3-24-1983

**Off-System Sales – Will They Ever Return? (The Interstate Side)**

Robert C. McHugh

Follow this and additional works at: https://scholar.law.colorado.edu/natural-gas-symposium-contract-solutions-for-future-of-regulatory-environment

Part of the Administrative Law Commons, Antitrust and Trade Regulation Commons, Bankruptcy Law Commons, Commercial Law Commons, Contracts Commons, Courts Commons, Dispute Resolution and Arbitration Commons, Energy and Utilities Law Commons, Energy Policy Commons, Law and Economics Commons, Legal Remedies Commons, Legislation Commons, Marketing Commons, Natural Resource Economics Commons, Natural Resources Law Commons, Natural Resources Management and Policy Commons, Oil, Gas, and Energy Commons, Oil, Gas, and Mineral Law Commons, Operations Research, Systems Engineering and Industrial Engineering Commons, and the Transportation Law Commons

**Citation Information**


Reproduced with permission of the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment (formerly the Natural Resources Law Center) at the University of Colorado Law School.

Reproduced with permission of the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment (formerly the Natural Resources Law Center) at the University of Colorado Law School.
OFF-SYSTEM SALES -
WILL THEY EVER RETURN?

(The Interstate Side)

Robert C. McHugh, Esq.
Assistant General Counsel
Colorado Interstate Gas Company
Ms. Katherine Taylor  
Conference Administrator  
Natural Resources Law Center  
School of Law  
Campus Box 401  
University of Colorado  
Boulder, CO 80309

Dear Ms. Taylor:

Re: Natural Gas Symposium:  
Contract Solutions for the Future Regulatory Environment

Pursuant to your request, we are forwarding a short statement regarding the subject matter that was to be presented on Off-System Sales of natural gas in the above-captioned symposium. We have been informed that the Federal Energy Regulatory Commission (FERC) voted on March 10, 1983 to revise its policy statement regarding such sales. The press accounts say the draft statement will follow these guidelines:

"(1) The price shall be the higher of the selling pipeline's system average load factor rate (based upon the rates in effect at the time the transaction is proposed) or its average Section 102 gas acquisition cost (as shown in the pipeline's latest PGA filing). However, where the purchaser is not another interstate pipeline, the selling pipeline would be free to negotiate a higher rate.

"(2) With respect to revenue treatment, the selling pipeline has the option of establishing a representative level of sales or revenues in a general rate case or crediting all but 1¢/MMBtu to Account 191.

"(3) To be eligible to make off-system sales, a seller must demonstrate both a sufficient surplus that service to existing customers will not be impaired, and at least potential take-or-pay liability.

"(4) No showing is necessary with respect to the buyer's need, but the buyer must be specifically identified.

"(5) There are no restrictions on end use.

"(6) For curtailment purposes, off-system sales shall be made on a best-efforts basis and shall be interrupted prior to interruption of on-system customers."
"(7) The duration of offsystem sales will be limited to one year, without prejudice to extensions.

"(8) Where an established supplier of the identified buyer alleges market loss or anticompetitive market raiding, such allegations will be explored, most likely in an evidentiary hearing.

"In addition, the policy statement delegates authority to the Director of OPPR to approve uncontested applications for offsystem sales. Also, a provision for blanket authorization for offsystem sales between interstate pipelines will be adopted in a pending rulemaking proceeding (RM81-29)." FOSTER REPORT No. 1405, March 10, 1983, 9-10.

The draft statement has not been released, pending clarification of all aspects by the Commission.

I will be glad to continue to apprise you of further changes, should you so desire. Unfortunately, this is the most that is now available.

Very truly yours,

RCM:bas
I. Introduction to Off-system Sales
   A. Definitions
      1. Off-system sales
      2. Interstate v. Intrastate transactions
      3. Regulatory framework
         a. FERC
         b. Natural Gas Act
         c. Natural Gas Policy Act of 1978
   B. FERC's (recent) (imminent) announcement of policy

II. History of Off-system Sales
   A. Pipelines' obligation to diligently seek adequate supply
      1. Shortages, moratoria of 1970's
      2. Aggressive gas purchase programs, including use of take-or-pay provisions
      3. Slack in demand in 1980's brings take-or-pay exposure
B. Off-system Sales are needed:

1. To alleviate take-or-pay exposure occasioned by reduced demand

2. To avoid minimum bill penalties

3. To avoid incurring storage and other costs

4. To prevent curtailment of industrial and other low-priority uses

5. To facilitate attachment of long-term reserves while providing short-term relief from deliverability excess

C. FERC Treatment of Off-system Sales

1. Initial certificates

   a. 1981 - first year of many certificates

   b. FERC generally discouraged the sales

   c. Natural Gas Pipeline Co., Docket No. CP81-302-000 et al. (Order issued August 12, 1981), showed a change in policy toward encouraging such sales
2. Review criteria (NGPL, Docket No. CP81-302-000 et al. (Order issued July 20, 1982).)

a. The selling pipeline should demonstrate an on-system gas surplus (See Columbia Gas Transmission, Docket No. CP82-204-000 (Order issued July 20, 1982).)

b. The proposed sale should help ameliorate the selling pipeline's take-or-pay exposure (See Natural Gas Pipeline Co., Docket No. CP81-302-000 et al., (Order issued August 12, 1981).)

c. The purchaser should demonstrate a need for the gas (See East Tennessee Natural Gas Co., Docket No. CP81-421-000 (Order issued March 29, 1982).)

d. The proposed sale price should be equivalent to at least a 100% load factor rate (See e.g., Northern Natural Gas Co., Docket No. CP82-33-000 (Order issued April 9, 1982); Natural Gas Pipeline Co., Docket No. 81-364 et al. (Order issued October 27, 1981); Trunkline Gas Co., Docket No. CP 80-550 et al. (Order issued February 20, 1981); Natural Gas Pipeline Co., Docket No. 80-520 (Order issued January 21, 1981); Cities Service Gas Co., Docket No. CP80-499 (Order issued December 22, 1980). Cf. Natural Gas Pipeline Co., Docket No.
e. The term of sale generally should not exceed one year (but can be rolled over) *(But see Columbia Gas Transmission, Docket No. CP82-204-000 (Order issued July 20, 1982) (five-year certificate applied for); Consolidated Gas Supply Corp., Docket No. CP 81-528-000 et al. (Order issued March 30, 1982) (36-month certificate granted); Cities Service Gas Co., Docket No. CP 80-499 (Order issued December 22, 1980) (2-year certificate granted); Consolidated Gas Supply Co., Docket No. 79-319 (Order issued November 21, 1979) (2-year certificate granted).)*

f. Revenues received in off-system sales should be used to reduce the price paid by the selling pipeline's ratepayers, either directly and immediately by crediting the selling pipeline's purchased gas account or indirectly by estimating future off-system sale revenues in the pipeline's rate case *(See, e.g., East Tennessee Natural Gas Co., Docket No. CP81-421-000 (Order issued March 29, 1982); Natural Gas Pipeline Co., Docket No. CP81-302 et al. (Order issued August 12, 1981).*

g. The sale should be interruptible
h. The gas should not displace coal or other abundant and/or renewable energy resources (As to encouraging displacement of foreign resources, see Trunkline Gas Co., Docket No. CP80-550 et al. (Order issued February 20, 1981); Columbia Gas Transmission, Docket No. CP82-204-000 (Order issued July 20, 1982).)

3. Recent (hearings and comments to) review (of) current policy (resulting in) (for) promulgation of new policy (In re Review of Off-system Sales Program, Docket No. GP82-47-000 (Hearing held November 4-5, 1982).)

a. Most participants want off-system sales, but with modified procedure or criteria

b. Why the gap between authorized and actual sales volumes

III. Present Effects of Off-system Sales

A. On selling pipelines' ratepayers

1. A brief review of price structure of off-system sales

2. Risks of ratepayers and pipelines in rate base and revenue credits
3. Possible loss to selling pipeline's ratepayers
   a. Sale price (100% load factor rate) may be less than replacement cost (marginal cost) of gas
   b. Reserves may be replaced with higher priced gas

4. Possible advantages
   a. Sale price may exceed marginal cost of gas
   b. Pipeline's fixed costs are spread over a larger volume of gas

B. On selling pipelines
1. Reduced take-or-pay exposure

2. Excess deliverability is shifted elsewhere

3. Factors minimizing actual benefits
   a. Regulatory lag
   b. Lower demand
   c. Inflexibility in price

C. On buying pipelines and their ratepayers
1. Eases tight supply
2. Allows acquisition of gas at lower price than purchasing new long-term reserves

3. Allows more orderly attachment of long-term reserves

4. Gives short-term opportunity to buy gas; no commitment to buy if demand disappears before sale

D. On other pipelines not a party to the sale
1. Interstate
   a. Shifts excess supply condition to another interstate pipeline

   b. Favors "large-cushion" pipelines

2. Intrastate - "Market raiding"
   a. Price competition

   b. Interstates deal with traditionally intrastate customers (reverse NGPA § 3116 transaction)

E. On consumers as a whole
1. Theoretical benefits
   a. Slows rise in gas prices

   b. Flows gas from regions with oversupply quickly to those with shortages
c. Allows steady drilling activity

d. Allows orderly attachment of long-term supplies

2. Theoretical detriments

a. Encourages low-priority users to use natural gas, hastening depletion

b. Generally exacerbates take-or-pay dilemma by masking its effect on the market

IV. Criticisms Made of Present Structure (See In re Review of Off-system Sales Program, Docket No. GP82-47-000 (Hearings held November 4-5, 1982).)

A. Price

1. 100% load factor is too low

2. 100% load factor is too high

3. Any price ceiling/floor precludes sales by some pipelines

4. Should not allow discrimination against other fuels/energy sources

5. Should be based on seller's system average cost
6. Should be no less than the lesser of seller's system average cost or § 102 price

7. Should vary according to buyer's need and use for gas

8. Should vary according to seller's take-or-pay obligations

B. Duration of certificate
   1. Too short

   2. Should be three to five years

   3. Should be fashioned according to the parties' needs

C. Duration of certification procedure
   1. Average regulatory lag of 6 months is too long

   2. Blanket certificates advocated
      a. Benefits
         i. Obviate regulatory lag
         ii. Quicker response to buyers' needs

      b. Risks
         i. FERC scrutiny and balancing of buyers' needs with risks to selling pipeline's ratepayers becomes less detailed
ii. "Hunting license" encourages market raiding and use of gas for lower priority uses

D. Certification criteria

1. On-system buyers should have right of first refusal of gas at off-system sale price

2. Seller should be required to exercise all market-out clauses first

3. Seller should be required to cease executing new contracts with take-or-pay clauses and begin renegotiating all existing ones

4. Seller should first offer off-system sales rate to all on-system distributors who have lost loads to competitive fuels

5. Seller should submit its contracts to verify its take-or-pay exposure

V. Suggestions Given for Improvement (See In re Review of Off-system Sales Program, Docket No. GP82-47-000 (Hearing held November 4-5, 1982).)

A. Use new criteria
1. Purchaser's existing suppliers must be unable to serve its requirements

2. Seller's incursion of take-or-pay obligations must:
   a. Exist notwithstanding all efforts to avoid
   b. Be passed on to its ratepayers already
   c. Equal at least 25% of the relief sought by the off-system sale

3. Sale rate must be based on the highest of the marginal cost of current supplies, replacement cost, or the current competitive sales rate

4. Consideration should be given to the purchaser's needs and the likelihood the sale will occur

5. No imports must be used directly or indirectly

6. No domestic producer must be required to lose markets

B. Outlaw take-or-pay

1. Declare take-or-pay payments a violation of NGPA Title I

2. Preclude inclusion of payments in rate base as "imprudent"
C. Allow only distributors to make off-system sales

D. Allow sales of reserves instead of volumes

E. Create a network of pipelines like that of electric utilities which sell excess supply routinely

F. Create more storage facilities

G. Cut excess deliverability by strict enforcement of state proration orders

VI. CONCLUSION

A. FERC's new policy

B. Predictions of future - boon or boomerang?
Appendix to
Off-System Sales Presentation

(Interstate Side)
Bibliography

FERC Orders:

Columbia Gas Transmission, Docket No. CP82-204-000 (Order issued July 20, 1982).

Tennessee Gas Pipeline Co., Docket No. CP82-38-000 (Order issued April 9, 1982).

Northern Natural Gas Co., Docket No. CP82-33-000 (Order issued April 9, 1982).

Consolidated Gas Supply Corp., Docket No. CP81-528-000 et al. (Order issued March 30, 1982).

East Tennessee Natural Gas Co., Docket No. CP81-421-000 (Order issued March 29, 1982).

Natural Gas Pipeline Co., Docket No. CP80-520-003 et al. (Order issued March 26, 1982).


Natural Gas Pipeline Co., Docket No. CP81-364 et al. (Order issued October 27, 1981).

Natural Gas Pipeline Co., Docket No. CP81-302-000 et al. (Order issued August 12, 1981).

Northern Natural Gas Co., Docket No. CP81-236-001 (Order issued June 24, 1982).

Natural Gas Pipeline Co., Docket No. CP81-141-000 (Order issued February 19, 1981).


Midwestern Gas Transmission, Docket No. CP80-345 (Order issued November 6, 1980).


Hearing:

In re Review of Off-system Sales Program, Docket No. GP82-47-000 (Hearings held November 4-5, 1982).

Speech:

Hughes, David, "Off-System Sales—Salvation or Disaster?" New Orleans, La. (given before Interstate Oil Compact Commission, December 6, 1982).

Correspondence:


Newsletters and Periodicals:


Study:

FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline of the Policy Issues (October 12, 1982).
<table>
<thead>
<tr>
<th>Interstate to Interstate</th>
<th>Seller/Buyer Docket No.</th>
<th>Authorized Volume (Bcf)</th>
<th>Actual Volume (Bcf)</th>
<th>Actual Volume as a Per Cent of Authorized</th>
<th>Percent of Authorized Time Elapsed</th>
<th>Column (3)</th>
<th>Column (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cities/El Paso (CP80-499-000/004)</td>
<td>127.8</td>
<td>52.40</td>
<td>41.0%</td>
<td>75.1%</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trunkline/United (CP8O-550-000)</td>
<td>36.5</td>
<td>10.50</td>
<td>28.0</td>
<td>70.4%</td>
<td>0.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trunkline/Transwestern (CP8O-550-000)</td>
<td>36.5</td>
<td>13.90</td>
<td>38.1</td>
<td>70.4%</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern/El Paso (CP81-236-000)</td>
<td>57.7</td>
<td>11.30</td>
<td>19.6</td>
<td>91.5</td>
<td>0.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural/United (CP81-304-000)</td>
<td>37.0</td>
<td>13.60</td>
<td>36.8</td>
<td>91.2</td>
<td>0.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern/United (CP81-349-000)</td>
<td>36.5</td>
<td>0.00</td>
<td>0.0</td>
<td>55.1</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural/Texas Eastern (CP81-364-000)</td>
<td>18.0</td>
<td>16.94</td>
<td>94.1</td>
<td>66.9</td>
<td>1.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural/Transwestern (CP81-365-000)</td>
<td>36.5</td>
<td>.37</td>
<td>1.0</td>
<td>10.2</td>
<td>0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern/Transwestern (CP81-371-000)</td>
<td>18.0</td>
<td>.22</td>
<td>1.2</td>
<td>13.7</td>
<td>0.90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline Of The Issues 21 (October 12, 1982)
TABLE I. (Cont.) Major Interstate Pipeline-to-Interstate Pipeline Off-System Sales Since December 1980 a/

<table>
<thead>
<tr>
<th>Interstate to Interstate</th>
<th>(1) Authorized Volume (Bcf)</th>
<th>(2) Actual Volume (Bcf)</th>
<th>(3) Actual Volume as a Per Cent of Authorized</th>
<th>(4) Percent of Authorized Time Elapsed</th>
<th>(5) Column (3) Column (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seller/Buyer Docket No.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern/Texas Eastern</td>
<td>18.0</td>
<td>7.27</td>
<td>40.4</td>
<td>66.6</td>
<td>0.61</td>
</tr>
<tr>
<td>(CP81-377-000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural/El Paso</td>
<td>37.0</td>
<td>7.80</td>
<td>21.1</td>
<td>78.5</td>
<td>0.27</td>
</tr>
<tr>
<td>(CP81-386-000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con Gas/Texas Gas</td>
<td>94.0</td>
<td>16.35</td>
<td>17.4</td>
<td>13.6</td>
<td>1.28</td>
</tr>
<tr>
<td>(CP81-528-000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>553.5</td>
<td>150.74</td>
<td>27.2</td>
<td>50.9% b/</td>
<td>0.46</td>
</tr>
</tbody>
</table>

a/ Adapted from Table I, Review of Off-System Sales, Notice of Informal Public Conference, FERC Docket No. GP82-47-000 (August 6, 1982). Data is as of 6/30/82.

b/ Average percentage weighted by authorized volumes.

Source: FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline of the Issues 22 (October 12, 1982).
### TABLE III. Major Off-System Sales to Distribution Companies Since December, 1980 a/

<table>
<thead>
<tr>
<th>Seller/Buyer b/ Docket No.</th>
<th>Authorized Volume (Bcf)</th>
<th>Actual Volume (Bcf)</th>
<th>Actual Volume as a Per Cent of Authorized</th>
<th>Per Cent of Authorized Time Elapsed</th>
<th>Ratio of % of Volumes to % of Time (Column 3 ÷ Column 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Tenn./Public Service Electric &amp; Gas (CP81-219-000/001)</td>
<td>18.0</td>
<td>0.20</td>
<td>1.1%</td>
<td>66.3%</td>
<td>0.02</td>
</tr>
<tr>
<td>Ala. Tenn./Public Service Electric &amp; Gas (CP81-203-000/001)</td>
<td>2.9</td>
<td>1.06</td>
<td>36.6</td>
<td>100.0</td>
<td>0.37</td>
</tr>
<tr>
<td>Consolidated Gas/New Jersey Natural (CP82-107-000)</td>
<td>13.9</td>
<td>1.89</td>
<td>13.6</td>
<td>29.3</td>
<td>0.47</td>
</tr>
<tr>
<td></td>
<td>34.8</td>
<td>3.15</td>
<td>9.1% c/</td>
<td>54.3% c/</td>
<td>0.17</td>
</tr>
</tbody>
</table>

---

**a/** Adapted from Table I, Review of Off-System Sales, Notice of Informal Public Conference, FERC Docket No. GP82-47-000 (August 6, 1982). Data is as of 6/30/82.

**b/** For purposes of this table, Hinshaw pipelines have not been included among local distribution companies even though § 2(16) and (17) of the NGPA defines local distribution companies to include Hinshaw pipelines.

**c/** Average percentage weighted by authorized volumes.

<table>
<thead>
<tr>
<th>Seller/Buyer</th>
<th>Docket No.</th>
<th>Authorized Volume (Bcf)</th>
<th>Actual Volume (Bcf)</th>
<th>Actual Volume as a Per cent of Authorized</th>
<th>Percent of Authorized Time Elapsed</th>
<th>Ratio of Percent of Volumes to Per Cent of Time (Col. 3 - Col. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunkline/Chevron</td>
<td>CP80-550-000</td>
<td>4.4</td>
<td>1.0</td>
<td>22.7%</td>
<td>70.4%</td>
<td>0.32</td>
</tr>
<tr>
<td>Natural/Dow Chem.</td>
<td>CP81-302-000</td>
<td>15.0</td>
<td>12.41</td>
<td>82.7</td>
<td>91.2</td>
<td>0.91</td>
</tr>
<tr>
<td>Natural/Cleco</td>
<td>CP81-392-000</td>
<td>37.0</td>
<td>0.0</td>
<td>0.0</td>
<td>63.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Northern/Allied</td>
<td>CP82-33-000</td>
<td>47.8</td>
<td>0.23</td>
<td>0.5</td>
<td>8.0</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>104.2</td>
<td>13.64</td>
<td>13.1% b/</td>
<td>42.5%</td>
<td>0.31</td>
</tr>
</tbody>
</table>

*a/ Adapted from Table I, Review of Off-System Sales, Notice of Informal Public Conference, FERC Docket No. GP82-47-000 (August 6, 1982). Data is as of 6/30/82.

b/ Average percentage weighted by authorized volumes.

Source: FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline of the Issues 26 (October 12, 1982)
### TABLE VI. Break-Even Point for Off-System Sales

<table>
<thead>
<tr>
<th>Off-System Sale Price</th>
<th>Break-Even Point</th>
<th>a/ Number of Year Prepayment is in Rate Base</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>One</td>
</tr>
<tr>
<td>3.00</td>
<td>3.42</td>
<td>3.90</td>
</tr>
<tr>
<td>3.25</td>
<td>3.71</td>
<td>4.22</td>
</tr>
<tr>
<td>3.50</td>
<td>3.99</td>
<td>4.55</td>
</tr>
<tr>
<td>3.75</td>
<td>4.28</td>
<td>4.87</td>
</tr>
<tr>
<td>4.00</td>
<td>4.56</td>
<td>5.20</td>
</tr>
<tr>
<td>4.25</td>
<td>4.85</td>
<td>5.52</td>
</tr>
<tr>
<td>4.50</td>
<td>5.13</td>
<td>5.85</td>
</tr>
</tbody>
</table>

**Notes to Table VI**

*a/ The break-even point refers to the prepayment per mcf that consumers would consider to be economically equal to the off-system sale price in the left-hand column. In terms of equation (2), it defines the point where B = 0. Both the pipeline's pre-tax rate of return and the consumer's discount rate are assumed to be 14 per cent, and the prepayment is assumed to remain in the rate base for one, two, or five years. The prepayment per mcf is the price of the gas that would not be taken if the off-system sale was not made. If that price is higher than the break-even point, the off-system sale will have an adverse direct price impact on the selling pipeline's ratepayers; if the price is lower than the break-even point, the direct effect of the sale will be to reduce the price of gas to those ratepayers.*

**Source:** FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline of the Issues 49 (October 12, 1982).
FIGURE 4  OFF-SYSTEM SALES: REQUIRED MARKET CONDITIONS

<table>
<thead>
<tr>
<th>SELLER</th>
<th>BUYER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliverability Surplus</td>
<td></td>
</tr>
<tr>
<td>Supply/Demand Balance</td>
<td></td>
</tr>
<tr>
<td>Curtailment</td>
<td></td>
</tr>
</tbody>
</table>

Source: FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline of the Issues 134 (October 12, 1982).
Source: FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline of the Issues 122, 125 (October 12, 1982).
FORMULAE FOR COMPUTING
BENEFITS AND COSTS
OF
OFF-SYSTEM SALES

(1) Cost savings in avoiding take-or-pay payments ("prepayments"):

\[ S = P_N - C \]

where \( S \) = savings, \( P_N \) = price of gas not taken, and \( C \) = cost of take-or-pay

(2) Direct price effect on selling pipeline's ratepayers:

\[ B = P_O - S \]

where \( B \) = benefit (detriment), \( P_O \) = the off-system sale price, and \( S \) = savings (see 1 above). If \( P_O \) is greater than \( S \), the off-system sale will reduce the cost of gas to the seller's ratepayers. If \( S \) is greater than \( P_O \), the off-system sale will increase their cost.

(3) Cost savings from a reduced take for a pipeline at the take-or-pay level:

\[ S = \frac{P_N}{(1 + r)^t} \quad \text{or} \quad B = P_O - \frac{P_N}{(1 + r)^t} \]

where \( S \) = savings, \( P_N \) = price of gas not taken, \( r \) = pipeline's pre-tax rate of return (and the consumer's discount rate), and \( t \) = interval from the time the prepayment goes into rate base until it is removed.

Source: FERC Office of Regulatory Analysis, Off-System Sales: A Preliminary Outline of the Issues 47-51 (October 12, 1982).