124 FERC ¶ 61,034
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

Natural Gas Pipeline Company of America Docket No. RP01-503-007

ORDER ON TECHNICAL CONFERENCE AND COMPLIANCE FILING

(Issued July 17, 2008)

1. This proceeding arises from an August 6, 2001, filing by Natural Gas Pipeline Company of America (Natural) to modify section 26.1(h) of its General Terms and Conditions (GT&C). Specifically, Natural proposed, from time to time, to post on its Internet website an upper Btu limit and/or a limit on the cricondentherm hydrocarbon dewpoint (CHDP) of gas receipts on specified segments or locations on its system. This order addresses Natural's January 4, 2007 filing to comply with the Commission's September 21, 2006 Order[1] (September 2006 Order) in this proceeding and the March 14, 2007 technical conference held on the gas interchangeability issues raised by Natural's January 4, 2007 compliance filing.

2. Among other things, the September 2006 Order established procedures to further examine the issue of Natural's need for an upper Btu limit consistent with the Commission's *Policy Statement on Provisions Governing Natural Gas Quality and Interchangeability in Interstate Pipeline Company Tariffs* (*Policy Statement*).[2] The September 2006 Order also affirmed an Initial Decision (ID) issued by the presiding administrative law judge (ALJ) following the hearing in this proceeding on the

[1] *Natural Gas Pipeline Company of America*, 116 FERC ¶ 61,262 (2006) (September 2006 Order).

[2] *Policy Statement on Provisions Governing Natural Gas Quality and Interchangeability in Interstate Pipeline Company Tariffs*, 115 FERC ¶ 61,325 (2006) (*Policy Statement).*

appropriate level of Natural's permanent CHDP safe harbor.[3] As discussed below, the Commission accepts Natural's January 4, 2007 compliance filing.

I. Background

3. The September 2006 Order included an extensive summary of the origins and history of this proceeding which we will not repeat in full here.

4. This proceeding began on August 6, 2001, when Natural filed, pursuant to section 4 of the Natural Gas Act (NGA), revised tariff sheets to modify section 26.1(h) of its GT&C. Specifically, Natural proposed, as operationally necessary, to post on its Internet website "an upper Btu limit and/or a limit on the [HDP] for gas receipts on specified segments or other specified locations on its system." The revised tariff language provided that Natural could post such limits for two purposes: (1) "to prevent hydrocarbon dropout, consistent with section 26.1," or (2) "to assure that gas will be accepted for delivery into interconnects with interstate pipelines, intrastate pipelines, end-users or directly connected local distribution companies."

5. Following a technical conference, the Commission issued orders in February[4] and September 2003,[5] (respectively, the February 2003 Order and September 2003 Order) making a number of rulings concerning Natural's proposal. The Commission found that the proposal to post varying maximum HDP and/or Btu limits was reasonable, since on Natural's system the tendency of liquefiable hydrocarbons to dropout varies from day to day, from one segment of the system to another, and depending on Natural's ability to deal with changes in the gas by making operational changes to its system. As a result, Natural needs some flexibility to deal with the threat of liquids dropout. The Commission also found that such flexibility benefits shippers by allowing Natural to accept more gas than if it had a single fixed standard that applied to all shippers.

6. However, the Commission required Natural to adopt various procedures for posting notices of changes in the varying maximum HDP and Btu limit and posting information concerning every receipt point HDP value it calculates and every blended HDP and Btu value it calculates for a line segment of its system. Finally, the Commission required Natural to establish "a safe harbor dewpoint, i.e., a minimum

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[3] *Natural Gas Pipeline Company of America*, 113 FERC ¶ 63,036 (2005) (ID).

[4] *Natural Gas Pipeline Company of America*, 102 FERC ¶ 61,234 (2003) (February 2003 Order).

[5] *Natural Gas Pipeline Company of America*, 104 FERC ¶ 61,322 (2003) (September 2003 Order).

system-wide dewpoint for the gas tendered to Natural that guarantees that any gas with a dewpoint that does not exceed the safe harbor dewpoint will be allowed to flow on Natural's system."[6]

7. The September 2003 Order clarified that, if gas complies with the permanent HDP safe harbor, it may not be rejected for Btu content or changes in the requirements of downstream pipelines. The order also set the issue of the appropriate level of the HDP safe harbor for hearing before an ALJ, finding the existing record to be inadequate to resolve the protests that the 15°F permanent HDP safe harbor, which Natural proposed in compliance with the February 2003 Order, was too low.

8. Natural and some downstream entities filed requests for rehearing of the September 2003 Order, asserting that the Commission erred in holding that Natural must accept gas which satisfies the permanent CHDP safe harbor, even it its Btu content exceeds any separate maximum Btu limit Natural might post. On December 20, 2005, the ALJ issued an ID, finding that Natural's proposed 15°F HDP safe harbor was just and reasonable. The ALJ first found that the only issue the Commission set for hearing was the appropriate level of Natural's permanent CHDP safe harbor.[7] The ALJ thus refused to consider various proposals by Indicated Shippers to modify Natural's procedures for determining and posting, from time to time, varying maximum CHDP limits on different segments.

9. On September 21, 2006, the Commission issued an order[8] addressing the requests for clarification and rehearing of the September 2003 Order and the ALJ's ID. With regard to the requests for rehearing concerning the relationship between the safe harbor and the posted varying Btu limits, the Commission stated that the rehearing applicants had offered two reasons why Natural might need to reject gas because of high Btu content even though it satisfies the CHDP safe harbor. These were (1) that a downstream pipeline might post a maximum Btu limit as a means of controlling liquid drop out on its system and (2) a downstream entity might refuse high Btu gas because such gas might cause problems for end-users when used in gas fired appliances. The Commission found that developments in the years since the filing of the rehearing requests may have altered Natural's need for the authority to post a varying upper Btu limit. First, the relevant downstream pipelines might no longer be using an upper Btu limit to control liquid drop

[6] February 2003 Order, 102 FERC ¶ 61,234 at P 43.

[7] Natural submitted an offer of settlement on November 14, 2003. Natural filed to withdraw its offer of settlement on February 16, 2005, which the ALJ confirmed in an order issued March 7, 2005.

[8] September 2006 Order, 116 FERC ¶ 61,262.

out on their systems. Second, the Commission stated that if downstream entities refuse high Btu gas on the ground that such gas may cause problems for end-users, it raises a gas interchangeability issue, as opposed to a gas quality issue. Therefore, the Commission required Natural to make a new filing either changing its proposal concerning an upper Btu limit consistent with the *Policy Statement* or explaining how its current proposal is consistent with the *Policy Statement*. Accordingly, the Commission established procedures to further examine the issue of Natural's need for an upper Btu limit.

10. In the September 2006 Order the Commission also affirmed the ALJ's determination that the only issue the Commission set for hearing is the appropriate level of the CHDP safe harbor figure. The Commission also affirmed the ALJ's findings that: (1) Natural's 15ºF HDP safe harbor is reasonable and ensures safe and reliable operations under all conditions while also maximizing the gas supply available on its system; and (2) Natural has provided substantial evidence justifying its 15ºF CHDP safe harbor.

11. On March 16, 2007, the Commission issued an order (March 2007 Order) denying the requests for rehearing of the September 2006 Order.[9] The March 2007 Order affirmed that Natural's 15ºF CHDP safe harbor was just and reasonable. The order also stated that Natural's tariff provisions regarding the determining and posting of varying CHDP limits, including the lack of a provision allowing shippers to pair offsetting high and low CHDP gas in order to satisfy a posted CHDP limit, were beyond the scope of the hearing and parties had been given a full opportunity to litigate their objections to these tariff provisions and the Commission finally resolved all issues concerning the provisions in the February and September 2003 Orders. The Commission stated that, if Indicated Shippers believe these tariff provisions are unjust and unreasonable in light of the policies announced in the Policy Statement, Indicated Shippers may file a complaint pursuant to NGA section 5.

12. On January 4, 2007, Natural made the subject filing to comply with the Commission's September 2006 Order. Commission staff held the subject technical conference on Natural's gas interchangeability proposals on March 14, 2007.

II. Details of Natural's Proposal

13. In its January 4, 2007 compliance filing, Natural filed a Substitute Third Revised Sheet No. 343 to its FERC Gas Tariff, Sixth Revised Volume No. 1, to implement the Commission-approved 15ºF CHDP safe harbor on its system. Natural also filed *pro forma* tariff sheets to propose a series of gas interchangeability specifications, some of

[9] *Natural Gas Pipeline Company of America*, 118 FERC ¶ 61,219 (2007) (March 2007 Order).

which it revised in its reply comments on the technical conference. Natural's revised gas interchangeability proposal is:

- A minimum Wobbe Index of 1,274.
- A maximum Wobbe Index of 1,380 for the Permian, Midcontinent, Texok (except Segment 25), Amarillo Mainline, Gulf Coast Mainline, and Iowa-Illinois Zones.
- A maximum Wobbe Index of 1,400 for the South Texas and Louisiana Transportation Zones and Segment 25 of the Texok Zone.
- A maximum Btu value of 1,110 Btu/scf for the Permian, Midcontinent, South Texas, Texok, and Louisiana Zones.
- A maximum Btu value of 1,065 Btu /scf for the Iowa-Illinois, Amarillo Mainline, and Gulf Coast Zones.
- A maximum Butane Plus level of 1.5 mole percent.
- A maximum Inerts level of 4 mole percent.

III. Notice, Protests and Comments

14. Notice of Natural's January 4, 2007 compliance filing was issued on January 16, 2007. Protests and comments were due as provided in section 154.210 of the Commission's regulations, 18 C.F.R. § 154.210 (2008). The compliance filing was protested and a number of parties filed comments. Following the March 14, 2007 technical conference, parties filed initial comments[10] and reply comments.[11] With one exception, where a party filed a protest or comments on Natural's compliance filing prior to the technical conference and subsequently filed comments following the technical conference, we will assume that its comments following the technical conference reflect the party's most current views on the issues and will not address its pre-technical

[10] The following parties filed initial comments: Alliance Pipeline, L.P. (Alliance); Aux Sable Liquid Products, L.P. (Aux Sable); ExxonMobil Gas & Power Marketing Company (ExxonMobil); FPL Energy, L.L.C. (FPL Energy); Indicated Shippers; Natural; Nicor Gas Company (Nicor); and, Peoples Gas Light and Coke Company and North Shore Gas Company (Peoples).

[11] All parties that filed initial comments also filed reply comments. In addition, MidAmerican Energy Company (MidAmerican) and Sempra LNG also filed reply comments.

conference protest or comments. The exception is Alliance's January 16, 2007 protest regarding Natural's implementation of the 15ºF CHDP safe harbor approved by the Commission. Natural filed an answer to Alliance's January 16, 2007 protest. Under Rule 213(a)(2) of the Commissions Rules of Practice and Procedures, 18 C.F.R § 385.213(a)(2) (2008), answers to protests are not accepted unless otherwise ordered by the Commission. We will accept Natural's answer because it further clarifies the issues.

IV. Discussion

A. Gas Interchangeability and the Wobbe Index

15. Gas that interstate pipelines receive from other pipelines is composed of a variety of hydrocarbons, inerts, and other components. Each source of gas has a different composition of these components. Gas pipeline companies often commingle shippers' gas, which creates a new gas composition. Because of variations in the composition of gas delivered to the pipelines, and variations in operations, the composition of the gas can vary both daily and seasonally. Further, because pipelines often deliver by displacement, and because of the fiction of same-day delivery of gas, the composition of the gas that a pipeline delivers to a shipper is rarely the same as the composition of the gas that the shipper tendered the pipeline. Because tendered gas is not identical to delivered gas, end users often have concerns with using gas of varying compositions.

16. On February 28, 2005, the Natural Gas Council (NGC)[12] filed with the Commission two technical papers entitled: *Liquid Hydrocarbon Drop Out in Natural Gas Infrastructure* (HDP White Paper) and *Natural Gas Interchangeability and Non-Combustion End Use* (Interchangeability White Paper).[13] Gas interchangeability refers to the extent to which a substitute gas can safely and efficiently replace gas normally used by an end-use customer in a combustion application.[14] The Interchangeability White

[12] The NGC is an organization made up of the following trade associations of the different sectors of the natural gas industry: the Independent Petroleum Association of America (IPAA), representing independent natural gas producers; the Natural Gas Supply Association (NGSA), representing producers and marketers of natural gas; the Interstate Natural Gas Association of America (INGAA), representing interstate pipelines; and the American Gas Association (AGA) representing natural gas utilities/local distribution companies (LDCs).

[13] In addition to representatives from the NGC, the NGC Plus (NGC+) group, which wrote the paper, included representatives of all affected industry sectors, including appliance and turbine manufacturers, electric utilities, gas process consumers, LNG developers, municipal utilities and gas processors.

[14] *Policy Statement*, 115 FERC ¶ 61,325 at P 7.

Paper defines gas interchangeability as "the ability to substitute one gaseous fuel for another in a combustion application without materially changing operational safety, efficiency, performance or materially increasing air pollutant emissions."[15] The industry uses several indices to characterize the interchangeability of different natural gases. The Wobbe Index, sometimes referred to as the interchangeability factor, is widely considered one of the more robust measures of gas interchangeability.[16] The Wobbe Index is the high heating value (HHV) in Btu/scf of a gas stream divided by the square root of the specific gravity of that stream. If a fuel gas stream has a constant Wobbe Index, regardless of fuel composition, a constant heat release rate will be supplied through a specific orifice at a constant supply pressure.

17. Gas interchangeability issues may arise, as they have here, where parties are concerned about the interchangeability of gas with high Wobbe Index values (for example, liquefied natural gas (LNG)) as compared to the historic quality of delivered gas. As the Commission noted in the *Policy Statement*, while each case involves unique circumstances, there generally is tension between the interests of the pipeline and distributors to ensure the quality of gas entering their facilities, the desire of producers and shippers to have their product transported without onerous processing requirements, and the desire of end-use customers to receive gas that will not harm their equipment or cause inefficient operations. These interests are reflected in the positions of the parties in this proceeding where the LNG suppliers argue for broader standards that would allow for the greatest diversity of LNG supplies, while generators advocate more restrictive standards.

18. The Commission's *Policy Statement* set the following five general principles of interchangeability: (1) interchangeability standards must be set out in tariffs; (2) tariff changes on interchangeability need to be flexible so that pipelines can balance safety and reliability concerns with maximizing supply, and should recognize evolving science; (3) interchangeability specifications should be developed based on technical requirements; (4) the industry is encouraged to use the Interim Guidelines, developed by the NGC+ Group in its Interchangeability White Paper, as a common reference point for interchangeability issues; and, (5) disputes on gas interchangeability can be brought before the Commission to be resolved on a case-by-base basis.

19. In incorporating or modifying any gas interchangeability provisions into its tariff, the Commission recommends that pipelines use the methodology described in the Interchangeability White Paper's Interim Guidelines.[17] The Interim Guidelines provide

[15] Interchangeability White Paper, Ex. FGT-6 at 3.

[16] Interchangeability White Paper's Finding No. 5, Ex. FGT-6 at 18.

[17] *Policy Statement,* 115 FERC ¶ 61,325 at P 37.

for: (1) use of the local average historical Wobbe Index average with an allowable range of variation of plus or minus 4 percent; (2) a maximum Wobbe Index level of 1,400; (3) a maximum heating value limit of 1,110 Btu/scf; (4) a limit on butanes and heavier hydrocarbons (butanes+ or C4+) of 1.5 mole percent; and (5) an upper limit on the amount of total inert gases (principally nitrogen and carbon dioxide) of up to 4 mole percent. The Interchangeability White Paper also recommends an exception from these Interim Guidelines for service territories that could demonstrate experience with supplies exceeding these Wobbe Index, heating value and/or composition limits. Companies in these service territories could continue to use non-conforming supplies as long as use of these supplies do not unduly jeopardize the safety of, or create utilization problems for, end-use equipment.[18]

1. Natural's Initial Wobbe Proposal

20. In its January 4, 2007 compliance filing, Natural proposed a minimum Wobbe Index of 1,274 and a maximum Wobbe Index of 1,380 to be applied to its entire system. Natural states that it calculated this Wobbe Index range by determining its historical average system Wobbe Index level and then applying the +/- 4 percent tolerance bands as recommended by the Interim Guidelines. To determine the historical average Wobbe Index value for its system, Natural explains that it focused on two long-haul representative mainline points – one on its Amarillo Line[19] and the other on its Gulf Coast Line.[20] For each point, Natural calculated a historical average Wobbe Index value using three years of data (October 2003 through September 2006). This resulted in an average Wobbe Index of 1,318 for the Amarillo Line, and an average Wobbe Index of 1,337 for the Gulf Coast Line. Natural then averaged these two historical Wobbe Index averages to arrive at a system-wide historical Wobbe Index of 1,327. Natural states that it then applied a +/- 4 percent tolerance bands to the system average to arrive at its proposed maximum and minimum Wobbe Indices for its system.

21. Natural asserts that it calculated its proposed Wobbe Index range in accordance with the Interim Guidelines. Natural explains that it followed a seven-step process to arrive at its proposed Wobbe Index range. First, it reviewed historic system data. Natural states that actual historical experience provides a reality check as to whether the proposed standards are reasonable. Second, Natural applied the Interim Guidelines

[18] Interchangeability White Paper, Ex. FGT-6 at 26.

[19] PIN 66, which is an interconnection with MidAmerican Energy Company, located near Ainsworth, Iowa.

[20] PIN 11435, which is an interconnect with Proctor & Gamble, an industrial end user, located near Cape Girardeau, Missouri.

methodology for calculating its Wobbe Index range. Natural states that its Wobbe calculations reflect the fact that its market areas delivery points in the Chicago area are principally served by a mixture of Amarillo and Gulf Coast gas supplies. Third, Natural assessed compatibility of the Interim Guidelines with its own equipment, and concluded that it could operate its own equipment under the Interim Guidelines, with certain modifications.

22. Fourth, Natural developed a preliminary proposal for discussion based on its findings in the first three steps. Fifth, Natural solicited industry feedback on its proposal. Sixth, it made any necessary revisions to its proposal to address concerns that shippers and other parties raised. Finally, Natural filed its proposal with the Commission.

23. Natural states that in developing its proposed Wobbe Index limits, it accounted for concerns about safe and reliable operations of Natural's facilities and of end-use facilities downstream. It argues that averaging the two points located on different mainlines to arrive at its system-wide Wobbe Index is reasonable since most of the time market-area gas is a mixture of gas transported from each line. It also adds that, after reviewing thirty-six months of operating data (October 2003 through September 2006), all actual Wobbe Indices at these two points over the time span fell within its proposed Wobbe Index range.

2. Natural's Modified Wobbe Index Proposal

24. In its post-technical conference reply comments, Natural proposed a revision to its original Wobbe Index proposal. Natural's originally proposed a maximum Wobbe Index limit of 1,380 for its entire system. In its reply comments, Natural revised its proposal to raise the maximum Wobbe Index limit to 1,400 for gas received in the South Texas Zone, the Louisiana Zone, and in Segment 25 of the Texok Zone, which connects Natural's South Texas Zone on its Gulf Coast Line to the Louisiana Zone. Natural proposes this adjustment to facilitate access to imported LNG, stating that this would be consistent with its goal of maximizing supply. Natural contends that it has the operational flexibility to handle gas with a higher Wobbe Index in these areas, and that this revised proposal more reasonably balances the interests of all parties to the proceeding without compromising system safety or reliability. Natural states that most of this high-Wobbe Index LNG gas will flow from Gulf Coast-located receipts to eastern markets. If some of this gas would move through Natural's system to its Chicago market, Natural states that it could be processed at its Searcy Plant. Natural states that this revised proposal leaves intact the 1,380 maximum Wobbe Index limit for receipts into the remaining parts of its system, including the Amarillo Line and the Gulf Coast Line Zones.

25. Peoples, Nicor, and MidAmerican generally support Natural's proposed Wobbe Index standards, stating that they are consistent with the Interim Guidelines and fully supported by historical data on Natural's system. FPL Energy LLC (FPL Energy), the

operator of two generating plants located on Natural's Cross Haul Line, believes that the proposed Wobbe Index standards are not restrictive enough, and could lead to operation or safety concerns at its generating plants. ExxonMobil, Indicated Shippers,[21] Alliance, Aux Sable, and Sempra LNG generally assert that Natural did not follow the Interim Guidelines in developing its Wobbe Index standards and that the resulting standards are too restrictive and could inhibit gas supplies – particularly LNG - from being transported on Natural's system.

26. Based on information presented in the record for this proceeding, we will approve Natural's proposed Wobbe Index standards, as revised by Natural in its reply comments. We find that Natural's proposed Wobbe Index standards are just and reasonable, and were calculated in accordance with the methodology set forth in the Interim Guidelines and the Commission's *Policy Statement*. They offer a balance between operational safety and reliability on Natural's system, and maximize the transportation of gas supplies on Natural's system. We discuss concerns raised by commenters below.

a. Impediments to LNG Supplies

27. Natural initially proposed a maximum Wobbe Index limit of 1,380 for its entire system. In their initial comments, several parties expressed concerns that the proposal would restrict gas supplies from entering Natural's system, particularly LNG from the Gulf Coast region. Indicated Shippers asserted that the proposed Wobbe Index specifications would have a detrimental impact on gas supply options and would impede the wholesale gas trade on the interstate pipeline grid, given that Natural is positioned to receive LNG gas from numerous terminals currently under construction in the Gulf of Mexico. ExxonMobil expressed concerns that Natural's proposal may impede its ability to accept imported LNG from its Golden Pass LNG Terminal, which ExxonMobil states is currently under construction. It argued that such a move would have repercussions that extend far beyond Natural and its own customers, and could influence decisions regarding the routing of LNG cargoes in the rapidly evolving global market.

28. ExxonMobil also contended that, while Natural must operate its system in a manner that delivers safe gas to its customers, it must also protect the long-term interest of its customers by not needlessly preventing access to supplies. ExxonMobil also submitted that in Opinion No. 495, in rejecting contentions that no LNG should be permitted to enter a pipeline system unless it has the same characteristics as the historical domestic supplies transported by that pipeline, the Commission stated that such a position

[21] The Indicated Shippers consist of BP America Production Company, BP Energy Company, Chevron U.S.A. Inc., ConocoPhillips Company, Marathon Oil Company, Shell NA LNG LLC, and Total Gas & Power North America, Inc.

"would essentially eliminate LNG as a gas supply, contrary to the Commission's goals…"[22]

29. Indicated Shippers contended that local experience in Natural's Louisiana Zone supports a 1,400 maximum Wobbe Index for gas entering Natural's system, and stated that, based on current estimates, more than 97-percent of the global LNG production capacity in 2010 will not meet Natural's proposed maximum Wobbe limit of 1,380. Indicated Shippers added that a 1,400 maximum Wobbe Index for Natural's Louisiana Zone would align Natural with other pipelines operating in the Gulf Region.[23] Aux Sable argued that Natural could also use lower Wobbe Index gas from its Amarillo line to blend with higher Wobbe Index gas received into its market area from the Gulf Coast Line. Alliance asserted that historical data for the Chicago market supports the fact that it can handle a maximum Wobbe Index of 1,400 for its entire system.

Commission Determination

30. As discussed above, in response to these concerns, Natural revised its proposal in its reply comments to allow a maximum Wobbe Index of 1,400 for gas received in its South Texas Zone, Louisiana Zone, and in Segment 25 of its Texok Zone, which connects Natural's Gulf Coast Line to its Louisiana Line. With this revision, we find that Natural provides adequate access to imported LNG supplies in the Gulf Coast region, which will further maximize gas supplies transported on its system. As Natural notes, much of this imported LNG will flow northward towards eastern markets on other pipelines and will not adversely affect Natural's system. For any high-Wobbe Index LNG gas that would flow on Natural's system towards its Chicago market area, Natural could either blend the gas with lower-Wobbe Index gas or process it at its Searcy Plant to bring it into compliance with the maximum Wobbe Index standard for the remainder of its system.

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[22] *AES Ocean Express LLC v. Florida Gas Transmission Company*, 119 FERC ¶ 61,075, at P 127 (2007) (Opinion No. 495).

[23] Indicated Shippers state that both Transcontinental Gas Pipe Line Corporation and Texas Eastern Transmission, LP have proposed to implement a 1,400 Wobbe Index limit, and that Florida Gas Transmission Company has proposed a 1,396 Wobbe Index limit for its market area that the Commission accepted in Docket No. RP04-249-001 (noting that the Commission did not adopt any Wobbe Index limits for the Western Division of that system). Indicated Shippers adds that Trunkline Gas Company, Tennessee Gas Pipeline Company, and Southern Natural Gas Company have historically experienced average Wobbe levels of 1,345 and higher, such that applying the Interim Guidelines tolerance band of +/- 4 percent would result in a maximum Wobbe limit of 1,400.

b. Compliance with the Policy Statement and Interim Guidelines

31. Several parties assert that Natural failed to comply with the Commission's *Policy Statement* and the Interim Guidelines on several grounds in developing its proposed Wobbe Index limits. Aux Sable contends that Natural's proposed Wobbe Index limits are based on insufficient data since it used historical data from only two points to calculate its Wobbe Index standards. Aux Sable states that, if Natural had incorporated historical data for its Louisiana Line into its Wobbe Index calculations, a higher maximum Wobbe Index limit would have resulted. Aux Sable notes that Columbia Gas Transmission Corporation used more than 17 points throughout its entire system to calculate its Wobbe Index limits.[24] It recommends that Natural use the methodology for calculating Wobbe Index limits presented in the Interim Guidelines and adopt a maximum Wobbe Index limit of 1,400 for its entire system, or in the alternative, a Wobbe Index limit of 1,396 for its Louisiana Line and 1,390 for its Gulf Coast Line. Aux Sable adds that Natural fails to account for blending possibilities in designing its Wobbe Index standards.

32. Alliance expresses concerns that Natural ignored historical Wobbe Indices from its Chicago market area in calculating its Wobbe standards, noting that in calculating its CHDP safe harbor level Natural used historical data from two points located directly within its Chicago market area. It also expresses concerns that the two points Natural uses to calculate its Wobbe Index limits are both located upstream of its Chicago market area, and may not reflect gas composition of that market region. Alliance provides maximum Wobbe Index calculations for two points located within the Chicago market area that result in higher maximum Wobbe Indices than those calculated by Natural.

33. Indicated Shippers share similar concerns, and argue that the Interim Guidelines require Wobbe Index standards to be based on local historical averages, and not on a partial average of only certain parts of a long-haul, multiple branched pipeline with a separate production system. They contend that Natural should use historical local experience to create separate Wobbe Index limits for the Louisiana, Gulf Coast, and Amarillo Lines. Specifically, they request a Wobbe Index range of 1,288 to 1,400 for the Louisiana Line, 1,284 to 1,390 for the Gulf Coast Line and 1,265 to 1,371 for the Amarillo Line. They state that blending between these lines could prevent gas quality issues in the market area.

34. ExxonMobil argues that Natural should not have averaged the historical Wobbe Index averages on its two mainlines (the Gulf Coast Line and the Amarillo Line) to arrive at system-wide Wobbe Index standard. Instead, it states that Natural should have calculated its system-wide Wobbe Index limits based on the historical 1,337 average Wobbe Index for its Gulf Coast Line, with the Amarillo Line having the same maximum

[24] *Columbia Gas Transmission Corporation*, 118 FERC ¶ 61,221 (2007).

Wobbe Index limit despite its lower historical Wobbe Index of 1,318 (arguing that Natural should not expect to see gas anywhere near this maximum Wobbe Index standard on the Amarillo Line). ExxonMobil adds that gases between the two lines do not commingle, so averaging them to calculate a maximum Wobbe Index limit is not reasonable. It states that the purpose of developing maximum Wobbe Index limits using the Interim Guidelines methodology is to determine the highest Wobbe Index level of gas Natural can safely accept on its system. ExxonMobil further states that, in accordance with the Interim Guidelines, maximum Wobbe Index limits were meant to be conservative, and to remain in place only until additional research has clearly demonstrated that supplies above the caps do not negatively impact end users in these market areas. It expresses concerns that the purpose of setting a maximum Wobbe Index limit is not to lock in the historical levels and require that all new sources of gas meet those historical levels.

35. In its reply comments, Natural states that there is no merit to any claims that its Wobbe Index calculations are inappropriate and do not comply with the Commission's *Policy Statement* and the Interim Guidelines. Natural explains that there are parts of its system that can receive either Gulf Coast Line gas or Amarillo Line gas on the same day, which supports Natural's use of an average of the Gulf Coast Line and Amarillo Line historical data. Natural asserts that it operates its pipeline as a single integrated system to meet market demand, and thus imposing separate Wobbe indices for each leg of its system does not reflect operational reality. Natural adds that it selected appropriate points for its Wobbe Index analysis, since they are located downstream of all significant inputs into Natural's system, and thus represent market area conditions. It also notes that the two points it used to calculate its Wobbe Index limits are the same points it uses to post gas quality data in accordance with NAESB[25] standards. Natural provides data verifying that these points are representative of gas quality for its Chicago market.

Commission Determination

36. The *Policy Statement* encourages pipelines proposing to add interchangeability provisions to their tariffs to use the methodology described in the Interim Guidelines proposed in the Interchangeability White Paper, which states that the Wobbe Number "provides the most efficient and robust single index and measure of gas interchangeability"[26] and recommends that, on an interim basis, pipelines base their interchangeability standards on their "historical gas supply characteristics to accommodate current end users and equipment requirements."[27] The Interim Guidelines

[25] North American Energy Standards Board.

[26] Interchangeability White Paper at 18.

[27] Interchangeability White Paper at 23.

provide that a pipeline should calculate its Wobbe Index limits using "a range of plus and minus 4 percent Wobbe Number Variation from Local Historical Average Gas or, alternatively, Established Adjustment or Target Gas for service territory," subject to a maximum Wobbe Index limit of 1,400.

37. In this case, we find that Natural followed the recommendations set forth in the *Policy Statement* and the Interim Guidelines to calculate its Wobbe Index limits. The Commission finds that Natural's Wobbe proposal is properly supported by three years of historical data, and employs the tolerance band recommended by the Interim Guidelines. Natural's proposed Wobbe Index limits offer a balance between system safety and reliability, and maximizing gas supplies on Natural's system.

38. We reject commenter concerns regarding the points Natural used to determine its Wobbe Index limit. The Interchangeability White Paper states that "the Interim Guidelines are for gases delivered to points in the gas transportation system most closely associated with end users: gases delivered to LDCs."[28] The points Natural used to calculate its Wobbe Index standards are on its two primary mainlines into its Chicago market area, with the points generally located downstream of any major system inputs. Additionally, data shows that the points that Natural chose accurately represent the gas quality further downstream in the market area. Accordingly, we find that these two points provide acceptable representation of gas quality and composition in its Chicago market area, consistent with the Interim Guidelines. Further, we find that Natural's averaging of the Amarillo and Gulf Coast line values appropriately represents the operation of its system since downstream delivery points can receive gas from either line.

c. FPL Energy's Proposals

39. FPL Energy argues that Natural's proposed Wobbe Index range is too broad and could negatively affect its generating plants. It explains that it owns two gas-fired power plants with a combined ten generating units in Forney and Lamar, Texas. These plants are located on Natural's Cross Haul Line, which interconnects its Amarillo and Gulf Coast Lines. FPL Energy states that Natural provides firm transportation for both plants. Additionally, it states that the plants operate nearly every day of the year and have a combined capacity of about 2,800 MW per day, which represents about 9 percent of the power load on ERCOT's grid.[29] It explains that any impact on the reliability of these units will have major repercussions on ERCOT's market.

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[28] Interchangeability White Paper at 25.

[29] Electric Reliability Council of Texas.

40. FPL Energy explains that the generators its uses at Forney and Lamar are particularly sensitive to fuel gas quality changes because they incorporate dry low emissions (DLE) combustion turbines, which require a lean, premixed flame to generate low emissions, particularly with regard to levels of carbon monoxide and NOx. FPL Energy expresses concerns that bidirectional gas flows on the Cross Haul Line will require its plants to contend with the interchange between domestic gas flows from the west and LNG flows from the Gulf Coast region over short periods of times. According to FPL Energy, even for small and predictable changes in gas composition, it would have to manually retune its DLE combustion systems, which is a complex and labor-intensive endeavor. FPL Energy states that manually retuning its units could result in a one- to two-week outage and could cost as much as $200,000 per generating unit. It states that simultaneously retuning all ten units at the two power plants would be logistically impossible given its staffing and operating procedures. It adds that it would be difficult to retain reliability at its plants if the units had to be taken out of operation each time there is a wide swing in fuel quality, and the costs would be excessive.

41. FPL Energy continues that, should the Commission approve Natural's Wobbe Index proposal, it would likely have to purchase and install a retrofit mechanism to handle the wide gas quality swings that would result. FPL Energy states that General Electric provided FPL Energy with a quote on such a mechanism of anywhere between $500,000 to $1 million per generating unit, resulting in a total cost to FPL Energy of up to $10 million for all ten units. It argues that it would be unjust and unreasonable for the Commission to adopt standards that would result in such a large financial burden to one shipper.

42. As a result of these concerns, FPL Energy recommends that the Commission make two changes to Natural's proposal. First, it recommends that the Commission reject Natural's proposed +/- 4 percent tolerance band, and direct Natural to meet with customers to develop standards that are based on sound technical, engineering, and scientific considerations. It contends that Natural met with FPL Energy before developing its standards and knew about the operational constraints imposed by relaxing gas quality standards, but did not factor these concerns into its final Wobbe Index standards, and thus did not base its proposed limits on sound technical, engineering and scientific considerations. FPL Energy asserts that its generating units cannot operationally handle a Wobbe Index limit tolerance range of +/- 4 percent,[30] and states that testing and research indicate that a Wobbe Index range wider than +/- 2 percent

[30] FPL Energy shows that, for the three-year period between October 1, 2003, and September 30, 2006, the Wobbe Index for the point on Natural's system where FPL Energy takes gas has ranged from 1,312 to 1,351, or +/- 1.46 percent from a midpoint of 1331.

would be problematic for its DLE turbines.[31] It also contends that the Commission recognized in Opinion No. 495 that on systems such as Natural's where DLE turbines are an essential part of the market and are located at a null point where they will see wide fluctuations in gas quality, it is appropriate to consider quality standards that deviate from the Interim Guidelines. It also states that in the *Policy Statement*, the Commission recommended that the pipeline and its customers look at the Interim Guidelines as a starting point, with the recognition that "additional research and development are needed to arrive at more clearly defined limits to interchangeability specifications and to address the need for better and more timely operational information on natural gas quality and pipeline operations."[32]

43. Second, FPL Energy recommends that, consistent with Commission action in Opinion No. 495, the Commission also adopt a Wobbe Index rate of change limit to control gas variability.[33] FPL Energy notes that in that proceeding, the Commission adopted a Wobbe Index rate of change limit of 2 percent or less per six minutes, and recommends that a similar rate of change limit for Wobbe Indices is justified and necessary for Natural's system as well. It states that the Interchangeability White Paper specifically concludes that "[f]luctuations in composition beyond the limits equipment is tuned to receive, particularly if it occurs over a short period of time, is likely to reduce the availability of some equipment to perform as intended by the manufacturer."[34] It adds that Dr. Michael Klassen testified in the Opinion No. 495 proceeding that rate of change in gas composition is a concern for DLE turbines, stating that "[s]ignificant variations" in heat release rate, burning velocity, autoignition tendencies and flame temperature "over a short period of time can directly impact turbine performance, including emissions production, combustion dynamics, and maintenance schedules."[35] FPL Energy also cites to a report prepared by Dr. Klassen and the Interchangeability White Paper, which both find that DLE turbines may not be able to handle significant changes in gas composition over a short period of time.

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[31] FPL Energy states that tests done by Siemens Westinghouse on its W501F DLE combustion system found that NOx emissions could be excessive under a Wobbe Index range of +/- 4 percent. It also states that Siemens concluded that "the increase in Wobbe Index also increased the propensity of flashback (the progression of flame in the reverse direction of flow and possible attachment to combustion hardware)."

[32] *Policy Statement,* 115 FERC ¶ 61,325 at P 32.

[33] Opinion No. 495, 119 FERC ¶ 61,075 at P 140-44.

[34] Interchangeability White Paper at 19.

[35] Ex. FG-1 at 7; *see also* Ex. FG-7 at 4-5.

44. In its reply comments, Natural states that, contrary to FPL Energy's assertions, implementing Wobbe Index limits would actually provide more protection to FPL Energy than it has now by defining a Wobbe Index range of acceptable gas receipts on Natural's system. Natural states that, if it were to receive gas at a Wobbe Index above 1,380, it could do virtually nothing absent an Operational Flow Order (OFO) to limit such supplies. Natural adds that FPL Energy's concerns that its proposed Wobbe Index range of +/- 4 percent will cause significant operational problems to its turbines are speculative. Natural states that gas flowing to FPL Energy's two generating plants on the Cross Haul Line typically comes from the mid-continent region where the quality of gas has been consistent. Natural asserts that, even if LNG gas is to be introduced on its system in the Gulf Coast Region, such gas is expected to flow east on its Louisiana Line to eastern markets; and any LNG gas flowing through its Texok Zone is not expected to flow on the Cross Haul Line, where the plants are located. Thus, Natural states that it does not expect the Wobbe Index of gas delivered to FPL Energy's two generating plants to change significantly from historic levels. Natural adds that it is committed to working with FPL Energy to ensure stable gas flows to the Lamar and Forney plants.

45. Natural also argues that the Interim Guidelines do not require a pipeline to adopt a more narrow Wobbe Index range than +/- 4 percent, as recommended by FPL Energy. It argues that the +/- 2 percent Wobbe Index range the Commission recently adopted in Opinion No. 495 is not dispositive in this case since in that proceeding: (1) it was the pipeline (Florida Gas Transmission) that proposed the more narrow Wobbe Index range, and not a shipper; and, (2) 80 percent of gas on FGT's system serves power generating plants, with the plants located throughout its system.[36] Natural adds that the Commission has noted that it will not allow the needs of one downstream entity to dictate gas quality standards based on special needs.[37]

Commission Determination

46. We will not require Natural at this time to implement more restrictive Wobbe Index tolerance bands on its system or implement a Wobbe Index rate of change mechanism. FPL Energy has not shown that implementing a more restrictive Wobbe tolerance band than the Interim Guideline-recommended +/- 4 is necessary for the safe and efficient operation of gas turbines used in electric generators attached to Natural's system. First, historical data shows that, for the three-year period between October 1, 2003, to September 30, 2006, the Wobbe Index for the point on Natural's system where FPL Energy takes gas has ranged from 1,312 to 1,351, or +/- 1.46 percent from a midpoint of 1331 without any provision in Natural's tariff limiting the Wobbe Index. As

[36] Opinion No. 495 119 FERC ¶ 61,075 at P 44.

[37] September 2006 Order, 116 FERC ¶ 61,262 at P 32.

such, gas currently delivered to the Lamar and Forney plants is stable with regard to gas composition so that more restrictive measures are not required to assure safe and reliable turbine operations. As Natural explains, most of the LNG gas that currently enters Natural's system in the Gulf Coast, or that may enter the system in the future, will likely not flow towards FPL Energy's generating plants, but rather will flow on other pipelines to east coast markets, or will flow on Natural's Gulf Coast Line to the Chicago market. It has not been shown that high-Wobbe LNG gas transported on Natural's system would enter Natural's Cross Haul Line where it could affect the turbine units. While Natural does not anticipate any changes in the flow pattern of its system, Natural should continue to monitor the gas received by FPL Energy.

47. FPL Energy argues that the Commission approved more restrictive Wobbe Index limits of +/- 2 percent in Opinion No. 495, as well as a Wobbe Index rate of change limit of 2 percent every six minutes. In that proceeding, the pipeline, FGT, proposed these standards which the Commission accepted as just and reasonable. The Commission did not find more restrictive measures were required beyond what FGT proposed. Also, system conditions were different in that case. As the Commission noted in that proceeding, about 80 percent of gas delivered onto FGT's system goes to electric generation, with the generators scattered throughout much of FGT's system. Since electric generation constitutes the majority of the gas market on FGT's system, FGT had to propose standards to adapt to that market.[38] In Natural, the majority of gas delivered onto Natural's system goes to end-users other than electric generation, and as discussed above, the two generating plants in question are not located in an area where high-Wobbe Index gas is expected to flow.

d. Lower Wobbe Index Limit

48. Indicated Shippers express concerns over Natural's proposed minimum Wobbe Index standard of 1,274. It contends that local experience shows that the Amarillo Line can support a minimum Wobbe limit of 1,265. They base this contention on the fact that much of the gas flowing onto the Amarillo Mainline comes from systems where the delivered gas is dry, low Btu, and low Wobbe Index blended gas from sources in the Rocky Mountains. Indicated Shippers provide data supporting its contention.

[38] FGT's standards were also developed to accommodate the introduction of LNG directly into its market area without the opportunity for blending. In this proceeding, Natural has stated that it is not anticipated that unblended LNG will enter the market or the Cross Haul system.

Commission Determination

49. We accept Natural's proposed minimum Wobbe Index limit of 1,274. As discussed above, Natural calculated its Wobbe Index standards consistent with the Commission's *Policy Statement* and the Interim Guidelines. Natural used historical data, properly balancing aspects of system safety and reliability with maximizing gas supplies on its system. The Wobbe Index values for gas received at the two points Natural used to calculate its proposed Wobbe Index standards over the past three years all had Wobbe Indices within Natural's proposed Wobbe Index range. Further, section 26.3 of its tariff provides Natural with the ability to accept non-conforming gas at its own discretion and Natural's proposed specification would not prevent any gas from flowing on its system, provided it can be done in a safe and reliable manner.

e. Cost Sharing

50. FPL Energy states that, should the Commission approve Natural's proposed Wobbe Index limits, the Commission should require Natural to implement an appropriate cost-sharing mechanism so that an individual captive end-user shipper does not have to bear a disproportionate cost burden of adopting gas interchangeability standards that will obviate the need to process substantial quantities of gas entering Natural's system. While FPL Energy recognizes that the Commission rejected adoption of a cost-sharing in Opinion No. 495, it argues that, in this case, parties should share costs of any retrofit equipment FPL Energy would have to install on its generators so they can handle a broader range of Wobbe Indices.

51. FPL Energy also argues that the Commission's determination in not implementing a cost-sharing mechanism in Opinion No. 495 was based on its finding that it lacks jurisdiction to evaluate and assign responsibility for the mitigation costs incurred by downstream customers as a result of the importation of LNG under the gas quality and interchangeability standards adopted in the proceeding. FPL Energy notes, however, that a number of electric generators filed requests for rehearing of Opinion No. 495 and an opinion issued by the U.S. Court of Appeals for the District of Columbia after Opinion No. 495 clarified that the Commission does have "broad authority to fashion equitable remedies."[39] In that opinion, the court rejected Transcontinental Gas Pipe Line Corporation's (Transco) argument that the Commission had attempted to indirectly (and impermissibly) regulate the provision of non-jurisdictional gathering services by forcing Transco to reimburse Sunoco, Inc. for costs of gathering services it was effectively required to purchase from Williams Gas Processing following a FERC-authorized spin-

[39] *Transcontinental Gas Pipeline Corp. v. FERC*, 485 F.3d 1172, 1180 (D.C. Cir. 2007), *citing, Columbia Gas Transmission Corp. v. FERC*, 750 F.2d 105, 109 (D.C. Cir. 1984).

down of certain facilities. FPL Energy argues that the court found that the Commission's actions were consistent with precedent which authorizes the Commission to require a FERC-regulated company to reimburse customers when the company increased customers' costs by altering its earlier commitment to provide certain specified services. FPL Energy argues that the instant proceeding has similar circumstances, where Natural's actions in proposing standards that are significantly wider than the historical gas interchangeability on its system, will directly cause affected customers like FPL Energy to incur mitigation costs.

52. Further, FPL Energy argues that the Commission has precedent for adopting a cost-sharing mechanism for costs incurred in having to retrofit end-use facilities to accommodate the importation of LNG. It notes that in *Columbia Gas Transmission Corporation*,[40] the Commission required Columbia, the developer of an LNG import terminal, as a condition to obtaining authorization to construct an LNG receiving terminal and appurtenant facilities, to reimburse two LDCs for the costs associated with installing equipment needed to accommodate the introduction of LNG.[41] FPL Energy adds that the Commission determined that Columbia shifted the burden of LNG conversion costs from the pipeline to the distributors because Columbia chose not to add a blending line or stripping plant, and as a result, the Commission found that since Columbia had avoided costs by shifting the burden, it would be equitable to require reimbursement of the LNG conversion costs incurred by the distributors.[42] FPL Energy asserts that, although *Columbia Gas Transmission Corporation* was issued prior to the era of open access, the fundamental principles underlying its decision remain unchanged.[43]

53. In its reply comments, Natural asserts that cost-sharing and reimbursement measures to compensate for modifications to end-use equipment are inappropriate. Natural asserts that the Commission specifically rejected such a proposal in Opinion No. 495[44] because it lacks jurisdiction with respect to recovery of costs incurred by non-jurisdictional parties, except in unusual circumstances. Further, Natural argues that the

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[40] *Columbia Gas Transmission Corp*., 13 FERC ¶ 61,102, at 61,217-21 (1980) (Opinion No. 101), *aff'd on reh'g*, 14 FERC ¶ 61,073 (1981), *aff'd sub nom., Corning Glass Works, et al. v. FERC*, 675 F.2d 392 (D.C. Cir. 1982).

[41] *Columbia Gas Transmission Corp*., 13 FERC ¶ 61,102 at 61,218.

[42] *Id.* at 61,219.

[43] *Citing Cove Point LNG Limited Partnership*, 97 FERC ¶ 61,276, at 62,268 (2001).

[44] Opinion No. 495, 119 FERC ¶ 61,075 at P 44.

Commission has not adopted a policy in its gas quality orders requiring pipelines to reimburse customers for costs of complying with its *Policy Statement*.

54. In its reply comments, ExxonMobil contends that FPL Energy's claims for reimbursement for adding control facilities are unsupported by fact or law, and that FPL Energy failed to adequately demonstrate that the proposed interchangeability standards would adversely affect its generating units. It also asserts that the Commission lacks jurisdiction to order compensatory retrofit payments to non-jurisdictional entities. Indicated Shippers add that the Commission has held that "all parties have an opportunity to contest the pipeline's proposed standard…. However, once the Commission has considered these contentions, and approved just and reasonable gas quality and interchangeability standards, the Commission will not act further to provide for the recovery of any mitigation costs incurred by non-jurisdictional downstream gas users."[45] It states that the Commission has also recently affirmed that it "will not provide for recovery of any mitigation costs incurred by non-jurisdictional downstream gas users" in a pipeline gas quality proceeding.[46]

Commission Determination

55. We reject FPL Energy's request that the Commission direct Natural to implement a cost-sharing mechanism for any costs paid by shippers to comply with any newly established Interim Guideline gas interchangeability measures. In Opinion No. 495, the Commission held that:

> [N]o mechanism should be established in this proceeding for electric generators, LDCs or other gas users to recover any costs they may incur as a result of the introduction of LNG into the Florida Gas system…. In cases such as this, involving pipeline proposals to change their gas quality and interchangeability tariff standards, all parties have an opportunity to contest the pipeline's proposed standards. The parties may, as they have here, argue that the pipeline's proposed standards are not just and reasonable, because they will place excessive burdens on existing customers. However, once the Commission has considered these contentions, and approved just and reasonable gas quality and interchangeability standards, the Commission

[45] *Id*. P 261.

[46] *Iroquois Gas Transmission System, L.P.*, 119 FERC ¶ 61,325, at P 21 (2007), *citing,* Opinion No. 495 119 FERC ¶ 61,075 at P 261.

> will not act further to provide for the recovery of any mitigation costs incurred by non-jurisdictional downstream gas users.[47]

56. Consistent with the policy established in Opinion No. 495, the Commission will reject any cost-sharing mechanism in the instant proceeding. Earlier in this order, we have carefully considered FPL Energy's assertions that Natural's Wobbe Index proposal will impose excessive burdens on it by requiring modifications to its electric generators so that they can handle wide variations in gas quality. However, as discussed above, there is nothing in the present record to indicate that Natural's Wobbe Index proposal will require FPL Energy to incur any additional costs in running its electric generators. That is because the high-Wobbe Index LNG gas now entering Natural's system on Gulf Coast, or expected to enter the system in the future, is unlikely to enter Natural's Cross Haul line, where FPL Energy's generators are located. Rather, that gas will flow to the Chicago market over Natural's Gulf Coast Line or to other pipelines serving east coast markets. Therefore, it does not appear that Natural's Wobbe Index proposal will cause any change in the quality of the gas Natural currently delivers to FPL Energy. Given the fact Natural's proposal does not adversely affect its shippers and other factors discussed above, the Commission finds that Natural's Wobbe Index proposal is just and reasonable. Having found the Wobbe Index proposal to be just and reasonable, the Commission will not act further to provide for the recovery of any mitigation costs incurred by non-jurisdictional downstream customers such as FPL Energy. FPL Energy relies on the court's decision in *Transcontinental Gas Pipeline Corp. v. FERC* and the Commission's decision in *Columbia Gas Transmission Corporation* to argue that Opinion No. 495 erred in holding that the Commission lacks jurisdiction to require a pipeline to establish such a cost-sharing mechanism is misplaced. In December 2007, after FPL Energy filed its post-technical conference comments, the Commission issued Opinion No. 495-A,[48] denying rehearing of Opinion No. 495's holdings on this issue. Opinion No. 495-A distinguished the situations addressed by the two cases relied on by FPL Energy and explained why neither of those decisions supports a finding that the Commission would have jurisdiction to require pipelines establish a cost-sharing mechanism in the circumstances of this case.[49] Accordingly, the Commission continues to conclude that, even assuming Natural's proposal did impose some costs on FPL Energy, the Commission lacks authority to require Natural or its other shippers to bear those costs.

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[47] Opinion 495 119 FERC ¶ 61,075 at P 261.

[48] *AES Ocean Express LLC v. Florida Gas Transmission Company*, 121 FERC ¶ 61,267 (2007).

[49] *Id*. P 83-92.

f. Wobbe Index Standards as Safe Harbor

57. Indicated Shippers and Aux Sable believe that Natural's proposed Wobbe Index limits should be employed as a safe harbor, and not as absolute limitations. Indicated Shippers argue that setting the Wobbe Index specifications as limits would prohibit Natural from taking into account either the effects of blending on its pipeline or the operational effects on different zones, which would not allow Natural to maximize gas supplies. Aux Sable adds that, should the Commission find that Natural's methodology adequately supports a maximum Wobbe Index below 1,380, the Commission should find that Natural can only impose this limit as a safe harbor, which would allow Natural the flexibility to accept receipts of gas with a Wobbe Index exceeding 1,380, which would maximize gas supplies available to its customers.

58. Peoples argue that, given the fact that the Wobbe Index is a range and not a fixed number, the index already incorporates flexibility and therefore should not be used as a safe harbor. Natural argues that the Interim Guidelines do not contemplate having the Wobbe Index limits serve as a safe harbor and adds that its modified proposal to expand the maximum Wobbe Index limit in certain regions of its system essentially makes the safe harbor recommendation moot.

Commission Determination

59. We reject Indicated Shippers' and Aux Sable's request for Natural to implement its Wobbe Index limits as a safe harbor, instead of as limits. If the Commission required Natural to make this change, Natural would have the discretion to post Wobbe Index limits that exceed the maximum Wobbe Index limits it proposes to include in its tariff, and those tariff limits would serve only to guarantee that gas within those limits would not be rejected based on its Wobbe Index. Natural's proposal to establish minimum and maximum Wobbe Index limits, without retaining the right to post temporary limits outside the range set forth in the tariff is consistent with the Interim Guidelines, which contemplates that the tariff Wobbe Indices should be set as limitations. Accordingly, we find that Natural's proposal in this regard is just and reasonable, and therefore we will not require the modification requested by Indicated Shippers and Aux Sable.

B. Natural's Btu Proposal

60. Natural originally proposed to include in its tariff an upper Btu limit of 1,110 Btu/scf for its entire system. However, to address concerns that certain LDC shippers raised about their ability to accept gas with a Btu content in excess of 1065 Btu/sqf, Natural modified its Btu proposal so as to permit it to ensure that deliveries in its market area would not exceed 1065 Btu/scf. First, Natural continued to propose to include in its tariff a maximum Btu limit of 1,110 Btu/scf for receipts and deliveries in its production areas, which includes its Permian, Midcontinent, South Texas, TexOk, and Louisiana

transportation zones. Natural stated that a 1,110 Btu/scf upper Btu limit in its production areas would not affect its ability to deliver gas with a lower Btu content in its market area, because it can blend production area gas with lower Btu content gas to achieve an acceptable mix in its market area. Second, Natural proposed a maximum Btu content of 1,065 Btu/scf for receipts[50] and 1,110 Btu/scf for deliveries in its Amarillo Line and Gulf Coast Line transportation zones, which it describes as its transition area. Natural stated that the 1,065 Btu/scf limit for receipts in the transition area is necessary to permit blending of higher Btu content gas with lower Btu content gas. Third, Natural proposed a maximum Btu limit of 1,065 Btu/scf for both receipts and deliveries in the Iowa-Illinois transportation zone, which is its market area. Finally, while Natural's proposed tariff language requires it to accept gas that satisfies these standards, the proposal also permits Natural to post higher receipt point Btu limits on its website from time to time so long as its deliveries continue to satisfy the delivery point standards.

61. Natural states that it developed its Btu proposal employing the same seven-step process set forth in the Wobbe Index section of this order. Natural states that it determined its maximum Btu limit of 1,110 Btu/scf for its field area by reviewing historical Btu data on its system and examining the implications of its Wobbe Index calculations for the Btu content of gas. For historical data, Natural states that it examined actual Btu content at certain points on its system for the period October 2003 through September 2006. Natural states that it primarily used data from a point on its Amarillo Line,[51] and another on its Gulf Coast Line.[52] According to Natural, these two points are designated as representative for posting gas quality information pursuant to the NAESB standards. Natural states that it also included limited historical data from two other NAESB points: Pin 39772 KMNT Lamar and Pin 3618 FGT Jefferson. According to Natural, the Btu content of gas it has delivered on its system over the time period analyzed has averaged 1,022 Btu/scf, with a high value of just over 1,050 Btu/scf.

62. Natural states that, as a check of reasonableness of its proposed Btu limits, it also calculated the Btu content of gas implicit in its calculated Wobbe Index standards using two sets of assumptions. Under its first assumption (the Btu value will increase and the

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[50] Natural has clarified that for the purposes of its proposal the term "receipts" applies to receipts where the gas is first received into Natural's system, and does not apply to gas already flowing in Natural's system from upstream zones. *See* Natural's Reply Comments at 18, n.16.

[51] PIN 66, which is an interconnection with MidAmerican Energy Company, located near Ainsworth, Iowa.

[52] PIN 11435, which is an interconnect with Proctor & Gamble, an industrial end user, located near Cape Girardeau, Missouri.

specific gravity will stay constant), Natural calculated a Btu limit of 1,063 Btu/scf for gas corresponding to a Wobbe Index of 1,380 Btu/scf. Under its second assumption (the Btu value will increase and the specific gravity will also increase), Natural calculated a Btu limit of 1,087 Btu/scf for gas corresponding to a Wobbe of 1,380 Btu/scf. Natural notes that, under both cases, the Btu limits are significantly below the 1,110 Btu/scf standard set forth in the Interim Guidelines.

63. Natural proposes to reduce its transition and market area receipt point Btu limits to 1,065 Btu/scf to accommodate safety and operational concerns of LDCs relating to the prospect of receiving gas with a significantly higher heating value than the market has experienced. Natural states that it must reduce its Btu receipt point limit in its market area and transition zones since it has limited opportunity to blend low-Btu gas received from western sources with higher-Btu gas received from its Gulf Coast sources due to the design and operation of its system. Natural states that it is unsure whether gas with Btu values higher than it has experienced can be received without jeopardizing safe and reliable services. It contends that its proposed receipt point Btu specification of 1,065 Btu/scf in its market area and transition zones represents a judgment as to the level which it can accept in the market area, given safety and reliability concerns and the limits of current knowledge. Natural notes that its proposed 1,065 Btu/scf limit is significantly higher than the Btu levels it has experienced on its system over the three years analyzed, and thus its Btu proposal would provide shippers with additional flexibility to increase the Btu values of their gas above historical levels.

1. Initial Comments

64. Peoples and Nicor generally support Natural's Btu limit proposal.[53] Peoples assert that Natural's filing is consistent with the September 2006 Order, the Commission's *Policy Statement*, and the Interim Guidelines. Nicor states that it prefers a Btu limit of 1,050 Btu/scf, but is willing to accept a 1,065 Btu limit based on Natural's supporting technical data for this Btu limit. It contends that the market area Btu limit has to be lower than the Btu limits on the remainder of Natural's system since there is little opportunity for blending. It adds that the potential effect of higher Btu gas on turbines, machinery, furnaces, appliances, and emission limits must be considered when establishing Btu specifications.

[53] In addition to the initial comments filed subsequent to the technical conference, the Process Gas Consumers Group and the American Iron and Steel Institute, as well as Ameren Energy Generating Company, Central Illinois Public Service Company, and Union Electric Company, filed comments prior to the technical conference supporting Natural's proposal.

65. In its supporting comments, Nicor expresses concerns about the impact Btu variability could have on its operations. It states that it has to consider the Illinois state requirements concerning the Btu level of natural gas it delivers.[54] According to Nicor, several of its industrial and commercial customers, as well as power generators have expressed concerns that their machinery cannot handle wide Btu level fluctuations. As an example, Nicor offers that fast food restaurants set their deep fryers on timers to cook food, and if the Btu level varies, the food could be either undercooked or burnt. It adds that wide fluctuations may require industrial users and power generators to re-tune their turbines and retrofit industrial customers' equipment to handle Btu swings.

66. Several parties oppose Natural's Btu limit proposal. Their concerns generally fall under the three categories discussed below.

a. Inconsistent with Interim Guidelines

67. First, opposing parties argue that Natural's proposal to reduce the receipt point Btu limit in its market area and transition zones to 1,065 Btu/scf is inconsistent with the Interim Guidelines. Alliance argues that the Interim Guidelines call for a Btu limit of 1,110 Btu/scf, and the only appropriate adjustment to that limit is an upward adjustment based on a pipeline's historical experience. It asserts that the Interim Guidelines do not contemplate any downward adjustment.

68. Alliance disputes any notion that state regulatory requirements may preclude certain LDCs from accepting gas with a heating content up to 1,100 Btu/scf, and also argues that Natural's use of Wobbe Index calculations to derive its Btu value limit is not supported by the Interim Guidelines.

69. Indicated Shippers argue that Natural offers no technical, engineering, or operational support for its proposed 1,065 Btu/scf specification, but instead bases the proposal on the fact that it is close to historical experience and that certain downstream LDCs indicated an inability to accept gas with a heating value of 1,110 Btu/scf due to state regulatory requirements. They assert that LDC concerns about receiving gas with a Btu content above 1,065 Btu/scf are speculative and unsubstantiated. Indicated Shippers add that the Interim Guidelines have a rebuttal presumption that only should be overridden if a pipeline can demonstrate scientific, technical, or operational reasons for setting a lower gas quality specification, which Natural has not done. Indicated Shippers contend that historical experience and inapplicable state regulations should not be

[54] *Citing* Illinois Administrative Code Title 83 "Public Utilities," section 500.280(a), requiring that a utility's "standard of heating value shall be maintained with as little deviation as practicable, and the average total heating value on any one day shall not exceed or fall below the authorized monthly standard by more than five percent."

deemed sufficient technical, operational, or scientific support to override the 1,110 Btu/scf specification endorsed by the Interim Guidelines. They add that Natural did not use the appropriate methodology to determine its Btu specification and should have adopted a Btu standard consistent with the industry in general.

70. Aux Sable argues that Natural's safety and reliability concerns are already considered by the Btu limit offered in the Interim Guidelines. It asserts that the Commission already explained that the 1,110 Btu/scf limitation that the Interim Guidelines recommend is conservative.[55] Aux Sable argues that the Commission already rejected the argument that the procedures set forth by the NGC+ Group were suspect and that its recommendations should be second-guessed.[56] Aux Sable contends that Natural has inadvertently taken the process for deriving Wobbe Index limits set forth in the Interim Guidelines and applied this process to determining Btu limits. Aux Sables adds that Natural's methodology incorrectly assumes that 1,063 Btu/scf gas somehow correlates with a Wobbe Index of 1,380 by erroneously using the average specific gravity of its historic gas and, consequently, Natural's method provides no justification for Natural's divergence from the 1,110 Btu/scf limit in the Interim Guidelines. Aux Sable further states that the LDCs fail to explain why gas is not interchangeable if, notwithstanding its Btu level, it meets Natural's proposed 1,380 Wobbe Index that they fully support.

71. ExxonMobil states that Natural's proposal to establish separate Btu limits for discrete parts of its system is inconsistent with the Interim Guidelines, the Interchangeability White Paper, its Wobbe Index limit proposal, and Commission precedent. It argues that the maximum Btu limit is intended to supplement the Wobbe Index and to address incomplete combustion over a range of gas compositions.[57] ExxonMobil asserts that Natural fails to address the quality needs of its market area, but rather bases its Btu specification on historical data.

b. Incompatible with Interconnecting Pipelines

72. Aux Sable and Indicated Shippers assert that Natural's proposed transition and market area receipt point Btu limits are inconsistent with those of interconnecting pipelines. Aux Sable states that Natural does not compare its proposed interchangeability specifications with those of interconnecting pipelines, as the Commission directed in its September 2006 Order. Aux Sable provides the information, noting that the lowest

[55] Opinion No. 495, 119 FERC ¶ 61,075 at P 160.

[56] *Id.* P 124.

[57] Interchangeability White Paper at 12 (§ 6.0.5).

maximum Btu limit of any interconnecting pipeline is 1,100 Btu/scf (Northern Natural Gas Company), and that several interconnecting pipelines have Btu limits of 1,200 Btu/scf or no maximum limit at all. Aux Sable adds that the Commission approved Btu specifications of 1,110 Btu/scf for Columbia Gas Transmission Corporation, and that Iroquois Gas Transmission System, L.P., is seeking approval of an 1,110 Btu/scf maximum heating value, notwithstanding that its system-wide Btu average is 1,006 Btu/scf, far below Natural's 1,022 Btu/scf average.[58]

73. Indicated Shippers add the Commission recently approved FGT's proposed Btu limit of 1,110 Btu/scf for its market area and no upper limit for its western division. They state that Texas Eastern Transmission, L.P., proposed a 1,110 Btu/scf specification, and Transco proposed a similar Btu limit at various shipper meetings. Further, Indicated Shippers argue that Tennessee Gas Pipeline Company is considering changing its current 1,100 Btu/scf specification to 1,110 Btu/scf to conform to the Interim Guidelines. Indicated Shippers provide a table offering the Btu limits of other interconnecting pipelines as well.

c. Contravenes Commission Precedent

74. Alliance argues that Natural's Btu proposal contravenes Commission precedent. It states that in Opinion No. 495, the Commission affirmed the importance of adhering to the 1,110 Btu/scf limit in the Interim Guidelines. Alliance states that in that case, FGT proposed a maximum Btu limit of 1,110 Btu/scf, consistent with the Interim Guidelines. The Florida Generators, however, proposed a Btu limit of 1,075 Btu/scf, arguing that this limit had a historical basis, and that there was no showing that using a lower Btu limit would exclude any specific LNG sources. According to Alliance, the Commission approved FGT's proposed Btu limit of 1,110 Btu/scf as just and reasonable, and rejected the Florida Generators' proposal to lower the Btu limit to 1,075 Btu/scf and the Florida Generators' contention that FGT erred in basing its proposed 1,110 Btu/scf maximum on the Interim Guidelines rather than on historical data. Alliance asserts that the Commission specifically stated that its *Policy Statement* encourages pipelines and their customers to use the Interim Guidelines as a common scientific reference point for resolving gas quality and interchangeability issues.[59]

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[58] *See* Tariff Filing of Iroquois Gas Transmission System, L.P., filed May 4, 2007, in Docket No. RP07-443-000 at P 5.

[59] Opinion No. 495, 119 FERC ¶ 61,075 at P 158-59.

2. Reply Comments

75. In its reply comments, Natural argues that it has the responsibility to operate its system in a safe and reliable manner for the benefit of all shippers, including downstream end users. It states that the Interchangeability White Paper recognizes the need to consider historical gas composition of the gas supply in specific market areas in developing gas quality standards. It asserts that altering its proposal would require the Commission to ignore the experience and guidance of several of the largest LDCs in the country, serving millions of customers. It contends that the Commission has recognized that the Interim Guidelines are a starting point rather than an end point.[60] It reaffirms that major market area LDCs raised safety and reliability concerns with the 1,110 Btu/scf limit recommended by the Interim Guidelines, but have agreed to a limit of 1,065 Btu/scf, which is still above the Btu level of historical deliveries. Natural adds that its market area users have no experience with Btu levels at or even approaching 1,110 Btu/scf, which is a concern since the Chicago market includes a multitude of unsophisticated and unrepresented end users with furnaces, ranges, water heaters, and other gas appliances that are approaching or past their projected useful life. It asserts that, absent historical evidence or research on the effects of higher Btu gas on its market area customers, a 1,110 Btu/scf limit in its transition and market areas has not been demonstrated to be safe, and the Commission cannot impose such a limit as just and reasonable. Natural contends that its bifurcated Btu proposal accommodates the needs of all its shippers, including producers and LNG terminal developers.

76. Natural asserts that its Btu limit proposal would not have detrimental effects on gas supply as some parties assert since its proposed Btu limits are well above its highest observed Btu value over the three-year period analyzed. It contends that the gas quality standards set forth in the Interim Guidelines require adjustment based on actual experience and circumstances, and to portray the standards set forth in the guidelines as being conservative and the end result to be imposed without question on every pipeline is inappropriate. Natural notes that the parties who oppose its proposed Btu limit are parties that do not have a stake in the safe and reliable operation of Natural's system.

77. Natural also states that its Btu proposal will not affect its ability to deliver gas to other interstate pipelines, since the bulk of Natural's deliveries to other pipelines takes place in its Louisiana Zone where it is proposing a Btu limit consistent with the Interim

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[60] *Id.* P 128, where the Commission stated: "In sum, we find that the ALJ properly used the NGC+ Interim Guidelines as a starting point in determining the appropriate Wobbe Index range on the Florida Gas system, but deviated from them to the extent necessary to accommodate the circumstances on the Florida Gas system as reflected in this record."

Guidelines. It adds that the Btu limits set forth in the tariffs of other pipelines are irrelevant since it is basing its proposal on its own system experience. Natural contends that its bifurcated Btu proposal accommodates its ability to blend gas supplies in the transition zone, and that the vast majority of receipt points on its system are in zones where it will accept gas with a Btu content up to 1,110 Btu/scf.

78. In its reply comments, MidAmerican supports Natural's Btu proposal, stating that several of its large customers have indicated that they cannot safely use higher Btu gas, and that swings may create operational problems. MidAmerican adds that timely gas quality information is needed so that LDCs can better help their customers manage changes in gas quality, particularly swings in Btu content.

79. Peoples argue that neither the September 2006 Order nor the Commission's *Policy Statement* designates the recommendations in the Interim Guidelines as standards to which a rebuttable presumption applies, nor do they characterize the Interim Guidelines as establishing conservative minimum standards from which only upward adjustments can be justified. It adds that Natural properly developed its proposal from a thorough review of historical data, and focused on end use markets, consistent with the Interchangeability White Paper.

80. Opposing parties in their reply comments generally reinforce their initial arguments that: (1) Natural has not provided technical support for its Btu limit proposal, and has not provided substantial evidence to support its allegations that adopting the Btu limit set forth in the Interim Guidelines will harm end users; (2) the Interim Guidelines call for a Btu limit of 1,110 Btu/scf across a pipeline's entire system and only provide for upward adjustments; (3) parties advocating for a divergence from the Interim Guidelines have the burden to demonstrate why such divergence is appropriate; (4) Natural limited itself by only looking at historical data for four points on its system; and, (5) the Interchangeability White Paper does not advocate the adoption of Btu limits based on historical levels. Aux Sable also notes that the LDCs fail to explain why gas is not interchangeable if, notwithstanding its Btu level, it meets Natural's proposed 1,380 Wobbe Index.

81. Indicated Shippers argue that Natural has sufficient opportunities for blending gas, particularly along its Amarillo and Gulf Coast Lines. They state that recent studies show that gas thoroughly blends within 100 pipeline diameters downstream of an interconnect, which allows for ample blending opportunities upstream of Natural's market area.

3. Commission Determination

82. We accept Natural's proposal to implement the following Btu limits: (1) a maximum Btu content of 1,110 Btu/scf for receipts and deliveries in its production areas (the Permian, Midcontinent, South Texas, TexOk, and Louisiana transportation zones); (2) a maximum Btu content of 1,065 Btu/scf for receipts and 1,110 Btu/scf for deliveries

in its transition area (the Amarillo Line and Gulf Coast Line transportation zones); and, (3) a maximum Btu limit of 1,065 Btu/scf for receipts and deliveries in its market area (the Iowa-Illinois transportation zone). We find that Natural's Btu proposal is consistent with the Commission's *Policy Statement* and the Interim Guidelines.

83. Paragraph 38 of the Commission's *Policy Statement* provides that:

> The appropriate interchangeability specifications for different pipelines may vary depending on a number of factors, including: the historic characteristics of natural gas delivered by the pipeline to the markets it serves; local market practices for the use of target or adjustment gases used to install and adjust equipment in that market; historic variability in the characteristics of gas delivered to the market; where there are customer loads with special gas quality requirements, such as a large process gas user; the type and gas quality tolerances of the end-use equipment (including "legacy" equipment); and, the tariff requirements of downstream pipelines. This fact-intensive exercise does not lend itself to generic specifications. The Commission will examine the appropriate circumstances in each individual case….

Natural developed its Btu specifications in accordance with this provision, by looking at historic gas quality on its system, balancing the needs and concerns of end users as well as producers, and maximizing gas supply on its system. By providing for a maximum Btu limit of 1,110 Btu/scf in its production areas, Natural is accommodating producers who want to deliver high-Btu gas on Natural's system. By implementing a Btu receipt point limit of 1,065 Btu/scf in its transition and market areas and a similar delivery point limit in its market area, Natural is preserving system safety and reliability by accommodating concerns that LDCs raised. For gas that Natural receives in its production area that does not conform to the downstream Btu limit of 1,065 Btu/scf, that gas can be blended or processed to bring it within the allowable Btu range.

84. We also find that Natural's Btu proposal is consistent with the Interim Guidelines. Recommendation 6 of the Interchangeability White Paper that provides that: "While adopting a national range for key specifications such as the Wobbe Number is important for supply flexibility, acceptable interchangeability ranges for specific regions or market areas may be more restrictive as a consequence of historical compositions and corresponding end use settings." The Btu limit represents a key gas quality specification, and thus the Interchangeability White Paper contemplates that adjustments may need to be made to the specification to accommodate local operating conditions. Further, contrary to assertions that certain parties make, the Interim Guidelines do not require a system-wide Btu limit of 1,110 Btu/scf that can only be adjusted upward. The Btu limit set forth in the Interim Guidelines is clearly delineated as a "maximum" Btu limit that gas received on Natural's system may be subject to.

85. Certain parties argue that Natural's Btu proposal is not in line with the Btu standards of interconnecting pipelines, and may affect its ability to deliver gas to other systems. As Natural states, the majority of gas that Natural receives on its system is delivered to end users on its own system, and the bulk of the gas it delivers to other pipelines it delivers in its Louisiana Zone, where its Btu limit is 1,110 Btu/scf, which is the specification provided for by the Interim Guidelines. Also, as the Commission specified in the *Policy Statement*, "[t]his fact-intensive exercise does not lend itself to generic specifications. The Commission will examine the appropriate circumstances in each individual case."[61] Further, the Commission found in *Gulf South* that "to the extent the Commission approved gas quality standards for downstream pipelines, those determinations were based on findings that the relevant standards were just and reasonable for those specific pipelines, and have no applicability to Gulf South's system."[62] The same reasoning holds true for Natural's system.

86. Alliance states that Natural's Btu proposal contravenes Commission precedent in Opinion No. 495, where the Commission affirmed the importance of adhering to the 1,110 Btu/scf limit set forth in the Interim Guidelines. Opposing parties also argue that Natural's modified receipt point Btu limit of 1,065 Btu/scf in its transition and market areas is baseless since LDCs who raise these concerns provide no technical or operational support. In Opinion No. 495, the pipeline (FGT) proposed setting its Btu limit at 1,110 Btu/scf and a group of shippers wanted to impose tighter Btu limits. The Commission examined FGT's proposal and found it to be just and reasonable.[63] That case differs from the proposal set forth in the subject filing. Here, the pipeline is proposing to implement more stringent Btu limits in its transition and market areas, and a shipper is urging the Commission to direct Natural to implement a more lenient Btu limit of 1,110 Btu/scf in those areas. The Commission has reviewed Natural's Btu proposal on its merits, and based on the facts set forth in the record, finds that Natural's proposal to establish a receipt point Btu limit of 1,065 Btu/scf in its transition and market areas, and a similar delivery point Btu limit in its market area is just and reasonable. We find that Natural adequately showed that LDCs may be harmed by implementing the more lenient Btu limit, which in turn could affect reliability to their customers. Given the number of LDCs expressing concerns over implementing the more lenient Btu limit, and given the LDCs' knowledge of their own equipment and the Btu limits it can handle, we find Natural's proposal to implement a tighter Btu limit in its transition and market areas acceptable. Under section 4 of the NGA, if a pipeline's proposed tariff revisions are just

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[61] *Policy Statement*, 115 FERC ¶ 61,325 at P 38.

[62] *Gulf South Pipeline Company*, 120 FERC ¶ 61,076, at P 39 (2007).

[63] The Commission also rejected objections to the process to determine a maximum Btu limit recommend in the Interchangeability White Paper.

and reasonable, the Commission will approve them even if other proposals may also be just and reasonable.

C. Btu Level and OFOs

87. In its post technical conference comments, Nicor asks for clarification of Natural's authority to impose an OFO if harm occurs on Nicor's system due to a high or fluctuating Btu level. Nicor states it would request Natural to impose a lower Btu limit immediately if end users are harmed by higher or fluctuating Btu levels, while a longer term solution could be developed. Nicor claims that it would not make sense for Nicor to refuse deliveries from Natural if all of Nicor's customers were not adversely affected, and Nicor could not refuse deliveries during the winter heating season. Nicor states that it would look to Natural for assistance in attaining an immediate, short-term solution.

88. In its reply comments, Natural states that it has rarely issued OFOs on its system as a result of issues with upstream and downstream interconnecting parties. Natural explains that situations such as those that Nicor raises are typically resolved at an operational level between both parties. Natural contends that Nicor's situation is best addressed when a specific situation arises. Natural states that its tariff sets forth the circumstances under which it will issue an OFO and Natural will take action to protect its system consistent with its tariff.

89. In their reply comments, Indicated Shippers state that the Commission should reject Nicor's request because Natural's existing OFO tariff provisions already protect Natural's system operation and integrity, and allow Natural to provide reliable service. Indicated Shippers contend that the Commission has found properly selected gas quality specification should result in operationally reliable service without the use of OFOs.[64] Indicated Shippers argue that the Commission has specifically rejected proposals that a pipeline be able to issue an OFO gas quality restriction below its safe harbor to avoid an event that threatens the operational integrity of end-users, LDCs and others. Indicated Shippers further argue that the Commission has held that a pipeline "is responsible for the operational integrity of its own system, but not for the operational integrity of downstream systems. That is the responsibility of the downstream systems."[65]

90. In its reply comments, ExxonMobil argues that the Commission should reject Nicor's request and clarify that Natural's OFO authority is limited to operating conditions

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[64] *Citing ANR Pipeline Company*, 108 FERC ¶ 61,323, at P 25 (2004), *order on rehearing*, 109 FERC ¶ 61,358 (2004).

[65] *Citing ANR Pipeline Company*, 116 FERC ¶ 61,002, at P 64 (2006), *order on rehearing*, 117 FERC ¶ 61,286 (2006).

on Natural's system. ExxonMobil argues that the Commission has consistently held that the purpose of an OFO is to permit pipelines to take actions necessary to prevent serious operational difficulties on their systems and provide reliable service.[66] ExxonMobil asserts that to allow a single customer, even a large customer, to require a pipeline to declare an OFO based on conditions on the customer's system, including a Btu issue, is contrary to the purpose of an OFO. ExxonMobil contends that Nicor has offered no objective standards for Natural to assess issuing an OFO to lower its Btu limit as required by Commission regulations[67] and Order No. 637.[68] Additionally, ExxonMobil asserts that the Commission has held in this proceeding that pipelines and their stakeholders should not develop interchangeability standards to meet all of the potential problems of every downstream party.[69] ExxonMobil submits that to allow such a use of OFOs would threaten service to other customers due to conditions that pose no threat to the pipeline.

Commission Determination

91. We deny Nicor's requested clarification that Natural has the authority to impose an OFO if harm occurs on Nicor's system due to high or fluctuating Btu levels. Section 23.6 of Natural's GT&C only authorizes it to issue an OFO in order to alleviate conditions "which threaten or could threaten the safe operations or system integrity of Natural's system or to maintain operations required to provide efficient and reliable firm service." In addition, section 23.1(b) states that, for purposes of Natural's GT&C, "the overall operational integrity of Natural's system shall encompass," among other things, "the overall operating performance of the entire physical system as an entity (or any portion thereof), and the maintenance (on a reliable and operationally sound basis) of total system deliverability and the quality of gas delivered."

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[66] *Citing Tennessee Gas Pipeline Company*, 108 FERC ¶ 61,177, at P 8 (2004); *Texas Eastern Transmission Corporation*, 72 FERC ¶ 61,278 (1995); and *The Brooklyn Union Company v. CNG Transmission Corporation*, 73 FERC ¶ 61,157, at 61,453 (1995).

[67] 18 C.F.R. § 284.12(c)(2)(iv) (2008).

[68] *Regulation of Short-Term Natural Gas Transportation Services and Regulation of Interstate Natural Gas Transportation Services*, Order No. 637, FERC Stats. & Regs. ¶ 31,091, at 31,312-13, *clarified*, Order No. 637-A, FERC Stats. & Regs. ¶ 31,099, *reh'g denied*, Order No. 637-B, 92 FERC ¶ 61,062 (2000), *aff'd in part and remanded in part sub nom. Interstate Natural Gas Ass'n of America v. FERC*, 285 F.3d 18 (D.C. Cir. 2002), *order on remand*, 101 FERC ¶ 61,127 (2002), *order on reh'g*, 106 FERC ¶ 61,088 (2004), *aff'd sub nom. American Gas Ass'n v. FERC*, 428 F.3d 255 (D.C. Cir. 2005).

[69] *Citing* September 2006 Order, 116 FERC ¶ 61,262 at P 33 n.26.

92. Nothing in this language would authorize Natural to issue an OFO based solely on operational problems occurring on downstream systems. While, as Nicor points out, Natural may issue an OFO where necessary to "maintain operations required to provide efficient and reliable firm service," section 23.1(b) makes clear that this provision refers to the "operating performance" of Natural's "physical system," not the systems of downstream entities. Consistent with section 23.1(b), Natural may issue OFOs in order to maintain the deliverability of its own system and "the quality of gas delivered." The Commission interprets the reference to gas quality to mean that Natural may issue an OFO where necessary to enable it to deliver gas consistent with the approved provisions in its tariff concerning the quality of the gas it delivers to its customers. Therefore, Natural could issue an OFO, if necessary to be able to deliver gas that meets the 1,065 Btu/scf delivery standard on its own system. However, it cannot issue an OFO solely to accommodate an LDC that is experiencing operational problems. This interpretation of Natural's tariff is consistent with our holding in *ANR* that the pipeline "is responsible for the operational integrity of its own system, but not for the operational integrity of downstream systems. That is the responsibility of the downstream systems."[70]

D. Butanes Plus and Inert Gases

93. Natural proposes a maximum limit of butanes and heavier hydrocarbons of 1.5 mole percent for gas receipts. Natural proposes a maximum limit for total inert gases (principally nitrogen and carbon dioxide) of not more than 4 mole percent for gas receipts. These standards are the same as the standards provided for in the Interim Guidelines. No party has objected to Natural's proposed standards for butanes plus heavier hydrocarbon or inert gases. Accordingly, the Commission finds that the upper limits Natural proposes for butanes plus heavier hydrocarbons and total inert gases are just and reasonable and consistent with the *Policy Statement.*

E. Additional Issues

94. Below is a summary of post technical conference comments not related to the issues of Natural's upper Btu limit and gas interchangeability tariff provisions or Natural's proposed revisions in its compliance filing in Docket No. RP01-503-007.

[70] *ANR*, 116 FERC ¶ 61,002 at P 64, rejecting a shipper's request for a tariff provision authorizing the pipeline to issue an OFO to avoid an event that threatens the operational integrity of downstream entities, including LDCs.

1. Oxygen Limit

95. In their initial comments, Indicated Shippers and ExxonMobil contend that Natural's current oxygen limit of ten parts per million (ppm) or 0.001 percent[71] should be revised. They submit that an overly restrictive oxygen limit with no legitimate technical or operational basis could result in Natural rejecting a significant amount of gas supplies flowing from interconnecting pipelines. Indicated Shippers explain that certain gas supplies, such as gas produced from coal mines and vaporized LNG, contain trace amounts of oxygen. Indicated Shippers submit that Natural should be required to revise its oxygen limit to be 0.2 percent, which according to Indicated Shippers is more in line with the oxygen limits of interconnecting pipelines.

96. ExxonMobil argues that Natural's oxygen limit could seriously restrict Natural's ability to receive re-vaporized LNG, since some LNG terminals may install nitrogen injection facilities to meet Natural's proposed Wobbe limit. ExxonMobil states that nitrogen produced by certain technology will contain residual levels of oxygen. Therefore, ExxonMobil asserts that Natural's oxygen limit relates closely to Natural's proposed Wobbe and Btu standards and examination of gas interchangeability on Natural's system requires re-examination of the oxygen limit. ExxonMobil requests that the Commission direct Natural to explain why it should not be required to adopt an oxygen standard in line with the majority of interconnecting pipelines.[72] In its reply comments, ExxonMobil requests that the Commission direct Natural to propose an oxygen standard based on scientific and technical evidence, consistent with the *Policy Statement*. At the same time, however, ExxonMobil states that the *Policy Statement* does not address specifications for oxygen or certain other gas constituents, and urges the Commission to disregard proposals to depart from the Interim Guidelines and expand the scope of this proceeding to consider revising or adopting new specification for certain other gas constituents.[73]

97. In its reply comments, Peoples argue that the oxygen standard is not at issue in this proceeding, since Natural has not proposed a change to its standard and the Commission did not set the issue for hearing or discussion at the technical conference. Peoples contend that the record in this proceeding does not support a change in Natural's oxygen standard and the proper means to address this issue is through a NGA section 5 filing.

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[71] *See* section 26.1(a) of Natural's GT&C.

[72] ExxonMobil *cites Northern Natural Gas Company*, 108 FERC ¶ 61,083 (2004) (*Northern*), where the Commission rejected a proposed oxygen standard less restrictive than Natural's existing standard.

[73] ExxonMobil's Reply Comments at 20-21.

98. In its reply comments, Natural contends that its oxygen specification is beyond the scope of this proceeding on implementing gas interchangeability standards on Natural's system. Natural asserts that oxygen is not an interchangeability issue but an issue specific to the operating characteristics of an individual pipeline. Natural states that oxygen was not included in the Interim Guidelines or mentioned in the *Policy Statement*. Natural contends that any attempt to interject new issues, including its oxygen specification, at this late stage of the proceeding should be rejected by the Commission.

2. Individual Constituent Limits

99. In its initial comments, FPL Energy claims that Natural's proposed gas interchangeability standards are unjust and unreasonable because the standards fail to consider adopting individual constituent limits. FPL Energy contends that the Commission has recognized that it is appropriate to adopt individual constituent limits in addition to a Wobbe Index range based on the unique needs of generators with DLE turbines.[74] FPL Energy has DLE turbines, and submits that industry experts are finding that the Wobbe Index alone has not been shown as an appropriate interchangeability parameter for DLE turbines, citing statements that a Department of Energy (DOE) representative made at an industry forum. FPL Energy asserts that the Commission should require Natural to adopt the constituent limits approved in Opinion No. 495 or meet with its customers to arrive at appropriate individual constituent limit standards for Natural's system.

100. In their reply comments, Indicated Shippers state that there is no substantive evidence in the record in this case that other gas constituent limits are required for end use applications or necessary for Natural's operation. Indicated Shippers argue that individual constituent limits should not be adopted for Natural simply because the Commission has approved those limits for FGT's market area as FGT proposed. Indicated Shippers also argue that the limits proposed by FPL Energy have no operational, technical, or engineering support specific to Natural's system, and do not reflect the constituent limits in the fuel specifications for FPL Energy's DLE turbines.

101. In its reply comments, ExxonMobil asserts that the Commission should not adopt individual constituent limits for Natural based on the litigation record in Opinion No. 495. It argues that expansion of the discussions in this proceeding to include all of Natural's gas quality specifications would delay the resolution of Natural's gas interchangeability issues. ExxonMobil notes that, to date, party discussions have failed

[74] *Citing* Opinion No. 495, 119 FERC ¶ 61,075 at P 44. The Commission accepted proposed limits for methane, ethane, propane, butanes +, pentanes +, combined CO2 + N2, CO2, O2, hydrogen sulfide, sulfur, water vapor, and maximum temperature. Opinion No. 495, 119 FERC ¶ 61,075 at P 179-201.

to resolve these issues. ExxonMobil contends that FPL Energy's contentions are unsupported and based on: (1) an un-cited DOE representative statement; (2) un-named industry experts; and (3) Opinion No. 495, which involved a different pipeline and evidentiary hearing. ExxonMobil states that in Opinion No. 495 the Commission held that constituent limits must be supported by the record evidence. It also submits that the *Policy Statement* does not address specifications for individual constituent limits and the Commission should not introduce new issues into the proceeding at this late date. ExxonMobil states that FPL Energy acknowledges that Natural's circumstances are unique, which argues against applying another pipeline's quality standards to Natural.

3. Gas Pairing and Processing Opportunities

102. In their initial comments, Indicated Shippers contend that the Commission should require Natural to allow shippers to comply with a gas quality limit by "pairing" conforming and non-conforming gas volumes along the same gas flow path by arranging for the delivery of additional gas volumes on the same segment of Natural's system to the extent operationally feasible. Similarly, Indicated Shippers contend that, to the extent operationally feasible, shippers should be allowed to arrange for processing of gas to meet gas quality limits and gas upstream of a processing plant should be deemed conforming, if the shipper certifies its gas is being processed. Indicated Shippers explain that recent studies have shown that gas is thoroughly mixed within 100 pipeline diameters downstream of an interconnection and there should be opportunities on Natural's system for contractual pairing or processing.

103. In its reply comments, Natural claims that Indicated Shippers' aggregation plan would require Natural to post simultaneous operational limits for numerous aggregation points across Natural's transportation zones, resulting in constantly changing gas quality limits that would prevent shipper assurance that scheduled gas would be accepted. Natural argues that Indicated Shippers' proposed system is confusing, administratively burdensome and not required by the Interim Guidelines or the *Policy Statement*. Natural contends that the September 2006 Order limited the scope of Natural's compliance filing and does not contemplate the system Indicated Shippers request. Natural asserts that it is committed to providing gas supplies access to its system and consistently operates its system in a manner which accommodates as much blending of gas as operationally feasible. Natural claims that adding stringent pairing and aggregation requirements would hinder its flexibility to operate its system to maximize gas supplies.

4. Additional Monitoring Point Information

104. In their initial comments, Indicated Shippers claim that the Commission should require Natural to state in its tariff the number and location of the gas quality Monitoring Points and how often (at a minimum) gas quality components will be measured at the Monitoring Points and posted on Natural's electronic bulletin board. Indicated Shippers argue that this will ensure that the Commission and Natural's shippers are fully aware of

the gas quality-related changes occurring on Natural's system and ensure that any changes are non-discriminatory and appropriate. Indicated Shippers state that Natural should state similar information regarding its gas quality measurement and gas quality limit posting procedures in its tariff.

105. In its reply comments, Natural argues that Indicated Shippers request for additional information is baseless and should be rejected. Natural states that it currently posts on its interactive website the gas quality information required by the Commission-approved NAESB standards for the representative points on its system. Natural claims that no reason has been given why Natural should be the only pipeline required to file and post special, additional provisions on gas quality beyond those approved by the Commission. Natural adds that, in the September 2006 Order, the Commission did not require Natural to provide additional monitoring information, nor does the *Policy Statement* require such additional tariff and posting requirements.

Commission Determination

106. The Commission will not address the merits of the four additional issues summarized above. The only issues remaining open for consideration in this proceeding, initiated by Natural's August 2001 section 4 filing proposing to modify its gas quality tariff provision, are the issues of Natural's maximum Btu content limits and gas interchangeability provisions. In its September 2006 Order, the Commission required Natural to make a new filing either changing its proposal concerning an upper Btu limit consistent with the *Policy Statement* or explaining how its current proposal is consistent with the *Policy Statement*, which encourages pipelines to use the Interim Guidelines in developing tariff provisions concerning gas interchangeability. The Commission expressly "limit[ed] Natural's compliance obligation solely to the issues of an upper Btu limit and gas interchangeability," finding that all other issues in this proceeding had been finally resolved by the earlier orders in this proceeding.[75]

107. On rehearing of the September 2006 Order, Indicated Shippers contended that it should have been permitted to raise issues concerning Natural's tariff provisions regarding, among other things, monitoring points and the lack of any express provision for pairing of gas supplies. In its March 2007 rehearing order, the Commission held that its earlier orders in this proceeding had finally resolved such tariff issues, and therefore the Commission would not further consider those issues in this section 4 proceeding. However, the Commission stated that, if Indicated Shippers believed that such tariff

[75] September 2006 Order, 116 FERC ¶ 61,262 at P 32.

provisions are unjust and unreasonable in light of the Policy Statement, Indicated Shippers could file a complaint under NGA section 5.[76]

108. The issues Indicated Shippers now seek to raise concerning Natural's tariff provisions concerning monitoring points and the lack of a provision concerning pairing are the same tariff provisions the March 2007 Order held would not be further considered in this proceeding. The issues which Indicated Shippers and ExxonMobil seek to raise concerning Natural's existing oxygen limit and which FPL Energy seeks to raise concerning individual constituent limits are also outside the scope of this proceeding. The September 2006 Order limited the remaining issues to be decided in this proceeding to the issues of an upper Btu limit and gas interchangeability. The Interim Guidelines adopted interchangeability guidelines for the following: (1) Wobbe Index; (2) maximum Btu content; (3) maximum Butane plus percentages; and, (4) maximum level of inert gases. Natural's proposal in its January 4, 2007 compliance filing appropriately relates to the interim gas interchangeability guidelines set forth in the Interim Guidelines. However, the additional issues that parties raise do not relate to Natural's upper Btu limit, the interim gas interchangeability guidelines set forth in the Interim Guidelines, or tariff changes proposed by Natural.

109. The Commission clearly limited the remaining issues to be decided in this section 4 proceeding. The parties wishing to raise additional issues have not provided sufficient reasons for the Commission to add new issues at this stage. All these issues could have been raised earlier in this proceeding. It would be patently unfair to Natural and the other parties for the Commission to broaden the scope of the latest technical conference in this lengthy section 4 proceeding, which began in 2001, by allowing certain parties to raise additional issues at this late stage of the proceeding. If those parties continue to believe that Natural's existing tariff provisions (previously approved by the Commission) related to the additional issues raised are unjust and unreasonable or new tariff provisions are required, they may file pursuant to section 5 of the NGA to change Natural's tariff. Parties supporting changes to Natural's tariff bear the burden of proof under section 5 of the NGA to show that their proposal is just and reasonable and Natural's existing tariff is unjust and unreasonable.[77]

F. Alliance's January 16, 2007, Protest

110. To implement the 15ºF CHDP safe harbor that the Commission approved in the September 2006 Order, Natural has filed Substitute Third Revised Sheet No. 343. In revised section 26.1(h)(2) Natural proposes the following tariff language. "Natural may

[76] March 2007 Order, 118 FERC ¶ 61,219 at P 19.

[77] *Western Resources, Inc. v. FERC*, 9 F.3d 1568, 1577-79 (D.C. Cir. 1993).

not decline to accept gas which conforms to such posted 'safe harbor' values if the gas meets the other quality standards set out in this section 26."

111. Alliance protests Substitute Third Revised Sheet No. 343 on two grounds, recommending that the Commission reject the tariff sheets. First, it objects to the language under which Natural reserves the right to reject gas that does not meet its other gas quality standards. Alliance argues that Natural is attempting to grant itself the right to reject gas meeting Natural's CHDP safe harbor based on a separate posted maximum Btu limit. Alliance claims that the disputed language is inconsistent with the Commission's September 2006 Order, where it argues the Commission did not grant Natural this right, but rejected this right on rehearing. Alliance states that in the order the Commission stated that it would further consider whether Natural may impose any Btu limits and required Natural to make a new filing either changing its proposal concerning an upper Btu limit consistent with the *Policy Statement* or explaining how its current proposal is consistent with the *Policy Statement*.[78]

112. Alliance also asserts this tariff sheet does not comply with section 154.203 of the Commission's regulations, which provides that a compliance filing that does not comply with the applicable order in every respect may be rejected and a compliance filing must include only those changes required to comply with the applicable order.[79] Alliance argues that the Commission did not require or permit Natural to file to implement the disputed language permitting gas to be rejected for Btu content in absence of a Commission-approved tariff provision governing Btu content. Alliance states that the Commission's focus in reviewing a compliance filing is limited to whether the filing complies with the Commission's previously stated directives,[80] and that the Commission will reject a compliance filing that goes beyond the scope of directives in the Commission's order.[81]

113. In its answer, Natural contends that Alliance's protest is without merit. Natural argues that excluding the provision that requires gas meeting the CHDP safe harbor to also meet Natural's other gas quality standards would obligate Natural to accept gas

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[78] *Citing* September 2006 Order, 116 FERC ¶ 61,262 at P 32.

[79] 18 C.F.R. § 154.203 (2008).

[80] *Citing El Paso Natural Gas Company*, 115 FERC ¶ 61,280, at P 5 (2006), *citing, North-Western Corp*., 113 FERC ¶ 61,215, at P 9 (2005).

[81] *Citing El Paso Natural Gas Company*, 115 FERC ¶ 61,280, at P 5 (2006), *citing, Maritimes & Northeast Pipeline, L.L.C.*, 105 FERC ¶ 61,356, at P 11 (2003), and *Transcontinental Gas Pipe Line Corp*., 101 FERC ¶ 61,154 (2002).

loaded with impurities which renders the gas useless to any end-user or could potentially harm Natural's system or downstream systems, if the gas met the CHDP safe harbor requirement section 26.1(h)(2). Natural asserts that in this proceeding the Commission has recognized that gas must meet other quality standards in Natural's tariff.[82] Natural claims that inclusion of the provision is reasonable as it ensures that gas entering Natural's system must meet all of its gas quality specifications and is consistent with Natural's entire tariff provision on gas quality as approved by the Commission. Natural states that Alliance recognizes that the Commission's September 2006 Order provides Natural with an opportunity to support a revised proposal on gas interchangeability. Natural argues that its compliance filing accurately incorporates the CHDP standards that the Commission approved in its September 2006 Order and appropriately reserves for further Commission review the additional proposed standards on gas interchangeability.

114. We deny Alliance's request and accept Natural's Substitute Third Revised Sheet No. 343 effective February 5, 2007. We find that the compliance filing conforms to section 154.302 of the Commission's regulations, and the disputed provision is consistent with the Commission's September 2006 Order. Natural correctly proposes to implement the 15ºF CHDP safe harbor standard that the Commission approved. This does not obviate the fact that gas entering Natural's system must also meet other gas quality standards in Natural's tariff as well. The September 2006 Order provided Natural the opportunity to file a revised gas interchangeability proposal, which it did on January 4, 2007. Alliance's protests to Natural's gas interchangeability proposal, including the maximum Btu limit, have been fully addressed in this order. Therefore, Natural's proposed tariff language appropriately recognizes that, even if tendered gas satisfies the CHDP safe harbor, Natural may reject the gas if it fails to meet Natural's other approved gas quality provisions.

The Commission orders:

(A) Substitute Third Revised Sheet No. 343 in Natural's January 4, 2007 compliance filing is accepted effective February 5, 2007, as discussed in the body of this order.

[82] *Citing* September 2003 Order, 104 FERC ¶ 61,322 at P 24.

(B) Natural is directed to file actual tariff sheets regarding its gas interchangeability proposal within 30 days of the issuance of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.