UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

102 FERC ¶ 61,195

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, and Nora Mead Brownell.

Five-Year Review of Oil Pipeline Pricing Index   Docket Nos. RM00-11-000 and
                                                RM00-11-001

ORDER ON REMAND

(Issued February 24, 2003)

1. This order responds to the remand of the Commission's order of December 14, 2000 in this proceeding (December 2000 order)[1] which continued the oil pipeline pricing index for the current five-year period as the Producer Price Index for Finished Goods , seasonally adjusted (PPI), less 1 per cent (PPI-1). For the reasons appearing below, and in light of the court's remand, the Commission determines after further cost data analysis that the appropriate oil pricing index for the current five-year period should be the PPI without the -1 per cent adjustment. Oil pipelines may calculate the current ceiling rate using the PPI as though that had been the index in effect since July 2001, and may file for rate increases to the ceiling so calculated, to be effective 30 days after the date of their filings.

Background

2.   The oil pipeline pricing index was established in Order No. 561, Revisions to Oil Pipeline Regulations Pursuant to the Energy Policy Act of 1992.[2] In Order Nos. 561 and

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[1]Five-Year Review of Oil Pipeline Pricing Index, 93 FERC ¶ 61,266 (2000), aff'd in part and remanded in part, Association of Oil Pipe Lines v. FERC, 281 F.3d 239 (D.C. Cir. 2002) (AOPL II).

[2]Revisions to Oil Pipeline Regulations Pursuant to the Energy Policy Act, FERC Stats. & Regs. [Regs. Preambles, 1991-1996] ¶ 30,985 (1993), 58 F.R. 58753 (Nov.4, 1993); order on reh'g, Order No. 561-A, FERC Stats. & Regs. [Regs Preambles, 1991-1996] ¶ 31,000 (1994), 59 F.R. 40243 (Aug.8, 1994), affirmed, Association of Oil Pipe Lines v. FERC, 83 F.3d 1424 (D.C. Cir. 1996) (AOPL I). The Energy Policy Act's mandate of establishing a simplified and generally applicable method of regulating oil

(continued...)

561-A, the Commission established a simplified and generally applicable method of changing oil pipeline transportation rates. An indexing method was selected for determining the allowable annual changes in rates which would be generally applicable to oil pipelines regulated by the Commission under the Interstate Commerce Act. The PPI-1 was chosen by the Commission as the index that most closely tracked the actual cost changes in the oil pipeline industry.[3]

3.   As the Commission stated in Order No. 561 and reaffirmed in Order No. 561-A, the selection of the PPI-1 was not necessarily a choice for all time. The Commission recognized that its responsibilities, to both shippers and pipelines, required it to monitor the relationship between the change in the PPI-1 index and the actual cost changes experienced by the industry. The Commission undertook to review the effectiveness of its rate changing methodology and the index every five years. The Commission's adoption of its rate changing methodology and the PPI-1 index was affirmed by the U.S. Court of Appeals for the District of Columbia Circuit on May 10, 1996.[4] The court upheld the Commission in all respects on its choice of an index, and cited with approval the Commission's determination to review the index formula after five years' experience.

4.   The Commission set about to review the effectiveness of the PPI-1 index to reflect oil pipeline cost changes in mid-2000 by issuance of a Notice of Inquiry, and concluded its review by issuance of the December 2000 order. In that order, the Commission concluded that the PPI-1 index had reasonably approximated the actual cost changes in the oil pipeline industry during the preceding five-year period, and that this index should be continued for the next five-year period.[5] During its review of the PPI-1 index, the Commission had before it a Staff study of the effectiveness of the change in the PPI-1 index, and initial and reply comments by interested parties on that study. The Association of Oil Pipe Lines (AOPL) provided evidence that the appropriate index should be the PPI rather than the PPI-1, and a group of shippers, including Sinclair Oil Corporation and Tesoro Petroleum Company, Inc., presented comments and evidence that the appropriate index should be PPI-2.

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[2](...continued)
transportation rates specifically excluded the Trans-Alaska Pipeline System (TAPS), or any pipeline delivering oil, directly or indirectly, into it.

[3]Excluding TAPS and the applicable Alaska pipelines. See n.2 above.

[4]Association of Oil Pipe Lines v. FERC, 83 F.3d 1424 (D.C. Cir. 1996).

[5]93 FERC at 61,856.

5.   The Commission decided in the December 2000 order to utilize a weighted average of annual industry cost changes rather than to consider the cost changes experienced by individual pipelines to determine whether the changes in the PPI-1 index provided an adequate measure of cost changes. Under this methodology, the year-to-year percent changes in the annual weighted average cost of the oil pipeline industry was examined, each firm's cost being weighted by its share of the total barrel-miles shipped during that year, and those changes were then compared with the year-to-year percent changes in the PPI-1 index, after adjusting the period during which the index changes occurred to match the period for which the cost data were available. A simple average of those year-to-year percent changes is then computed and the two averages are compared. In using industry-wide cost, the Commission reasoned that it was unnecessary to discard statistical outliers. This methodology differed from the methodology used in Order No. 561 for determining such changes, where the Commission utilized the average of the year-to-year cost changes of each pipeline firm, with statistical outliers being discarded, as opposed to utilizing cost changes for the entire industry.

6.   The December 2000 order also excluded changes in net plant to estimate capital cost changes (depreciation, amortization, return on investment and income taxes) in order to calculate return on investment and income taxes, because the Commission concluded that net plant was an imperfect measure of these two elements of capital costs, and these elements of capital cost were relatively minor.[6]

        The Remand

7.   The Court remanded the December 2000 order to the Commission, holding that the Commission had neither adequately addressed the concerns of AOPL over the averaging methodology used by the Commission, nor had the Commission articulated its reasons for changing from the methodology used in Order No. 561,[7] specifically the shift in methodology regarding outliers and net plant.

8.   The Court characterized the Commission's weighted-average approach as a "floating weighted average," because it effectively weighs each pipeline's per-barrel costs by that pipeline's volume. This is to be contrasted with the fixed-weight average, which

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        [6]Order Nos. 561 and 561-A specifically defended the use of net plant to calculate return on investment and income taxes. In fact, Order No. 561 used net plant as proxy for depreciation and amortization, and appeared to use net plant only for determining investment and income taxes.

        [7]Association of Oil Pipe Lines v. FERC, 281 F.3d 239 (D.C. Cir. 2002).

weighs each firm's cost <u>change</u> by the firm's market share. This use of a floating weighted average, according to the Court, "can yield odd results." For example, such an average will include the costs of new entrants, even though they will have not experienced any cost <u>changes</u> at all, since they have not been in the market. Moreover, changes in market share can give a distorted impression of cost changes. The Court observed that the Commission had made several collateral arguments in support of its approach, "none of which are persuasive."

9.   As to the use of statistical outliers, the Court stated that the Commission had not justified its departure from the exclusion of outliers in Order Nos. 561 and 561-A. The court pointed out that the Commission had relied extensively on the 1993 study presented by Dr. Alfred Kahn and defended the study's use of the 50% cost change dataset, and that the Commission had not explained its change in the methodology. The Court also pointed out that the Commission's principal objection seemed to be that when the dataset was narrowed from 100% to 90% to 80% to 50%, the cost change average systematically increased. The Court stated:

> To the extent that FERC refused to exclude outliers on the ground that doing so changed the result, it obviously missed the whole point: the object of excluding outliers is to prevent extreme and spurious data from biasing an analysis.... To the extent that FERC refused to adjust only because of the *direction* of the resulting change (upward rather than downward), refutation is (we hope) superfluous.[8]

10.   As to eschewing the use of changes in net plant in the December 2000 order, the Court again pointed to the Commission's inconsistency in its treatment of net plant in that it used net plant in determining capital costs in Order Nos. 561 and 561-A. The Court stated that the Commission in Order Nos. 561 and 561-A had relied heavily on the Kahn study, which expressly used net plant to approximate returns on investment and income taxes, despite its imperfections. The December 2000 order relied on those same imperfections to reject its use. The Court stated that the Commission had offered no explanation for the change.[9]

11.   Based on the foregoing, the Court remanded the case to the Commission for consideration of these three issues. It did not vacate the December 2000 order, because it

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[8]281 F.3d at 246.

[9]Id. at 247.

was unclear whether the remanded issues would "change FERC's cost data analysis sufficiently to render the selection of PPI-1 inappropriate."[10]

12.   Two separate petitions for Commission action on the remand by the United States Court of Appeals for the D.C. Circuit were filed, one by the Association of Oil Pipe Lines (AOPL), and the other jointly by Sinclair Oil Corporation and Tesoro Refining and Marketing Company (Shippers).

13.   AOPL argued again for the use of the PPI as the appropriate index, and for a one-time adjustment to the indexed rates at the next adjustment period to reflect the higher PPI index for the past periods since the year 2000 adjustments.

14.   Shippers filed a response to AOPL's petition and filed their own petition for action on remand, urging the Commission to further explain the underlying basis for the adoption of the PPI-1 index and to reaffirm its decision to use PPI-1 as the appropriate index for measuring cost changes in the oil pipeline industry. In their pleading, Shippers essentially argue that the Court left the Commission a great deal of flexibility, in that the Court remanded the case to the Commission for further explanation of its rationale for departing from the approved Order No. 561 methodology. Shippers argue that the Commission can adopt the rationale contained in Shippers' comments as justification for the continuation of the PPI-1 index.

15.   AOPL filed an answer to the Shipper's petition. AOPL discussed each of Shipper's arguments and concluded that the Commission should adopt the PPI as the appropriate index to be applied to oil pipeline rates.

Discussion

16.   In Order No. 561/561-A, the Commission determined that the PPI-1 was the index which best tracked oil pipeline cost changes. The Commission emphasized that this determination was not a one-time determination, and that the choice of the index would be reviewed after a five-year period.

17.   In considering the appropriate index for oil pipeline rates for the current five-year period, we originally departed from the Order No. 561/561-A methodology in several respects, as described by the court. In Order No. 561, the Commission recognized a need for flexibility in reviewing the continued viability of the PPI-1 index and, thus, in the December 2000 order the Commission had adopted an approach that departed from the

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[10]Id. at 248.

initial method used in Order No. 561 to settle on the PPI-1 index. On further consideration, however, we conclude that the most appropriate way to measure pipeline costs and rate ceilings, and assure that the nexus initially drawn between them continues, is to apply the same method as applied in initially drawing that connection. We will return to that method for further cost data analysis in this order. In doing so, we conclude that the record in this proceeding, including the petitions seeking a Commission order on remand, supports adopting the PPI as the appropriate index for the current five-year period. Appendix A to this order reflects the calculations and comparisons we have made.

18.   The court in its remand order identified three areas of concern that it had with our December 2000 order: the proper method of measuring of cost changes, whether statistical outliers should be used in determining industry cost changes, and whether changes in net plant should be used to determine industry capital costs for determining return on investment and income taxes. The court pointed out that, in each instance, the Commission had strayed from its court-approved methodology contained in Order No. 561 without providing adequate justification for the modifications.

19.   The first issue was whether the Commission had erred in using a "floating weighted average" to measure cost changes during the five-year period extending from 1995-through 1999 rather than using any of the methods discussed by the Commission in Order No. 561. Those methods were to calculate the percentage cost change per barrel-mile for each firm and combine them in a simple average (unweighted average). Another would be to combine the firm barrel-mile costs in an average weighted by volume (fixed weighted average). Another would be to take the median of the distribution (median). The court stated that Order Nos. 561 and 561-A substantially relied on a study that reported the results of all three of these methods, as well as a composite figure that combined these three methods. The change in the composite for each of the periods considered was fairly close to PPI-1, and this is what the court had approved in AOPL I.

20.   In rejecting the Commission's use of the floating weighted average, the court pointed out that the Commission seemed to rationalize its use of this methodology, at least in part, on the contention that pipelines' market share would be influenced by consumers choosing to use lower cost pipelines rather than higher cost lines. The court, relying on the statement of Dr. Kahn on behalf of AOPL, stated that changes in market share can give a distorted impression of cost changes when a floating-weight average is employed.[11] This could occur where there has been a relative increase in output by low cost pipelines relative to high cost pipelines. The use of the floating-weight average

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[11]281 F.3d at 242.

could result in al pipelines experiencing a uniform increase in costs, but the floating-weight average would show a decline. Moreover, the court agreed with AOPL that the relative shifts in output between high cost and low cost pipelines does not represent the natural working of market forces inasmuch as there is little substitutability between pipelines in the industry based solely on cost, since the shift in total volumes shipped from higher-cost crude to lower-cost product pipelines has relatively little to do with competition, or substituting one pipeline for another.

21.   Finally, the court was critical of the Commission's use of the totality of pipeline costs, when it should have been looking at cost changes. The use of a totality of costs did not reflect the fact that some entities could have entered the market at a time when their costs would be reflected, but due to the timing of their entrance into the market, there would have been no cost change to measure.

22.   The court was also concerned about the Commission's failure to exclude statistical outliers[12] in conducting its study, as it had done in its Order No. 561 methodology, without adequate justification. The court observed that the object of excluding outliers is to prevent extreme and spurious data from biasing an analysis.

23.   Upon review, the Commission as stated has adopted the methodology it used in Order Nos. 561 and 561-A. The results produced by examination of an unweighted average, a fixed weighted average, a median and a composite of the cost changes indicates that PPI is the index that should be employed.

24.   Our review of the changes in pipeline cost data starts with the premise of the cumulative changes in costs over the five-year period (1994-1999) for all ninety pipelines that provided data through Form 6 for the entire period. We have thus eliminated those pipelines who may have entered or existed the industry during the five-year period. We then considered the middle 50% of the pipelines, excluding the high and low 25% as being statistical outliers.[13] Our sampling set thus included 46 pipelines. Based upon our use of this set, we find that the median of the set reflects a 5.59% operating cost change

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[12]Statistical outliers are data points so extreme that they raise a question whether they may be the result of recording or measurement errors or some other anomaly - e.g., some pipelines may have reported volumes in barrels rather than barrel-miles, etc.

[13]We actually considered approximately 51% of the pipelines, since the exclusion of 25% of the pipelines at the top and bottom end would result in excluding 22.5 pipelines. Rather, we chose to exclude 22 at the top and 22 at the bottom, resulting in 46 pipelines being in the sample rather than 45.

from 1994 to 1999. A simple unweighted average of the cumulative operating cost changes for these 46 pipelines from 1994 to 1999 shows a cumulative average change in reported operating costs of 3.98%. Using a fixed-weight average, the result is a change of 10.23%. An 80% sampling likewise shows an unweighted average of the cumulative average operating cost changes to be 5.11%. Using a fixed-weight average, the result is 8.08%.

25.   The cumulative change in the PPI-1 for the five-year period reflects a change of 0.79%. The cumulative change in PPI reflects a change of 5.79%.   It is obvious, from a comparison of these results, that the cumulative change in PPI most nearly reflects the cumulative change in pipeline operating costs for the period, regardless of what criteria are used consistent with Order Nos. 561 and 561-A.

26.   Finally, the court was concerned about the Commission's exclusion of changes in net plant to calculate capital cost changes in return on investment and income taxes. According to the Commission, these two elements of capital cost are relatively minor. While the Commission's study accounted for changes in depreciation and amortization, it did not account for return on investment and income taxes, concluding that net plant was an imperfect measure of these cost changes and might distort the analysis. However, the court noted that, in Order No. 561, the Commission had specifically defended the use of net plant to calculate return on investment and income taxes. Thus, having previously used changes in net plant for calculating return on investment and income taxes despite its imperfections, it then used those very imperfections to reject its use without offering any explanation for the change.

27.   In Order Nos. 561/561-A, we considered the change in net plant to be a surrogate for the changes in capital costs of the pipelines. This methodology was upheld by the court in its review of those orders. In our original analysis leading up to the December 2000 order, we determined to use actual data reflecting capital costs rather than a proxy for such costs. The data available to us indicated that the capital cost elements of depreciation and amortization increased in the five-year period under review. As stated in the December 2000 order, the majority of capital costs are reflected in depreciation and amortization. We reasoned that the other two elements of capital cost - return on investment and income taxes - would have only a minor effect on the changes in pipelines' costs and therefore did not analyze those two elements.

28.   Using the Order Nos. 561/561-A methodology and using the changes in net plant as a surrogate for changes in capital costs will not affect our determination that PPI is the appropriate index to be used. After computing the changes in operating expenses, as shown in Appendix A, consistent with the Order Nos. 561/561-A methodology, we considered the effect on these changes of the Kahn adjustments for changes in net plant,

as reflected in Table 6 of Appendix B accompanying his testimony submitted by AOPL in this proceeding. The net plant adjustment utilized by Dr. Kahn resulted in adjustments which would reduce the annual percent change in the composite rate using the middle 50 percent sampling to approximately 0.82%, compared to 1.32% when considering operating costs alone. At the 80 percent sampling, the annual percent change in the composite rate is increased to approximately 1.64%, compared to 1.25% when considering operating cost alone. Given that the average annual change in PPI is 1.16%, whereas the average annual change in PPI-1 is 0.16%, the change in pipeline costs when considering both the operating and capital costs is clearly more nearly captured by PPI than by PPI-1.

29.   As AOPL itself observed in its petition for order on remand, the issue of whether to use net plant as a proxy for capital costs "need not be resolved at this time because ignoring net plant analysis does not change Dr. Kahn's conclusion that the PPI is the appropriate index."[14] Likewise, our analysis of the cumulative operating cost changes corresponds more closely to the cumulative change in the PPI than to PPI-1, similar to the analysis of Dr. Kahn. Therefore, the addition of the increases in net plant only confirms that PPI is the better index to use rather than PPI-1 if we were to use net plant as a proxy for capital costs as we did in Order Nos. 561/561-A.

30.   As we provided in Order Nos. 561/561-A, we will undertake a review of pipeline cost in 2005 to determine whether the change in the PPI still reflects the best measure of oil pipeline cost changes during the current five-year period.

Interim Rate Change Filings

31.   AOPL requests that the Commission allow pipelines to compute the starting point of the change in the ceiling rate as though the PPI had been in effect since the beginning of the current five-year period. In other words, it requests that the Commission give effect to the cumulative changes in the PPI since July 1, 2001. We agree that this should be done. The difference is a slight increase in the maximum ceiling rate that may be charged, but equities dictate that we should attempt to put the parties in the same position they would have been in had we adopted the PPI in our December 2000 order.[15] We will therefore allow pipelines to recalculate the maximum ceiling rates that they may charge their customers as though the PPI had been in effect throughout the current period. Moreover, similar to what we did in Order No. 561, we will allow pipelines to file for

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[14]Petition at 5, n. 4.

[15]See example of calculation in Appendix B.

increases based on the newly calculated ceiling rate upon issuance of this order, to be effective 30 days after such filing.

The Commission orders:

(A)   The appropriate index to be utilized for oil pipeline ratemaking for the five-year period under review is the PPI, as discussed in the body of this order.

(B)   Upon issuance of this order, pipelines may file to change their tariff rates to reflect the applicable ceiling levels based on the PPI, calculated as though it had been in effect from July 1, 2001. Such rates may be made effective upon 30 days notice.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

Rate of Change in Operating Costs
Compared to Changes in PPI and PPI-1
For the Period of 1994 - 1999

	% Change - Cumulative	% Change - Annual
Based Upon Middle 50%		
Unweighted Average	3.98%	.80%
Weighted Average	10.23%	2.05%
Median	5.59%	1.12%
Composite	6.60%	1.32%
Based Upon Middle 80%		
Unweighted Average	5.11%	1.02%
Weighted Average	8.08%	1.61%
Median	5.59%	1.12%
Composite	6.26%	1.25%
PPI	5.79%	1.16%
PPI-1	.79%	.16%

To establish new index ceiling levels in compliance with this order, oil pipelines must recalculate as follows using seasonally-adjusted PPI-FG,[1] instead of the previously used PPI-FG minus one percent:

(1)   Multiply their July 1, 2000 - June 30, 2001 index ceiling levels by the PPI-FG index of 1.037594 and round to the nearest hundredth of a cent[2] to compute their index ceiling levels for the period July 1, 2001 - June 30, 2002.

(2)   Multiply their July 1, 2001 - June 30, 2002 index ceiling levels by the PPI-FG index of 1.019565 and round to the nearest hundredth of a cent to compute their index ceiling levels for the period July 1, 2002 - June 30, 2003.[3]

For example, if the July 1, 2000 - June 30, 2001 index ceiling level were 50.25 cents, that ceiling level would be multiplied by 1.037594 (50.25 x 0.1.037594 = 52.139099). Rounded to the nearest hundredth of a cent, the index ceiling level for the period July 1, 2001 - June 30, 2002 would be 52.14 cents. The July 1, 2001 - June 30, 2002 index ceiling level of 52.14 cents would then be multiplied by 1.019565 (52.14 x 1.019565 = 53.160119). Rounded to the nearest hundredth of a cent, the index ceiling level for the period July 1, 2002 - June 30, 2003 would be 53.16 cents.

The index to be issued in May 2003 will be applied to the pipelines' July 1, 2002 - June 30, 2003 index ceiling levels to determine the appropriate ceiling levels for the period July 1, 2003 - June 30, 2004.

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[1]This index, issued annually in Docket No. RM93-11-000, is the percentage change (expressed as a decimal) in the annual average Producer Price Index for Finished Goods (PPI-FG) from the previous year.

[2]All ceiling levels for all pipelines must be rounded to the nearest hundredth of a cent, i.e., to two decimal places. If the third decimal is five or more, the second decimal place number should be rounded up; if the third decimal place number is four or less, the second decimal place number should be rounded down.

[3]The computation of the factors used for determining the ceiling level changes for the periods July1, 2001 - June 30, 2002 and July 1, 2002 - June 30, 2003 are found in the annual notices issued in Docket No. RM93-11-000 on May 18, 2001 and May 15, 2002.