national Fuel

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VIA ELECTRONIC FILING
Ms. Rosemary Chiavetta
PA Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

RE: Proposed Rulemaking: Natural Gas Distribution Company Business Practices; 52 Pa. Code § 62.225
Docket No. L-2017-2619223

Dear Secretary Chiavetta:

Enclosed please find a copy of National Fuel Gas Distribution Corporation's Comments in the above-reference matter.

If you should have any questions or concerns, please contact me at (814) 871-8177.

Very truly yours,

Nathaniel J. Ehrman

Enclosure

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Proposed Rulemaking: Natural Gas Distribution Company Business Practices; 52 Pa. Code § 62.225.	: : : :	**Docket Number: L-2017-2619223**

COMMENTS OF
NATIONAL FUEL GAS DISTRIBUTION CORPORATION
TO THE ADVANCED NOTICE OF PROPOSED RULEMAKING
ORDER

I. Introduction.

On August 31, 2017 the Pennsylvania Public Utility Commission ("PUC" or "Commission") entered an Advance Notice of Proposed Rulemaking Order to Amend the Provisions of 52 Pa. Code § 62.225 regulations that address the release, assignment and transfer of capacity among Natural Gas Distribution Companies ("NGDCs") and Natural Gas Suppliers ("NGSs") in Docket No. L-2017-2619223 ("ANOPR"). The regulatory changes proposed in the ANOPR are intended to improve the competitive market by revising how capacity is assigned and addressing related issues including penalties and imbalance trading.

For its response to the ANOPR, National Fuel Gas Distribution Corporation ("Distribution" or "the Company") submits the following Comments. Distribution also supports the Comments of the Energy Association of Pennsylvania ("EAP"), of which Distribution is a member, filed October 31, 2017 at this Docket.

II. Comments

While Distribution understands the Commission's intent with its ANOPR proposals, it is concerned that the ANOPR fails to consider the differing capacity portfolios and balancing assets available to each NGDC. Each of the proposals appears to have some limited merit but only in the context of what might make sense for an individual NGDC or group of similarly situated NGDCs. The ANOPR's proposed modifications to the regulations, however, are not well-suited for implementation across all NGDCs.

There does not appear to be any recognition of the differences in services utilized by NGSs to serve shopping customers at each NGDC. Distribution is providing its January 28, 2015 presentation[1] to the Natural Gas Office of Competitive Market Oversight ("OCMO") and Commission staff to support its contention that the services offered to NGSs are a function of the unique combination of assets available to its service territory. Across Pennsylvania, NGDC service differences are in many cases the products of negotiations and settlements dating back to each NGDC's initial implementation of end user transportation and/or shopping programs. Just as is the case with Distribution, the differences often reflect the differing capacity portfolios and balancing assets available to each NGDC.

The ANOPR's proposed modifications to the regulations appear to place a premium on uniformity among NGDC programs; ignoring NGDC differences that support reliability. This contrasts with the text of the ANOPR which properly elevates

[1] At the request of OCMO, the EAP facilitated a meeting at which each of the major natural gas distribution companies operating in the Commonwealth provided information on its unique distribution system and how it operates in Pennsylvania to meet its statutory obligations as the supplier of last resort.

reliability over competitive concerns and recognizes differences in NGDC capacity assets. The Company understands that there is a place for standardization in a competitive marketplace but there needs to be some flexibility to recognize differences; otherwise the standards are based on a least common denominator.

Inflexible regulatory mandates that yield a reasonable or even desirable result under certain isolated circumstances can lead to undesirable or harmful results under other circumstances. Even if the result is neutral, care should be taken before expending resources that might produce better results elsewhere.

With regard to the impact of the ANOPR's proposed modifications in Distribution's service territory, the Company does not believe any of the modifications are guaranteed to produce a benefit to NGSs or shopping customers. While careful planning can mitigate downside risks for some of the proposed changes, others would degrade current service offerings thereby harming NGSs, and as a consequence shopping customers. Even if the same modification might produce a benefit in another NGDC territory; is it fair to benefit customers in one part of the Commonwealth to the detriment of another? To the extent that any of the ANOPR's proposed modifications are eventually ordered, the Company believes the best outcomes would be achieved if the regulations provide flexibility to retain workable programs that are based upon the differing capacity portfolios and balancing assets available to each NGDC, provide better results in terms of reliability first and secondarily, competitive options for shopping customers.

A. Uniform Capacity Costs For All Customers

To implement the ANOPR's capacity assignment proposal, the Commission proposes the following additions to the regulation at 52 PA Code § 62.225(a)(3) (hereinafter, "Uniform Capacity Cost Proposal"):

> (3) A release, assignment or transfer **[must be based upon the applicable contract rate for]** of capacity or Pennsylvania supply **[and] shall** be subject to applicable contractual arrangements and tariffs. <u>**Capacity or Pennsylvania supply costs shall be charged to all customers as a non-bypassable charge based on the average contract rate for those services.**</u>

In effect, the Uniform Capacity Cost Proposal is a structural change to the price-to-compare because by relocating capacity costs to another charge, it focuses the comparison on the gas supply commodity cost.[2] If implemented properly, the Company does not object to this proposal but questions whether it would really result in an NGS offering innovative or lower priced services. To be sure, at least in some cases the NGS commodity price would be nominally lower because the capacity cost would be unbundled from the total cost. The same would be true for NGDC default supply service so comparatively there would be no difference; the change would be that the comparison would take place at a nominally lower rate.

The Company believes the ANOPR's presumed efficacy of the Uniform Capacity Cost Proposal would benefit from a study comparing NGS rates to NGDC default rates that would include re-bundled rates in Peoples Natural Gas Company LLC territory.[3] The study, which should also compare NGS rates to NGDC default rates at each NGDC

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[2] The Company believes customers potentially benefit, at least from an educational perspective, from a more easily understood, transparent comparison of NGS and NGDC default service commodity costs.
[3] The Pennsylvania Office of Consumer Advocate ("OCA")'s web site "A Residential Consumer's Natural Gas Shopping Guide" at http://www.oca.state.pa.us/Industry/Natural_Gas/gascomp/GasGuides.htm contains price comparison information that would be pertinent to the study.

and among NGDCs, should provide quantitative evidence valuable to the regulatory process.

Should the Commission choose to adopt the Uniform Capacity Cost Proposal, it should also provide additional time for NGS price offers to adjust to the new price-to-compare structure. Whether the NGS price was fixed or variable, since all customers would presumably be paying the new non-bypassable charge as of some implementation date, that customers with NGS contracts providing commodity pricing for a term that expires after Uniform Capacity Cost Proposal implementation date could in effect be paying twice for the capacity.[4] The Company suggests that an extended transition period, perhaps 18-24 months after a Commission Order, would allow NGSs to prospectively adjust contract pricing to reflect the structural change in the price-to-compare, thereby providing consumers with protection from the pricing consequence of a contractual timing difference.

The Company also believes that implementation of the ANOPR's Uniform Capacity Cost Proposal should take place on the effective date of an NGDC's 1307(f) Annual Gas Cost recovery proceeding; in Distribution's case August 1st of some prospective year.[5]

The Company will need to make some systems modifications but overall, believes that the implementation costs should be modest provided that it can incorporate the charges into existing rate components or delivery charges. If the Company needs to

[4] Conceptually, the current price-to-compare bundles gas supply and capacity costs. Absent an NGS voluntarily changing their contract pricing to implement the new price-to-compare structure, some NGS customers could be charged bundled prices that included a duplicative component to recover capacity costs.
[5] In Distribution's case, no sooner than August 2020.

include a separate line item for capacity charges on the customer bill, for example, implementation costs would be higher.

With respect to the proposed change to 52 PA Code § 62.225(a)(3), Distribution does not believe the Commission intends that "all" customers pay the non-bypassable charge; rather the intent is that all customers for which the NGDC's capacity is utilized to provide supply service pay the new non-bypassable charge, e.g. NGDC default service customers and NGS customers in the *Priority 1 - Service for essential human needs use* classification. If this is not the case or there is an alternative interpretation of "all" that is not readily apparent from the text of the ANOPR, the Commission should clarify such. In either case, Distribution suggests that further modification to 52 PA Code § 62.225(a)(3) would be appropriate.

B. Capacity Assignment From All Assets

To implement the ANOPR's capacity assignment proposal, the Commission proposes the following additions to the regulation at 52 PA Code § 62.225(a)(2) (hereinafter, "Virtual Access Mechanism"):

> (2) A release of an NGDC's pipeline and storage capacity assets must follow the customers for which the NGDC has procured the capacity, subject only to the NGDC's valid system reliability and Federal Energy Regulatory Commission constraints. **<u>When release must be restricted due to reliability or other constraints, an NGDC shall develop a mechanism that provides proxy or virtual access to the assets.</u>**

While the Company understands the ANOPR's intent for providing NGSs with broader, albeit indirect, access to restricted assets, the approach of a generic change to the applicable regulation ignores the unique operating circumstances applicable to and asset portfolios present in each NGDC's territory. The ANOPR notes the "Commission of course holds that reliability is a higher priority than competition and always seeks to preserve reliability and many different NGDC created programs have accomplished this task."[6] Requiring NGDCs to develop a mechanism that provides proxy or virtual access to restricted assets appears counter to this holding because rather than permitting NGDCs to create "different" programs that meet each NGDC's unique reliability concerns, the ANOPR appears to advocate for only one solution – proxy or virtual access.

Since it is the Company's understanding that all NGDCs restrict access to at least some assets for valid system reliability and/or Federal Energy Regulatory Commission constraints, use of the word "shall" in the proposed addition creates a mandate for development of virtual access mechanisms. The Virtual Access Mechanism language removes any balancing of the circumstances present; in effect it improperly presumes that restricted access provides a competitive advantage to the NGDC that must be remedied.

Distribution does not object to employment of virtual access mechanisms as an option[7] but believes a better approach would be to address this concern on an NGDC by NGDC basis. The Company believes a mandate only makes sense if the absence of access causes a meaningful barrier to competition; one that cannot be counter-balanced by system reliability considerations. The regulations must provide for a degree of flexibility to accommodate circumstances where no virtual access mechanism design exists that would not adversely impact non-shopping customers or system reliability, which impacts shopping and non-shopping customers alike.

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[6] ANOPR, p. 12.

[7] The ANOPR's proposed Virtual Access Mechanism may make sense in other PA NGDC markets but the Company believes it is a step backward for Distribution's market.

Should the Commission ultimately issue an Order approving the Virtual Access Mechanism as proposed, the virtual access requirement would not be applicable to Distribution's pipeline transmission capacity release program because its tariff[8] provides NGSs with two choices: 1) a "slice of the pie" or 2) a "designated alternative path" released to NGSs at the weighted average demand cost of capacity. Even if the ANOPR's Uniform Capacity Costs For All Customers proposal is adopted, the Company does not believe this would change NGS preferences because 1) the "slice of the pie" only provides limited access to assets not released as a part of the "designated alternative path", 2) some of the non-designated capacity serves load pockets that would be subject to system maintenance orders and 3) it is administratively more complex for NGSs to nominate on the four "slice of the pie" pipelines relative to the two "designated alternative path" pipelines.

As proposed in the ANOPR, the Virtual Access Mechanism would appear to mandate replacement of Distribution's existing storage capacity release program, even though only approximately 8% of the pipeline storage capacity held is restricted, i.e. not available for release to NGSs.[9] A significant portion of the restricted storage capacity is available to all NGSs via a peaking service that caps NGS delivery obligations at forecast of 62 degree days. The remaining restricted storage does not have direct access to the city gate nor can it be filled from the lower priced supplies available via the "designated alternative path" transmission capacity used to fill the 92% of upstream pipeline storage capacity available to NGSs. Further, additional system maintenance orders would be

[8] National Fuel Gas Distribution Corporation, Gas - Pa. P.U.C. No. 9 ("Tariff"), Page No. 131.
[9] Distribution's Columbia Gas Transmission ("Columbia") FSS capacity is the restricted asset; capacity released to NGSs is provided from Distribution's National Fuel Gas Supply Corporation ("NFGSC") ESS capacity.

needed to ensure that the formerly restricted assets provided the same reliability function as they currently provide. Like "slice of the pie" transmission capacity releases, "slice of the pie" storage capacity releases would be administratively cumbersome.

Based upon the guidance provided in the ANOPR, if required Distribution could implement a virtual access mechanism to replace its storage capacity release program. In general, the design would attempt to translate the operating rules applicable to the current storage program. The virtual access mechanism would utilize both Columbia and NFGSC storage capacity thereby providing virtual access to NGSs.

In addition to ending storage capacity releases, Distribution would end releases of transmission capacity utilized to fill the storage underlying the virtual access mechanism.[10] Ending storage releases may impact NGSs who had contractually locked in gas supplies for injection into the capacity they had presumed they would have received via the capacity release mechanism. Should the Commission adopt its Virtual Mechanism, providing for an extended implementation period of 18-24 months could provide time for NGSs to adjust their gas procurement portfolios accordingly.

To avoid a complicated transition, Distribution believes it would be essential to end the existing program at the end of a storage withdrawal cycle and initiate the virtual access mechanism on the 1st day of April to coincide with the start of the storage injection cycle.[11] Distribution would fill storage designated to support the virtual access mechanism during the injection cycle.

[10] A downside to this approach is that to support a storage virtual access mechanism, Distribution would need to restrict NGS access to pipeline and storage capacity that is currently released to NGSs, i.e. more capacity would be restricted than is currently the case.
[11] In Distribution's case, implementation should take place no sooner than April 2019.

In place of current NFGSC ESS storage withdrawals, NGSs would purchase Virtual Storage Sales (VSS) gas. VSS would not be available to NGSs during the injection cycle. Further, storage injections/inventory would not be designated to specific NGSs because that could infer passing of title; a violation of FERC's shipper must have title rule. At the end of the injection cycle, Distribution would develop a VSS rate based upon the cost of gas purchased, the cost of capacity allocated to the VSS program, anticipated variable costs (injection, withdrawal and fuel retention/loss charges) and any other related costs.

As of November 1st, each NGS would receive a purchase entitlement based upon its projected customer load for the withdrawal cycle.[12] Monthly minimum and maximum purchase obligations and limits would ensure that the underlying storage assets were utilized in a manner consistent with the storage assets used to serve customers supplied by Distribution. VSS OFOs, System Maintenance Orders and System Alerts as well as different inventory level requirements would be necessary to replicate the reliability role attained through Distribution's current utilization as a system asset. For example, OFO-like "must-take" instructions obligating NGSs to purchase VSS would be issued when required to ensure that storage inventory is withdrawn such that operational and pipeline tariff requirements for storage inventory are met.[13]

VSS would be nominated via Distribution's Transportation Scheduling System ("TSS"); the preliminary development plan uses TSS's production pool logic as a

[12] Similar to the adjustments the Company makes each month in storage capacity release quantities for each ESCO, each NGS's purchase entitlement could change on a month to month basis to reflect customer migration and/or consequent projected load shifts.
[13] Both NFGSC and Columbia have tariff "must-turn" requirements that effectively limit the amount of gas a shipper may have in its storage inventory at the end of the withdrawal cycle.

template. TSS would need to be enhanced to include a VSS nomination platform and provide corresponding reports to NGSs. Adding VSS functionality to TSS is a major change to TSS; Distribution's preliminary cost estimate for TSS modifications is approximately $750,000.

Importantly, VSS would be on the utility side of the city gate; current access to the interstate pipeline grid and other markets provided through released storage capacity would not be available because NGSs would not have title to the gas injected into storage.

Distribution believes that its existing storage capacity release program, which makes the vast majority of its upstream pipeline storage capacity available to NGSs, already meets if not exceeds the Commission's market competition objectives. As such, the Company's preference is to keep its current storage capacity release program in place.

The danger of the ANOPR's Virtual Access Mechanism proposal is that it creates an inflexible mandate. It's not that Distribution cannot design a workable virtual access mechanism, rather that imposition of such a mechanism on Distribution's system would be harmful for the competitive market because the "costs" significantly outweigh the "benefits" provided by having a standard solution for all NGDC markets. Given the cost of implementing a virtual access mechanism for storage as well as the limitations such a mechanism would place on NGSs, it would be a travesty if Distribution would be required to implement the Virtual Access Mechanism as a response to a characteristic of assets held by NGDCs elsewhere in the Commonwealth. The Company does not believe this is a reasonable proposal for its service territory.

No two NGDCs have the same set of pipeline assets[14] and it would also be problematic to require NGDCs holding 7C capacity to convert that capacity to releasable Part 284 capacity; particularly if the conversion of such capacity leads to diminished reliability or if the rate paid for the capacity increases as a result of the conversion.

Distribution believes the current language of 52 PA Code § 62.225(a)(2) is adequate and does not provide an impediment to the creation of virtual access mechanisms. Should the Commission believe that an addition is necessary, Distribution suggests that more appropriate wording for the proposed addition to 52 PA Code 62.225(a)(2) could read as follows:

> (2) A release of an NGDC's pipeline and storage capacity assets must follow the customers for which the NGDC has procured the capacity, subject only to the NGDC's valid system reliability and Federal Energy Regulatory Commission constraints. **When release must be restricted due to reliability or other constraints, an NGDC [shall develop a] shall consider <u>developing</u> a mechanism that provides proxy or virtual access to the <u>restricted</u> assets.**

With the modifications it proposes, Distribution believes that its existing storage release program as well as other working NGDC programs could continue.

C. Imbalance Trading

To implement the ANOPR's daily imbalance trading proposal, the Commission proposes the following additions to the regulation at 52 PA Code 62.225 (hereinafter, "Daily Imbalance Trading Proposal"):

> <u>**(5) An NGDC shall provide the opportunity for imbalance trading on the day the imbalance occurred. Capacity may be traded between market participants provided that either:**</u>
>
> <u>**(i) The trade improves the position of both parties.**</u>

[14] It follows that no NGDC should be required to support a capacity release program that is inconsistent with assets it holds.

(ii) The trade improves the position of one party and is agreed to by the second party but does not negatively impact the second party's imbalance.

Use of the term "Capacity" in the proposed regulatory text is inconsistent with applicable FERC regulations[15] potentially exposing NGDCs to substantial penalties; capacity cannot be traded outside of FERC's capacity release mechanism. The Company believes this is simply an improper choice of language[16] and that the intent is that gas imbalances can be traded. Instead, the Company suggests that more appropriate wording for the proposed addition to 52 PA Code 62.225 could read as follows:

(5) An NGDC shall provide the opportunity for imbalance trading on the day the imbalance occurred. [Capacity] Gas Imbalances **may be traded between market participants provided that either:**
(i) The trade improves the position of both parties.
(ii) The trade improves the position of one party and is agreed to by the second party but does not negatively impact the second party's imbalance.

Presuming this change is made, Distribution could provide daily imbalance trading to NGSs that service customers using transportation services with Aggregate Daily Delivery Quantity ("ADDQ")[17] requirements but believes the feature would not be utilized. Distribution appreciates the intent of the proposal; particularly 52 PA Code 62.225(5)(i) and (ii). Distribution's concern is that the Daily Imbalance Trading Proposal is designed to address a problem that does not exist on its system and even if it did, due to illiquidity is inferior to trading opportunities on the interstate pipeline system.

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[15] 18 CFR § 284.8 (c).
[16] Trading of capacity may be terminology borrowed from the organized electric market that does not translate well to the gas industry where the connotation of this terminology invokes a different regulatory construct.
[17] The ADDQ is the functional equivalent of UGI's DDR that is referenced in the ANOPR.

Distribution currently provides month-end imbalance trading as a part of its comprehensive imbalance resolution and cash out procedures. Month-end imbalance trades are rare because the tariff provides several safe harbor provisions that result in the vast majority of cash out purchases and sales being conducted at a market price, i.e. a rate without a penalty component. Distribution believes NGS demand for the daily imbalance trading would also be minimal.[18]

Distribution expects daily imbalance trading would be not be utilized because there are relatively few city gate deficiency imbalances subject to cash out. During the period September 2016 to August 2017, city gate deficiencies totaled only 3,218 Mcf. This number should be compared to approximately 44,000,000 Mcf of gas delivered to Distribution's system to serve customers that buy their gas supply from NGSs; less than one-hundredth of a percent.

Distribution provides service to smaller shopping customers under its SATC service and larger end user transportation customers under its MMT service. Using the ANOPR's terminology, SATC is a "Choice" service and MMT is a "Transportation" service.[19] NGSs aggregate SATC customers under SATS and MMT customers under MMNGS services. NGSs net or trade imbalances at month-end between and among these two services. The Company issues ADDQs approximately 23 hours in advance of the gas day and the Company does not change the ADDQs during the gas day. Further, NGSs are not penalized for the difference between actual customer usage and ADDQs so

[18] Anecdotally, Distribution believes that many NGSs refuse to participate in month-end trading because to do so would reveal the NGS's imbalance position which is competitively sensitive. Distribution believes this reticence would be accentuated in a daily trading environment.

[19] End user transportation customers that take service under Distribution's DMT service do not have a Company issued ADDQ requirement but have access to daily banking and balancing service features that obviate the need for daily imbalance trading.

there is no real-time or near real-time communication issue related to the ADDQ requirement. Finally, Distribution provides a daily penalty-free tolerance band to NGSs using SATS and MMNGS services which rolls daily imbalances forward to the month-end imbalance calculation, in almost all cases automatically netting negative and positions for each NGS without charge prior to month-end trading.

Distribution provides NGSs all[20] five NAESB nomination cycles, releases storage capacity to NGSs in its SATS program, and provides access to local production attached to its system. Further, there is an abundance of shale gas produced into the pipeline capacity[21] released to NGSs and/or available at the city gate from third parties; notably Distribution's service territory is upstream of the pipeline constraints that sometimes impact deliveries to eastern Pennsylvania NGDC markets. Additionally, NGSs on Distribution's system typically have considerable expertise in gas procurement including long term relationships with regional producers and suppliers. Distribution provides NGSs scheduled quantities after every nomination cycle via its TSS system; analogous information is available via pipeline EBBs. For all these reasons as well as the above-mentioned ADDQ tolerance bands, there is minimal (on most days, non-existent) demand for daily imbalance trading.

Distribution believes gas trading is best conducted at liquid trading points on or with direct access to FERC jurisdictional interstate pipelines. As such, Distribution recommends that the Commission not adopt the Daily Imbalance Trading Proposal.

[20] Including those NGSs that supply DMT customers.

[21] Distribution's released capacity provides firm in-path access to Tennessee Gas Pipeline's Zone 4 Line 200 Pool trading point. As noted in the ANOPR on p. 15, "trading can occur on FERC jurisdictional interstate pipelines, which creates the ability for NGSs to perform upstream imbalance trading. All these programs provide the framework for NGSs to mitigate penalties or otherwise limit the impact from daily imbalances." With many more trading parties on the pipeline, Distribution believes liquidity would be greater than would be the case for trading limited to Distribution's system.

Should the Commission decide to pursue daily imbalance trading, it should do so on an NGDC by NGDC basis in response to meaningful daily imbalances and demand for such a feature from NGSs active on the NGDC's system.

Should the Commission choose to adopt the Daily Imbalance Trading Proposal, Distribution would implement by modifying TSS to calculate NGS imbalance position at the close of the last intraday nomination cycle, present the imbalances to interested NGSs, process the trades and integrate results into existing processes and/or reports. The traditional approach used in the gas industry is to require that trades from the date on which the imbalance is created be conducted and processed before the start of the next gas day.

Distribution has determined that it could reduce development costs by approximately a third if it were to present each set of daily imbalance positions individually[22] as a preliminary process to its month-end imbalance trading process, rather than at the end of each gas day. This would not negate any daily NGS trading opportunity or position but would provide administrative advantages to the Company and presumably NGSs. The preliminary anticipated development costs for TSS enhancements to implement the Daily Imbalance Trading Proposal total $150,000 if trades are to be conducted each day. Based upon the annual city gate imbalance volume present above, assuming gas was available for trading to offset all NGS ADDQ deficiencies outside of tolerance, the cost would be $46.61 per mcf.

[22] Each day would appear within TSS as a distinct trading "window", the same as it would have appeared if it were provided on each day prior to month-end.

Penalty Structure During Non-peak Times

To implement the ANOPR's Penalty Structure During Non-peak Times proposal, the Commission proposes the following additions to the regulation at 52 PA Code 62.225 (hereinafter, "Non-Peak Penalty Structure"):

> **(6) Penalties during system off-peak periods must correspond to market conditions.**
> **(i) An NGDC shall use the system average cost of gas as the reference point for market based penalties. If an NGDC takes service from a local hub, it may use the local hub as a reference point for market based penalties.**
> **(ii) The lowest penalty must be set at the market price.**

Conceptually, while Distribution understands the intent of the Non-Peak Penalty Structure it does not believe that that Commission has properly analyzed the implication of "The lowest penalty must be set at the market price." While the text of the ANOPR appears to take reliability into consideration, the proposed regulatory addition doesn't capture the reliability discussion in the ANOPR. This is not to say that market pricing cannot be factored into penalties but if done improperly, market oriented penalty pricing creates a gaming opportunity that would benefit NGSs that fail to meet their delivery obligations to shopping customers at the expense of non-shopping customers.

For a market pricing approach to work, there need to be controls in place such that system reliability is not threatened. The concept "allow all market participants to quantify risk across any or all operations within the Commonwealth subject only to that system's market based cost of gas" is dismissive of reliability. The Company is unaware of a non-peak period qualifier on the statement "The Commission of course holds that reliability is a higher priority than competition and always seeks to preserve reliability".[23]

[23] Does the Commission believe that permitting NGSs to abandon their delivery obligations to shopping customers to serve other markets, e.g. a gas-fired electric generator, is beneficial to the competitive market?

Distribution's current tariff city gate penalty during off-peak periods is based upon the Tennessee Gas Pipeline's Zone 4 200 Line Trading Hub, referred in the SNL Natural Gas Index as "TGP Z 4 200L", serves as the Company's Market Index Point. This point, which is geographically located within the Company's service territory, satisfies the ANOPR's proposal for use of a local hub and is referred to in the tariff as the Daily Market Index ("DMI").[24] The City Gate Imbalance Rate is calculated to be the higher of $7.00 per Dth or 110% of the DMI for that day plus all transportation costs to the Company's City Gate. When an NGS under-delivers it's ADDQ, the City Gate Imbalance Rate is applied to the deficiency volume outside the MMNGS or SATS tolerance band.

Unlike UGI, the Company provides a tolerance band around the ADDQ within which no penalty is assessed for the difference between the NGS's ADDQ and the NGS delivered volumes. Further note that when the NGS under-delivers its ADDQ, the Company sells gas to the NGS to resolve the deficiency, therefore the rate charged is not entirely a penalty. The ANOPR proposal is limited to the penalty rate calculation; there is no proposal that all NGDCs adopt UGI's imbalance resolution structure nor should there be. Differences in NGDC imbalance resolution structures often reflect the differing capacity portfolios and balancing assets available to each NGDC. Further, they may be the products of negotiations and settlements dating back to each NGDC's initial implementation of end user transportation and/or shopping programs.

As a practical example, consider that over the period September 2-5, 2017 and September 9-11, 2017, the settled price for gas traded at TGP Z 4 200L was $1.1530/Dth.

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[24] Tariff, Rule 29.

Under Distribution's current tariff, the City Gate Imbalance Rate was \$7.0872/Dth. The cost of transportation to the city gate was \$0.0872/Dth which added to TGP Z 4 200L price results in a market gas cost of \$1.2402/Dth. Arguably, the penalty portion of the rate is the difference between the City Gate Imbalance Rate and the market gas cost or \$5.8470/Dth. The ANOPR appears to suggest a fair penalty would be the 15% of the market price but not less than \$0.25/Dth.[25] Using this formulation, the City Gate Imbalance Rate would be \$1.4902/Dth with the penalty portion of the rate equal to \$0.25/Dth. Distribution posits that \$0.25 is an inconsequential penalty.

When an individual NGSs fails to meet its ADDQs, so long as the deficient quantity is small, the relative impact on the system is inconsequential. If ADDQ deficiencies reach a point where they become consequential on a daily basis (as would appear to be the consequence of the Non-Peak Penalty Structure),[26] the NGDC must procure additional unplanned gas supplies to replace those not provided by the NGSs. Unplanned purchases are likely to be more expansive than planned purchases therefore non-shopping customers would subsidize shopping customers.

As a benefit to the market, the ANOPR posits that a "standardized penalty structure may also persuade NGSs to enter new markets, offer additional products or generate increased competition as the penalty structure is consistent regardless of which NGDC the NGS is operating in." [27] Distribution believes this benefit is speculative and does not offset risks to either shopping or non-shopping customers.[28] Further, the new

[25] ANOPR, pp. 18-19.
[26] For example, a market arbitrage opportunity may not be limited to one NGS. Distribution is concerned about a scenario where multiple NGSs, particularly those serving larger customer loads, respond to the same market opportunity at the expense of meeting their ADDQ obligations.
[27] ANOPR, p. 18.
[28] This is not simply a matter of non-shopping customers subsidizing shopping customers because NGSs are not obligated to pass along the presumed benefit of the Non-Peak Penalty Structure to their customers.

markets would not necessarily be in Pennsylvania. For example, gas sold to electric generators into PJM may serve customers in other PJM states or even New York since it is not unprecedented for PJM generated electricity to be sold into NYISO.

If the cost, i.e. the penalty, for non-performance is too low, NGSs will elect to serve other markets when more profitable than serving the NGDC shopping market. In describing UGI's penalty structure, the ANOPR observes it "does not absolve market participants from their obligation to meet their customers' requirements."[29] Distribution believes this is the standard to which the Non-Peak Penalty Structure should be held.

Distribution does not object to NGSs serving other markets after they meet their obligation to shopping customers but the proposed Non-Peak Penalty Structure appears to value wholesale competitive opportunities over system reliability. To maintain reliability, NGSs cannot be provided with a vehicle that allows them to fail to meet their delivery obligations at market prices. A few practical controls can strike a balance between market oriented penalty pricing and reliability, and still provide NGS with reduced penalty exposure.

First, a floor price[30] is essential to help prevent subsidization of NGSs by non-shopping customers. The Company believes that it can satisfy the intent of the ANOPR by substituting a lower dollar amount (lower in the current market) for the $7.00 per Dth floor. In place of the $7.00 amount, the Company proposes a floor equal to the

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Competitive pressures are unlikely to persuade NGSs to pass along the presumed benefit; one need only review the OCA's web site "A Residential Consumer's Natural Gas Shopping Guide" to see that many NGSs rates do not necessarily reflect competition, e.g. as compared to the NGDC default service rate.

[29] ANOPR, p. 19.

[30] Distribution believes the floor price is consistent with the statement in the ANOPR at page 19, "While static penalties have their place, the Commission posits that a minimum penalty, like the one found in UGI's penalty structure above, is needed and invites parties to comment on the need for such a penalty structure."

Company's average cost of purchased gas per Mcf, as determined in the Company's annual 1307 (f) filing quarterly update filings.[31] The Company believe this to be a just and reasonable rate as well sufficient to protect non-shopping customers from increased procurement costs due to NGS failures to deliver their ADDQs. The Company would also adopt the ANOPR's proposed penalty formulation; adding 15% of the market price but not less than $0.25/Dth to the total rate charged.[32]

Second, a tiered penalty structure where the penalty increases as the percentage of ADDQ failure increases may also help to provide additional incentive for NGSs to meet their ADDQs, i.e. in combination with a floor price sufficient to prevent inappropriate market behavior.

The Company proposes the following modification to the ANOPR's proposed additions to the regulation at 52 PA Code 62.225:

> **(6) Penalties during system off-peak periods must correspond to market conditions.**
>
> **(i) An NGDC shall use the system average cost of gas as the reference point for market based penalties. If an NGDC takes service from a local hub, it may use the local hub as a reference point for market based penalties.**
>
> **(ii) The lowest penalty must be set [at] <u>based upon the higher of the NGDC's system average cost of gas or</u> the market price.**

While the circumstances where such provisions would be needed are likely extremely rare[33] on its system, Distribution does not oppose including tariff provisions that provide NGSs who intentionally "help" an NGDC correct an imbalance with

[31] This rate is currently $4.4621/mcf – see Tariff, Page No. 106, for example.
[32] The penalty portion of the imbalance rate would always be a function of the market price, even when the floor rate was in effect.
[33] Even during the polar vortex nearly all NGSs met their ADDQs obligation. Distribution reminds the Commission that the delivery issues and extreme pricing volatility events experienced in eastern Pennsylvania NGDC markets did not occur in Distribution's market.

protection from penalties. The key is intentional coordination with the NGDC; unintentional and uncoordinated deliveries would not typically help because the NGDC may have already arranged incremental supplies or relied upon available balancing assets, e.g. no-notice storage, to address an anticipated deficiency.

In extreme low demand scenarios, Distribution is willing to take ADDQs to zero (thus no penalty is possible) in coordination with a willing NGS. As for extreme high demand scenarios, Distribution would coordinate with the NGS outside of the transportation program, i.e. as a gas procurement arrangement, so that there was no penalty exposure for the coordinated assistance. Distribution opposed pre-defined compensation concepts such as rewarding the NGS with the market cost of gas plus a portion of the penalties levied). First, there may be cases where compensation needs to higher to attract supplies from other market opportunities. Second, there is no guarantee that penalties will be levied on a different entity(s) who cause imbalances if those entity(s) meet their DDQ obligations.

The cost of implementing the changes proposed by the Company would be those associated with changing the formula used in the Company's business systems and while non-zero, not likely to be substantial. More substantive changes, in addition to potentially diminishing system reliability, could require other systems changes and therefore be more costly to program.

III. Conclusion

Wherefore, Distribution respectfully requests that the Commission consider the foregoing comments in its deliberations over the Proposed Regulations.

Respectfully submitted,

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Dated: November 2, 2017

ATTACHMENT

National Fuel

National Fuel Gas Distribution Corporation

NGDC Operational Briefing: Capacity/Storage Assets & System Balancing

Docket No. I-2013-2381742

Gas RMI

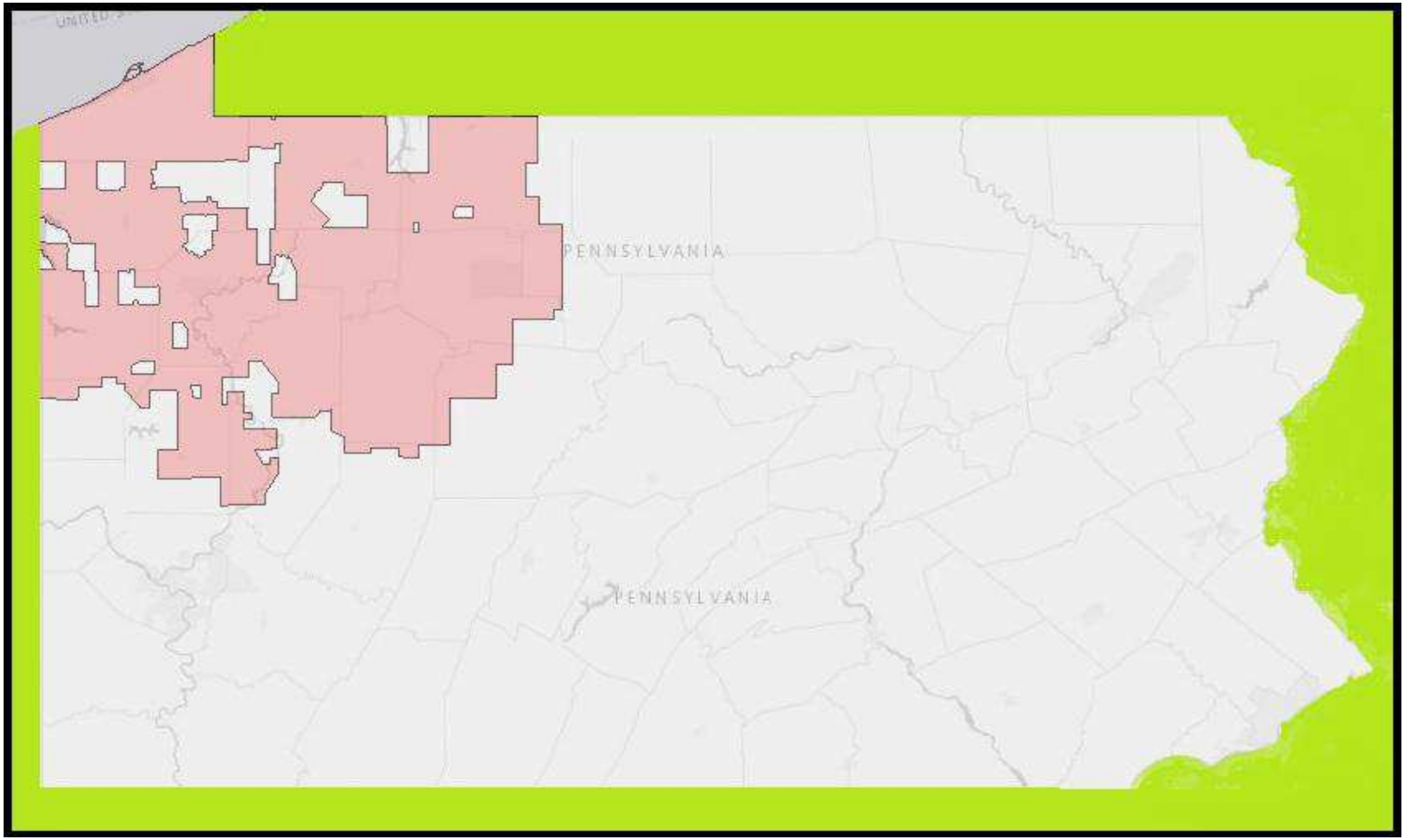
Presentation by: Michael Novak

January 28, 2015

National Fuel

NGDC Operational Briefing

System Overview – Service Territory



Base Map: SNL Financial LC

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NGDC Operational Briefing

System Overview – Customer Statistics

National Fuel Gas Distribution Corporation ("NFG")

- Customer Shopping & Load Statistics
  - 33,000 of 213,000 NFG Customers shop for their gas supply.
  - Nearly all Industrial Load is NGS supplied.
  - Over 55% of annual system load is NGS supplied.
  - All customers are firm.

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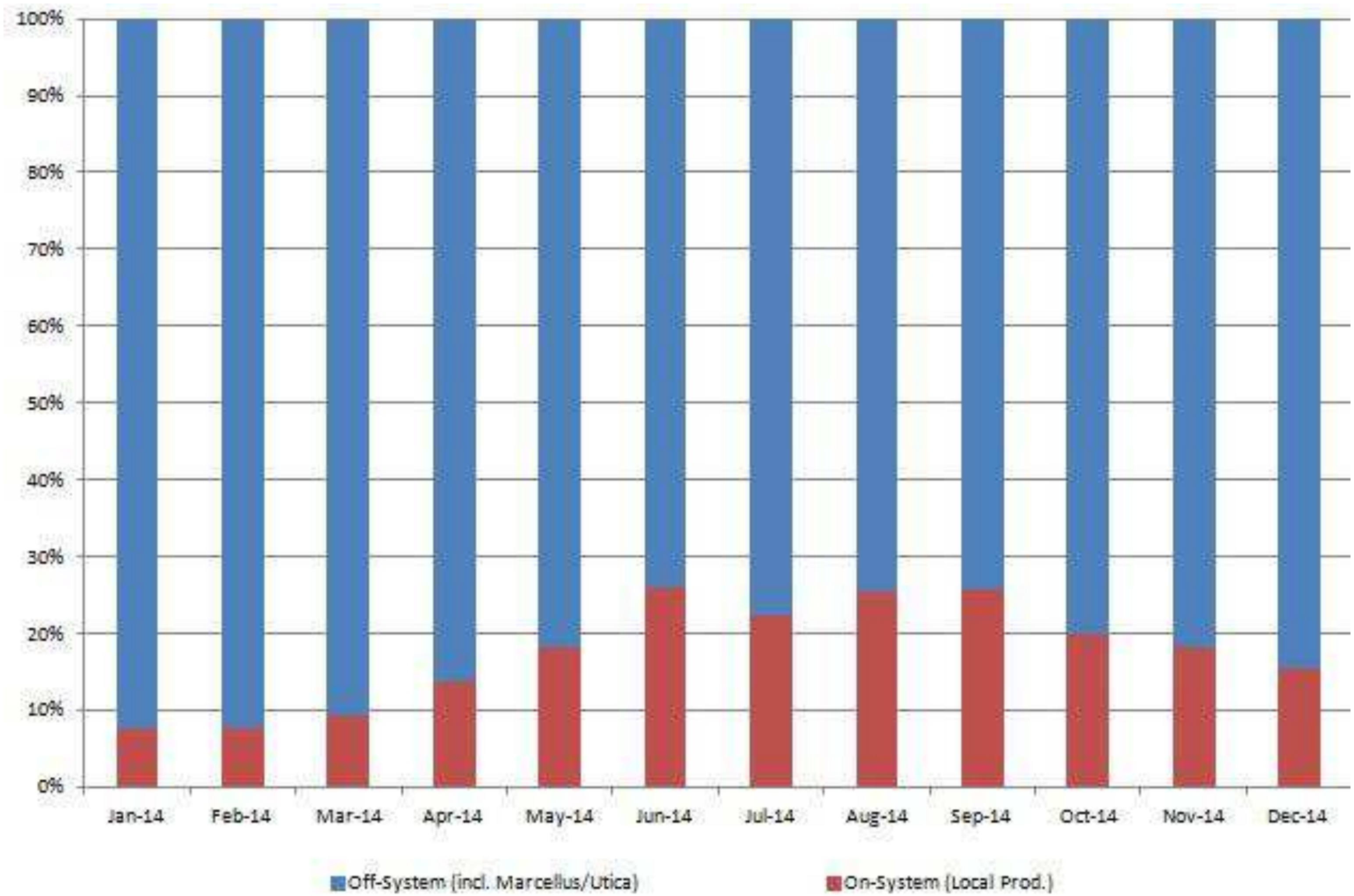
NGDC Operational Briefing

System Overview – On System vs. Off System Supplies



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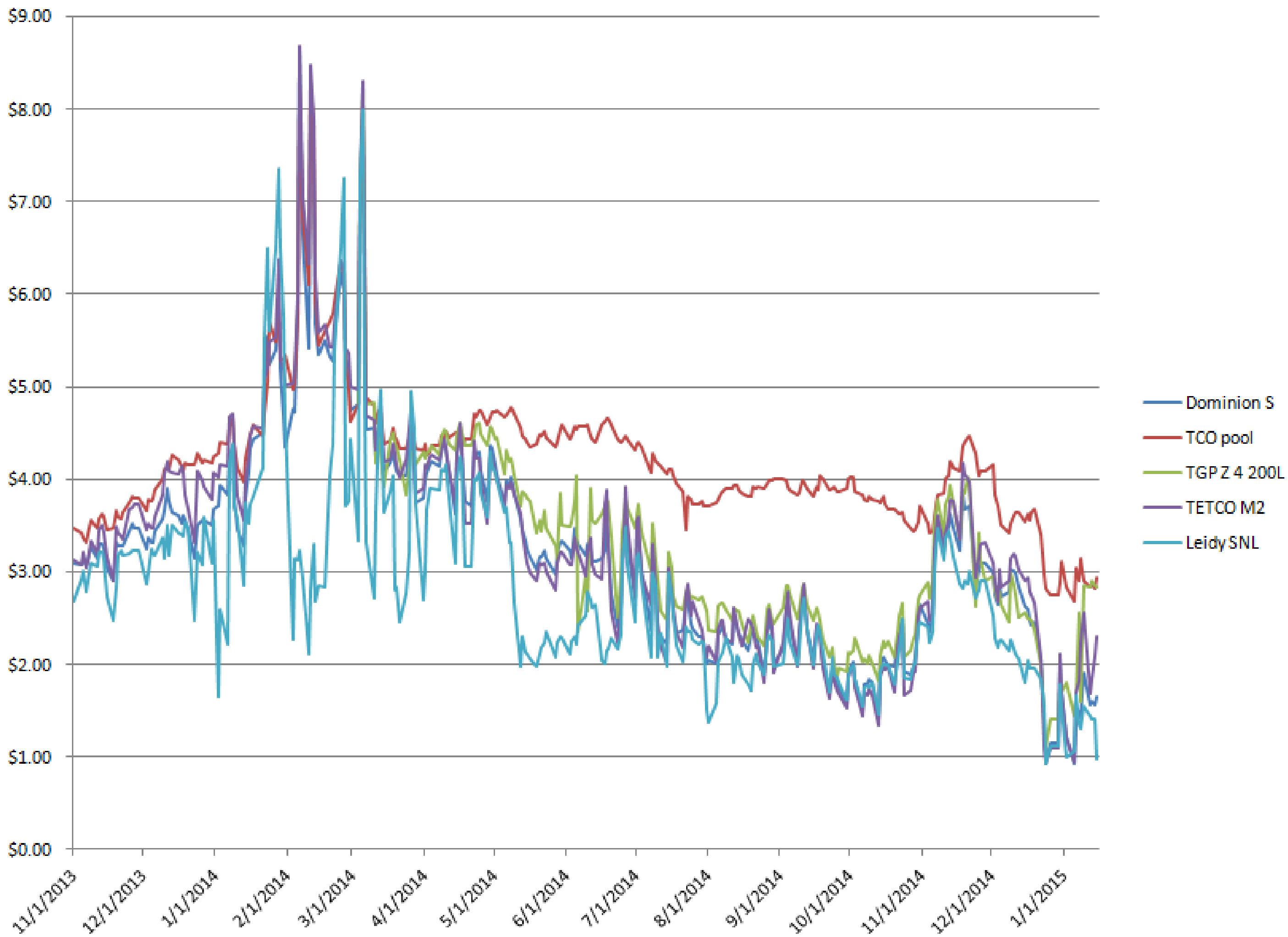
NGDC Operational Briefing

System Overview – Regional Pricing



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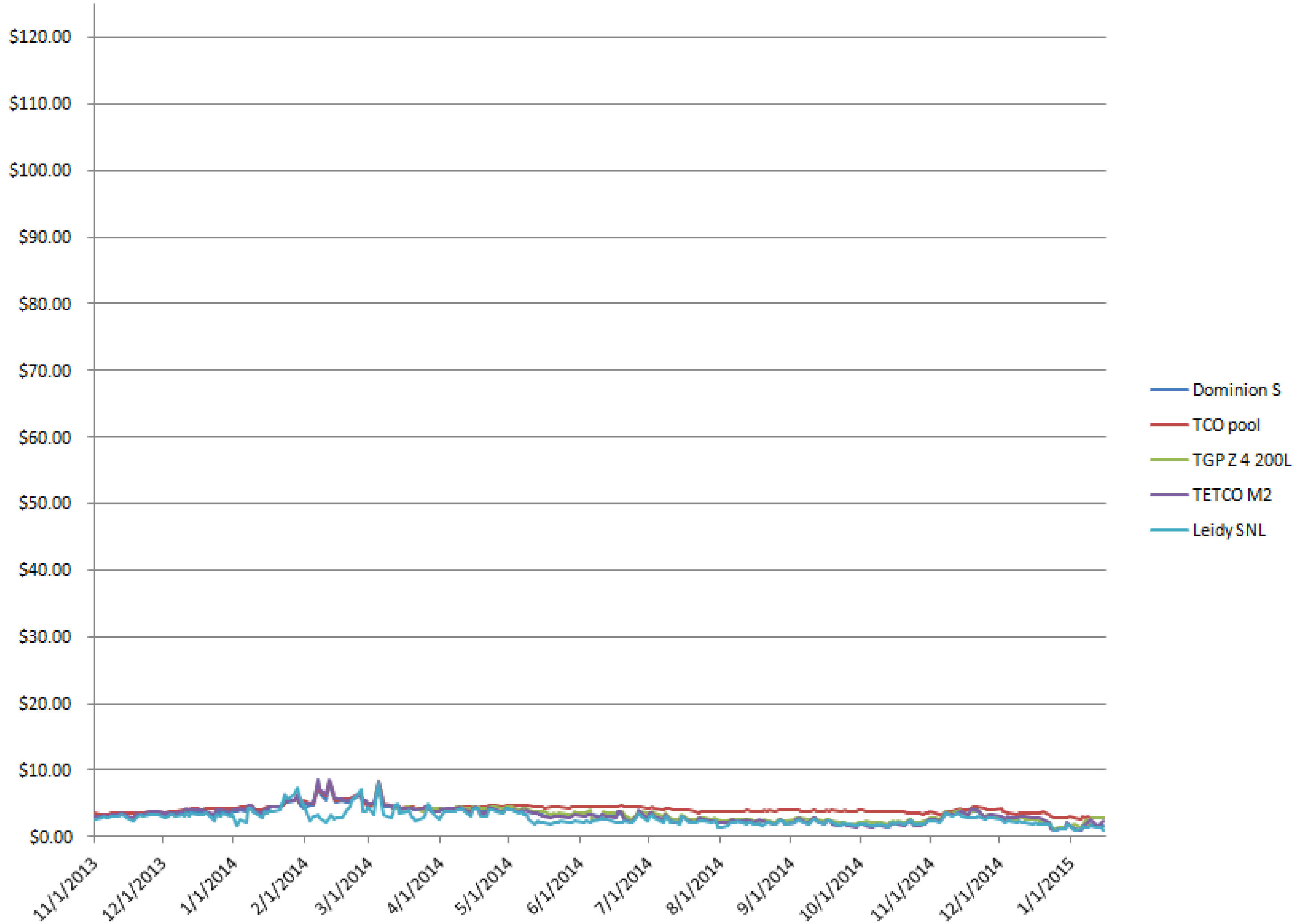
NGDC Operational Briefing

System Overview – Regional Pricing



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NGDC Operational Briefing

Capacity Release of Capacity & Storage Assets

- Small Aggregation Transportation Customer ("SATC") Rate Schedule [52 Pa. Code § 62]
  - NGSs are given a mandatory assignment of transmission and storage capacity to serve these customers.
- Larger non-residential customers are typically served under traditional Monthly ("MMT") or Daily ("DMT") rate schedules [52 Pa. Code § 60].
  - Monthly: NGS required to deliver gas to the city gate using firm transportation (FT) or local production delivered into NFG system.
  - Daily: NGS does not have an FT requirement but typically uses FT or local production to serve these customers.

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NGDC Operational Briefing

Capacity Release of Capacity & Storage Assets

Design Day Capacity (74 DD)

- The first 62 DD are met through capacity obtained via Mandatory Assignment:
  - 60% through firm transportation of storage withdrawals.
  - 40% through firm transportation of pipeline supplies delivered at the city gate.

- The last 12 DD are met through a peak balancing service that utilizes NFG-held capacity.

- Capacity release quantities:
  - Take effect for the 1st day of the upcoming month.
  - Are calculated based upon projected NGS customer load requirements.
  - Released via pipeline EBBs before the start of bid week.

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NGDC Operational Briefing

Capacity Release of Capacity & Storage Assets

Capacity Release Path

- NFG holds upstream firm interstate pipeline transmission capacity on Tennessee Gas Pipeline (TGP), Texas Eastern Transmission (TET) and Columbia Gas Transmission (Columbia).
- The upstream capacity is delivered into National Fuel Gas Supply Corporation (NFGSC) where it is supplemented by interstate storage capacity prior to delivery to the city gate via interstate firm transmission capacity on NFGSC.
- NGSs may elect the “slices” of this upstream capacity or a simplified TGP-only path.
  - Either option is accompanied by a release of NFGSC transmission and storage capacity.

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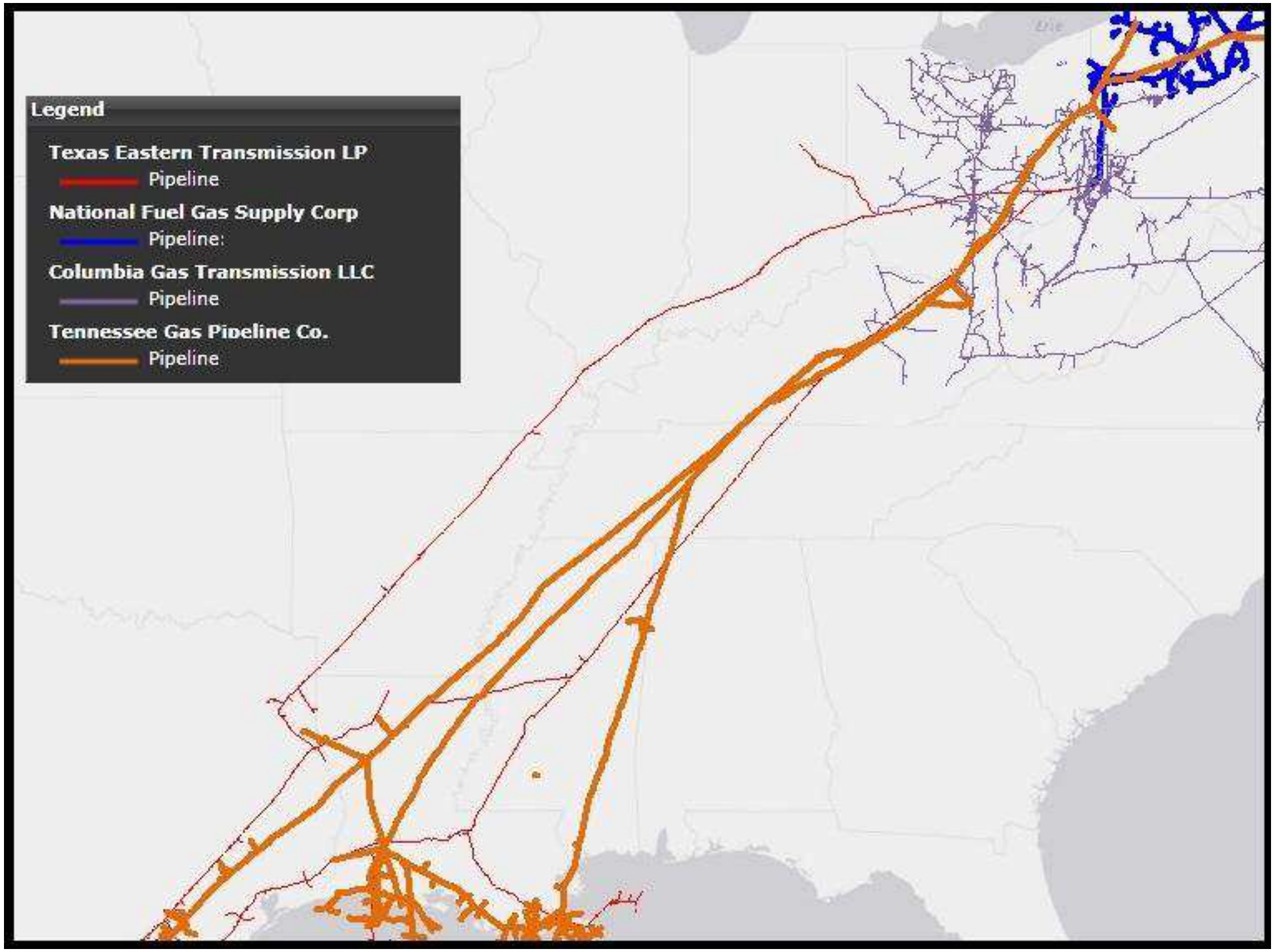
NGDC Operational Briefing

Capacity & Storage Assets – Interstate Pipelines



Base Map: SNL Financial LC

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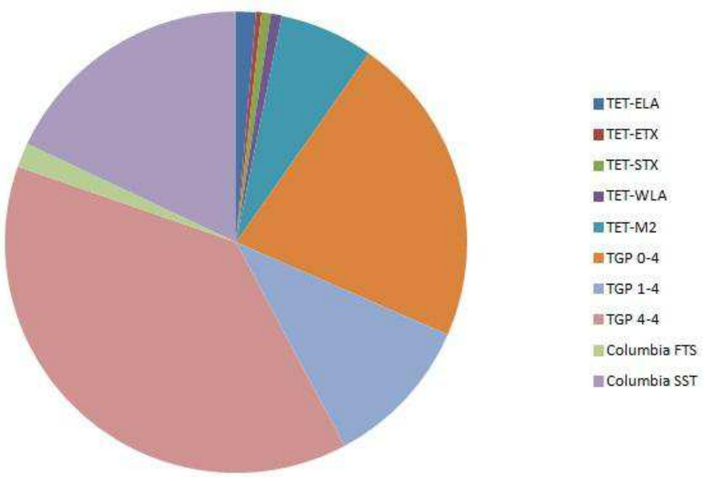
NGDC Operational Briefing

Capacity Release of Capacity & Storage Assets

- NFG's upstream slices:



- Whether "slices" or simplified TGP-only path, the effective price is the same, i.e. the weighted average cost of capacity of the upstream slices.
- All NGSs currently elect the simplified path.
- In either case, the released capacity provides has access to shale production.

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NGDC Operational Briefing

Capacity Release of Storage Assets

- Storage Capacity Releases of NFGSC ESS capacity are required because storage withdrawals have always been an integral means to meet cold weather demand on NFG's system.
- Use of storage allows NGSs to levelize their purchases throughout the year rather than large winter vs. small summer.
- Storage Capacity releases give NGSs additional access to interstate markets and supply sources.

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NGDC Operational Briefing

Capacity Release of Storage Assets

- NFG places inventory requirements on storage capacity releases to:
  - Ensure that NGSs are able to meet heating season peak days.
  - Fill storage in advance of the heating season in a manner consistent with NFGSC storage service tariff design parameters and generally, in a manner comparable to the way NFG fills storage to meet system load requirements for its sales customers.

End of Month Inventory Requirements (% of Storage Capacity)			
May	12%	October	95%
June	29%	November	90%
July	46%	December	75%
August	63%	January	50%
September	80%	February	28%

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NGDC Operational Briefing

Capacity Release of Storage Assets

- Storage Capacity Requirements are recalibrated each month in response to changes in NGS SATC customer load requirements.
  - Based upon the net change in customer load requirements, NFG will either sell incremental inventory to NGSs or offer to purchase excess inventory.
  - The sales are required to ensure that storage inventory is full in advance of the heating season.
  - Sales are also required when NGSs fall short their end of month minimum inventory requirements.

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NGDC Operational Briefing

System Balancing – Load Forecasting/Delivery Instructions

- NFG calculates a Daily Delivery Quantity (DDQ) for every SATC and MMT transportation customer, generally in response to weather forecasts.

- DMT transportation customers nominate to balance their anticipated consumption; effectively self-calculating their own DDQs.

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NGDC Operational Briefing

System Balancing – Load Forecasting/Delivery Instructions

- Each business day, NFG provides NGSs with ADDQs for the next six gas days.
  - NGSs receive ADDQs in time for daily gas trading; well in advance of the timely nomination deadline.
  - When operationally feasible, NFG averages Weekend (Saturday, Sunday and Monday) and Holiday ADDQs to align NGS requirements with industry trading conventions.

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NGDC Operational Briefing

System Balancing – Nominations/Scheduling

- From a physical and geographic perspective, the NFG system is served through approximately 100 city gate stations and 400 production meters.
- The NFG distribution system is really a series of smaller distribution systems with limited, if any, integration or interconnection with each other.
- For nominations/scheduling purposes, NFG simplifies the system into virtual system: one city gate and one production pooling point which feed one delivery point serving all customers.

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NGDC Operational Briefing

System Balancing – Nominations/Scheduling

- NGS customers are organized into market pools.
- NGSs provide NFG with nominations to ship gas from the city gate and/or local production pools to market pools.
  - NGSs do not nominate to individual SATC and MMT customer accounts; load is aggregated to the pool level.
  - All SATC and MMT customer consumption is allocated as transportation; the difference between actual consumption and NGS deliveries to the market pool is an NGS imbalance.
  - NGSs may nominate “pool to pool” transfers to other NGSs as a means of balancing their pools and/or obtaining gas supply.

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NGDC Operational Briefing

System Balancing – Nominations/Scheduling

- NFG supports all NAESB nomination cycles.
- All customer pools have access to on-system local production.
- NGSs access regional shale gas supplies using pipeline capacity to deliver such gas to NFG at the city gate.
- NFG places no specific restrictions on gas supplies but during critical periods may encourage/direct pipeline deliveries to specific portions of its system through System Alerts, System Maintenance Orders and/or OFOs.

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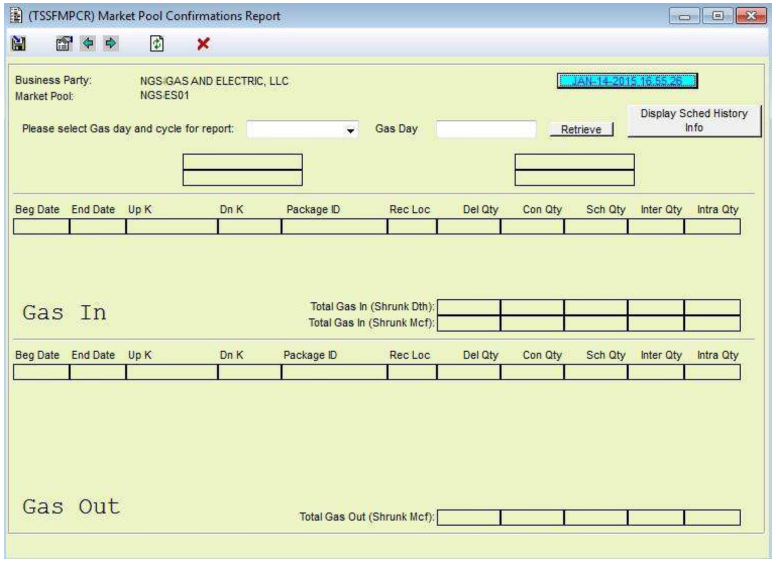
NGDC Operational Briefing

System Balancing – Nominations/Scheduling

- NFG's Transportation Scheduling System (TSS)
  - Internet accessible system for NGSs to place gas nominations and receive various reports to manage gas supply activity for their customers.



- Through capacity release, NGSs become pipeline shippers and place transportation and storage nominations through the NFGSC and TGP EBBs.

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NGDC Operational Briefing

System Balancing – Tolerance Bands

- NGSs are required to deliver within:
  - 2% of the ADDQ for SATC market pools.
  - 5% of the ADDQ for MMT market pools.

- NFG can issue an OFO to tighten the tolerance bands when necessary.

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NGDC Operational Briefing

System Balancing – Tolerance Bands

Underdeliveries

- If an NGS underdelivers, i.e. delivers less than the ADDQ less the tolerance band, NFG supplies the difference priced at:
  - The higher of $7.00 per Dth or 110% of the Daily Market Index (Columbia Appalachian Pool Index) plus transportation to the city gate [April through October].
  - The higher of $10.00 per Dth or 110% of the Daily Market Index plus transportation to the city gate [November through March].

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NGDC Operational Briefing

System Balancing – Tolerance Bands

Underdeliveries – NFG Tariff Provision

NFG's Tariff gives the Company an option to terminate service to an NGS for Failure to Deliver Daily Quantity

- On rare occasions, there have NGS DDQ failures but the tariff provision actually leads to a dialogue between the NFG and the NGS to determine why the failure occurred and what can be done to prevent reoccurrance.

NGDC Operational Briefing

System Balancing – Tolerance Bands

Overdeliveries

- If an NGS nominates an overdelivery, NFG manages the imbalance by confirming only the ADDQ plus the tolerance band at the city gate.

Charges for Violation of OFOs

- In addition to all other charges due to NFG for a city gate under delivery, the NGS may be assessed a charge of the higher of $25 per Dth or the Daily Market Index for that day plus all transportation costs to the Company’s City Gate.

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NGDC Operational Briefing

System Balancing – Cash Outs

- At the end of every month, each SATC and MMT market pool has an imbalance position.
  - When consumption exceeds deliveries to the pool, gas is due to NFG from the NGS (Deficiency Imbalance).
  - When consumption is less than deliveries to the pool, gas is due to the NGS from NFG (Surplus Imbalance).
  - Individual NGS market pool imbalances are consolidated into a single NGS imbalance.
  - For benchmarking purposes, NFG calculates System Imbalance Position by netting all NGS imbalances.
  - NFG computes a monthly imbalance cash out rate by averaging the daily rates.

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NGDC Operational Briefing

System Balancing – Cash Outs

- Prior to cash out NFG provides NGSs several protections and/or safe harbors to minimize NGS exposure to cash out:
  - Each NGSs can trade imbalances with other NGSs to improve their imbalance position.
  - Prior period adjustments are added to NGS imbalance in manner that either improves or does not worsen the applicable cash out tier the NGS.
  - If an NGS meets its ADDQ requirements for all of its pools, regardless of its actual imbalance position, it will be cashed out at the market pricing tier.
  - If the System Imbalance Position is within the range plus or minus 5%, all NGS imbalances will be cashed out at the market pricing tier.

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NGDC Operational Briefing

System Balancing – Cash Outs

- Based upon its final month end imbalance position, NFG will purchase gas from or sell gas to the NGS to reduce the imbalance volume to zero under the following tiered pricing schedule:

Tier	Transaction	Imbalance Position	Rate
Surplus Pricing Tier 3	Purchase	>20 % long	60% of ADMI
Surplus Pricing Tier 2	Purchase	15% to 20 % long	85% of ADMI
Surplus Pricing Tier 1	Purchase	5% to 15 % long	90% of ADMI
Market Pricing Tier	Purchase or Sale	5 % long to 5% short	100% of ADMI
Deficiency Pricing Tier 1	Sale	5% to 15 % short	110% of ADMI
Deficiency Pricing Tier 2	Sale	15% to 20 % short	115% of ADMI
Deficiency Pricing Tier 3	Sale	>20 % short	140% of ADMI

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Questions?