstances at issue here are somewhat different in context, Tennessee submits that it is reasonable to pursue, together with regional stakeholders, any similar enhancements and modifications to the FERC AMA and/or capacity release regulations in order to address a pressing and necessary public policy goal: creating the opportunity for interstate pipeline capacity contracted by EDCs to be reasonably used by gas-fired generation. Based on the prior FERC policy initiatives to recognize changes in the natural gas market, it is entirely reasonable to expect that further targeted enhancements could be approved, as necessary, to the capacity release regulations and/or related pipeline tariff provisions that promote the public interest by facilitating the release of pipeline capacity from EDCs to electric generators in order to achieve the goals of lower energy costs and enhanced electric reliability.

2. What method will TGP use to determine the amount of capacity each EDC should purchase from the NED pipeline?

Response:

Please see the response to Question 1(b) above.

3. If TGP supports the use of competitive auctions to resell EDC-purchased capacity, does it believe FERC's capacity release rules allow for pipeline capacity to be targeted to gas-fired generators? Please explain your answer.

Response:

As an initial matter, Tennessee is unclear what is meant in the question by “competitive auctions” and the specific details that may be embedded within that concept, and thus cannot comment as to whether it would support the use of such “competitive auctions.” As discussed in the response to Question 1(c) above, the FERC rules currently allow pipeline capacity contracted by parties to be placed directly with Asset Managers (regardless of how that Asset Manager has been determined – competitively or otherwise), so long as the transaction meets the FERC’s rules for placing such capacity with an Asset Manager and thus being exempt from the standard posting and bidding requirements to which capacity release transactions are subject. Tennessee believes that if the capacity was placed with one or more Asset Managers through some type of a competitive solicitation (*e.g.*, a request for proposal), the commercial terms of that arrangement could specify that such capacity be sold on a priority basis to gas-fired generators.

As discussed in the response to Question 1(c) above, Tennessee will not be directly involved in the manner in which the capacity is determined to be released to gas-fired generators directly,

or to those generators through one or more Asset Managers, but rather will facilitate the capacity release process. For example, currently when LDCs assign pipeline capacity rights to qualified competitive suppliers, Tennessee is not involved in either the process of deciding who is a qualified competitive supplier or the commercial terms of the release; however Tennessee, through its FERC-approved tariff provisions, facilitates and enacts the results.

4. This question as posed contained a number of different components. Thus, for purposes of responding, please note that the question has been broken into three distinct parts.

a. Regarding capacity auctions, what is TGP's opinion on how often such auctions should be conducted - weekly, monthly or annually?

Response:

Please see the response to Questions 1(c) and 3 above. Tennessee believes that capacity auctions should be conducted at whatever frequency best suits the needs of the EDCs and the gas-fired generators. Tennessee provides the platform to implement capacity release transactions in accordance with its related FERC-approved tariff provisions (as possibly enhanced for this purpose), but does not determine the terms and conditions of the capacity release transactions that are offered and implemented between releasing shippers and replacement shippers. The frequency of capacity auctions would be best determined in bi-lateral discussions between the EDCs and gas-fired generators. Currently, capacity is released or assigned on the interstate pipeline system on a daily, weekly, monthly or permanent basis. Tennessee believes that if an even greater frequency is required (*e.g.*, hourly), such changes could be accommodated. To the extent that it is determined that "capacity auctions" are the most appropriate means for EDCs to release their pipeline capacity to gas-fired generators, then Tennessee would expect that gas-fired generators will submit bids for that pipeline capacity consistent with the wholesale electric market rules and incentives that may be in place at a particular time.

b. Does TGP expect all gas-fired generators to submit bids for the capacity made available by EDCs?

Response:

Tennessee believes that the best outcome for consumers and for electric reliability would be for gas-fired generators in New England to broadly have access to firm pipeline capacity that would be made available by the EDCs so that firm transportation service is available to those gas-fired generators that are required to operate, particularly during periods of relatively high demand. Once new firm natural gas capacity is available, it is expected that gas-fired generators will be incented to obtain the capacity from the EDCs due to ISO New England's new Pay-for-Performance wholesale electric market rules, which will induce gas-fired

generators to purchase released natural gas transportation capacity *if it is available*. Under ISO New England’s Pay-for-Performance reforms, which go into effect in 2018, generators face severe penalties for failing to perform in real-time, regardless of the reason for non-performance.³ Under the current rules, FERC has held that ISO New England’s tariff prohibits ISO New England from allowing economic considerations, such as the high cost of obtaining fuel or fuel transportation on short-notice, to excuse non-performance.⁴ Nevertheless, generators can be excused for non-performance, and therefore avoid penalties, if fuel or transportation is *physically* unavailable.⁵ The availability of pipeline capacity via the EDCs would eliminate this “loophole” and would properly incentivize all gas-fired generators to invest in fuel security. Because gas-fired generators are unable to make a long-term investment in firm gas transportation capacity, dual-fired generators can currently meet their performance reliability requirement through the short-term purchase of fuel oil to have on hand to generate electricity when gas is not available. The frequency of this practice will likely be reduced when more affordable natural gas is available via new pipeline capacity released by the EDCs. Therefore, Tennessee would expect that a gas-fired generator would bid on available pipeline capacity made available as a result of EDC contracting assuming such capacity could be utilized to serve that generator, and that such bids would be consistent with the wholesale electric market rules and incentives that may be in place at a particular time.

c. What are the market implications of pipeline projects not covering all gas-fired generators in the region?

Response:

As highlighted in Tennessee’s Initial Comments in this proceeding (“Initial Comments”), it is prudent and necessary to ensure that as many gas-fired generating plants as possible in New England have access to natural gas pipeline capacity. As such, pipeline capacity should be contracted to reasonably reach, either directly or indirectly, the greatest number of gas-fired electric power plants in New England. Doing so will minimize the possibility of electric prices continuing to be higher as a result of certain gas-fired generation not having sufficient natural gas capacity and will enhance electric system reliability by ensuring that diverse natural gas supply can be delivered to the region at times when it is most needed.

5. What is TGP’s opinion on the appropriate term of the capacity resold to gas-fired generators – a month, a year, or longer?

³ See *ISO New England Inc.*, 147 FERC ¶ 61,172 (2014).

⁴ See *New England Power Generators Ass’n*, 144 FERC ¶ 61,157 (2013).

⁵ *Id.*

Response:

Please see the response to Question 4(a) above.

6. **Under the so-called NESCOE Model, capacity not purchased by gas-fired generators would be released into the secondary market on a recallable basis. In TGP's opinion, is it likely that the released capacity could be purchased by LDCs or sold in markets outside of New England and hence provide little or no value to electric customers? Please explain your answer.**

Response:

Tennessee cannot comment as to whether there were particular elements that may or may not have been part of the NESCOE Model. However, if EDCs contract for pipeline capacity, it is Tennessee's understanding that the intent would be to make such capacity available to gas-fired generation on a priority basis. If that capacity is not needed by gas-fired generation, such capacity could then be made available to other market participants on a short-term basis. This would allow the capacity contracted by the EDCs to be utilized by gas-fired generators to reduce wholesale electric costs, but also provide access to that additional pipeline capacity when not needed by gas-fired generation. As discussed in the response to Question 1(c), currently, there are capacity release and capacity assignment provisions in place that have been approved by the FERC that allow contracting parties reasonable flexibility to be able to place natural gas transportation capacity rights in the hands of those that need it most.

The ultimate decision as to whether to make capacity available to the secondary market lies with the holder of the capacity and not with Tennessee. In order to maximize the value of the capacity, both to increase supply available to the market and to offset costs that are passed on to ratepayers, any capacity not purchased by gas-fired generators should be made available to the secondary market, such that parties other than gas-fired generators (*e.g.*, industrial customers) that need the capacity can acquire and utilize such capacity. However, Tennessee would expect that any pipeline capacity sold to parties other than gas-fired generators would be done so on a short-term basis only, as the primary purpose of that capacity would be to provide access to natural gas for gas-fired generation.

Generally the contractual rights of those who take assignment of pipeline capacity are no different than those rights generally attached to the original contract in terms of how the capacity can be used. Furthermore, the contractual rights assigned are largely within the control of the assignor in terms of quantity, location, term, and cost, limited by mutual agreement between the parties and related pipeline tariff provisions. As an illustrative example, if an EDC held a Wright-to-Dracut contract as a result of TGP's NED expansion, and released it fully to a third-party, that assignee would have only the same rights as the original contract holder. It would be, therefore, most likely that such capacity would be used to transport gas into and within the New England market since that is the presumed function of the underlying contract.

Furthermore, Tennessee believes that if additional natural gas capacity is available in the market, such capacity will be utilized by gas-fired generators to the extent possible based on the amount of pipeline capacity that is made available. ISO New England has implemented a Pay-for-Performance initiative that will take effect in 2018. Under this new program, generators will face harsh penalties for failing to perform in the electric energy market. Therefore, although it is not expected that Pay-for-Performance will induce gas-fired generators to enter into long-term gas transportation contracts, since natural gas is expected to be more affordable than oil-based fuels, it will induce them to purchase released natural gas pipeline transportation capacity if that capacity is available through EDCs as is being contemplated.

Ultimately, the question of whether gas-fired generators will voluntarily take released capacity from the EDCs and/or their respective Asset Managers or whether there should be some regulatory mechanism to encourage gas-fired generators to do so, must be considered and resolved in order to maximize the effectiveness of a regime that allows EDCs to contract for pipeline capacity that will be made available to gas-fired generators. Tennessee notes that other New England states are examining this issue, and believes that it should be considered at the regional level and should involve ISO New England and the gas-fired generators.

- 7. Will EDC's purchase capacity on the Market Path alone or both the Market and Supply Paths? If the former, has TGP conducted any analyses of the expected difference in price between gas commodity purchased in the Marcellus Shale production area and gas commodity purchased at Wright, NY. If so, please describe the results of such analyses and provide copies.**

Response:

EDCs may purchase capacity on either the Market Path alone or both the Market Path and Supply Path. Tennessee has not conducted any studies of the projected difference in gas prices in the Marcellus shale production region versus the price at Wright, New York. The prices at each of those locations will be a function of a number of market demand and supply dynamics over time, and generally, parties acquiring pipeline capacity, including LDCs, acquire pipeline capacity back to a liquid purchasing point so that there are a number of counter-parties from which to purchase the gas commodity at any particular time.

- 8. Explain how the selection of Wright, NY as the receipt point for the NED project enhances the project's value. Has TGP taken into account the potential for gas flows into Wright from other higher cost markets or the possibility that limits on pipeline capacity between the Marcellus production area and Wright could cause the gap between gas prices in Pennsylvania and gas prices at Wright to be wider than expected?**

Response:

To be clear, as discussed in the response to Question 7 above, EDCs may elect Wright, NY as a receipt point on the NED Project, but also may elect to receive gas in northeastern Pennsylvania as well. Tennessee's NED Project offers shippers access to both incremental supplies at the Wright, NY supply hub, and will provide a direct connection to the historically low-cost and abundant supplies available from more than twenty different producers in the Marcellus Shale region in northeast Pennsylvania. This is a significant advantage over other proposed pipeline projects into New England that only offer access to receipt points at upstream pipeline interconnects at which there may not be incremental gas supply. Tennessee uniquely is providing a direct basin-to-market path for parties to access incremental gas supply. The ability to seamlessly access such low cost and abundant production offers a significant advantage over other projects that only offer the ability to transact at pipeline interconnects where there may be only a few producers with whom to transact. In addition, when access is limited to pipeline interconnects there may not be incremental supply capable of accessing that point to satisfy the demand of the new expansion load, thus requiring additional costs and transactions with and between many pipelines.

For example, an advantage that the NED Project provides by accessing low-cost gas supplies was discussed in a report prepared for Tennessee by Competitive Energy Services ("CES") and filed in the Maine Public Service Commission proceeding in Docket No. 2014-00071. In that report, CES compared average natural gas prices at points that could be accessed by various pipeline expansion projects that could potentially serve New England. For the period from December 1, 2013 through November 30, 2014, CES found that the average price for gas at the Tennessee Z4 Marcellus trading point (pricing point for deliveries into Tennessee's NED Project in Northeastern Pennsylvania) was \$2.57/MMBtu, compared to \$5.28/MMBtu at the TETCO M3 trading point (pricing point for delivery into Algonquin Gas Transmission at Lambertville, New Jersey).⁶ While there are additional pipeline transportation costs associated with getting gas from either of these points to New England, the incremental Marcellus supply that Tennessee can offer from its 300 Line is significantly cheaper than the supply connected to Algonquin.⁷

As discussed in the response to Question 7 above, any difference in prices at Wright, NY versus receipts into Tennessee's NED Project in northeastern Pennsylvania will be a function of the various market demand and supply dynamics that exist at a particular time. Tennessee has not evaluated whether the potential for gas flows into Wright from outside the Marcellus (*e.g.*, Canada) would cause a material difference in gas prices in northeastern Pennsylvania as compared to prices at Wright, NY. In general, gas from outside the Marcellus will be only drawn to Wright, NY to the extent that either that gas is competitive with other Marcellus supplies capable of reaching Wright, NY or demand downstream of Wright, NY exceeds the supply of Marcellus gas to Wright, NY.

⁶ See Figure 2 of the CES Report.

⁷ See Figure 3 of the CES Report.

In addition to the Supply Path facilities that are part of Tennessee's NED Project, there are other incremental pipeline expansion projects designed to bring relatively low cost gas supplies to the Wright, NY area as well, which will enhance liquidity at that point. In short, there is much evidence demonstrating that Wright, NY will be, as early as perhaps Winter 2016, an advantageously liquid location at which to source incremental natural gas supplies, as evidenced by pipelines such as Tennessee, working to place such incremental supply access in the hands of shippers requesting such service. Thus, considering the Supply Path facilities of Tennessee's NED Project, as well as capacity being proposed by others to Wright, NY, it is unlikely that there will be a substantial or longer-term limit on pipeline capacity between the Marcellus production area and Wright, NY that would cause a gap between gas prices in northeastern Pennsylvania as compared to the prices at Wright, NY.

9. **How would a precedent agreement between TGP and an EDC to purchase pipeline capacity provide for the delivery of gas to multiple gas-fired generators directly served by the NED pipeline?**

Response:

A precedent agreement, and the accompanying gas transportation agreement, between Tennessee and an EDC could be designed to maximize access to existing gas-fired generators on Tennessee's system and new generators that may be connected in the future. An EDC could contract for specific contractual rights that enables it to access gas-fired generation across Tennessee's existing system throughout New England directly by selecting a receipt point at Wright, NY and a delivery point on TGP's existing 200 Line system. Further, a NED expansion shipper can hold rights that uniquely allow incremental supplies to be fed into all other pipelines in the region. This expansive market reach – whether to gas-fired generation located directly off of the Tennessee system – or into all other pipelines in the region and therefore supplying their markets, is one of the key features and benefits of Tennessee's NED expansion. As a result of this broad and real geographic reach, an EDC contracting on NED would have the unmatched opportunity to place their capacity rights into the hands of a large number of gas-fired generation resources, whether supplied directly by Tennessee or ultimately by others. For a more thorough description of how the NED facilities will be integrated with the existing TGP system, please see the response to Question 26.

Please also see the discussion of capacity release in the response to Question 1(b) above as to the means by which EDCs can transfer the pipeline capacity for which they contract to gas-fired generators in New England.

10. **Assuming New England regulators decided to support two regional pipeline projects, how could that decision be implemented through capacity purchases made by the region's EDCs?**

Response:

Assuming New England regulators decided, on a region-wide basis, to support two pipeline projects through contracting by EDCs, Tennessee recommends that the NHPUC provide guidance, but not necessarily specific requirements, as to the goals for New Hampshire EDCs contracting for pipeline capacity, the standards of review for EDC contracts for pipeline capacity, and the process to be used by the EDCs and pipelines to determine the pipeline projects and service solutions that reflect the most advantageous cost and commercial terms for lowering regional wholesale electricity costs. For example, Tennessee recommends that the NHPUC, in conjunction with all necessary stakeholders, provide guidance in this investigation regarding how the following issues should be addressed in EDC filings presented to the NHPUC for contract approval:

- The aggregate amount of pipeline capacity for which it would be reasonable for New Hampshire EDCs to contract
- The amount of pipeline capacity that New Hampshire EDCs may contract for on each pipeline
- The amount of the aggregate pipeline capacity that may be contracted by each EDC

In terms of the first issue, the NHPUC may choose to provide guidance that the EDCs should demonstrate that enough capacity has been contracted such that it will have a meaningful impact on electric prices. For example, Tennessee discussed in its Initial Comments that New Hampshire could benefit by contracting for at least 0.4 Bcf/d. In terms of the second issue, the NHPUC may ask the EDCs to evaluate and provide analysis to explain how their pipeline contracts provide the opportunity for as much gas-fired generation in the region as possible to access additional gas supplies. In terms of the third issue, the NHPUC may ask the EDCs to show why they believe that they have contracted for their fair share of the total pipeline capacity on the most favorable terms. Once guidance has been provided, EDCs can engage in negotiations with the two pipelines and execute precedent agreements for pipeline transportation service. This would be no different than the manner in which LDCs currently contract for pipeline capacity.

Providing guidance to New Hampshire EDCs is essential to ensuring the public interest will be best served. Tennessee submits that the NHPUC can obtain the information needed to address these issues in the current proceeding, and that the process required need not be an excessively lengthy one. While the NHPUC moves forward to address these issues, it should be mindful of the timeline that is required to develop the pipeline expansion projects that are needed to serve New Hampshire and New England. See the response to Question 14. It is important that these projects obtain the contractual certainty they need in a timeframe that will cause additional pipeline capacity to be constructed and available at the earliest possible time.

- 11. Regarding the incremental firm pipeline capacity that TGP would make available to New England EDCs via the NED pipeline project, has TGP conducted any studies to determine whether that capacity will be sufficient to eliminate or significantly reduce the winter basis differential? If yes, please describe the results of such studies, provide copies and specify the amount of incremental pipeline capacity that TGP believes must be constructed to erase the basis differential.**

Response:

As discussed in Tennessee's Comments, there have been numerous independent studies that demonstrate additional pipeline capacity in New England will reduce natural gas prices, and in turn, wholesale electric prices, in the region. For example, on behalf of Tennessee, Competitive Energy Services conducted an analysis that is referenced in Tennessee's Initial Comments ("CES Report"). The CES Report assumed that so long as there was sufficient pipeline capacity available in an hour to meet the demand of traditional natural gas customers (*i.e.*, residential, commercial and industrial customers) plus gas-fired generation, the gas cost was assumed to set the marginal electric price. However, in those hours when there was not sufficient pipeline capacity to meet the demand of both traditional natural gas customers plus gas-fired generation, higher cost generation alternatives were required to meet electric demand.

The CES Report concludes that as pipeline capacity is added to the region by up to 2.4 Bcf/d, the number of hours for which there is insufficient pipeline capacity to serve gas-fired generation is reduced. While the CES Report does not specifically project the impact of additional pipeline capacity on winter basis differentials, the conclusion in the CES Report means that the number of hours in which demand for pipeline capacity exceeds the supply of pipeline capacity is reduced, and thus the number of hours in which the cost of natural gas in New England would be bid higher would also be reduced. With 2.4 Bcf/d of additional pipeline capacity, the CES Report concludes that the number of hours in which there was insufficient pipeline capacity to meet gas-fired generation needs would be effectively eliminated. In other words, with 2.4 Bcf/d of additional natural gas pipeline capacity in the market available to all participants that require natural gas, including both traditional natural gas customers and gas-fired generation, the number of hours in which there is a shortage of gas, driving up natural gas prices in New England, would be nearly eliminated.

In addition, Tennessee is currently in the process of studying the impact specifically of NED on wholesale electric prices in New England.

- 12. How many daily gas supply nominations can EDC holders of NED pipeline capacity make?**

Response:

Currently, FERC regulations require that interstate pipelines provide a minimum of four nomination cycles for holders of pipeline capacity, *i.e.*, the Timely Nomination Cycle, the Evening

Nomination Cycle, the Intra-day 1 Nomination Cycle, and the Intra-day 2 Nomination Cycle (the details of which, specifically for Tennessee, are included in its FERC Gas Tariff). In Order No. 809, FERC has promulgated new regulations that will require pipelines to offer a new nomination opportunity in the Intraday 3 Cycle. By the time the NED Project is in service, the new Order No. 809 requirements will be in effect and TGP's Tariff will reflect the new nomination cycle requirements. In addition, Tennessee currently offers, and will continue to offer after it implements Order No. 809, hourly nomination opportunities after the Intraday 3 Cycle closes to the extent useful to its shippers. Lastly, Tennessee has been in discussions with gas-fired generators regarding the services that they would find most useful, and Tennessee is prepared to design enhanced transportation services to address the unique requirements of gas-fired generation resources (*e.g.*, no-notice, automatic park and loan, hourly flex services). To the extent enhanced hourly nomination and dispatch services are required as part of such services, Tennessee stands ready to design it. It is important to note, however, that nomination opportunities do not make capacity available on the pipeline. Nominations are only scheduled if there is capacity and gas supply available to provide the service. The most important thing is to make more gas pipeline capacity available to New England. If there is capacity and supply available, the existing and FERC-required nomination cycles provide ample opportunity to nominate and schedule transportation services.

13. Please provide all confirmed subscriptions for the NED project and specify the minimum threshold subscription for the project to proceed.

Response:

As discussed in the response to Question 1(a), currently, Tennessee has secured long-term commitments for approximately 550,000 Dth/d primarily from New England LDCs for service on the NED Project. These confirmed subscriptions include National Grid, Liberty Utilities, Columbia Gas of Massachusetts, Connecticut Natural Gas Corporation, Southern Connecticut Gas Corporation, The Berkshire Gas Company, and Westfield Gas & Electric Light Department. As of this writing, no gas-fired generator in New England is included in any executed agreement.

Regarding the minimum threshold subscription amount for the project to proceed, Tennessee's parent company, Kinder Morgan, Inc., announced on July 16 that its board of directors had authorized Tennessee to proceed with the market path portion of NED at the current commitment level of approximately 550,000 Dth/d. As discussed previously, the market path is scalable up to 1.3 Bcf/d and will be constructed to provide capacity to meet contracted-for volume commitments. Please see the Press Release attached as Exhibit A.

14. Please provide all milestones for the NED pipeline project.

Response:

Please see the Project Timeline below:

Action	Timing
Outreach Meetings	Ongoing
Route Selection and Permit Preparation	Ongoing
Agency Consultations	Ongoing
Filed for FERC Pre-Filing	Sept. 15, 2014
Participate in FERC Pre-filing Process (including filing of draft resource reports)	4th Quarter 2014 to 4th Quarter 2015
File Certificate Application with FERC	4th Quarter 2015
File All Necessary State Permit Applications (including application with NH Site Evaluation Comm.)	4th Quarter 2015
Anticipated FERC and State Approvals	4th Quarter 2016
Proposed Start of Construction Activity	January 2017
Proposed In-Service Date	November 2018

15. **Information provided by TGP in the Maine PUC proceeding 2014-00071 indicates that the Supply Path component of the NED project will deliver up to 1 Bcf/d of incremental supply directly to Wright, NY from the Marcellus Shale’s production attached to TGP’s existing 300 Line in Northeast Pennsylvania. Who will hold the rights to firm capacity on the Supply Path and how will the cost of that pipeline be recovered?**

Response:

As discussed in the response to Question 7, EDCs may purchase capacity on either the Market Path alone or both the Market Path and Supply Path. Ultimately, the rights to Supply Path capacity will be held by those parties that contract for it. TGP is currently in negotiations with multiple parties for Supply Path capacity. The cost of constructing the Supply Path Facilities will be recovered only from those shippers that contract for the Supply Path capacity.

16. **How can the developers of the NED pipeline project ensure New England regulators that the pipeline capacity purchased by EDCs will physically reach as many gas-fired generators as possible? That is, will the pipeline capacity purchased by EDCs have delivery points that will directly or indirectly reach all regional gas-fired generators?**

Response:

Please see the response to Questions 9 and 27.

- 17. TGP claimed in the Maine PUC proceeding 2014-00071 that the NED Project would enhance reliability of the gas and electric grids by providing incremental supply to existing generation resources served by TGP and other regional pipelines. Is this claim based on the assumption that the Access Northeast project is not built? That is, would the enhancement in gas and electric system reliability due to the NED project be less valuable if the Access Northeast project goes ahead as proposed? Please explain your answer.**

Response:

Please see the response to Question 9. Tennessee's services, both on the existing system and through the NED Project, are not directly predicated on any other pipeline expansion project; the benefits of the Tennessee system and NED are there regardless if any other pipeline is built. Further, Tennessee is unaware of the specifics of any aspect of the Access Northeast project.

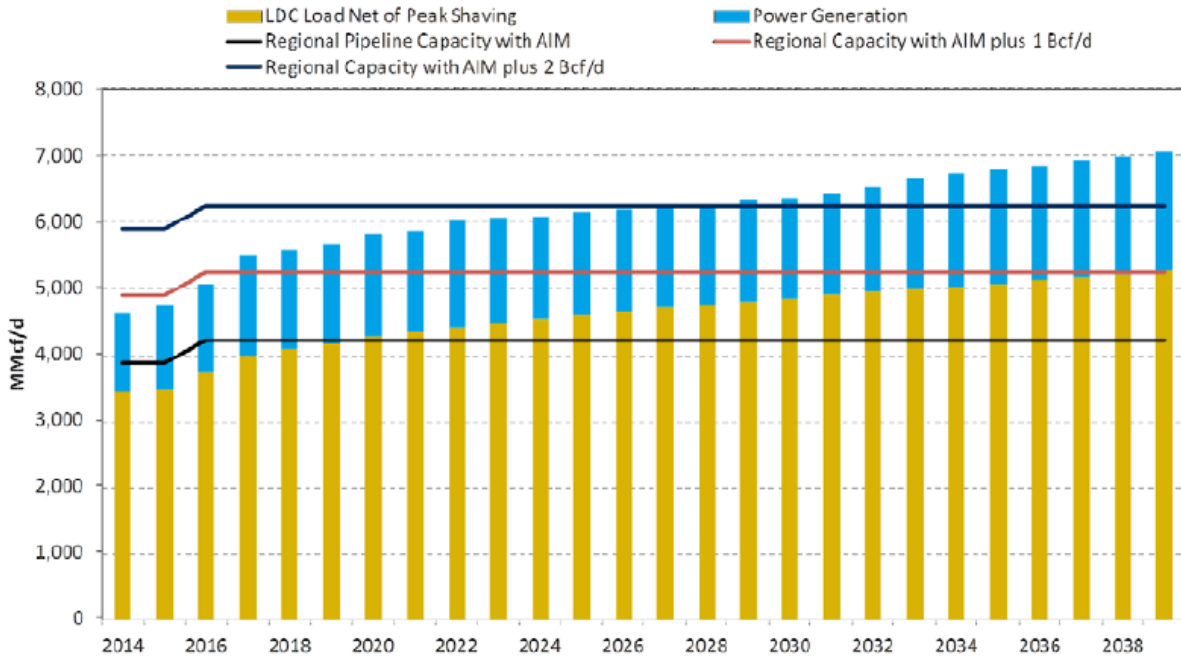
- 18. Lander for CLF testified in the Maine proceeding that the pipeline expansion projects AIM, Atlantic Bridge and TGP Connecticut will substantially decrease the basis differential in New England when they come online in the next two years. NEPGA and UES have made similar arguments in this investigation. What is TGP's opinion regarding these claims? Please provide all support for your answer.**

Response:

It has been suggested that the additional pipeline capacity that will be constructed in the region that is contractually supported by LDCs (*i.e.*, Tennessee's Connecticut expansion and Algonquin's AIM expansion) will substantially decrease the basis differentials in New England. Tennessee does not dispute that additional pipeline capacity to serve the LDCs may place downward pressure on regional natural gas prices – *but in the immediate short-term only*. However, any downward pressure on prices as a result of this new pipeline capacity is expected to be very short-lived, as prices will rise without additional pipeline capacity because the need for gas by gas-fired generators continues to exceed the supply available to them.⁸

⁸ Factors affecting the need for additional pipeline capacity include: retirements of oil/coal-fired generation; electric load growth; increasing development of intermittent generation, like wind and solar; and reduced gas supplies from Atlantic Canada.

For example, the following figure was provided in National Grid’s comments in this Massachusetts proceeding also investigating the potential for EDCs to contract for additional pipeline capacity to the region:⁹



As demonstrated by the graph, it is expected that the existing regional pipeline capacity, plus the AIM expansion, plus an additional 1 Bcf/d of pipeline capacity, will not be sufficient to meet the combined demand of LDC load (net of peak shaving) plus gas-fired generation demand starting in 2017. This implies that since demand will exceed supply, that upward pressure will be placed on natural gas prices, even with the existing LDC-related pipeline expansions and significant additional pipeline capacity beyond those expansions. However, if an additional 2 Bcf/d of pipeline capacity is built into New England in addition to the AIM expansion, it is expected to be sufficient to meet demand until 2029.

Furthermore, the CES Report assumed the capacity associated with both Tennessee’s Connecticut expansion and Algonquin’s AIM expansion would be available in New England, yet still concluded that additional pipeline capacity up to another 2.4 Bcf/d would provide benefits to New England energy consumers. As noted in Tennessee’s Initial Comments in this proceeding, there are a number of market dynamics that will place increased pressure on the need for additional natural gas in New England, including increasing retirements of coal and oil-fired generation that is likely to be replaced with gas-fired generation, electric load growth in New England, the increased development of intermittent renewable generation that will require natural gas-fired generation as a backstop, and the depletion of natural gas production in

⁹ D.P.U. 15-37, Initial Comments of Massachusetts Electric Co. and Nantucket Electric Co. d/b/a National Grid, p. 38.

offshore Nova Scotia that New England has relied upon for the past 15 years. In addition, it is important to recognize that the capacity contracted by the LDCs on the AIM or TGP Connecticut projects will be utilized first and foremost to satisfy LDC demand requirements, and thus likely not be available to gas-fired generators during peak demand periods. Lastly, it is uncertain at this time as to the capacity level that may be ultimately associated with the Atlantic Bridge project, which is also supported by LDCs only, but Spectra indicated recently that the capacity would be only 0.15 Bcf/d.

- 19. Did the NED pipeline project complete a binding or non-binding open season? If so, provide copies of binding or non-binding commitments that resulted from such open season. Also provide the open season documents including the draft precedent agreement.**

Response:

A copy of the Open Season Notice held to date is attached as Exhibit B. Please see the response to Question 13 above for a description of the Project Shippers with whom TGP has executed binding precedent agreements. According to the terms of the Open Season, draft Precedent Agreements were provided to those interested parties that submitted a service request form and executed a confidentiality agreement with Tennessee.

- 20. Provide copies of all discovery requests served on TGP in the Maine PUC proceeding 2014-00071. Also provide copies of TGP's responses to such requests.**

Response:

The discovery requests and responses are attached as Exhibit C.

- 21. It has been suggested by TGP that NED's access to commodity at \$1.7/MMBtu is likely to bring a higher capacity release value to the NED project than Access Northeast. Provide support for this claim?**

Response:

To clarify, neither Tennessee nor the CES Report that was conducted on behalf of Tennessee, suggested that NED would access commodity at \$1.70/MMBtu. Rather, it appears that the question is referring to the statements made on p. 17 of the CES Report that if the price at the point of receipt for the NED Project is \$1.70/MMBtu *less than* the price at the point of receipt assumed for CES's analysis, which was the TETCO M3 region, then this pricing difference would be able to provide greater capacity release value relative to the capacity release value otherwise reflected in Figure 4 and discussed in the narrative of the CES Report. The support for the

likelihood of NED providing a higher capacity release value relative to the Access Northeast project is discussed in the CES Report on pp. 11-17.

- 22. Does the NED project expect to export gas to Canada? If so, has it entered into any binding precedent agreements with Canadian buyers including buyers such as Pieridae who would liquefy the natural gas and export it to other countries?**

Response:

No, the NED project does not export gas to Canada. Also, no, Tennessee has not entered into any binding precedent agreements associated with the NED Project with Canadian buyers including buyers such as Pieridae who presumably would liquefy the natural gas and export it to other countries.

Questions Relating to TGP Initial Comments

- 23. Page 1. TGP states that “the NED pipeline project is an essential and integral part of the preferred solution for resolving New Hampshire’s and New England’s volatile and high wholesale natural gas and electric prices.” Please explain why the high winter period wholesale electricity price problem cannot be solved by the Access Northeast project alone.**

Response:

As discussed in Tennessee’s Initial Comments, the CES Report demonstrates that there is a benefit for up to 2.4 Bcf/d of incremental pipeline capacity in New England. It is Tennessee’s understanding that, if fully contracted, the Access Northeast project would provide approximately 0.5 Bcf/d of additional pipeline capacity in region, or substantially less than the 2.4 Bcf/d from which New England energy consumers would benefit. Furthermore, as discussed in Tennessee’s Initial Comments and in the responses to Questions 4(b), 9, and 27, it is prudent and necessary to ensure that as many gas-fired generating plants as possible in New England have access to natural gas pipeline capacity, and neither Access Northeast nor Tennessee provide such access alone. Pipeline capacity should be contracted to reasonably reach, either directly or indirectly, the greatest number of gas-fired electric power plants in New England at the lowest possible transportation cost and to provide access to the lowest cost commodity. Doing so will minimize the possibility of electric prices continuing to be higher as a result of certain gas-fired generation not having sufficient natural gas capacity, and will enhance electric system reliability by ensuring that diverse natural gas supplies are accessible. Due to the critical role that Tennessee plays in transporting gas supplies to other regional pipeline systems, the unique access it offers to the Massachusetts Hub, and the significant number of gas-fired generators that it serves, any solution to bring more natural gas pipeline capacity to New England to serve gas-fired generation will be incomplete and ineffective if it does not include NED capacity on the Tennessee system.

- 24. Please explain why TGP believes that a change in wholesale market rules to incentivize gas-fired generation to contract for firm pipeline capacity appears unlikely to occur, either in the short- or long-term.**

Response:

Tennessee believes that a change in wholesale market rules to incentivize gas-fired generation to contract for firm pipeline capacity is unlikely to occur, either in the short- or long-term, because it is unaware of any changes that are slated to be implemented, or that are currently proposed, which would provide such an incentive. ISO New England will be implementing its Pay-for-Performance standards in a few years; however, it has acknowledged such new wholesale electric market rules are unlikely to incent gas-fired generation to contract for pipeline capacity:

The response to “Pay for Performance,” however, likely will not ensure investment in natural gas pipeline capacity. The design gives market participants the flexibility to select the most cost-effective way to ensure performance. Gas generators have told us that the most cost-effective solution for them is to continue to utilize the pipelines when they are unconstrained and to switch to burning oil when gas transportation becomes unavailable.... We also observe that it is becoming increasingly difficult for gas generators to obtain permission to install dual-fuel capability and that the oil supply chain can be fragile under adverse weather conditions. (Northeast Forum on Regional Energy Solutions, Remarks by Gordon van Welie, President & CEO, ISO New England, April 23, 2015).

- 25. Page 3. TGP states that it currently “directly serves a substantial portion of existing installed gas-fired generating capacity in New England that cannot be served by any other pipeline.” Please identify each and every New England gas-fired generator directly served by TGP whether or not it can be served by any other pipeline. Identify the gas-fired generators that cannot be served by any other pipeline and explain why.**

Response:

As stated in the response to Question 27, Tennessee directly serves 18 gas-fired generating facilities with a total operating capacity of nearly 4,900 MW.¹⁰ In addition, the gas-fired generation on Tennessee represents some of the most efficient gas-fired generators in New England. However, being physically attached to a particular pipeline or LDC does not, in and of

¹⁰ Granite Ridge, L’Energia, Waters River, Pawtucket Power, Blackstone, Rhode Island State Energy, Ocean State Power (multiple), Millennium Power, Berkshire Power, MassPower, West Springfield (multiple), Stony Brook, Windsor Locks, Capitol District, Milford Power, Pittsfield Generating

itself, provide any evidence as to the source of the gas supply and required transportation to deliver that gas supply in order to fuel a specific gas-fired generating resource. Thus, it is important to consider the origin of the gas and what path it will travel to arrive at the gas-fired generator for purposes of determining the benefits of particular pipeline options to serve gas-fired generation.

- 26. Please clarify whether the NED pipeline project will directly serve all New England gas-fired generators that are currently directly served by the TGP system. For those generators that will not be served directly by the NED pipeline project, explain why not. Also, for those generators that will be served directly by the NED pipeline system, explain how the physical connection between the current TGP system and the NED pipeline system will be made? Will the connection take place at Dracut, Massachusetts on the existing 200 Line? If not, please clarify.**

Response:

Please see the response to Question 9.

The NED facilities will be integrated in the existing Tennessee system. It is important to note that the facilities described as "NED" are in fact additional facilities of Tennessee. NED is not designed to be a separate and distinct pipeline system that just happens to interconnect with Tennessee at various locations. "NED" shippers are Tennessee shippers and once in service the "NED" facilities are Tennessee facilities. Therefore shippers contracting for service on the NED Project are able to select a contractual path that will maximize access to gas-fired generators on Tennessee's system as well new generators that may be attached to TGP in the future. All generators served or supplied by Tennessee (now or in the future) can potentially be served or supplied by Tennessee post-NED as required and as contracted. The distinctive feature of Tennessee's NED facilities is that they, as contracted and as needed, make it possible for Tennessee shippers to do so. Physically, the expanded Tennessee facilities currently planned to be constructed under the NED expansion project include interconnections between the NED facilities and the existing Tennessee system at/near: Schoharie / Wright, NY; Lanesborough, MA; Fitchburg, MA; Dracut, MA; Lynnfield, MA; Methuen, MA; West Peabody, MA; and Farmington, CT. In addition, Tennessee's NED facilities are planned to interconnect directly with the facilities of all the LDC Shippers for service to applicable LDC customers.

- 27. Will the NED project be able to supply gas-fired generators that are currently directly served by Algonquin or M&N? If so, does TGP intend to offer gas supply services to such generators? Also, will such generators be charged different rates than generators currently directly served by the TGP system?**

Response:

Due to the critical role that Tennessee plays in transporting gas supplies to other regional pipeline systems, the unique access it offers to the Massachusetts Hub, and the significant

number of gas-fired generators that it serves, any solution to bring more natural gas pipeline capacity to New England to serve gas-fired generation will be incomplete and ineffective if it does not include NED capacity on the Tennessee system. An important consideration for policymakers is to evaluate how the gas-fired generation resources throughout the region, which are attached to a particular pipeline or LDC, are being supplied. It is generally agreed that both Tennessee and Spectra directly serve (*i.e.*, generator receiving gas directly off the pipeline) and indirectly serve (*i.e.*, generator receiving gas from an LDC served by the pipeline) critical and significant natural-gas fired generation resources. For example, Tennessee directly serves 18 New England gas-fired generating facilities with a total operating capacity of nearly 4,900 MW. In addition, the gas-fired generation on Tennessee represents some of the most efficient gas-fired generators in New England. However, being physically attached to a particular pipeline or LDC does not, in and of itself, provide any evidence as to the source of the gas supply and required transportation to deliver that gas supply in order to fuel a specific gas-fired generating resource. Thus, it is important to consider the origin of the gas and what path it will travel to arrive at the gas-fired generator for purposes of determining the benefits of particular pipeline options to serve gas-fired generation.

For example, today Tennessee regularly provides significant quantities of natural gas to Spectra's Algonquin system at Mahwah, New Jersey and at Mendon, Massachusetts – on the order of 1 Bcf/day in the winter. So, today Tennessee is a critical component of the supply chain necessary to both deliver fuel to gas-fired generators directly attached to Spectra and the LDC territories it serves, as well as to deliver fuel to gas-fired generators directly attached to Tennessee and the LDC territories it serves.

To maximize savings to electric consumers, it is necessary to provide increased access to low-cost natural gas supplies to as many New England gas-fired generators as possible. Once Tennessee's NED expansion project is in service, Tennessee's system will be operationally and contractually enhanced to allow significant additional supplies, sourced directly from the prolific and economic Marcellus shale basin that is directly connected to TGP system in Northeast Pennsylvania, to reach existing and future natural gas-fired generation resources in a number of ways.

- NED will allow Tennessee to significantly increase deliveries to other pipeline systems in New England (including Algonquin, M&NP, PNGTS, and Iroquois), providing increased supplies that can be delivered to natural gas-fired generators directly attached to those systems.
- NED provides unique access to the ISO New England-defined Massachusetts Hub area, which has been determined to be critical for future generation development to allow the retirement of older, less efficient, more costly and higher emitting generation.
- NED will increase the ability to deliver natural gas to generation resources currently attached to Tennessee and its LDCs, as shippers on NED will be able to obtain firm contractual rights on the NED expansion to its interconnection with the existing

Tennessee system at Dracut, Massachusetts, as well as to delivery locations beyond Dracut along Tennessee's existing system.

Consequently, the NED Project provides shippers access to markets throughout New England, thereby helping to alleviate, to various degrees, the current constraints on the pipeline systems in the region.

Thus, any EDC solution that is intended to reduce wholesale electricity prices by making additional pipeline capacity available must include additional capacity on the NED Project. Tennessee submits that it alone, enhanced by its NED expansion as contracted, accomplishes the most benefit to the New England market, including New Hampshire, not only serving the generation attached to its system, but also providing the ability to incrementally supply all others. The NED Project is the only pipeline expansion project that provides this expansive market reach and direct access to abundant, low-cost Marcellus natural gas supplies, and thus is an essential element to addressing New England's high electric costs.

Any gas-fired generator or EDC on the Algonquin or M&N system that wants to contract for service on NED as a way to transport gas supply would be able to do so. Tennessee is offering rates on the NED Project that are based on the cost of constructing the NED Project Facilities. These rates may differ than rates that are being paid by existing shippers on the TGP system.

- 28. Page 3. TGP claims that the NED pipeline system will have the ability to serve other regional pipelines with low cost natural gas. Does this statement mean that the NED pipeline will have the ability to supplement the gas supplies delivered to other regional pipelines or does it mean the NED pipeline will have the ability to serve gas-fired generators that are currently directly served by those other regional pipelines? If the latter, please clarify whether such service will require the NED pipeline, in all or some cases, to incur additional costs to transport gas on the other regional pipelines. Also, would the answers to these questions be the same if the end users directly served by the other regional pipelines were LDCs and LNG export terminals?**

Response:

Please see the responses to Questions 8, 9, 26, and 27.

- 29. If the NED pipeline incurs costs to transport gas to gas-fired generators directly served by other regional pipelines, will those incremental costs be rolled-in with the costs of the NED project and recovered from all NED shippers or will they be recovered only from gas-fired generators directly served by other regional pipelines? Will existing gas-fired generators currently served by the Algonquin and M&N pipelines have primary firm rights to receive gas from TGP under the NED project?**

Response:

Please see the responses to Questions 9 and 27. If Tennessee incurred costs on another pipeline to acquire transportation service to transport gas to gas-fired generators attached to another pipeline, in accordance with FERC policy, the costs associated with that off-system transportation would be recovered only from those shippers receiving service on the off-system capacity. Existing gas-fired generators currently served by Algonquin and M&N pipeline are free to contract for capacity on the NED Project and obtain primary firm rights to transport gas on TGP.

- 30. Has TGP performed any studies of the costs to serve gas-fired generators directly served by other regional pipelines? If so, please provide copies.**

Response:

Tennessee has not performed any such study. Further, Tennessee is unable to reasonably calculate the costs that might be required to incrementally serve gas-fired generators directly served by other pipelines due to the lack of information as to the costs that may have to be incurred to serve such generators.

- 31. Page 3. TGP states that the existing TGP system “has the unique and critical ability to supply generation connected to other interstate pipelines.” Does this statement mean that no other existing New England gas pipeline has the ability to supply generation connected to another pipeline? If yes, please explain. If no, please clarify. Also, will the proposed Access Northeast project have the ability to supply generation connected to the TGP system?**

Response:

Please see the response to Question 27. Tennessee, pursuant to its shippers’ contractually provided rights and requests, has the ability to physically *receive* gas in the New England region from Iroquois Gas Transmission, Portland Natural Gas Transmission, and Maritimes Natural Gas Transmission. Additionally, Tennessee currently has the ability to physically *deliver* natural gas on behalf of its shippers to Algonquin and Granite State Gas Transmission. Upon in-service of Tennessee’s NED Project, those specific pipeline interconnections will be maintained and, importantly, it is planned for Tennessee to have the ability to also physically *deliver* natural gas incrementally to Portland Natural Gas Transmission, Maritimes & Northeast Gas Transmission, Iroquois Gas Transmission, and Algonquin. Therefore, as a result of Tennessee’s NED Project, Tennessee will have the ability to physically deliver into every pipeline system serving New England as well as to incrementally serve markets along its own pipeline system. Tennessee is unaware of any plans for Access Northeast to supply any markets served directly by Tennessee.

- 32. Page 3. Regarding the statement that the NED project will relieve existing bottlenecks, does that apply to bottlenecks only on the existing TGP system or on TGP and other pipelines including the Algonquin and M&N pipelines?**

Response:

The NED Project will relieve most mainline constraints on the existing TGP system. In addition, by delivering gas into all other pipelines in New England, the NED Project may allow incremental and diversified supplies to bypass constraints on those other pipeline system that limit deliverability into New England. For example, the NED project can replace declining Canadian supplies at Dracut, Massachusetts and Beverly, Massachusetts and provide much needed pressure in the area. In addition, as discussed in the response to Question 35 below, the NED Project will allow for new generation to be sited near the less congested transmission wires (ISO New England refers to this as “Mass Hub” area) that will allow older coal- and oil-fired generation to retire.

- 33. Page 17. Please provide a copy of the report referenced in footnote 24.**

Response:

The report referenced on p. 17, footnote 24 is the CES Report discussed in Tennessee’s Initial Comments: Competitive Energy Services, *Report to Tennessee Gas Pipeline Company, LLC*, December 5, 2014. A copy of the report is attached as Exhibit D.

- 34. Page 22, footnote 30 states the following: “Note that this pipeline transportation rate [\$1.5/Dth per day] is a proxy for transportation from the Marcellus to New England and is used for illustrative purposes, and does not attempt to reflect the cost of any actual proposed pipeline project.” Please provide TGP’s current estimate of the unit cost of firm transportation on the NED pipeline together with the term of the long-term contract for pipeline capacity.**

Response:

Tennessee’s rates applicable to its NED Project facilities and related services are highly confidential and competitively sensitive. Further, the public disclosure of such information is covered by multiple bilateral confidentiality agreements, protective orders and non-disclosure agreements. The Commission has confidential information that has been filed in docket DG 14-380 that is a current indicator of the unit cost of firm transportation agreed to between Tennessee and an anchor shipper. Rates offered to other shippers will be dependent upon factors such as: specific receipt and delivery points, type of service to be provided (for example, firm service or enhanced firm service), contract term, volumes, necessary incremental infrastructure, and other contract terms.

35. **Page 24. For each gas-fired generator currently located in the Hub area, please provide the name of the pipeline that directly serves it with gas.**

Response:

Tennessee has not studied the electrical interconnections of each gas-fired generator to determine whether it is located in the “Mass Hub” area. The significance of the Mass Hub, which is an ISO New England description of a geographic area in central and western Massachusetts that has been identified as a prime area to site future generation due to the absence of electric transmission constraints, is related to future generation additions and the ability to retire older generation facilities. Specifically, ISO New England has stated that a significant portion of the generation expected to be required to replace retiring generation in New England may need to be sited in the Mass Hub area in order to allow the retirement of aging coal and oil-fired generation without causing reliability problems. As illustrated by Tennessee’s existing facilities, as further augmented by its NED Project, Tennessee serves this area more effectively than any other pipeline.

36. **Page 27. Is TGP aware of any studies that suggest that the failure to directly or indirectly provide all or most gas-fired generators with firm transportation service could result in wholesale electricity prices continuing to be set at high levels? If so, please provide such studies.**

Response:

Tennessee is not aware of any studies that specifically analyze the impact in wholesale electricity prices of providing access to incremental natural gas less broadly, *i.e.*, not to as many as reasonably possible, in New England. However, as noted in Tennessee’s Initial Comments, there are numerous studies that conclude that additional pipeline capacity can provide substantial benefits to New England consumers, yet those benefits can only be achieved if gas access is provided to as many generators that are needed to operate to meet electric load that currently do not have sufficient access to natural gas. To the extent that only certain gas-fired generators in New England are provided with access to natural gas, this will result in periods of time when the electric load in New England is higher than the amount of electricity that can be provided by those gas-fired generators with access to natural gas. Consequently, during such periods, the prices in the wholesale electric market will be higher than they otherwise would be if there was greater access to natural gas supplies via pipeline capacity.