



Brian R. Greene
GreeneHurlocker, PLC
1807 Libbie Avenue, Suite 102
Richmond, Virginia 23226
(804) 672-4542 (Direct)
BGreene@GreeneHurlocker.com

October 17, 2016

By Electronic Filing

Mr. Joel H. Peck, Clerk
State Corporation Commission
1300 East Main Street
Tyler Building, First Floor
Richmond, VA 23219

RE: *Application of Columbia Gas of Virginia, Inc., For authority to increase rates and charges and to revise the terms and conditions applicable to gas service*
PUE-2016-00033

Dear Mr. Peck:

Please see the attached Direct Testimony and Exhibits of Mary K. Hensley, filed on behalf of the Retail Energy Supply Association, Stand Energy Corporation, Enspire Energy, and NOVEC Energy Solutions in the above-captioned matter.

Thank you for your assistance in this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brian R. Greene', is enclosed in a thin blue rectangular border.

Brian R. Greene

CC: Service List

DIRECT TESTIMONY
OF MARY K. HENSLEY
ON BEHALF OF
THE RETAIL ENERGY SUPPLY ASSOCIATION, STAND ENERGY CORPORATION,
ENSPIRE ENERGY, AND NOVEC ENERGY SOLUTIONS, INC. BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUE-2016-00033

Testimony Summary

I am submitting direct testimony on behalf of the Retail Energy Supply Association (“RESA”), Enspire Energy (“Enspire”), Stand Energy Corporation (“Stand”), and NOVEC Energy Solutions, Inc. (“NOVEC ES”), collectively referred to as the “Retail Respondents” for purposes of this case. The Retail Respondents include, and collectively represent the interests of, several entities licensed by the Commission to sell natural gas to retail customers in Columbia’s service territory.

My testimony addresses several concerns I have with the Company’s proposed changes to its currently effective rate schedules and General Terms and Conditions. My testimony will focus on changes to the currently effective tariff that will affect the costs and operational flexibility for Suppliers and Transportation Accounts. In particular, my testimony focuses on the Company’s proposed adjustments to its market rate index. I oppose several aspects of the Company’s proposal, and my testimony includes recommendations for a more reasonable and equitable market rate index.

I also address the Company’s proposed adjustments to the daily gas transfer service. I explain why that these proposed fee increases are unnecessary.

Finally, my testimony addresses several concerns with the design and operation of the Company’s “Choice” program and provides recommendations for how this program could be improved.

DIRECT TESTIMONY
OF MARY K. HENSLEY
ON BEHALF OF
THE RETAIL ENERGY SUPPLY ASSOCIATION, STAND ENERGY
CORPORATION, ENSPIRE ENERGY, AND NOVEC ENERGY SOLUTIONS, INC.
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUE-2016-00033

1 **Q: Please state your name and business address.**

2 A: My name is Mary K. Hensley, and my business address is 134 N. Battlefield Blvd,
3 Chesapeake, VA 23320.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am the President and Director of Marketing for Enspire Energy, LLC (“Enspire”).
6 Enspire is a natural gas marketer that serves TS1 and TS2 accounts on Columbia Gas of
7 Virginia’s (“Columbia” or “Company”) system.

8 **Q: Please describe your experience and qualifications.**

9 A: I have personally worked with TS-1 and TS-2 accounts providing gas commodity,
10 nominations, and balancing services since 1999. As part of Enspire’s service offerings to
11 our clients, we review any proposed tariff changes by Columbia that would impact TS1
12 and TS2 accounts or result in additional costs/reduced flexibility for Enspire as a gas
13 marketer on this system. A statement of my background is attached at **Exhibit 1**.

14 **Q: On whose behalf are you submitting testimony?**

15 A: Enspire has joined with several other gas marketing companies that supply
16 transportation customers on the Company’s system, as well as the Retail Energy Supply
17 Association (“RESA”), to collectively intervene in this rate case. I am submitting
18 testimony on behalf the Retail Energy Supply Association, Stand Energy Corporation
19 (“Stand”), Enspire, and NOVEC Energy Solutions, Inc. (“NOVEC ES”), collectively

1 referred to for purposes of this case as the “Retail Respondents.”

2 **Q: Please describe briefly RESA.**

3 A: RESA is a non-profit trade association of independent corporations that are involved
4 in the competitive supply of electricity and natural gas. RESA and its members are
5 actively involved in the development of retail and wholesale competition in electricity
6 and natural gas markets throughout the United States.¹ Some members of RESA supply
7 natural gas commodity to customers who receive distribution services from Columbia.

8 **Q: Please briefly describe Enspire, Stand, and NOVEC Energy Solutions.**

9 A: Enspire, Stand, and NOVEC ES are gas marketing companies that serve TS1 and TS2
10 accounts on the Company’s system. Stand, Enspire, and NOVEC ES are licensed by the
11 Commission to operate as competitive retail suppliers in Virginia.

12 **Q: What is the purpose of your testimony in this proceeding?**

13 A: The purpose of my testimony is to identify and present issues and concerns with the
14 Company’s proposed changes to its currently effective rate schedules and General Terms
15 and Conditions. My testimony will focus on changes to the currently effective tariff that
16 will affect the costs and operational flexibility for Suppliers and Transportation Accounts.
17 I will present my testimony based on the Company’s proposed rate schedules, and will be
18 addressing the following rate schedules and related issues:

- 19 • Market Rate Index, Selection of Relevant Indexes
20 • General Terms and Conditions, Section 10.6

¹ The comments expressed in this filing represent the position of RESA as an organization but may not represent the views of any particular member of the association. Founded in 1990, RESA is a broad and diverse group of more than twenty retail energy suppliers dedicated to promoting efficient, sustainable and customer-oriented competitive retail energy markets. RESA members operate throughout the United States delivering value-added electricity and natural gas service at retail to residential, commercial and industrial energy customers. More information on RESA can be found at www.resausa.org.

- 1 • AS Aggregation Service
- 2 • SS Standby Service
- 3 • TS1/ TS 2 Transportation Service 1 and 2
- 4 • Market Rate Index applied to TS1/TS2 Cashout option
- 5 • Alternate Delivery Point During BSRs and OFOs
- 6 • Proposed Revenue Allocation for LGS 1/ TS1 and LGS2 and TS2 Rate Schedules
- 7 • Economic Impact of the Higher Delivery Charges to the TS1 and TS2 Rate
- 8 Schedules
- 9
- 10 • BBS Banking and Balancing Service
- 11 • DGTS Daily Gas Transfer Service
- 12 • Concerns with Columbia’s Choice program

13 *Proposed Modifications to Market Rate Index*

14 **Q: Do you have any comments regarding Columbia’s proposal to modify its market**
15 **rate index?**

16 A: Yes. The Company is proposing a modification to its current market rate index.
17 Currently, the tariff references the Transco Z-6 Non-NY index price as the market rate
18 index. The Company is proposing to change the market index rate for 17 sections of their
19 tariff as presented in Table 1 in Company Witness Horner’s testimony. When the
20 Company is selling gas, they are proposing to modify the tariff to provide for the sale of
21 gas at the highest of the Transco Zone 6 Non-NY index price, the Transco Zone 5
22 delivered index price, or the highest commodity purchase for the month including the
23 cost for delivery to the city gate (excluding fixed price contracts where the price is
24 determined more than 30 days prior to the beginning of the month).

25 **Q: What are your concerns with Columbia’s proposal?**

1 A: I have several issues and concerns with these three proposed options. The first issue
2 concerns the use of the Transco Zone 5 index. In June 2016, Gas Daily, the daily
3 publication used for index pricing, split the Transco Zone 5 index into three new index
4 points: Transco Z-5, Transco Z-5 North, and Transco Z-5 South. The reason for the
5 additional new index points was that the indexes were seeing a price divergence in daily
6 transactions in Zone 5 for deliveries north of Station 165 on Transco and for deliveries
7 south of Station 165 on Transco. Columbia's Transco delivery point, which is
8 Lynchburg, is located in the new Transco Zone 5 North index point. Since the new
9 indexes began publishing in July 2016, there has been a significant spread in the index
10 pricing between Transco Z-5 North and Transco Z-5 South.

11 **Q: Please describe the pricing spreads between the zones since July 2016.**

12 A: I have provided the average monthly index price for each point below:

| 13 | Month | Transco Z-5 North | Transco Z-5 South | Transco Zone 5 |
|----|-------------|-------------------|-------------------|----------------|
| 14 | July 2016 | \$2.472 | \$2.817 | \$2.761 |
| 15 | August 2016 | \$2.581 | \$2.835 | \$2.791 |
| 16 | Sept. 2016 | \$2.329 | \$2.994 | \$2.754 |

17 **Q: What are your concerns about using the Transco Zone 5 index?**

18 A: By proposing to utilize the Transco Zone 5 index, the Company is selecting an index
19 point that is not as relevant to a delivery point on their system as the new Transco Zone 5
20 North index point. Since the Zone 5 point includes the higher priced index for Transco
21 Z-5 South, which is more relevant for deliveries on Transco into North Carolina and
22 South Carolina, my concern is that Columbia will be over-collecting to the detriment of
23 the TS-1, TS2, and Aggregation Service Providers by utilizing the Transco Z-5 index. I

1 would instead propose they utilize the Transco Zone 5 North index which is more
2 specifically relevant to gas deliveries to Columbia Gas of Virginia's city gate.

3 **Q: Do you support Columbia's proposal to use the highest commodity purchase for**
4 **the month including the cost for delivery to the city gate?**

5 A: No. I strongly oppose Columbia's proposed third option for the market index, which
6 is the highest commodity purchase for the month including the cost for delivery to the
7 city gate. Mr. Horner does not provide any data in his testimony which would provide a
8 cost breakdown on what historically the highest commodity purchase would have looked
9 like from Columbia over the past 5 years. Also, because this is not tied to a daily traded
10 index point, it will be virtually impossible for customers and suppliers to estimate what
11 this charge will be. Mr. Horner also does not provide detail on how this commodity
12 purchase rate will be relayed to market participants. For example, it appears that
13 customers may only know what this rate is after the month is over when it appears on a
14 customer invoice.

15 **Q: What would be the consequences of using this pricing option?**

16 A: The lack of transparency in this pricing option may cause several unforeseen issues
17 for the customers exposed to this new option for the market index. The natural gas
18 market can be very volatile. Normally, prices move based on supply and demand.
19 However, we have seen how expensive natural gas prices can get on specific design day
20 condition days. In January 2014, the Transco Z-6 Non-NY index spiked to \$140 per Dth.
21 While demand was high that day, it is hard to believe that the price spike was so extreme
22 just due to higher demand. As a long-time participant in spot market trading, I find that
23 prices typically jump to just under the applicable penalty rate for an LDC in the region.

1 Market participants are willing to pay an amount for natural gas on these high demand
2 days that keeps their pricing under the perceived penalty rate from the LDC. If the
3 penalty rate is unknown or not transparent, as proposed with this third market option, we
4 could see similar prices spikes in the spot market in Virginia during a Columbia
5 balancing service restriction (“BSR”) day. By selecting a market index option that is
6 unknown to the participants, the Company may be creating an artificial spike in spot
7 market pricing on restriction days. This would put an undue burden on the TS1, TS2, and
8 Aggregation Service Providers.

9 **Q: Is Columbia’s proposed methodology transparent to customers?**

10 A: No. Columbia’s proposal is an asymmetric methodology that inappropriately
11 comingles market pricing with its own commodity purchasing which results in the
12 maximum detriment to transportation customers. When transportation customers
13 underdeliver gas, Columbia will assess the higher of market pricing *or* its own cost
14 structure for the imbalance. But when a transportation customer overdelivers, Columbia
15 instead compensates with the lower of market pricing *or* its own cost. This methodology
16 not only lacks transparency but adds an unreasonable multiplier effect, i.e. the more
17 unfavorable of either market or costs, which is adverse to transportation service even
18 before any percentage adjustment is applied. Transportation should not be exposed to
19 both market economics and Columbia’s own purchasing practices.

20 **Q: Has Columbia adequately justified its proposed changes to the market index?**

21 A: No. Mr. Horner’s justification for the change in the market index price appears to deal
22 with only one of the rate schedules, specifically the Rate Schedule BBS 4c Service
23 Provisions. In Mr. Horner’s testimony, he cites customers choosing to not deliver natural

1 gas in order to take advantage of the market index price as related to Schedule BBS 4c.
2 However, he does not provide any examples of customers or suppliers choosing not to
3 make deliveries for economic reasons when it comes to Section 10.6 of the General
4 Terms and Conditions, Section 9 of Rate Schedule CSPA, or Section 4d of Rate Schedule
5 AS. I would like to take a few minutes to look at each of these individually.

6 Market Rate Index applied to Section 10.6 of the General Terms and Conditions

7 **Q: Does existing tariff language already provide the Company with adequate**
8 **protection from unauthorized takes?**

9 A: Yes. Section 10.6 a, b and d of the General Terms and Conditions address the Penalty
10 for Takes in Excess of Authorized Daily Quantity, the Penalty for Takes in Excess of
11 Authorized Partial Day Quantity, and the Penalty for Takes in Excess of Authorized
12 Monthly Quantity. On any day that a customer's consumption exceeds their Authorized
13 Daily Quantity, the Company may impose the following charges:

- 14 • Any penalty or charge incurred by the Company under the terms of its contracts
15 with supplier(s) or transporter(s) to the extent caused by the Customer's failure to
16 comply.
- 17
- 18 • Excess usage will be charged at 150% of the midpoint Transco, Z-6 Non NY city
19 gate price as published in Gas Daily for that day.
- 20
- 21 • In the case of an interruption of Non-Firm Service under Section 10.2 or 10.3, the
22 Company may also impose an additional \$24 per Dth charge (does not apply to
23 (d)).
- 24

25 The existing language of the tariff is already providing the Company with adequate
26 protection when it comes to unauthorized takes in Section a, b, and d. The Company has
27 the right to pass through any additional upstream charges or penalties should they be
28 incurred. They also invoice excess usage at 150% of the market index rate, which has a
29 punitive additional 50% adder factor to the index. The existing language is already a

1 financially punitive situation for customers and suppliers taking gas under these
2 situations and so should not be further amended to include two additional market index
3 options. Should the Company examine unauthorized takes under these options, they
4 should see that the customer and suppliers are responding as the tariff intended, and there
5 is no justification or underlying cost factors to make a change to this section's market
6 index price.

7 **Q: Does the existing tariff provide adequate protection against Deliveries in Excess**
8 **of Authorized Daily Supply?**

9 A: Yes. The same rationale can be used for the proposed changes to Section 10.6 c,
10 which relates to Penalties for Deliveries in Excess of Authorized Daily Supply. These
11 penalties apply when the customer or supplier delivers more gas than they are authorized
12 to deliver to Columbia. In this circumstance, the Company's tariff allows it to impose the
13 following penalties:

- 14 • Any penalty or charge incurred by the Company under the terms of its contracts
15 with supplier(s) or transporter(s) to the extent caused by the Customer's failure to
16 comply.
- 17 • Excess deliveries will be purchased by the Company at 50% of the midpoint
18 Transco, Z-6 Non NY city gate price as published in Gas Daily for that day.

19 Once again, the Company can pass through any additional upstream charges and
20 penalties, and they are only returning 50% of the value of the index price for that day for
21 excess deliveries. As detailed above, both of these charges are punitive from a financial
22 perspective, and already serve as a substantial deterrent to customers and suppliers when
23 not delivering gas supply as the tariff intended. The Company has not shown that

1 additional market index price options are needed to force compliance as intended in
2 Section 10.6.

3 Market Rate Index applied to Rate Schedule AS Aggregation Service Section 4(d)

4 **Q: Please describe the Company's proposed change to the market index price in**
5 **section 4(d) of Rate Schedule AS.**

6 A: The Company is also requesting a change to the market index price in Section 4(d) of
7 Rate Schedule AS Aggregation Service. This section deals with the purchase by the
8 Company of banked gas volumes. It does not ever anticipate the sale of banked gas
9 volumes, and this would never happen.

10 **Q: Is the proposed change to this section necessary?**

11 A: No. Since it is only dealing with the purchase by the Company of banked gas
12 volumes, the existing tariff language is already adequate to have suppliers and customers
13 act as the tariff intended. The Company will only pay 80% of the Transco Z-6 Non-NY
14 city gate price as published in Gas Daily for these banked volumes. This is already a
15 punitive economic indicator for purchasing banked volumes. Since there is never a
16 situation where the Company would sell gas under this section, there is no reason why
17 they would need to change the market price index. The existing tariff is already
18 protecting the Company's interests in this scenario, and changing the market index price
19 as proposed would just add unnecessary additional punitive price factors as well as a lack
20 of transparency in the price to customers and suppliers.

21 Market Rate Index applied to Rate Schedule SS Standby Service Section 4(b)

22 **Q: Do you have concerns about the proposed changes to the market rate index as**
23 **applied to Rate Schedule SS Standby Service?**

24 A: Yes. I am very concerned about the proposed market price index change to rate

1 schedule SS Standby Service. The purpose of Standby Service is to provide firm back-up
2 supply of natural gas to customers who cannot or do not want to curtail gas consumption
3 under a certain level due to a Company interruption or curtailment of non-firm service.
4 Customers participating in this rate schedule pay a monthly demand charge for a fixed
5 volume quantity of gas per day that they subscribe to under this rate. Customers pay this
6 demand charge every month, regardless of whether they take gas under this rate for a
7 month, in order to cover the Company's cost of providing firm service for this volume in
8 the event of an interruption. The current demand rate the Company charges exceeds the
9 costs for firm capacity on the upstream pipeline. While customers have to pay the
10 demand charge for this service year-round, in most cases, the customers actually utilize
11 standby service quite infrequently throughout the year, typically only when the Company
12 calls a BSR. When a customer does use standby service, the commodity charge for the
13 actual gas is detailed in Section 4 (b), which reads as follows: b. Commodity Charge- The
14 first-of-month mid-point Transco, zone 6 non-NY index price, as published in Gas Daily,
15 times the standby quantities delivered for the month.

16 **Q: Do you believe customers taking service under the Standby Service rate schedule**
17 **should be subject to the proposed market and cost-based index?**

18 A: No. Since customers under this schedule are already paying more than the cost for
19 firm delivery on the pipeline in the demand charge portion of the rate, they should not be
20 subject to the proposed market and cost-based index price as detailed in Mr. Horner's
21 testimony. It would be unfair, and would ultimately destroy the value and purpose of the
22 SS Rate Schedule, to charge customers a demand charge, and make their commodity
23 charge the highest price of the three Company proposed market and cost-based index

1 prices. There would be no value to customers to pay a monthly demand charge and then
2 still have to pay the highest of index market pricing or Columbia's costs for the
3 commodity portion of the rate. In essence, the Company's proposed changes to the
4 market index price for this rate schedule will have the opposite effect as the tariff
5 intended. The changes would destroy any economic incentive for a customer to subscribe
6 to this rate schedule.

7 **Q: Do you have a recommendation for a more reasonable approach for determining**
8 **the market index price for Standby Service customers?**

9 A: Yes. I suggest a more balanced approach to the proposed changes to the market index
10 price for SS service that would still encourage customers to get service under this rate
11 schedule while providing a more representative market price for the commodity portion
12 of this rate. My recommendation is as follows:

- 13 • b. Commodity Charge- The higher of (i) the Inside FERC first-of-month mid-
14 point Transco, zone 6 non-NY index price, as published in Inside FERC or (ii) the
15 Inside FERC first-of-month mid-point Transco, zone 5 index price, as published
16 in Inside FERC, times the standby quantities delivered for the month.

17 **Q: Please explain why you believe the Inside FERC price should be used instead of**
18 **the Gas Daily price?**

19 A: The Inside FERC price is a monthly index price and is a better option for the
20 Company to use than a Gas Daily price, which is daily price index. The Inside FERC
21 price is more representative of costs for delivery for an entire month versus just a one-day
22 snapshot price as provided by Gas Daily. Also, a monthly price allows customers
23 subscribing to this rate schedule to get the protection from daily price volatility

1 associated from a spike in transportation basis costs, as originally intended in the tariff,
2 since the customer is also paying the demand charges to the Company for firm delivery
3 service under Section 4(a) of Standby Service.

4 Market Rate Index applied to Rate Schedule TS1 and TS2 Cashout Option

5 **Q: Do you have concerns regarding the Company's proposed tariff changes to the**
6 **TS1 and TS2 Cashout Option?**

7 A: Yes. Columbia is correct that the current tariff incentivizes customers to not supply
8 gas specifically under this Cashout Option in the summer months, as Mr. Horner
9 explains. However, the Company's proposed changes would result in an overcorrection,
10 imposing a price that is too punitive and will definitely be non-transparent to Customers
11 and Suppliers. Once again, the third pricing option proposed by the Company, which is
12 the highest commodity purchase for the month including the cost for delivery to the city
13 gate, should not be included, as this is a non-transparent pricing point.

14 **Q: Is the Company already adequately protected against the potential for customers**
15 **to forgo deliveries during the summer months?**

16 A: Yes. The Company is still protected by using the first two proposed options of highest
17 of the Transco Zone 6 Non-NY index price or the Transco Zone 5 North delivered index
18 price. The Company has the option of using the higher of either index, and, as I stated in
19 my prior testimony, a reasonable index for option 2 is the Transco Z-5 North index.

20 **Q: Mr. Horner proposes to apply an additional 20% factor to the index price to**
21 **encourage customers to minimize imbalances. Is this appropriate?**

22 A: Definitely not. To apply an additional 20% to all, even incidental, imbalances is
23 extreme and not common in the industry. As nominations will never exactly match

1 usage, the industry is predicated upon the expectation that a certain level of imbalance is
 2 normal. That is the reason behind tolerance or deadbands, i.e. a band around a minimal
 3 level of imbalance that is considered a normal deviation and is not penalized through
 4 additional discounts or surcharges applied to the cashout rate. While tolerance bands
 5 vary across the industry, generally a 3 to 5% range is common where both over and
 6 underdeliveries are cashed out at the same price. Typically, this price is a market index
 7 price to which no additional percentage discount or surcharge has been applied to account
 8 for the normal mismatch that occurs between nominations and usage. Then, as
 9 imbalances become greater, increasing percentages of discounts and surcharges are
 10 typically applied depending upon the level of imbalance. For example, the following
 11 simple five-tier structure is much more reasonable than the flat 20% proposed by Mr.
 12 Horner. The schedule below acknowledges that incidental imbalances are normal and
 13 should not be penalized, but more extreme imbalances may be penalized:

| Imbalance | Credit/surcharge applied to index |
|-------------------------|--|
| 3.5% or less | 0% |
| Greater than 3.5% to 5% | 5% |
| Greater than 5 to 10% | 10% |
| Greater than 10% to 20% | 15% |
| Greater than 20% | 20% |

20 This structure would incent suppliers to avoid large imbalances, but it also recognized
 21 that certain incidental imbalances are a normal feature of the gas industry. It gradually
 22 penalizes imbalances at greater levels as the imbalance deviation increases and is a more
 23 measured and reasonable incentive schematic than the one proposed by Mr. Horner.

1 While I recognize this may require additional programming to initially set up the graduated
2 tiers, this approach is commonplace in the industry and should not require significantly
3 more resources to implement than the flat 20% factor would. It also provides a more
4 equitable structure to incent supplier behavior to minimize their imbalances. Further, to
5 implement a structure similar to this is less disruptive and extreme than the 20% factor
6 proposed by Mr. Horner, supporting the concept of gradualism in rate design.

7 Alternate Delivery Point During BSRs and OFOs

8 **Q: What is your reaction to the Company’s proposal to use an alternative delivery**
9 **point under certain conditions?**

10 A: I understand why the Company has requested an alternate delivery point under certain
11 conditions such as during BSRs and operational flow orders (“OFOs”). As a point of
12 clarification, we request that the Company add in its proposed language stating that
13 customers are not required to make deliveries to the alternate delivery point, and may
14 continue to make deliveries to their Pipeline Scheduling Point (“PSP”), which would be
15 subject to penalties as additional charges as provided during a BSR or OFO.

16 Transportation customers typically commit to pipeline capacity in advance, and it is
17 important to clarify that they can continue to deliver their supply to their existing delivery
18 point, but may be subject to penalties and additional charges as provided by not
19 complying with a BSR or OFO.

20 Proposed Revenue Allocation for LGS 1/ TS1 and LGS2 and TS2 Rate Schedules

21 **Q: Do you have any concerns with the Company’s proposed revenue allocation for**
22 **LGS 1/ TS1 and TS2 Rate Schedules?**

23 A: In reading the testimony provided by Company witness Mark Balmert, there is clearly

1 a substantial difference in the Return on Rate Base between LGS1 and TS1 accounts.
2 Since the customer charge and delivery charges for both of these rate schedules are
3 identical, it is puzzling to see such a disparity in the Company's Return on Base Rate. In
4 Mr. Balmert's testimony, he addresses this differential as being due to the number and
5 type of customers currently taking service under the LGS1 rate. My concern is that the
6 differential in the return is due to an issue that goes beyond the number or type of
7 customers taking service under LGS1.

8 **Q: Please describe your concerns about the differential in the return for LGS1 and**
9 **TS1 accounts.**

10 A: Customers taking service under the LGS1 rate may opt for firm or interruptible
11 service. In my capacity as the Director of Marketing for Enspire Energy, I have met with
12 several of the accounts currently taking service under the LGS1 interruptible option. In
13 examining their Columbia invoices during months where Columbia also called a cold
14 weather BSR, it appears that accounts under this interruptible option have not been
15 subjected to the same BSR penalties as customers under the TS1 and TS2 schedules. It
16 appears that the Company has not been charging the BSR index rate charges to customers
17 on the LGS1 and LGS2 interruptible rates when the company has also called a BSR for
18 TS1 and TS2 accounts. As part of the discovery process in preparation for this case, the
19 question was asked whether Columbia has curtailed or interrupted service or charged a
20 BSR penalty rate to any LGS1 or LGS2 accounts in the past 5 years. Columbia
21 responded that they have not. See Retail Respondents' Data Request Set 3, No. 5, a copy
22 of which is attached to my testimony as **Exhibit 2**. The Company has provided firm
23 service to LGS1 and LGS2 interruptible accounts who are not subscribing to a firm

1 service and or standby service, which provides preferential treatment to this rate schedule
2 over the TS1 and TS2 accounts. Not only were the LGS1 and LGS2 accounts not
3 curtailed or penalized, they also received the benefit of getting their gas commodity at the
4 published rates for each month, receiving gas well below the Company's highest
5 purchase supply costs in the cold winter months of January through March 2014, and
6 January through March 2015.

7 **Q: Does this disparate return adversely impact third-party suppliers?**

8 A: Yes. It provides an unfair disincentive for LGS1 and LGS2 accounts who are aware of
9 this situation to switch to the TS1 and TS2 rate schedules, further hindering the
10 opportunity for third party suppliers to compete against the utility to provide commodity
11 service to these accounts.

12 **Q: What recommendations do you have to minimize these adverse impacts?**

13 A: The Company may be able to moderate an increase to the TS1 and TS2 base rates if
14 they better examined the potential costs to serve the LGS1 and LGS2 interruptible
15 accounts separately from the TS1 and TS2 rate schedules to assure customers are paying
16 for the level of firmness in their service that they are receiving. At a minimum the
17 Company should be required to impose the same BSR charges per Section 10.6 of the
18 General Terms and Conditions on the LGS1 and LGS2 interruptible accounts during a
19 Company imposed BSR. Columbia is not imposing BSR charges to the LGS1 and LGS2
20 interruptible accounts, even though the tariff allows them to. In other words, the
21 Company may be providing higher market priced gas to the LGS1 and LGS2 accounts
22 during a service restriction, resulting in a higher cost to serve versus the TS1 and TS2
23 accounts who are being invoiced per BSR restrictions. The Company should look at the

1 LGS1 and LGS2 accounts independently from the TS1 and TS2 accounts to make sure
2 that the TS1 and TS2 accounts are not unfairly shouldering a higher cost burden.

3 *Economic Impact of the Higher Delivery Charges to the TS1 and TS2 Rate Schedules*

4 **Q: How will Columbia's requests for increases in delivery charges for TS1 and TS2**
5 **customers affect economic development in the region?**

6 A: Columbia's request for more than a 17% increase in TS1 delivery charges and more
7 than a 23% increase to TS2 delivery charges will put Columbia's service territory at a
8 disadvantage for existing industrial and manufacturing customers, for attracting new
9 businesses and for encouraging plant expansions. This is quite a large increase in the
10 delivery charges, and exceeds the delivery charges of Columbia's neighbor to the south
11 and east, Virginia Natural Gas ("VNG").

12 **Q: What are VNG's current delivery rates for interruptible transportation**
13 **accounts?**

14 A: VNG currently has a three-tiered delivery rate for their interruptible transportation
15 accounts:

- 16 • <50,000 Mcf/Yr: \$.4725 per Mcf = \$.496 per Dth (utilizing a Btu factor of 1.05)
- 17 • 50,000>1 Million Mcf/Yr: \$.3296 per Mcf = \$.346 per Dth (utilizing a Btu factor
18 of 1.05)
- 19 • <1,000,000 Mcf/Yr: \$.23416 per Mcf = \$.246 per Dth (utilizing a Btu factor of
20 1.05)

21 Columbia's proposed delivery charges for a customer that uses on average 3500 Dth/
22 month will be at an average delivery charge of \$.984 per Dth; for a customer that uses
23 10,000 Dth/ month it will be at an average delivery charge of \$.6544 per Dth; for a

1 customer that uses 30,000 Dth/ month it will be at an average delivery charge of \$.3918
2 per Dth; and for a customer that uses 100,000 Dth/ month it will be at an average delivery
3 charge of \$.2966 per Dth.

4 **Q: How do VNG's current delivery rates compare to those proposed by Columbia?**

5 A: When compared to the applicable VNG delivery charges, this represents a 50% higher
6 delivery charge for a customer using 3500 Dth/ month, a 52% higher delivery charge for
7 a customer using 10,000 Dth/ month, an 8% higher delivery charge for a customer using
8 30,000 Dth/ month, and an 8% higher delivery charge for a customer using 100,000 Dth/
9 month. Columbia's proposed delivery charges are substantially higher than VNG,
10 resulting in a competitive disadvantage to existing Columbia customers and to cities in
11 the Company's territory hoping to attract new businesses and manufacturers to the area.

12 **Q: Are you aware that Columbia's proposed delivery rates are affecting economic
13 development activities in the region?**

14 A: Yes. I recently spoke to one TS1 account in the Hopewell area who had a plant
15 expansion they are considering, but Columbia's proposed delivery charge increases, as
16 well as the proposed changes to the Standby Service commodity rates have forced them
17 to look at other properties for their expansion, resulting in a loss of 60 potential jobs to
18 this area.

19 *Rate Schedule BBS Banking and Balancing Service- Excess Bank Tolerance Fee*

20 **Q: How has the Company proposed to adjust the excess bank tolerance fee?**

21 A: The Company has proposed an increase in the excess bank tolerance fee from \$.32 to
22 \$.33 per Dth. In Mr. Balmert's testimony, he bases the per-Dth increase as a reflection of
23 Columbia Gas Transmission's SST and FSS Overrun charges. However, he does not

1 provide any empirical data that the Company has been subject to these overrun charges
2 when a customer exceeds its bank tolerance.

3 **Q: Do you believe these fees for excess bank volumes are necessary?**

4 A: No. Since there is already an existing \$.32 per Dth fee on excess bank volumes, this is
5 a sufficient disincentive for customers subscribing to banking and balancing service not
6 to exceed their bank tolerance level. Finally, it is highly unlikely that all customers
7 would be at their max bank allowance at the same time. When a few customers exceed
8 their bank tolerance, it is very unlikely that would put Columbia in a position where they
9 would incur an overrun charge. Without showing that Columbia is currently not
10 recovering enough at the current \$.32 per Dth fee, the Commission should not approve
11 the higher fee of \$.33 per Dth.

12 *Daily Gas Transfer Service*

13 **Q: How has the Company proposed to adjust the cost of its existing Daily Gas
14 Transfer Service?**

15 A: The Company has proposed a significant increase in the cost of the existing Daily Gas
16 Transfer Service from \$.02 per Dth transferred to \$.06 per Dth. Mr. Balmert provides an
17 exhibit showing the minutes it takes for a Columbia employee to approve a transfer.

18 **Q: Do you have any concerns with this proposed adjustment?**

19 A: Yes. This process does not need to be as onerous as detailed in the exhibit and is
20 already mostly automated by the EBB. Currently, when transferring gas from one
21 customer or pool to another, the requestor must go to the EBB, and complete a form for
22 the transfer. The EBB does not allow a transfer from a customer serviced from a different
23 delivery point or a different pipeline to another, so an employee spending three minutes

1 checking this after the request has already been entered and allowed in the system seems
2 excessive. Also, the system is already automated to make sure only approved agents are
3 able to submit the request form, and the system does not allow transfers that are not on
4 the same gas day, nor will it allow a transfer that would cause additional penalties. Since
5 this process is automated through the EBB, it is questionable that an employee requires
6 21 minutes per transfer, when the system should automatically deny a transfer that does
7 not fit the parameters listed above. At most, the Company should only be spending a few
8 minutes on each transfer, allowing the system to automate the approval process for a
9 daily transfer.

10 **Q: How do customers use the daily transfer service?**

11 A: Customers and agents use the daily transfer service to help reduce punitive BSR
12 charges for excess usage or deliveries during a BSR. If one customer uses less gas than
13 allowed during a BSR, and another customer unintentionally uses more than they were
14 allowed during a BSR, the daily transfer service allows volumes to be moved between
15 these two customers to avoid a Company imposed BSR charge. Customers who need to
16 use this service are not only paying the transfer fee, but they are usually receiving a much
17 higher or lower value to their transferred volumes than the market rate for that day, as the
18 Columbia BSR index rate is either 150% of the index for excess usage, or 50% of the
19 index for excess deliveries. If there is a counterparty that can accept the transfer in these
20 situations, Columbia is not harmed by the over delivery or over usage, as clearly another
21 counterparty in the same market area used or delivered less.

22 **Do you have any other comments about Columbia's assessment of BSR penalties?**

23 In my experience in Virginia, Columbia calls substantially more BSR/restriction days

1 than either Virginia Natural Gas or Washington Gas Light. Columbia is also the only
2 LDC I am aware of that imposes penalties for over delivery of gas supply during a warm
3 weather event. VNG will only impose penalties when they actually receive a penalty
4 from the upstream pipeline or supplier. Columbia imposes BSR penalties automatically
5 for non-compliance even when they have not received an upstream charge or penalty
6 from suppliers or pipelines. It makes this utility one of the most difficult for customers
7 and agents to manage from a balancing perspective, resulting in hundreds of hours in
8 additional manpower to prepare volume forecasts, sell-off potential long or short
9 positions during a BSR day, and input daily transfers to correct over or under deliveries.
10 Plus, since these customers are penalized even when the company was not harmed by
11 additional costs on BSR days, TS1, TS2, and AS customers pay substantially more in
12 penalty rates than customers served by other LDCs in the state. Since the potential for
13 150% or 50% of the index rate is so adverse during a BSR, customers and agents tend to
14 compensate in order to reduce that exposure by selling more supply or buying more
15 supply than is actually needed.

16 **Q: What is your recommendation regarding the proposed adjustments to daily gas**
17 **transfer service?**

18 A: I believe that higher fees for this service proposed by Columbia are unnecessary. The
19 daily transfer service is the only way to correct a BSR penalty after the fact, and so it is a
20 very useful tool to customers and agents, and should not be subjected to higher fees when
21 the process is primarily automated through the EBB.

22 *Columbia's Choice Program*

23 **Q: Finally, do you have any comments regarding Columbia's Choice program?**

1 A: Yes, I do.

2 **Q: What is Columbia’s “Choice” program?**

3 A: Columbia’s Choice program is a voluntary program that allows customers to purchase
4 their natural gas supply from a Commission-licensed Competitive Service Provider
5 (“CSP”), while continuing to rely on Columbia for distribution delivery services. A
6 customer participating in Columbia’s Choice program would be billed by the Choice
7 supplier for natural gas supply, storage, and interstate transportation service. Columbia
8 continues to bill Choice customers for delivery changes.

9 **Q: Have a significant number of eligible customers opted to participate in the**
10 **Choice program by taking service from a CSP?**

11 A: No. Columbia implemented its Choice program in the late 1990s, but there still has
12 not been significant participation to date. According to data provided by the Commission
13 Staff, as of October 1, 2016, only 21,105 of 233,225 eligible residential customers and
14 4,235 out of 22,385 eligible commercial customers have opted to take service from a
15 CSP. Those numbers equate to approximately 9% residential shopping and
16 approximately 19% commercial shopping. More than a decade after its inception,
17 customer participation in the Choice program should be much higher.

18 **Q: Do you have any recommendations for how Columbia could increase**
19 **participation in its Choice program?**

20 A: Yes. First, to increase Choice program participation, Columbia should consider
21 changing the manner in which it assigns capacity to participating CSPs. The current
22 capacity assignments are assigned in phases, as Columbia described in its response to the
23 Retail Respondents’ Data Request Set 2, No. 6, a copy of which is attached to my

1 testimony as **Exhibit 3**. Columbia should consider forgoing the phasing approach and
2 implementing a new method, similar to how Washington Gas Light releases capacity on
3 all three of the major pipelines that interconnect to its system (Transco, Columbia and
4 DTI). WGL's capacity assignment was revisited and clarified in a recent settlement
5 approved by the Commission in Case No. PUE-2014-00091 and its companion case,
6 PUE-2016-00095. Basically, WGL's capacity assignment provisions for the Choice
7 program provide that WGL will communicate a default capacity assignment to CSPs on a
8 monthly basis. However, CSPs need not accept the default assignment and may, instead,
9 notify WGL before the start of the effective date of the capacity release that it wants to
10 receive a capacity assignment on a specific pipeline(s). WGL's capacity assignment
11 provisions allow for flexibility on designated interstate pipelines during an applicable
12 month after communication between the CSP and the utility.² The idea is that this
13 flexibility will enable CSPs to more efficiently deliver gas, thereby allowing CSPs to
14 bring economic and other benefits of the competitive natural gas retail market to more
15 Choice customers in the service territory.

16 Second, Columbia's price to compare (i.e., the Company's charge for gas supply service)
17 is roughly 50% of Washington Gas Light's current charge. This indicates to me that
18 Columbia's distribution delivery rates are currently too high and could include supply-
19 type charges that may be more appropriately recovered through distribution delivery
20 rates. I would encourage the Commission to closely scrutinize Columbia's filing in this
21 rate case to ensure that Columbia is not incurring costs in providing sales services that it

² See Joint Motion to Accept Settlement Agreement, Case Nos. PUE-2014-00091 and PUE-2014-00095, Settlement Agreement at p. 6, Rate Schedule No. 9 at Tariff p. 51 (Firm Delivery Service), Aug. 14, 2015. The Commission approved the tariff revisions on October 26, 2015 and entered an Order Closing Case in each case on September 20, 2016.

1 is recovering through its regulated distribution rates. I also believe Columbia should
2 study the Choice program of Washington Gas Light to ensure that participation in its
3 Choice program is maximized.

4 **Q: Do you have any other concerns that you want to address in this testimony?**

5 A: Yes, I have a concern related to a customer's access to its own usage data, and whether
6 Columbia continues to allow customers to access daily measurement information through
7 a method called "Uncorrected Volume Pulse Output." As recently as 2012, Columbia had
8 a policy regarding customers seeking uncorrected pulse handoffs from Columbia meters
9 for the customer's own energy management applications. A copy of the policy is attached
10 as **Exhibit 4**. Under the policy, the customer had three options to access its own data:

- 11 1) Uncorrected Volume Pulse Output
- 12 2) Corrected Volume Pulse Output
- 13 3) Internet Access via Columbia website

14 Option 1 – Uncorrected Volume Pulse Output – allows a customer to install Columbia-
15 approved equipment and software to access its own usage data without going to the
16 Columbia website and without installing Columbia's equipment. Option 1 can be very
17 cost effective for the smaller customer as it does not involve the expense of a flow
18 computer, power supply and phone line to each meter. Also, it is automatic and does not
19 require a manual transfer of data every month from the internet to customer energy
20 management software.

21 The use by customers of energy management software is going to become more and more
22 prevalent in the future. Simply put, it helps customers manage their natural gas better
23 and save money. I am advised that, for approximately the past two years, customers have

1 been getting a negative response from Columbia when an uncorrected pulse hand off is
2 requested.

3 The Retail Respondents intend to propound discovery to Columbia regarding this issue,
4 but I wanted to reference it in my testimony as a placeholder for the hearing in the event
5 that Columbia's discovery responses warrant additional explanation from me. We would
6 like for the "Uncorrected Volume Pulse Output" option to remain available to GTS and
7 Choice customers upon request, assuming all safety code measures can be met on the
8 customer side of the equipment.

9 **Q: Does this conclude your testimony?**

10 A: Yes.

Exhibit 1

Background and Experience of Mary K. Hensley

Mary Hensley

3712 Cypress Mill Road

Chesapeake, VA 23322

(757) 560-9099 Cell

(757) 204-4661 Home

E-Mail: mhensley@enspireenergy.com

Director of Sales/ Sales Team Management

Sales management executive successful in leading a start-up organization to annual natural gas sales exceeding \$150,000,000 in 3 years.

Professional Experience

Enspire Energy, Chesapeake, VA (October 2014 to Present)

President and Director of Marketing

Responsible for developing and expanding Commercial and Industrial sales in the Mid-Atlantic region and management of sales staff. Responsible for day to day operations of Enspire Energy as it relates to Credit and Contract negotiations.

- Manages Day to Day operations of Enspire Energy, LLC.
- Establishes and develops market strategies for new LDCs in Maryland, Virginia, Pennsylvania and North Carolina.
- Manages and Directs all Credit and contracting activities.

SHELL ENERGY NORTH AMERICA, Chesapeake, VA (January 2009 to May 2013)

Director of Marketing

Responsible for developing and expanding Commercial and Industrial sales in the Mid-Atlantic region with gross margin goals of \$3 million per year.

- Maintained a customer base of over 65+ accounts with annual margin targets of between \$15,000 and \$25,000 per account.
- Established and developed market strategies for new LDCs in New Jersey and Pennsylvania to coincide with supply assets including the Marcellus Shale region.
- Account manager for several key national accounts including managing the contracting process and gas supply relationship for governmental business, including the Defense Logistics Agency (DLA) and the General Services Administration (GSA).

ENSPIRE ENERGY, Norfolk, VA (September 2005 to January 2009)

Director of Marketing

One of three founding partners of the company, with the primary focus of building and retaining a customer base in the Mid-Atlantic region. Within three years, had built a sales force of three regional account managers serving over 170 industrial and commercial accounts with natural gas sales exceeding \$150,000,000 per year.

- Management of sales staff with territories ranging from Pennsylvania to North Carolina.
- Expanded customer base in Virginia to become the largest natural gas marketer to industrial accounts behind Columbia Gas of Virginia and Virginia Natural Gas.
- Also maintained an individual book of business of over 60+ accounts including several Fortune 500 accounts and federal government contracts.
- Development of marketing materials for a start-up organization, including brochures and mailers, website text and layout, a weekly market update report, and standardized transaction confirmations, contracts, and proposal language.
- Oversaw customer invoicing and assembled company's monthly financial reports.
- Responsible for contract administration with retail and wholesale counterparties.
- Managed company's credit policy, including setting counterparty limits and overseeing company's accounts receivable credit insurance policy.

COMPASS ENERGY, Virginia Beach, VA (August 2003 to September 2005)

Manager, Business Development

Responsible for management and expansion of the company's industrial and commercial customer base.

- Maintained a customer base of over 50 accounts, including government facilities, hospital systems, and large industrial accounts, such as steel plants, breweries, and food manufacturers.
- Was an integral part of doubling the company's annual gross margin, and exceeded personal margin goals by more than 50%.
- Assisted the company to achieve over 90% market share for industrial transport accounts behind Virginia Natural Gas, as well as significantly expanded the company's market share behind Columbia Gas of Virginia.

PEPCO ENERGY SERVICES, Arlington, VA (November 1998 to August 2003)

Regional Account Manager, Chesapeake, VA

Responsible for maintaining and developing natural gas sales accounts in Virginia, North Carolina, and Washington D.C.

- As a new salesperson, developed a customer base of 40+ industrial and large commercial accounts, including several Fortune 500 companies, with annual gross margin exceeding \$1,000,000.
- Managed and submitted technical qualification and bid packets for government entities, including the General Services Administration (GSA) and the Defense Energy Support Center (DESC).

Natural Gas Scheduler, Washington D.C.

Responsible for scheduling natural gas to eight different utilities on two different pipeline systems in the Mid-Atlantic region.

- Handled nominations and balancing to daily and monthly balanced industrial and commercial accounts.
- Assisted with implementation of company's new Nucleus system including reconciling prior system with Nucleus during transition phase.

Marketing Analyst, Virginia Beach, VA

Supported sales staff through maintaining customer service reports and handling customer inquiries.

- Assisted sales staff with prospecting including using industrial guides to send out targeted mailers as well as cold-calling.
- Developed and distributed a weekly natural gas market update report for customers and prospective customers.
- Assisted with gas scheduling, including balancing utility deliveries with customer requirements.
- Developed and maintained customer spreadsheets, including pricing requests, historical usage, and tariff savings comparisons.

Exhibit 2

Company Response to Retail Respondents Set 3-5

Retail Respondents– Set 3
Data Request No. 5
Respondent: Debbie Vair
Title: Manager, Gas Transportation

COLUMBIA GAS OF VIRGINIA, INC.

Question No. 5

Rate Schedule LGS1 and LGS2 have an interruptible option. For current CGV customers taking service under LGS1 and LGS2 rate schedules for the interruptible option, in the past 5 years, has Columbia either (1) provided notice to interrupt or curtailed gas service to any of the customers during a corresponding BSR called for TS1 and TS2 accounts, or (2) assessed penalty charges for usage by an interruptible option LGS1 or LGS2 account on a corresponding BSR period called for TS1 and TS2 accounts? If so, please provide details for notices sent to these customers to reduce/curtail usage and/or penalty charges assessed to the LGS1 and LGS2 interruptible option accounts for the past 5 years.

Response:

Columbia Gas of Virginia has no record of LGS customers being interrupted during a BSR.

Exhibit 3

Company Response to Retail Respondents Set 2-6

**Retail Respondents– Set 2
Data Request No. 6**

Respondent: Michael D. Anderson
Title: Director of Supply Development

COLUMBIA GAS OF VIRGINIA, INC.

Question No. 6

Does the Company source its gas supply from the Columbia Gulf mainline pool or the Marcellus and Utica shale regions? If Columbia sources its gas from the shale regions, on which pipelines does it have firm contracts with to bring gas into the Columbia service area? If Columbia has firm Transco capacity, will it release it to the "Choice" marketers?

Response:

The Company purchases gas supplies at both the Columbia Gulf mainline pool as well as Appalachian Aggregation Points. The Company also purchases gas supplies from pooling points on several other pipelines, utilizing its firm contracts. The gas supplies purchased could include gas from the Marcellus and Utica shale gas production regions. It is not possible to determine the actual source of the gas supply purchased when making purchases from pipeline pooling points.

The Company does have firm Transco capacity and will release this capacity to Participating Service Providers (i.e. Choice Marketers) in accordance with its approved Choice capacity assignment procedure contained in the Statewide Choice Gas Supply Operations Plan, referenced in Rate Schedule CSPS of CGV's Gas Tariff and on file with the Commission. City gate and upstream FTS capacity are assigned to Participating Competitive Service Providers (CSPs), in phases as set forth below:

- Phase 1: TCO FTS¹ capacity and upstream Columbia Gulf Transmission Company ("Gulf") FTS-1 capacity.
- Phase 2: TCO Market Expansion FTS capacity,² including Transcontinental Gas Pipe Line Company, LLC (Transco) Zone 5 FTS capacity.
- Phase 3: Any additional FTS and/or NTS capacity, not included in Phases 1 or 2, acquired to serve core market sales and Choice customer demand; and
- Phase 4: Long-haul Transco FTS capacity³.

Phase 2 capacity will not be assigned until the Choice Program participation exceeds the level where all Phase 1 capacity has been completely assigned to Participating

¹ TCO FTS capacity refers to FTS capacity assigned to Company by TCO prior to or under FERC Order 636 and any extension or renewal of such capacity excluding the Market Expansion FTS capacity.

² TCO Market Expansion FTS capacity relates to TCO FTS capacity acquired under TCO's Market Expansion Project and any subsequent extension or renewal of such capacity.

³ Long-haul Transco FT capacity relates to FTS capacity assigned to Company prior to or under FERC Order 636 and any subsequent extension or renewal thereof.

CSPs. Similarly, subsequent capacity assignment phases (beyond phase 2) will not be implemented until the Choice Program participation exceeds the level where all the previous phase FTS capacity has been completely assigned to Participating CSPs.

Exhibit 4

**Columbia Policy Regarding Requests By Outside Parties
to Provide Electronic Daily Measurement Equipment,
Data, or Outputs**

Appendix B

COLUMBIA'S POLICY REGARDING REQUESTS BY OUTSIDE PARTIES TO PROVIDE ELECTRONIC DAILY MEASUREMENT EQUIPMENT, DATA, OR OUTPUTS

A Request for Electronic Daily Measurement (Columbia's Form 3030) will be completed by the outside party and Columbia's local Marketing Engineer for EACH Columbia Measuring Station. (Note: A measuring station may include multiple meters.)

The outside party shall execute a standard Columbia legal agreement for each measuring station or meter setting from which they wish to obtain daily measurement information prior to the installation of any equipment at that measurement station or meter setting. The Columbia legal agreement must be executed and returned within two months of its original mailing date. This policy shall be incorporated into the legal agreement and shall be binding on each outside party and its subcontractors.

Columbia offers any of the following access methods to daily measurement information. More than one method may be employed at each site.

- **Uncorrected volume pulse output.** Requires either Columbia-approved pulser device for gas meter or electronic flow corrector. Requires appropriate intrinsic safety equipment.
- **Corrected volume pulse output.** Requires electronic flow corrector, pulse interface, and appropriate intrinsic safety equipment. Some applications may require external power and a power supply for the electronic flow corrector.
- **Internet access** to uncorrected volume, corrected volume, pressure & temperature data via Columbia web site. Requires electronic flow corrector, electronic flow corrector modem with appropriate intrinsic safety equipment, and dedicated analog phone line with unique individual phone number for electronic flow corrector.

For applications supporting customer operations during times where curtailment of gas supply may be an issue or applications where the customer requires frequent updates, Columbia recommends one of the pulse output access methods. The pulse outputs update in pseudo-real-time, allowing customers to track volume consumption as it occurs using their own pulse accumulation equipment. Due to the way volume pulses occur in time, pulses may not accurately be integrated into flow rate signals. All pulse output connections to customer equipment must terminate outside of Columbia measurement buildings or, if the meter is located outside, beyond an appropriate safe distance as determined by intrinsic safety requirements. Each meter in a Columbia measurement station requires its own pulser device and/or electronic flow corrector.

For applications where once-per-day updates are acceptable, Columbia recommends internet access via the Columbia web site, *www ldcaviator.com*. Data will be uploaded from the electronic flow corrector to the web server at least once per day on a schedule determined by Columbia. Customer cannot trigger data to be uploaded on demand.

Columbia does not allow direct telephone access to electronic flow correctors by customers using data acquisition software, even read-only versions of software written by electronic flow corrector manufacturers.

The outside party understands and agrees that any information provided in the form of uncorrected pulse output, corrected pulse output, or web site data is unverified and unaudited data, and that Columbia will not be liable for the inaccuracy of this information.

Columbia recommends that the customer's engineering staff or consultants confer with Columbia's engineering staff in order to verify that any customer-supplied facilities meet Columbia's standards and that both parties understand the application.

Customer access to the Columbia web site where all necessary equipment and facilities already exist does not require execution of Columbia form C3032 and its appendices, since access to the web site requires acceptance of an online agreement before the Customer may access data.

Appendix A

SCOPE OF WORK

1. Columbia, as an independent contractor, agrees to purchase and install, at Customer's expense, certain equipment known as

EFC

Such equipment shall provide Customer with (indicate all access methods to be used):

_____ Uncorrected volume form A pulse output

_____ Corrected volume form A pulse output

_____ Access to data via Columbia web site

2. Customer shall use the equipment to obtain daily measurement data from Columbia's measurement facility. The measurement facility is identified as follows:

Measuring station, MS _____, encompassing PSID numbers:

500576835

3. Prior to any installation by Columbia, Customer agrees to pay to Columbia the below-referenced estimate to cover the costs for labor and materials.

Amount: \$ 2500.00

4. Customer agrees to provide and install the facilities and/or services prior to any installation daily measurement equipment by Columbia (may include power, phone, or nothing at all):

Dedicated phone line.
