173 FERC ¶ 61,245
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 342

[Docket No. RM20-14-000]

Five-Year Review of the Oil Pipeline Index

December 17, 2020

AGENCY: Federal Energy Regulatory Commission.

ACTION: Order Establishing Index Level.

SUMMARY: The Federal Energy Regulatory Commission (Commission) issues this Final Order concluding its five-year review of the index level used to determine annual changes to oil pipeline rate ceilings. The Commission establishes an index level of Producer Price Index for Finished Goods plus 0.78% (PPI-FG+0.78%) for the five-year period commencing July 1, 2021.

DATE: This order will become effective [date of publication in the *Federal Register*].

FOR FURTHER INFORMATION CONTACT:

Evan Steiner (Legal Information)
Office of the General Counsel
888 First Street, NE
Washington, DC 20426
(202) 502-8792

Monil Patel (Technical Information)
Office of Energy Market Regulation
888 First Street, NE
Washington, DC 20426
(202) 502-8296

SUPPLEMENTARY INFORMATION:

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Before Commissioners: James P. Danly, Chairman;
Neil Chatterjee and Richard Glick.

Five-Year Review of the Oil Pipeline Index Docket No. RM20-14-000

ORDER ESTABLISHING INDEX LEVEL

(December 17, 2020)

1. On June 18, 2020, the Commission issued a Notice of Inquiry initiating its five-year review to establish the oil pipeline index level for the July 1, 2021 to June 30, 2026 time period.[1] The NOI requested comment regarding: (a) the proposed index level of Producer Price Index for Finished Goods plus 0.09% (PPI-FG+0.09%); and (b) any alternative methodologies for calculating the index level.

2. For the reasons discussed below, we adopt an index level of PPI-FG+0.78%. The departure from the NOI results from: (a) trimming the data set to the middle 80% of cost changes; (b) adopting Designated Carriers'[2] proposal to adjust the data set to remove the effects of the Commission's 2018 income tax policy change for Master Limited Partnership (MLP)-owned pipelines; and (c) updated Form No. 6 filings and other corrections to the data set. The Commission's indexing calculations and other data

[1] *Five-Year Review of the Oil Pipeline Index*, 171 FERC ¶ 61,239, at P 1 (2020) (NOI).

[2] Designated Carriers include Buckeye Partners, L.P., Colonial Pipeline Company, Energy Transfer LP, Enterprise Products Partners L.P., and Plains All American Pipeline, L.P.

analysis are contained in Attachment A to this order. As discussed below, we decline to adopt other changes to the index calculation proposed by commenters.

I. Background

A. Establishment of the Indexing Methodology

3. The Energy Policy Act of 1992 (EPAct 1992) required the Commission to establish a "simplified and generally applicable" ratemaking methodology[3] that was consistent with the just and reasonable standard of the Interstate Commerce Act (ICA).[4] To implement this mandate, the Commission issued Order No. 561[5] establishing an indexing methodology that allows oil pipelines to change their rates subject to certain ceiling levels as opposed to making cost-of-service filings.[6]

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[3] Pub. L. No. 102-486 1801(a), 106 Stat. 3010 (Oct. 24, 1992). This mandate to establish a simplified and generally applicable ratemaking methodology specifically excluded the Trans-Alaska Pipeline System (TAPS), or any pipeline delivering oil, directly or indirectly, into TAPS. *Id.* 1804(2)(B).

[4] 49 U.S.C. app. 1 *et seq.*

[5] *Revisions to Oil Pipeline Regulations Pursuant to Energy Policy Act of 1992*, Order No. 561, 58 FR 58753 (Nov. 4, 1993) FERC Stats. & Regs. ¶ 30,985 (1993) (cross-referenced at 65 FERC ¶ 61,109), *order on reh'g*, Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 (1994) (cross-referenced at 68 FERC ¶ 61,138), *aff'd sub nom. Ass'n of Oil Pipe Lines v. FERC*, 83 F.3d 1424 (D.C. Cir. 1996) (*AOPL I*).

[6] Pursuant to the Commission's indexing methodology, oil pipelines change their rate ceiling levels effective every July 1 by "multiplying the previous index year's ceiling level by the most recent index published by the Commission." 18 CFR § 342.3(d)(1). Oil pipelines may adjust their rates to the ceiling levels pursuant to Commission's regulations so long as no protest or complaint demonstrates that the index rate change substantially diverges from the pipeline's cost changes. *Id.* § 343.2(c)(1).

4. In Order No. 561, the Commission committed to review the index level every five years to ensure that it adequately reflects changes to industry costs.[7] The Commission conducted five-year index reviews in 2000,[8] 2005,[9] 2010,[10] and 2015.[11] In the 2015 review, the Commission established the index level of PPI-FG+1.23%, to be effective for the five-year period beginning July 1, 2016.[12] The index level established herein results from the Commission's fifth five-year review of the index level.

B. The Kahn Methodology

5. In Order No. 561 and each successive five-year review, the Commission has calculated the index level based upon a methodology developed by Dr. Alfred E. Kahn.[13] The Kahn Methodology uses pipeline data from Form No. 6, page 700 from the prior

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[7] Order No. 561, FERC Stats. & Regs. ¶ 30,985 at 30,941.

[8] *Five-Year Review of Oil Pipeline Pricing Index*, 93 FERC ¶ 61,266 (2000), *aff'd in part and remanded in part sub nom. Ass'n of Oil Pipe Lines v. FERC*, 281 F.3d 239 (D.C. Cir. 2002) (*AOPL II*), *order on remand*, 102 FERC ¶ 61,195 (2003), *aff'd sub nom. Flying J Inc. v. FERC*, 363 F.3d 495 (D.C. Cir. 2004).

[9] *Five-Year Review of Oil Pipeline Pricing Index*, 114 FERC ¶ 61,293 (2006) (2005 Index Review).

[10] *Five-Year Review of Oil Pipeline Pricing Index*, 133 FERC ¶ 61,228 (2010) (2010 Index Review), *reh'g denied*, 135 FERC ¶ 61,172 (2011).

[11] *Five-Year Review of the Oil Pipeline Index*, 153 FERC ¶ 61,312 (2015) (2015 Index Review), *aff'd sub nom. Ass'n of Oil Pipe Lines v. FERC*, 876 F.3d 336 (D.C. Cir. 2017) (*AOPL III*).

[12] 2015 Index Review, 153 FERC ¶ 61,312 at P 9.

[13] The United States Court of Appeals for the District of Columbia Circuit has affirmed the Commission's use of the Kahn Methodology. *AOPL I*, 83 F.3d at 1433-37; *Flying J Inc. v. FERC*, 363 F.3d at 497-500.

five-year period to determine an appropriate adjustment to be applied to PPI-FG. The calculation is as follows. Each pipeline's cost change on a per-barrel mile basis over the prior five-year period (e.g., the years 2014-2019 in this proceeding) is calculated. In order to remove statistical outliers and spurious data, under the Kahn Methodology, the resulting data set is trimmed to those oil pipelines in the middle 50% of cost changes (middle 50%). The Kahn Methodology then calculates three measures of the middle 50%'s central tendency: the median, the mean, and a weighted mean.[14] The Kahn Methodology calculates a composite by averaging these measures of central tendency and measures the difference between the composite and the PPI-FG over the prior five-year period. The Commission then sets the index level at PPI-FG plus (or minus) this differential.

C. The 2020 Five-Year Review

6. On June 18, 2020, the Commission issued the NOI initiating its five-year review to establish the index level for the July 1, 2021 to June 30, 2026 period. The NOI proposed an index level of PPI-FG+0.09% and requested comment on this proposal and any alternative methodologies for calculating the index level.[15] The Commission explained that commenters could address issues including, but not limited to, different

[14] The weighted mean assigns a different weight to each pipeline's cost change based upon the pipeline's total barrel-miles.

[15] NOI, 171 FERC ¶ 61,239 at PP 7-8.

data trimming methodologies and whether, and if so how, the Commission should reflect the effects of cost-of-service policy changes in the index calculation.[16]

II. Comments

7. Initial comments filed in response to the NOI were due on August 17, 2020, and reply comments were due on September 11, 2020. Comments were filed by the Association of Oil Pipe Lines (AOPL) (together with Designated Carriers, Pipelines), Designated Carriers, Kinder Morgan, Inc., Colonial Pipeline Company, Joint Commenters,[17] the Liquids Shippers Group (Liquids Shippers),[18] the Canadian Association of Petroleum Producers (CAPP) (together with Joint Commenters and Liquids Shippers, Shippers), the Energy Infrastructure Council (EIC), the Pipeline Safety Trust, and the Pipeline and Hazardous Materials Safety Administration (PHMSA).

8. The commenters discuss numerous issues related to the proposed index level, including statistical data trimming and whether the index should incorporate the effects of the Commission's 2018 policy change requiring MLP-owned pipelines to eliminate the income tax allowance and previously accrued Accumulated Deferred Income Taxes

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[16] *Id.* P 8.

[17] Joint Commenters include: the Airlines for America; Chevron Products Company; the National Propane Gas Association; and Valero Marketing and Supply Company.

[18] For purposes of this proceeding, Liquids Shippers include: Apache Corporation; Cenovus Energy Marketing Services Ltd.; ConocoPhillips Company; Devon Gas Services, L.P.; Equinor Marketing & Trading US Inc.; Fieldwood Energy LLC; Marathon Oil Company; Murphy Exploration and Production Company—USA; Ovintiv Marketing Inc.; and Pioneer Natural Resources USA, Inc.

(ADIT) balances from their page 700 summary costs of service (Income Tax Policy Change).[19] In addition, Liquids Shippers propose to replace the weighted mean in the Kahn Methodology's calculation of central tendency with the weighted median and to replace the returns on equity (ROE) reported on page 700 for 2014 and 2019 with standardized, industry-wide ROEs for both years. The commenters propose varying index levels, including AOPL's proposal to adopt an index level of at least PPI-FG+0.79%, Designated Carriers' proposals of PPI-FG+1.27% (using the middle 80% of cost changes) or PPI-FG+0.82% (using the middle 50%), Joint Commenters' proposal of PPI-FG–0.19%, and Liquids Shippers' proposal of PPI-FG–1.58%.

III. Discussion

9. We adopt an index level of PPI-FG+0.78% for the five-year period beginning July 1, 2021. We adopt Designated Carriers' proposed adjustment to remove the effects of the Income Tax Policy Change from the page 700 data used to derive the index and we adopt Pipelines' proposal to calculate the index level using the middle 80% of cost changes. We also reject Liquids Shippers' proposals to: (a) calculate the composite measure of the data set's central tendency using the median of the barrel-mile weighted unit cost change; and (b) replace the reported page 700 ROEs for 2014 and 2019 with standardized ROEs. We also address arguments regarding negotiated rate contracts as

[19] *Inquiry Regarding the Commission's Policy for Recovery of Income Tax Costs*, 162 FERC ¶ 61,227, at P 8 (2018 Income Tax Policy Statement), *reh'g denied*, 164 FERC ¶ 61,030, at P 13 (2018).

raised by CAPP, pipeline costs resulting from integrity management regulations, and the treatment of mergers and acquisitions in the data set.

A. 2018 MLP Income Tax Policy Change

1. Comments

10. Commenters disagree about whether the Commission should incorporate the effects of the Income Tax Policy Change in the index calculation.[20] Pipelines argue that the Income Tax Policy Change should not be incorporated and present proposals for adjusting the page 700 data to remove its effects from the calculation. Shippers oppose Pipelines' adjustments and contend that the policy change's effects are appropriately reflected in the index.

11. AOPL argues that its proposed adjustment to eliminate the effects of the Income Tax Policy Change is necessary to calculate an index that accurately measures cost changes incurred during the 2014-2019 period and predicts the likely rate of future cost changes. According to AOPL, eliminating the income tax allowance from page 700 did not affect costs because MLP pipelines' income tax costs were the same before and after the policy change. Thus, AOPL asserts that the Commission should remove the policy change's effects to ensure that the page 700 data reflects consistent policies.

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[20] Commenters either agree or do not dispute that: (a) the effects of the Tax Cuts and Jobs Act of 2017 (TCJA) are appropriately reflected in the data set; and (b) no adjustment is necessary to reflect the Commission's May 21, 2020 policy statement revising its ROE policy for natural gas and oil pipelines because that policy change occurred after the conclusion of the 2014-2019 period. *Inquiry Regarding the Commission's Policy for Determining Return on Equity*, 171 FERC ¶ 61,155 (2020) (ROE Policy Statement).

12. To remove the policy change's effects from the data set, AOPL's witness Dr. Shehadeh proposes to adjust the reported page 700 data for pipelines that were MLPs throughout the 2014-2019 period based upon the following steps. First, Dr. Shehadeh eliminates the 2014 income tax allowance for all pipelines that reduced their page 700 income tax allowance for 2016 from a positive number to zero following the Income Tax Policy Change.[21] Second, Dr. Shehadeh adjusts these pipelines' 2014 page 700 return on rate base to reflect the elimination of their previously accumulated ADIT balances.[22] This adjustment involves, for each pipeline: (a) taking the difference between the 2016 rate base reported in the pipeline's April 18, 2017 page 700 filing (with ADIT balances included) and the higher 2016 rate base reported in its April 18, 2018 filing (with ADIT balances removed); (b) adding this amount to the 2014 rate base; and (c) calculating the return on the higher 2014 rate base by multiplying the higher rate base by the 2014 weighted average cost of capital.[23]

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[21] 2016 is the only year for which pipelines filed page 700 data reflecting both the 2018 Income Tax Policy Change and the Commission's prior income tax allowance policy. Oil pipelines filed page 700 data for 2016 on two occasions: (1) as current-year data in the Form No. 6 filings due for submission on April 18, 2017, before the Income Tax Policy Change; and (2) as prior-year data in Form No. 6 filings due for submission on April 18, 2018, after the Income Tax Policy Change. *See* 2018 Income Tax Policy Statement, 162 FERC ¶ 61,227 at P 46 & n.83 (directing MLP pipelines to eliminate the income tax allowance in the 2016 and 2017 data reported in their April 18, 2018 Form No. 6, page 700 filings).

[22] AOPL Initial Comments at 28-29 (citing Shehadeh Initial Decl. at 14-15).

[23] *Id.*; Shehadeh Initial Decl. at 16.

13. Designated Carriers support AOPL's position and propose to extend AOPL's proposed adjustments to all pipelines that were owned by MLPs in 2014 and later converted to C-Corporations, not just those pipelines that were MLPs throughout the 2014-2019 data period. Designated Carriers contend that this approach is necessary to avoid treating one class of MLPs (those that were MLPs in 2014 and remained MLPs in 2019) differently from another class (those that were MLPs in 2014 and converted to C-Corporations during the review period).[24]

14. Shippers oppose Pipelines' proposed adjustments and argue that the Commission should incorporate the effects of the Income Tax Policy Change in the index calculation. Shippers contend that the index is meant to reflect changes to recoverable pipeline costs as determined under the Commission's Opinion No. 154-B cost-of-service methodology.[25] Because the Income Tax Policy Change prohibits MLP pipelines from recovering an income tax allowance under that methodology, Shippers assert that the index should reflect this reduction in recoverable costs.[26]

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[24] Designated Carriers Initial Comments at 21 (citing Webb Initial Affidavit at P 24).

[25] Joint Commenters Reply Comments at 13-14 (quoting 2015 Index Review, 153 FERC ¶ 61,312 at P 13) (citing *AOPL III*, 876 F.3d at 345-46); Liquids Shippers Reply Comments at 6 (quoting *AOPL III*, 876 F.3d at 345; 2015 Index Review, 153 FERC ¶ 61,312 at P 13).

[26] Joint Commenters Initial Comments at 12-15; Joint Commenters Reply Comments at 13-15; Liquids Shippers Initial Comments at 33-42; Liquids Shippers Reply Comments at 6-7.

15. Furthermore, Shippers claim that adopting Pipelines' proposals would contravene the Commission's commitment in the 2018 Income Tax Policy Statement to "incorporate the effects of [the policy change] on industry-wide oil pipeline costs" and "ensure that the industry-wide reduced costs are incorporated on an industry-wide basis as part of" the 2020 five-year review.[27] Shippers argue that the Commission opted to incorporate these effects in the index in lieu of directing pipelines to submit rate filings or initiating rate investigations to eliminate the income tax double recovery from MLP oil pipeline rates, as the Commission did for MLP natural gas pipelines. Thus, Shippers contend that the Commission must reflect the elimination of the income tax allowance and associated ADIT balances from MLP oil pipelines' page 700 costs of service in order to bring those pipelines' rates in line with their recoverable costs.[28]

2. Commission Determination

16. Whether the index should reflect the effects of cost-of-service policy changes is an issue of first impression.[29] For the reasons discussed below, we adopt Designated

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[27] Joint Commenters Reply Comments at 16-17 (quoting 2018 Income Tax Policy Statement, 162 FERC ¶ 61,227 at P 46); Liquids Shippers Initial Comments at 34-35 (same).

[28] Liquids Shippers Initial Comments at 34-35, 40; *see also* Joint Commenters Reply Comments at 16-17 (citing 2018 Income Tax Policy Statement, 162 FERC ¶ 61,227 at P 46).

[29] This issue did not arise prior to the 2015 Index Review because the Commission measured industry-wide cost changes in the Order No. 561 Rulemaking and the 2000, 2005, and 2010 index reviews using Form No. 6 accounting data, rather than the summary cost-of-service data reported on page 700. Because the Commission did not adopt any significant cost-of-service policy changes during the 2009-2014 review period,

Carriers' proposal to adjust the page 700 data set to remove the effects of the Income Tax Policy Change from the index calculation. As a result, for all pipelines that were MLPs in 2014, we reduce the 2014 income tax allowance to zero and revise the 2014 return on rate base to reflect the removal of ADIT. We find that this adjustment is necessary to accurately calculate the index.

17. First, the purpose of indexing is to allow the indexed rate to keep pace with industry-wide cost changes,[30] not to reflect alterations to the Commission's Opinion No. 154-B cost-of-service methodology.[31] Although the Commission uses the Opinion No. 154-B methodology cost data on page 700 for purposes of the five-year review, changes to the Opinion No. 154-B methodology itself are distinct from the annual changes to the pipeline costs that are input into the Opinion No. 154-B methodology. Where the Commission modifies an Opinion No. 154-B cost-of-service policy used to

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the Commission likewise did not have occasion to address this issue in the 2015 Index Review.

[30] Order No. 561, FERC Stats. & Regs. ¶ 30,985 at 30,948, 30,950. Capital costs such as income taxes are among the industry-wide costs that the index is designed to measure. *E.g.*, 2015 Index Review, 153 FERC ¶ 61,312 at P 17.

[31] In 2015, the Commission adopted page 700 because it included actual total cost-of-service data reflecting the costs recoverable under the Opinion No. 154-B methodology. 2015 Index Review, 153 FERC ¶ 61,312 at P 13. We reaffirm that using page 700 data remains a superior means of measuring those recoverable costs as compared to the prior methodology from which the Commission departed in the 2015 Index Review. *Id.* PP 12-16. For example, the Opinion No. 154-B methodology reflected on page 700 more appropriately addresses capital costs. *Id.* PP 14-15 & nn.29-30. However, the purpose of the index is to address changes to those recoverable costs, not changes to what the Commission deems recoverable, such as the complete elimination of a particular cost category such as the MLP income tax allowance.

measure recoverable costs midway through the five-year review period, the Opinion No. 154-B cost of service reported on page 700 for the first and last years of the period will reflect different sets of policies. Just as a business must account for changes to its accounting policies when comparing its costs over two different periods, we must make a similar adjustment to the reported page 700 data here to derive an "apples-to-apples" comparison of pipeline cost changes. By contrast, comparing data reported under different sets of policies will produce a less accurate measure of normal industry-wide cost changes.

18. Second, although we recognize that in the 2018 Income Tax Policy Statement the Commission stated that it would "incorporate the effects of the post-*United Airlines'* policy changes on industry-wide oil pipeline costs in the 2020 five-year review of the oil pipeline index level,"[32] we conclude that the index is not an appropriate mechanism for incorporating the post-*United Airlines'* policy changes. The index allows for incremental rate adjustments to enable pipelines to recover normal cost changes in future years. It is not a true-up designed to remedy prior over- or under-recoveries in pre-existing rates resulting from cost-of-service policy changes during the prior five-year period. Accordingly, we find that it would be improper to address any double recovery via the index.

19. Third, it is not clear that the double recovery of MLP pipelines' income tax costs was ever incorporated into the index. Before the Commission updated its calculation of

[32] 2018 Income Tax Policy Statement, 162 FERC ¶ 61,227 at P 46.

the index in the 2015 Index Review to use page 700 data, the Kahn Methodology used net carrier property as a proxy for capital costs and income taxes.[33] This proxy did not reflect changes in the Commission's Opinion No. 154-B methodology, including changes to the Commission's income tax policy.[34] As a result, the Commission's prior policies permitting MLP pipelines to recover a partial[35] or full[36] income tax allowance were never directly incorporated into the index.[37] Because no prior index calculation incorporated the policies allowing MLP pipelines to recover an index tax allowance, it is not necessary

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[33] 2015 Index Review, 153 FERC ¶ 61,312 at P 14 (citing Order No. 561-A, FERC Stats & Regs. ¶ 31,000 at 31,096, 31,098).

[34] Net carrier property measures changes to the book value of the pipeline's asset base but does not incorporate changes to the costs of financing the asset base, such as ROE. As the Commission explained in the 2015 Index Review, the relationship between net carrier property and income tax costs is attenuated because income taxes are dependent upon the pipeline's ROE, not merely the size of the pipeline's asset base. 2015 Index Review, 153 FERC ¶ 61,312 at P 14.

[35] Under the Commission's *Lakehead* policy from 1995 to 2005, partnership entities like MLP pipelines could recover an income tax allowance for income attributable to corporate partners, but not for income attributable to individuals or other non-corporate partners. *See Lakehead Pipe Line Co., L.P.*, Opinion No. 397, 71 FERC ¶ 61,338 (1995), *reh'g denied*, Opinion No. 397-A, 75 FERC ¶ 61,181, at 61,594-99 (1996).

[36] In 2005, the Commission departed from the *Lakehead* policy and issued a policy statement announcing that it would permit partnership entities to recover an income tax allowance for income attributable to all partners regardless of the partner's corporate form, to the extent that the partner had an actual or potential income tax liability on that income. *Inquiry Regarding Income Tax Allowances*, 111 FERC ¶ 61,139, at P 32 (2005).

[37] MLP pipelines therefore would not have benefitted from these policies unless they established an initial cost-based rate under section 342.2(a) of the Commission's regulations or changed an existing rate pursuant to the cost-of-service methodology under section 342.4(a) while these policies were in effect. 18 CFR 342.2(a), 342.4(a).

to reflect the policy change denying those pipelines an income tax allowance in the calculation here.

20. Accordingly, we adopt Designated Carriers' proposal to adjust the historical page 700 data for 2014 to remove the effects of the Income Tax Policy Change for all pipelines that were MLPs in 2014, including those that later converted to a business form (such as a C-Corporation) eligible to recover an income tax allowance. This approach is broader than AOPL's more limited proposal to adjust the data for only those pipelines that were MLPs in 2014 and that continued to be MLPs for the remainder of the 2014-2019 period. Because the Commission's revised income tax allowance policy applies equally to all MLP pipelines,[38] we conclude that it is appropriate to make these adjustments for all pipelines that were MLPs in 2014, regardless of subsequent changes in corporate form. By applying these adjustments to all pipelines subject to the Income Tax Policy Change, we will ensure that the entirety of the page 700 data reflects the same MLP income tax allowance policy for both 2014 and 2019. Furthermore, those pipelines that converted from the MLP form to the corporate form incurred increased tax costs as a result of the change in business form. This cost change, just like any other cost change, should be reflected in the index.[39]

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[38] *See* 2018 Income Tax Policy Statement, 162 FERC ¶ 61,227 at PP 45-46.

[39] As the Commission has explained, investors in MLP pipelines and C-Corporation pipelines incur an investor-level income tax cost that is reflected in the pipeline's rate of return. *SFPP, L.P.*, Opinion No. 511-C, 162 FERC ¶ 61,228, at PP 22-24 (2018), *order on reh'g and compliance*, Opinion No. 511-D, 166 FERC ¶ 61,142, at PP 10-11 (2019), *aff'd*, *SFPP, L.P. v. FERC*, 967 F.3d 788, 795-97 (D.C. Cir. 2020). However, unlike MLPs, corporations incur an additional corporate

B. Statistical Data Trimming

1. Comments

21. AOPL argues that the Commission should calculate the index level by trimming the data set to the middle 80%.[40] AOPL asserts that absent errors in the data, it is preferable to use more data points because this makes the measurement of industry-wide cost changes more precise.[41] AOPL contends that using the middle 50% in this proceeding would go beyond excluding statistical outliers by removing valuable data from the analysis, resulting in a less accurate measurement of industry cost changes.[42]

22. In addition, AOPL maintains that considerations the Commission has previously found to support trimming the data set to the middle 50% should not control here. It states that whereas the Commission found in Order No. 561 that data reporting errors supported restricting the analysis to the middle 50%, subsequent improvements in reporting accuracy obviated these concerns.[43] Furthermore, AOPL states that contrary to the Commission's finding in the 2015 Index Review, the fact that pipelines in the middle

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income tax liability prior to the distributions to investors. *See* Opinion No. 511-C, 162 FERC ¶ 61,228 at PP 22 n.44, 25 n.53.

[40] AOPL Initial Comments at 17-24; AOPL Reply Comments at 7-9.

[41] AOPL Initial Comments at 18 (quoting Shehadeh Initial Decl. at 23); AOPL Reply Comments at 9.

[42] AOPL Initial Comments at 19. Trimming the data set to the middle 50% would exclude 80 of the 160 pipelines in the data set, whereas trimming to the middle 80% would exclude 32 pipelines.

[43] AOPL Initial Comments at 21-22 (citing *AOPL I*, 83 F.3d at 1433).

80% are further removed from the median does not support excluding their cost data unless that data is anomalous or spurious.[44] Designated Carriers, Kinder Morgan, and EIC support AOPL's proposal to rely solely upon the middle 80%.[45]

23. Shippers oppose use of the middle 80% and argue that the record does not provide a sufficient basis for departing from the Commission's practice in the 2015 and 2010 Index Reviews of relying solely upon the middle 50%.[46] Shippers cite the Commission's findings in the 2015 and 2010 Index Reviews that using the middle 50% provides a simple and effective method of excluding outlying data from the sample and minimizes the need to analyze individual pipeline data. Here, Shippers argue that the middle 80% contains outlying data and that AOPL did not undertake a company-by-company review of the incremental data included in the middle 80% to prove otherwise.[47] Joint Commenters also contend that the middle 80% is more dispersed than the middle 50% in this proceeding and the middle 80% in prior index reviews, indicating that it contains cost changes that are not representative of typical

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[44] *Id.* at 23 (citing *AOPL II*, 281 F.3d at 245-46).

[45] Designated Carriers Initial Comments at 7; Kinder Morgan Initial Comments at 3; EIC Comments at 7-8, 17.

[46] Joint Commenters Initial Comments at 15-16; Joint Commenters Reply Comments at 5-7; Liquids Shippers Reply Comments at 17; CAPP Reply Comments at 15-16.

[47] Joint Commenters Reply Comments at 10 (citing Brattle Group Report at 13-20); Brattle Group Report at 22; Liquids Shippers Reply Comments at 19-21 (citing Crowe Reply Aff. at 4-5).

experience.[48] Moreover, Shippers assert that it is unnecessary to use the middle 80% in this proceeding to obtain a representative sample of industry cost changes because the middle 50% contains a greater percentage of barrel-miles subject to the index (82%) than in the 2015 Index Review (56%) or the 2010 Index Review (76%).[49]

24. Shippers further argue that AOPL's arguments for using the middle 80% are unavailing and inconsistent with the Commission's findings in the 2015 Index Review.[50] Joint Commenters maintain that the Commission has previously rejected the argument that using the middle 50% will bias the index calculation downwards.[51] Liquids Shippers state that AOPL incorrectly argues that the sole purpose of statistical data trimming is to remove inaccurate data and statistical outliers. According to Liquids Shippers, data trimming also serves to exclude data that, while accurate, fails to represent normal industry cost experience.[52]

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[48] Joint Commenters Reply Comments, Brattle Group Report at 17-20.

[49] Joint Commenters Reply Comments at 7-8; Liquids Shippers Reply Comments at 26.

[50] Joint Commenters Reply Comments at 9-11 (quoting 2015 Index Review, 153 FERC ¶ 61,312 at P 42 n.80) (citing 2015 Index Review, 153 FERC ¶ 61,312 at P 43); Liquids Shippers Reply Comments at 23-25 (citing 2015 Index Review, 153 FERC ¶ 61,312 at PP 40, 43).

[51] Joint Commenters Reply Comments, Brattle Report at PP 46-48 (citing 2015 Index Review, 153 FERC ¶ 61,312 at P 43; Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 at 31,098).

[52] Liquids Shippers Reply Comments at 22-23 (citing Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 at 31,097).

2. Commission Determination

25. Based upon our review of the instant record, we calculate the index level by trimming the data set to the middle 80%. We recognize that this is a departure from the Commission's practice in the 2015 and 2010 Index Reviews of trimming the data set to the middle 50%.[53] An agency may change its position in light of experience or further analysis so long as it articulates a satisfactory explanation for its new position.[54] Thus, notwithstanding the Commission's determinations in the 2015 and 2010 Index Reviews, the Commission "retain[s] a substantial measure of freedom to refine, reformulate, and even reverse [its] precedents in the light of new insights"[55] if it describes good reasons for the new policy.[56] In the NOI, the Commission requested comments that address

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[53] 2015 Index Review, 153 FERC ¶ 61,312 at PP 42-44; 2010 Index Review, 133 FERC ¶ 61,228 at PP 60-63.

[54] *E.g.*, *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2125-26 (2016) ("Agencies are free to change their existing policies so long as they provide a reasoned explanation for the change . . . . But the agency must at least display awareness that it is changing position and show that there are good reasons for the new policy.") (internal quotation mark and citations omitted); *New England Power Generators Ass'n, Inc. v. FERC*, 879 F.3d 1192, 1201 (D.C. Cir. 2018) ("So long as any change is reasonably explained, it is not arbitrary and capricious for an agency to change its mind in light of experience . . . or further analysis or other factors indicating that the agency's earlier decision should be altered or abandoned." (citing *FCC v. Fox Television Studios*, 556 U.S. 502, 514-16 (2009)); *Defenders of Wildlife v. Zinke*, 856 F.2d 1248, 1262 (9th Cir. 2017).

[55] *Davila-Bardales v. INS*, 27 F.3d 1, 5 (1st Cir. 1994) (citing *Rust v. Sullivan*, 500 U.S. 173, 186-87 (1991); *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983)).

[56] *FCC v. Fox Television Studios, Inc.*, 556 U.S. at 515; *see also id.* (explaining that an agency "need not demonstrate to a court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one; it suffices that the new policy is

whether the Commission should continue to trim the data set to the middle 50% or adopt an alternative approach to data trimming, including using the middle 80%.[57] Based upon our review of the resulting record, we conclude that using the middle 80% is appropriate for this index review.

26. Three primary considerations support using the middle 80% instead of the middle 50% in this proceeding. First, we find it is appropriate to consider more data in measuring industry-wide cost changes rather than less. The Kahn Methodology derives the index level by computing the central tendency of a statistically trimmed data sample. As a general matter, considering a broader sample of data should enhance the Commission's calculation of the central tendency of industry cost experience. In this proceeding, using the middle 50% would exclude 48 pipelines[58] from the Commission's review of industry-wide cost changes over the 2014-2019 period. We are reluctant to discard this additional data.

27. Second, we find in this proceeding that "normal" cost changes are best defined by using the inclusive data sample embodied in the middle 80%. Prematurely discarding data prior to determining the central tendency could skew the index such that it does not actually reflect industry-wide trends. By using this inclusive data sample, the

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permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better") (emphasis in original).

[57] NOI, 171 FERC ¶ 61,239 at P 9 (citing 2005 Index Review, 114 FERC ¶ 61,293).

[58] Shehadeh Initial Decl. at 26.

Commission is able to accurately identify the central tendency of industry-wide cost changes that reflects the "normal" cost changes recoverable by the index.[59] Moreover, even if the middle 80% (or, for that matter, the middle 50%) includes relatively high cost changes at its upper bound, the index average will be significantly below that upper bound and will not allow pipelines to recover such extraordinary costs.[60] Rather, the index will reflect the central tendency of the industry-wide data, which, by definition, represents normal industry-wide costs. Absent a compelling showing that including data from the middle 80% distorts our measurement of the industry-wide central tendency, we are inclined to consider this more comprehensive data set.

28. Third, along similar lines, we emphasize that mere generalized concerns about outlying or unrepresentative data do not justify excluding the experiences of pipelines in the incremental 30% (i.e., those pipelines that are included in the middle 80% but not the middle 50%) from our review of industry cost changes. Unlike in prior index reviews,

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[59] The definition of idiosyncratic data can vary from review to review. In any given five-year review period, an historically high level of cost change (due to, e.g., new regulatory requirements) may be widely experienced by pipelines across the industry and, accordingly, will be reflected in the central tendency of the industry-wide data and thus identified as a "normal" cost change. On the other hand, if during a different five-year review period, only a small number of pipelines experience that same level of cost change, then the cost change will be idiosyncratic and will differ significantly from the central tendency of the industry-wide data. Generally, the best method of identifying normal and idiosyncratic costs is to consider an inclusive and broadly representative data set such as the middle 80% and to compare those costs to the central tendency of that data set.

[60] Likewise, if the lower bound of the middle 80% includes pipelines with cost changes that are below industry norms, the index average will significantly exceed this lower bound.

the record in this proceeding does not contain sufficient evidence that pipelines in the incremental 30% experienced anomalous cost changes that would skew the index. In the 2015 and 2010 Index Reviews, commenters presented detailed analyses demonstrating that the incremental 30% contained anomalous cost changes resulting from factors not broadly shared across the industry that would materially distort the index calculation.[61] The record here does not contain a comparably detailed analysis of the incremental 30%. Although Joint Commenters identify 7 pipelines (out of 48) with anomalous cost changes in the incremental 30%, removing those pipelines from the sample would only marginally affect the central tendency of the middle 80%.[62] Furthermore, the record contains no evidence that the cost experiences of the remaining 41 pipelines similarly diverged from industry norms.[63] Finally, the mere presence of pipelines with anomalous cost

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[61] For instance, commenters proposing various manual data trimming methodologies demonstrated that the middle 80% included pipelines whose cost changes resulted from idiosyncratic circumstances such as major rate base expansions or increases in net plant. *See* 2015 Index Review, 153 FERC ¶ 61,312 at PP 20-29; 2010 Index Review, 133 FERC ¶ 61,228 at PP 34-55.

[62] When these pipelines are removed from the data set, the mean of the middle 80% declines from 1.46% to 1.29%, while the median and weighted mean remain nearly unchanged. This reduces the composite central tendency of the middle 80% only marginally, from 0.78% to 0.72%. *Compare* Attachment A, Ex. 1, *with id.*, Ex. 6. Furthermore, even this limited reduction may be exaggerated because it results in part from reducing the overall number of pipelines in the sample, which would tend to lower the mean of the sample. Additionally, because four of the seven removed pipelines are located below the median, it is unsurprising that excluding them from the middle 80% would reduce the mean.

[63] In using the middle 80% in this proceeding, we observe that the index level established herein is nonetheless the lowest index since the 2000 Index Review. This mitigates concerns that using the middle 80% leads to an anomalous index level.

experiences in a data sample is not sufficient reason to use an alternative sample. The Commission recognized in the 2015 and 2010 Index Reviews that the middle 50% likely includes pipelines with idiosyncratic cost experiences, such as rate base expansions.[64] Accordingly, this record does not justify discarding the additional data in the incremental 30% via statistical data trimming to the middle 50%.[65]

29. Shippers' arguments for a contrary result are unavailing. Notwithstanding that the middle 80% is more dispersed than in prior reviews, the record contains no evidence addressing whether the more dispersed cost changes in the incremental 30% resulted from pipeline-specific factors rather than from broadly shared circumstances representative of ordinary pipeline operations. Furthermore, Shippers' own evidence demonstrates the dispersion is primarily just a few pipelines at the top of the middle 80%. Although it may be possible that analyses of the middle 80% in this proceeding similar to

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[64] *See* 2015 Index Review, 153 FERC ¶ 61,312 at P 33 n.60 (noting that 26 of the 41 pipelines that commenters proposed to exclude for reporting "non-comparable" data were included in the middle 50%); 2010 Index Review, 133 FERC ¶ 61,228 at P 48 n.25 (noting that 7 of the 25 pipelines that a commenter proposed to exclude for experiencing rate base expansions were included in the middle 50%). Just as the presence of those pipelines did not preclude use of the middle 50% in earlier reviews, we find that the pipelines Joint Commenters identified do not preclude use of the middle 80% in this proceeding.

[65] AOPL also argues that the Commission should use the middle 80% because it conforms more closely to a lognormal distribution than the middle 50%. AOPL Initial Comments at 20-21, 24 (citing Shehadeh Initial Decl. at 24); AOPL Reply Comments at 8-9. Shippers contend that this argument is mathematically flawed and unsound. Joint Commenters Reply Comments, Brattle Report at PP 50-54; Liquids Shippers Reply Comments at 24-25 (quoting Crowe Reply Aff. at 5). Given these objections, we do not rely upon this argument in reaching our decision to use the middle 80% here. *See also* 2015 Index Review, 153 FERC ¶ 61,312 at P 43 (rejecting this same argument).

those provided in prior index reviews would have raised similar concerns about considering the middle 80%, no commenter presented such a comprehensive analysis. In the absence of a more detailed showing, we prefer to use a larger sample, representing a broader array of cost experience, in determining the data set's central tendency.

30. We are likewise unpersuaded by Shippers' reliance upon the Commission's findings in the 2015 and 2010 Index Reviews that the middle 80% includes pipelines further removed from the median and that using the middle 50% provides a more effective method of excluding outlying data. As discussed above, we have reconsidered our prior findings and now conclude that based upon the record in this proceeding, the benefits of considering the additional data in the middle 80% outweigh concerns about introducing anomalous data that could bias the index calculation.

31. We also find unpersuasive Shippers' argument that it is unnecessary to use the middle 80% to obtain a representative sample of industry cost data. We acknowledge that the middle 50% represents a greater percentage of barrel-miles subject to the index than in 2015 or 2010. However, we find that on this record, it is preferable to consider additional data that more fully reflects the diversity of industry cost experience than the middle 50%.

32. Similarly, we disagree with Shippers' assertion that using the middle 80% here would result in an index that encompasses extraordinary cost changes.[66] As discussed

[66] *See* Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 at 31,097 (rejecting request to adopt index "sufficiently high and generous to encompass even the most extraordinary costs" because such an index "would provide windfalls to many oil

above, the Kahn Methodology determines the index level using the central tendency of the trimmed data sample, and does not set the index at the sample's upper or lower bounds. Thus, using the middle 80% will not allow pipelines at the top or bottom of the sample to recover their particular cost changes, which by definition would diverge from the experience of pipelines closer to the central tendency. Instead, this approach only ensures that those pipelines' cost experiences are reflected in calculating the data set's central tendency. As discussed above, we find that considering a wide spectrum of industry experience will aid the Commission in calculating a central tendency that better represents normal industry-wide cost changes.

C. Liquids Shippers' Proposal to Calculate the Composite Measure of Central Tendency Using the Weighted Median

1. Comments

33. As discussed above, the Kahn Methodology calculates the median, mean, and weighted mean of the data set and averages the results to calculate a composite measure of central tendency. Liquids Shippers argue that the weighted mean of the data set in this proceeding accords undue weight to two pipelines, Colonial and Enbridge Energy, L.P. Liquids Shippers allege that these pipelines are substantial outliers in terms of barrel-miles and cost changes[67] and that both reported inaccurate page 700 data for

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pipelines by allowing rate changes substantially above cost changes").

[67] Liquids Shippers Initial Comments at 13-15. For instance, Liquids Shippers state that Colonial and Enbridge comprise 40% of the total barrel-miles for all of the 160 pipelines in the data set. *Id.* In addition, Liquids Shippers claim that Colonial reported a higher unit cost change over the 2014-2019 period than 69 of the 80 pipelines included in the middle 50% and Enbridge reported a higher cost change than 47 of those

2014 and 2019.[68] Because the weighted mean accords significant weight to these pipelines, Liquids Shippers state that using it to calculate the composite measure of central tendency will skew the index level upwards and fail to track normal industry-wide cost changes.[69]

34. To remedy this issue, Liquids Shippers propose to replace the weighted mean in the index calculation with the median of the barrel-mile weighted cost changes in the middle 50% (weighted median),[70] as calculated by their witness Elizabeth H. Crowe. Liquids Shippers contend that the Commission has recognized that the median is the preferred statistical measure of central tendency where the data distribution is highly skewed.[71] Thus, Liquids Shippers argue that using the weighted median is a statistically appropriate method of ameliorating the undue influence that Colonial and Enbridge exert upon the index calculation.[72] Alternatively, if the Commission decides not to replace the

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pipelines. *Id.* at 15.

[68] Specifically, Liquids Shippers claim that Colonial reported an inaccurate capital structure in both 2014 and 2019 and that Enbridge's reported ROEs are inconsistent with Commission policy. *Id.* at 17-19.

[69] *Id.* at 16-19.

[70] The standard median identifies the cost change for which the same number of pipelines have a smaller cost change and a larger cost change. By contrast, the weighted median identifies the cost change for which the same share of barrel-miles (rather than the number of pipelines) is accounted for by the pipelines below and above the selected median.

[71] Liquids Shippers Initial Comments at 19-20 (quoting Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 at 31,097).

[72] *Id.* at 20.

weighted mean with the weighted median, Liquids Shippers propose reducing the weighting afforded to the weighted mean in the Kahn Methodology from 33.3% to 20% or 10%.[73]

35. Pipelines oppose this proposal and argue that Liquids Shippers have not justified modifying the Kahn Methodology to exclude the weighted mean. Pipelines disagree with Liquids Shippers' claim that the weighted mean affords excessive weight to Colonial or Enbridge. Rather, Pipelines assert that averaging the weighted mean with the median and unweighted mean ensures that larger pipelines receive appropriate weighting in the index calculation, consistent with indexing's aim to measure cost changes on an industry-wide basis. Pipelines also assert that neither Colonial nor Enbridge is an outlier because both pipelines are included in the middle 50% of the data set. In addition, Pipelines maintain that Liquids Shippers' allegations regarding Colonial's and Enbridge's page 700 inputs are both irrelevant and outside the scope of the five-year review. Finally, Pipelines contend that Liquids Shippers' calculation of the weighted median is methodologically flawed and would distort the index by affording undue weight to smaller pipelines in the data set.[74] Colonial filed separate reply comments echoing these arguments and urging the Commission to disregard Liquids Shippers' claims regarding its page 700.[75]

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[73] *Id.* at 20 n.45; Crowe Initial Affidavit at 8-9.

[74] AOPL Reply Comments at 22-27; Designated Carriers Reply Comments at 6-13.

[75] Colonial Reply Comments at 3-11.

2. Commission Determination

36. We decline to adopt Liquids Shippers' proposal to replace the weighted mean with the weighted median. First, removing the weighted mean from the index calculation would contravene longstanding Commission practice and Dr. Kahn's testimony in the rulemaking proceeding that established the indexing regime. In proposing to average the weighted mean with the median and unweighted mean to derive the composite central tendency, Dr. Kahn explained that each of these measures "captured a significant aspect of the composite results from an industry perspective."[76] The Commission credited Dr. Kahn's testimony and adopted this approach to calculating the composite central tendency in that proceeding and in all subsequent five-year reviews. As discussed below, we find that Liquids Shippers' arguments do not provide an adequate basis for departing from this consistent practice.

37. Second, we reject as unpersuasive Liquids Shippers' claim that the Commission should replace the weighted mean merely because it provides greater weight to larger pipelines like Colonial and Enbridge.[77] The index strives to track cost changes on an industry-wide basis among pipelines of all sizes. To this end, the Kahn Methodology strikes a balance between large and small pipelines by determining the central tendency

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[76] Testimony of Dr. Alfred E. Kahn, Docket No. RM93-11-000, at 9 (filed Aug. 12, 1993).

[77] The Commission has previously recognized that large pipelines like Colonial can exert significant influence upon the weighted mean. 2015 Index Review, 153 FERC ¶ 61,312 at P 24 n.49 (explaining that "[b]ecause Colonial is a large pipeline, it heavily influences the weighted average in the Kahn Methodology").

of the cost data using two measures that do not take pipeline size into account (the median and the mean) together with the weighted mean, which weights each pipeline's cost change by its transported volumes. Including the weighted mean in this analysis ensures that the cost-change calculation takes sufficient account of pipeline size so that "minor pipelines do not skew" the result.[78] Thus, the fact that the weighted mean may accord additional weight to larger pipelines in this data set is fully consistent with its role in the index calculation. Removing it from the analysis as Liquids Shippers propose would upset the balance between large and small pipelines that the Kahn Methodology achieves. For this reason, we likewise reject Liquids Shippers' alternative proposal to reduce the weighting of the weighted mean in the calculation from 33.3% to 20% or 10%.

38. Third, Ms. Crowe's calculation of the weighted median is methodologically flawed. AOPL's witness Dr. Shehadeh testifies that the established statistically appropriate method for calculating the weighted median, as applied to pipeline cost changes, is to identify the cost change in the data set for which the same share of barrel-miles (rather than the same number of pipelines) is accounted for by the pipelines below and above the selected median.[79] This value is appropriately derived by ordering

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[78] *AOPL II*, 281 F.3d at 241. Although Order No. 561-A recognized that the median is often the preferred statistical measure of central tendency where the distribution is highly skewed, the Commission made this observation in affirming the use of statistical data trimming to derive a median sample of the overall data set rather than in the context of using the median to determine the data set's central tendency. *See* Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 at 31,096-97. In that proceeding and in each subsequent index review, the Commission has consistently calculated the composite measure of central tendency by averaging the median, mean, and weighted mean.

[79] Shehadeh Reply Decl. at 11. The weighted median may be defined as follows:

the pipelines by cost-change percentage, computing each pipeline's share of total barrel-miles, and measuring the cumulative share of total barrel-miles represented as each pipeline is included in the sample.[80] The pipeline whose share of total barrel-miles causes the cumulative share to reach 50% represents the data set's weighted median.[81]

39. Ms. Crowe, however, performed a different calculation by identifying the median weighted barrel-mile cost-change percentage and dividing that figure by the average of those pipelines' 2014 barrel-miles.[82] This calculation departs from the proper method of

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For n distinct ordered elements $x_1, x_{2,}, \ldots, x_n$ with positive weights $w_1, w_{2,}, \ldots, w_n$ such that $\sum_{i=1}^{n} w_i = 1$, the weighted median is the element x_k satisfying $\sum_{i=1}^{k-1} w_i \leq 1/2$ and $\sum_{i=k+1}^{n} w_i \leq 1/2$. *Id.* n.17 (citing Thomas H. Cormen, Introduction to Algorithms 194 (2009); 6 F.Y. Edgeworth, On Observations Relating to Several Quantities 279-85 (1887)).

[80] For example, consider a set of numbers 3, 4, 6, 10, where each number is weighted 1, 2, 3, and 5, respectively. In this scenario, the weighted median of the data set would equal 6, because including 6 in the set increases the cumulative weighting to 50%. (1+2+3)/(1+2+3+5) = 6/11 = 54.55%. By contrast, the standard median would be 5, which equals the average of the second and third numbers of the set.

[81] Dr. Shehadeh correctly performs this calculation using Liquids Shippers' data set and derives a weighted median cost change of 0.68%, as reported by Enbridge. Shehadeh Reply Decl., App. B, Ex. 1.

[82] Shehadeh Reply Decl. at 13; *see also* Crowe Initial Aff., App. 6 at Cost Changes Tab. Although Ms. Crowe's testimony on this issue was unclear, our understanding of her calculation is as follows. First, she identified the pipelines with percentage cost changes in the middle 50%. Second, she multiplied each pipeline's percentage cost change by its barrel-miles. Third, she arranged the pipelines based upon these results from smallest to largest. Fourth, she determined the median of this data sample. Because Ms. Crowe's sample consists of an even number of pipelines, the median lies at the midpoint between two pipelines, Hilcorp Pipeline Company, LLC, and BOE Pipeline, LLC. Finally, she divided the median percentage cost change by those pipelines' 2014 barrel-miles, which produces a final result of -0.57%. *See* Crowe Initial Aff., App. 3, at Cost Changes Tab; Shehadeh Reply Decl. at 10, Figure 1 and App. B, at

calculating the weighted median discussed above. Rather than identify the pipeline that causes the cumulative share of total-barrel miles represented in the sample to reach 50%, Ms. Crowe derives the median value of the weighted cost-change percentages for 2019 without regard to the barrel-miles represented below and above that cost change.[83] Unlike the Commission's calculation of the standard median and Dr. Shehadeh's calculation of the weighted median, Ms. Crowe does not order pipelines by cost changes, and instead orders them by cost changes times barrel-miles.[84] Thus, the median of Ms. Crowe's data sample does not capture the central tendency of industry-wide cost changes, as evidenced by the significant and multidirectional fluctuations above and below the purported median that follow no discernible pattern.[85] Accordingly, we conclude that

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Figure 1 – Chart Backup Tab.

[83] In essence, Ms. Crowe attempts to calculate the weighted median by using a modified version of the formula the Commission uses to compute the weighted mean.

[84] *See* Crowe Initial Aff., App. 3 at Cost Changes Tab. Under this approach, it is unclear whether the median pipeline of a given sample reported (a) relatively high cost changes and low barrel-miles or (b) relatively low cost changes and high barrel-miles.

[85] A small shift in the data sample's median would produce significant and multidirectional changes in the calculation's result. For instance, a median reflecting the pipeline with the next lowest weighted percentage change (Wildcat Liquids Caddo LLC) would reduce Ms. Crowe's result from 0.57 to -1.74% (a decrease of over 200%), whereas a median reflecting the next highest change (reported by Wesco Pipeline, LLC) would reduce the result by an even greater amount, from -0.57% to -2.28% (a decrease of 400%). These haphazard results do not reflect a convergence towards a central tendency of industry-wide cost changes.

Ms. Crowe's calculation does not provide a useful measure of central tendency for purposes of calculating the index.[86]

40. Fourth, Liquids Shippers' challenges to Colonial's and Enbridge's page 700 data are both misplaced and unavailing on the merits. Indexing proceedings are not an appropriate forum for challenging specific pipelines' page 700 inputs[87] and the Commission has declined to scrutinize individual pipeline data in prior index reviews.[88] In any event, the record does not support Liquids Shippers' claim that Colonial and Enbridge reported outlying cost changes. Both pipelines are included in the middle 50% of all pipelines in the data set, which indicates that their cost experiences did not diverge

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[86] In addition to failing to reflect the central tendency of industry-wide cost changes, Ms. Crowe's calculation also improperly reduces the weighting attributed to larger pipelines in the data set. Because Ms. Crowe orders the pipelines by barrel-mile cost change times barrel-miles, a pipeline with high barrel-miles would likely only lie near the median of the data sample if it reported extremely low cost changes. Thus, Ms. Crowe's methodology would nullify the influence of larger pipelines upon the index calculation and thereby defeat the purpose of relying upon a weighted measure of central tendency. *See AOPL II*, 281 F.3d at 241 (explaining that the weighted mean serves to ensure that "minor firms do not skew the result").

[87] *See AOPL I*, 83 F.3d at 1437 (holding that the Commission did not err in Order No. 561 by declining to periodically review individual pipeline costs and instead requiring shippers to challenge individual pipeline rates via protests or complaints); *see also Calnev Pipe Line L.L.C.*, 127 FERC ¶ 61,304, at P 5 (2009) ("[T]he Commission has made quite clear that it will not review allegations regarding the appropriateness of a pipeline's cost of service or the accuracy of its accounting in an index proceeding. Such allegations must be included in a complaint once the index-based filing becomes effective." (citing *SFPP, L.P.*, 123 FERC ¶ 61,317 (2008); *BP W. Coast Prods. LLC v. SFPP, L.P.*, 121 FERC ¶ 61,243 (2007)).

[88] 2015 Index Review, 153 FERC ¶ 61,312 at PP 22-30, 33-39 (declining to adopt manual data trimming proposals that would have required analyzing individual pipeline data); 2010 Index Review, 133 FERC ¶ 61,228 at PP 48-55 (same).

significantly from industry norms. In fact, as Dr. Shehadeh demonstrates, Enbridge's reported cost change represents the correctly calculated weighted median of the data sample,[89] refuting Liquids Shippers' contention that it is an outlier in terms of cost changes.

D. Liquids Shippers' Proposal to Adopt Standardized ROEs for 2014 and 2019

1. Comments

41. Liquids Shippers state that the Commission should replace the ROEs that pipelines reported on page 700 for 2014 and 2019 with single, standardized figures for both years.[90] Liquids Shippers contend that the data used to calculate the index level should conform to the Commission's cost-of-service methodology[91] and that the reported ROEs for 2014 and 2019 are inconsistent with this methodology in two respects. First, Liquids Shippers claim that pipelines' reported ROEs are self-selected and do not reflect what investors would demand in the market.[92] Second, Liquids Shippers state that if all oil pipeline rates were litigated at the same time, absent unusual circumstances, the Commission would adopt the same ROE for every pipeline because regulated pipelines

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[89] Shehadeh Reply Decl. at 14; *see also supra* n.81.

[90] Liquids Shippers Initial Comments at 21-22.

[91] *Id.* at 21, 25 (citing 2015 Index Review, 153 FERC ¶ 61,312 at PP 13, 15).

[92] *Id.* at 21 (citing *FPC v. Hope Nat. Gas Co.*, 320 U.S. 591, 603 (1944); *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n of W. Va.*, 262 U.S. 679, 692-93 (1923); *Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486, 1502 (D.C. Cir. 1984)).

typically fall within a broad range of average risk.[93] Liquids Shippers assert that the reported ROEs conflict with this principle because they vary substantially.[94]

42. Liquids Shippers also claim that uncertainty surrounding the Commission's oil pipeline ROE policy undermines the reliability of the reported ROEs for 2019. They state that the Commission initiated a review of its ROE policy in Docket No. PL19-4-000 on March 21, 2019 but did not clarify its ROE methodology for oil pipelines until it issued the ROE Policy Statement on May 21, 2020.[95] Because oil pipelines were required to submit page 700 cost-of-service data for 2019 in April 2020, Liquids Shippers allege that pipelines were not certain of the Commission's prevailing policy when they reported their 2019 ROEs. In support of this claim, Liquids Shippers observe that two pipelines submitted updated Form No. 6 filings in July 2020 indicating that the page 700 ROEs they filed in April 2020 did not comply with the Commission's then-applicable policy relying solely upon the DCF model.[96]

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[93] *Id.* at 22-23. Liquids Shippers assert that regulated pipelines typically face comparable risks and that the Commission typically sets oil pipeline ROEs at the median of the proxy group results. *Id.*

[94] *Id.* at 23. For instance, Liquids Shippers state that among the 160 pipelines included in the untrimmed data set, reported page 700 ROEs for 2019 ranged from 0.9% to 22.3%. *Id.* at 24 (citing Crowe Initial Aff. at 9).

[95] *Id.* at 25-26 (citing *Inquiry Regarding the Commission's Policy for Determining Return on Equity*, 166 FERC ¶ 61,207 (2019)). As discussed above, the Commission issued a policy statement revising its ROE methodology for natural gas and oil pipelines on May 21, 2020. ROE Policy Statement, 171 FERC ¶ 61,155.

[96] *Id.* at 27-28 (citing Crowe Initial Aff., App. 4 at 1-2) (referring to updated Form No. 6 filings of Plains Pipeline, LP and Rocky Mountain Pipeline System LLC).

43. In light of these concerns, Liquids Shippers urge the Commission to replace each pipeline's reported page 700 ROE for 2014 and 2019 with standardized ROEs for purposes of calculating the index level. For 2014, Liquids Shippers propose a standardized ROE of 10.29%, which 54 pipelines reported in their 2014 page 700 filings.[97] For 2019, Liquids Shippers propose to use the 10.02% ROE that Trial Staff has proposed in testimony in an ongoing oil pipeline rate proceeding based upon data for the six-month period ending in November 2019.[98]

44. Pipelines oppose Liquids Shippers' proposal and disagree with their assertions. AOPL disputes Liquids Shippers' claim that variation in the reported page 700 ROEs indicates that this data is unreliable or inconsistent with Commission policy.[99] Pipelines contend, moreover, that the Commission found in the 2015 Index Review that statistical data trimming is sufficient to remove pipelines with outlying equity cost changes from the data set and that Liquids Shippers' arguments do not undermine this conclusion.[100] In

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[97] Ms. Crowe states that 45 pipelines reported a 10.29% ROE on their page 700s for 2014. Crowe Initial Aff. at 11-12. However, as shown in Attachment A, Exhibit 7 to this order, the Commission's review of Form No. 6 filings submitted in 2016 indicates that 54 pipelines reported this ROE for 2014 in the column on page 700 for prior-year data.

[98] Liquids Shippers Initial Comments at 30-31; Crowe Initial Aff. at 12 (citing Trial Staff, Direct and Answering Cost-Based Rate Testimony of Commission Trial Staff Witness Robert J. Keyton, Docket Nos. OR18-7-002 et al. (filed Jan. 14, 2020)).

[99] AOPL Reply Comments at 30.

[100] *Id.* at 28 (quoting 2015 Index Review, 153 FERC ¶ 61,312 at P 17); Designated Carriers Reply Comments at 13-14 (same).

addition, AOPL argues that Liquids Shippers failed to support their proposed standardized ROEs and that adopting their proposal would complicate the five-year review by introducing complex cost-of-service ratemaking issues.[101]

2. Commission Determination

45. We decline to adopt Liquids Shippers' proposal to replace the reported page 700 ROE data for 2014 and 2019 with standardized ROEs. We conclude that Liquids Shippers have not adequately demonstrated that the reported page 700 ROEs are unreliable or inconsistent with Commission policy.

46. Contrary to Liquids Shippers' contention, the fact that page 700 ROEs are self-reported does not demonstrate that this data is unreliable or fails to capture the returns that investors would demand in the market. Rather, one of the primary reasons the Commission updated the index calculation to use page 700 data is that this data is based upon "established ratemaking techniques."[102] During the 2014-2019 period, these techniques included determining ROE using the DCF model, which is designed to reflect investors' required returns. The instructions on page 700 required pipelines to determine their ROE (as well as other page 700 inputs) consistent with this methodology and pipelines submitted page 700 under oath and subject to sanction if there were purposeful errors in their reported data.[103] In addition, if a pipeline makes any major changes to its

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[101] AOPL Reply Comments at 32.

[102] 2015 Index Review, 153 FERC ¶ 61,312 at P 15.

[103] *See BP W. Coast Prods. LLC v. SFPP, L.P.*, 121 FERC ¶ 61,243, at P 9 (observing that "pipelines submit their FERC Form No. 6 under oath and exposes the

application of the Opinion No. 154-B methodology in preparing page 700, it must describe such changes in a footnote on page 700. Given these facts, we find that Liquids Shippers have not adequately demonstrated that the reported page 700 ROE data is unreliable merely because pipelines self-reported.[104]

47. Similarly, variation among page 700 ROEs does not indicate that the reported ROE data is unreliable. To the contrary, multiple factors can cause the DCF model to yield different results for different pipelines. For example, even when analyzing data from the same time period, the appropriate proxy group may vary from pipeline to pipeline depending upon differences in risk. Liquids Shippers themselves acknowledge[105] that although the Commission typically sets the real ROE for oil

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pipeline and its employees to civil and criminal sanctions if there are purposeful errors in" applying the Commission's existing cost-of-service methodology to develop the underlying cost inputs). Furthermore, the Commission calculates the index level based upon changes in cost over the applicable review period, rather than total costs in a given year. Because the last year of any particular review period (e.g., 2014-2019) is the first year of the next review period (e.g., 2019-2024), any attempt by pipelines to distort the index calculation by reporting inflated cost data in the last year of one period would harm their interests by establishing a higher cost baseline in the first year of the next period.

[104] If a shipper determines that a pipeline has reported inaccurate data on its page 700, the shipper may file a complaint alleging that the pipeline did not properly apply the Opinion No. 154-B methodology in developing its page 700 cost inputs. *See BP W. Coast Prods. LLC v. SFPP, L.P.*, 121 FERC ¶ 61,243 at P 9 (explaining that shippers may file "a complaint that provides reasonable grounds to conclude that the pipeline did not properly apply its existing cost-of-service methodology to develop the underlying cost inputs used to develop the Page 700 in its annual FERC Form No. 6, or the inputs were improperly entered into its accounts or the calculation.").

[105] *See* Liquids Shippers Initial Comments at 22-23 (quoting *El Paso Nat. Gas Co.*, Opinion No. 528, 145 FERC ¶ 61,040, at P 592 (2013)).

pipelines at the median of the proxy group results, it may set the ROE above or below the median where the record demonstrates that the pipeline faces anomalously high or low risks.[106] Accordingly, the fact that pipelines reported different ROEs for the same years does not demonstrate that this data is inaccurate or inconsistent with Commission policy. Moreover, the Commission explained in the 2015 Index Review that to the extent a particular pipeline's per barrel-mile equity cost changes departed substantially from industry norms, that pipeline would not be among the middle 50% used to calculate the index level.[107] Similarly, such pipelines would not be among the middle 80% used to calculate the index level in this proceeding. Liquids Shippers provide no basis for altering this conclusion.

48. We are also unpersuaded by Liquids Shippers' assertion that pipelines were uncertain as to the Commission's prevailing oil pipeline ROE methodology when they submitted their 2019 Form No. 6 filings in April 2020. At that time, the Commission had not yet revised its longstanding policy of determining oil pipeline ROEs by relying exclusively upon the DCF model. Because the instructions on Form No. 6 direct pipelines to complete page 700 in accordance with the then-current Opinion No. 154-B methodology, we find that pipelines received adequate notice of the requirement to

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[106] *E.g.*, *BP Pipelines (Alaska) Inc.*, Opinion No. 502, 123 FERC ¶ 61,287, at P 195 (2008) (citing *Transcon. Gas Pipe Line Corp.*, Opinion No. 414-A, 84 FERC ¶ 61,084, at 61,423-24 (1998)), *order on reh'g and compliance*, 125 FERC ¶ 61,215 (2008), *reh'g denied*, 127 FERC ¶ 61,317 (2009), *aff'd sub nom. Flint Hills Res. Alaska, LLC v. FERC*, 726 F.3d 881 (D.C. Cir. 2010).

[107] 2015 Index Review, 153 FERC ¶ 61,312 at P 17.

determine their 2019 ROEs using only the DCF model. The fact that two pipelines (out of 254 pipelines that submitted Form No. 6 filings in 2020) later indicated that they did not adhere to this requirement does not present sufficient evidence of widespread uncertainty regarding the Commission's applicable policy that would undermine our confidence in the reliability of the data set.

49. We conclude, moreover, that Liquids Shippers have not supported their proposed standardized ROEs. For 2014, Liquids Shippers seek to replace all pipelines' reported ROEs with an ROE figure that only 29% of pipelines reported for that year.[108] However, Liquids Shippers do not demonstrate that this figure accurately measures the investor-required cost of equity for all pipelines in the data set. Similarly, Liquids Shippers do not justify why the Commission should adopt, as the 2019 ROE for all pipelines in the data set, a figure that a participant has proposed in an ongoing hearing on which neither the Presiding Judge nor the Commission have opined.[109] Given that oil pipelines have diverse business models and different risk levels, we cannot simply assume that any single ROE could reflect the investor-required return for all pipelines in the data set.

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[108] Whereas Liquids Shippers state that 45 of 158 pipelines filing page 700 for 2014 reported an ROE of 10.29%, the Commission's review of Form No. 6 data indicates that 54 of 184 filing pipelines reported that particular ROE for 2014. *Compare* Liquids Shippers Initial Comments at 31 *with* Attachment A, Ex. 7.

[109] According to the most recent procedural schedule adopted in Docket Nos. OR18-7-002 *et al.*, the initial decision in that proceeding is currently scheduled for issuance on May 28, 2021. *Epsilon Trading, LLC v. Colonial Pipeline Co.*, Docket No. OR18-7-002, at Attachment A (June 23, 2020).

50. Finally, we find that adopting Liquids Shippers' proposal would undermine indexing's purpose as a simplified and streamlined ratemaking regime. Whereas the Kahn Methodology promotes simplification by relying upon reported page 700 data, Liquids Shippers' proposal would require the Commission, in this proceeding and in future five-year reviews, to undertake separate analyses to determine just and reasonable industry-wide ROEs for the first and last years of the five-year review period. Determining a just and reasonable ROE, particularly on an industry-wide basis, would be a complex and fact-intensive inquiry that could require considerable time and resources to resolve. The Commission explained in the NOI that addressing such complex cost-of-service issues would improperly complicate and prolong the five-year review process in violation of EPAct 1992's mandate for simplified and streamlined ratemaking,[110] and Liquids Shippers have not refuted these concerns.

E. CAPP's Argument Regarding Negotiated Rate Contracts

1. Comments

51. CAPP argues that the Commission should quantify the effects of negotiated rate contracts upon oil pipelines' reported costs of equity. CAPP states that these contracts typically contain provisions such as shipper volume commitments that serve to transfer risk from the pipeline to its shippers and that failing to reflect pipelines' reduced risks in the page 700 data could improperly inflate the index calculation.[111] CAPP notes that the

[110] NOI, 171 FERC ¶ 61,239 at P 11.

[111] CAPP Initial Comments at 2-5.

Commission found in the 2015 Index Review that the page 700 total cost-of-service would reflect any reduction in the pipeline's risk, but argues that the page 700 data in this proceeding does not indicate whether this occurred over the 2014-2019 period.[112] To provide increased transparency, CAPP urges the Commission to consider requiring pipelines to provide shippers with the workpapers underlying their page 700 calculations.[113] AOPL contends CAPP's claims are unsupported and that the Commission has previously rejected this precise argument.[114]

2. Commission Determination

52. We find CAPP's arguments unpersuasive. First, as the Commission explained in the 2015 Index Review, "[t]o the extent that volume commitments in [negotiated rate] agreements have reduced the pipeline's risk, the page 700 total cost of service would reflect this reduction in the embedded costs of equity and costs of debt."[115] These effects would tend to reduce pipeline costs and thereby produce a lower index level, rendering CAPP's concerns unfounded. Although CAPP questions whether the effects of reduced pipeline risk are reflected in the page 700 data, it provides no basis for the Commission to conclude that the reported data fails to adequately account for pipelines' risks in measuring changes in cost of equity and costs of debt.

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[112] *Id.* at 4 (quoting 2015 Index Review, 153 FERC ¶ 61,312 at P 28).

[113] *Id.* at 5.

[114] AOPL Reply Comments at 33-37.

[115] 2015 Index Review, 153 FERC ¶ 61,312 at P 28.

53. Second, to the extent that CAPP requests that the Commission review individual pipeline data to evaluate the effects of contract rates upon the pipeline's risks, this request is both unsupported and misplaced. CAPP has not presented any method for quantifying any disparity in the risks pipelines face when using contract rates versus non-contract rates. Although CAPP states that the Commission should consider requiring pipelines to provide shippers with the workpapers underlying their page 700 cost of service calculations, it has not explained how these workpapers would aid in identifying differences in risk between contract and non-contract rates. Moreover, as CAPP itself acknowledges, the Commission recently declined to require pipelines to provide workpapers[116] and CAPP has not provided a sufficient basis for the Commission to revisit this decision here. More broadly, the Kahn Methodology measures changes in barrel-mile costs on a generic, industry-wide basis. Thus, in calculating the index level, the Commission does not scrutinize the inputs underlying individual pipelines' page 700 data. Accordingly, the review that CAPP appears to seek would exceed the scope of the five-year index review and conflict with streamlined and simplified ratemaking.[117]

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[116] *Revisions to Indexing Policies and Page 700 of FERC Form No. 6*, 170 FERC ¶ 61,134, at P 6 (2020).

[117] As discussed above, if a shipper determines that a particular pipeline's page 700 inputs do not accord with the Commission's existing Opinion No. 154-B methodology, it may file a complaint to that effect with the Commission. *BP W. Coast Prods. LLC v. SFPP, L.P.*, 121 FERC ¶ 61,243 at P 9.

F. Pipeline Costs Resulting from Integrity Management Regulations and Other Developments

1. Comments

54. AOPL states that oil pipelines have experienced significant cost increases due to pipeline safety and integrity measures and that these costs are likely to increase in the future.[118] AOPL submits a declaration from William R. Byrd identifying new and continuing regulatory obligations related to pipeline integrity as well as other factors affecting pipeline costs, such as expenditures related to security and cybersecurity, opposition to pipeline infrastructure, and the COVID-19 pandemic.[119] Mr. Byrd also describes anticipated regulatory requirements that he states will increase pipelines' obligations and compliance costs in the future.[120] AOPL maintains that pipelines' ability to undertake future expansions and adopt environmental, safety, and security measures in compliance with applicable regulatory requirements depends upon the Commission adopting an index level that allows pipelines to recover expected future cost increases.[121]

55. Other commenters make similar assertions. PST states that pipeline safety requirements have increased over the last five years and that setting the index level too

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[118] AOPL Initial Comments at 36-39; Declaration of William R. Byrd, P.E. at 21.

[119] Byrd Declaration at 7-17

[120] *Id.* at 17-20.

[121] AOPL Initial Comments at 40 (quoting 2005 Index Review, 114 FERC ¶ 61,293 at P 63).

low could reduce pipelines' incentives to invest in safety measures.[122] EIC echoes AOPL's statements regarding increasing costs and explains that pipelines' ability to invest in building and operating facilities depends upon ready access to capital markets and a predictable regulatory environment that reduces investment risks. Thus, EIC asserts that the Commission should be mindful that an insufficiently high index level could impair pipelines' ability to attract investment.[123]

56. PHMSA filed comments describing safety rules it has enacted since the 2015 Index Review as well as several pending rulemakings that, if adopted, would impose additional costs upon pipeline operators. Although it takes no position on the specific index level the Commission should adopt, PHMSA states that the index should reflect the costs that its existing and future regulations impose upon pipeline operators.[124]

57. Shippers reject these arguments and contend that the Commission has previously found that future costs are speculative and inappropriate for inclusion in the index calculation.[125] Liquids Shippers argue that costs related to safety or integrity measures incurred during the 2014-2019 period should be reflected in the page 700 data.[126] In

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[122] PST Comments at 1-2.

[123] EIC Comments at 7, 11-16.

[124] PHMSA Reply Comments at 1-4.

[125] Joint Commenters Reply Comments at 19-20 (quoting 2010 Index Review, 133 FERC ¶ 61,312 at P 125); Liquids Shippers Reply Comments at 31-32 (same); CAPP Initial Comments at 2.

[126] Liquids Shippers Reply Comments at 33.

addition, Joint Commenters and Liquids Shippers contend that if safety or integrity-related costs are not captured in this index calculation, they will be reflected in future index reviews and pipelines may seek to recover those costs in the interim through cost-of-service rate filings, where appropriate.[127]

2. Commission Determination

58. We decline to alter our calculation of the index level based upon the arguments concerning safety or integrity-related costs. To the extent that new or continuing regulatory requirements caused pipelines' barrel-mile costs to increase during the 2014-2019 period, those cost changes would be reflected in the page 700 data.[128] We also decline to adjust the index calculation based upon projections of future costs or other developments occurring after the conclusion of the 2014-2019 period. As the Commission has previously explained, future cost projections related to regulatory changes are speculative and inappropriate for inclusion in the index.[129] Additionally, because the Kahn Methodology only considers cost changes incurred during the prior five years, regulatory changes and other developments occurring after the 2014-2019 period

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[127] Joint Commenters Reply Comments at 20; Liquids Shippers Reply Comments at 33.

[128] If such obligations result in a substantial divergence between a pipeline's actual costs and the rate resulting from application of the index, the pipeline may file to change its rate using the Commission's cost-of-service methodology pursuant to section 342.4(a) of the Commission's regulations. 18 CFR 342.4(a); s*ee also* Order No. 561, FERC Stats. & Regs. ¶ 30,985 at 30,957 (explaining that "such circumstances as increased safety or environmental regulations may justify the use of a cost-of-service methodology").

[129] 2010 Index Review, 133 FERC ¶ 61,228 at P 125.

concluded on December 31, 2019, are beyond the scope of this index review.[130] To the extent that such developments affect barrel-mile costs going forward, the Commission will incorporate those cost changes as reflected in page 700 cost-of-service data in future index calculations.

G. Treatment of Mergers in the Data Set

1. Comments

59. To account for mergers that occurred during the study period, the Kahn Methodology adds the separate costs the pipelines reported on Form No. 6 in the first year of the data set (e.g., 2014) and compares this sum to the newly combined company's costs in the last year of the data set (e.g., 2019).[131] The Commission employs a similar process for addressing divestitures, adding the separate costs that the pipelines reported on Form No. 6 in the last year of the data set and comparing this sum to the previously combined company's costs in the first year of the data set. Joint Commenters and AOPL each propose to adjust the data set to account for merger activity that they claim occurred during the 2014-2019 period but was not reflected in the data underlying the Commission's proposal in the NOI.

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[130] Cost changes incurred during the 2019-2024 period as a result of integrity management and other regulatory obligations will be addressed in the 2025 index review.

[131] 2015 Index Review, 153 FERC ¶ 61,312 at P 38. The Commission has explained that without this step, the absorbed pipeline's cost data would be needlessly discarded. *Id.*

60. Joint Commenters propose to account for six additional mergers: (1) Plains Southcap Inc. and Plains Pipeline, LP; (2) Red River Crude Pipeline LLC and Enterprise Crude Pipeline LLC; (3) Regency Liquids Pipeline LLC and Lone Start NGL Pipeline LP; (4) Independent Trading & Transportation Company I, L.L.C. and Hiland Crude, LLC; (5) Phillips 66 Pipeline LLC and Phillips 66 Carrier LLC; and (6) Excel Pipeline LLC and Sunoco Pipeline L.P.[132] AOPL proposes to reflect the Excel-Sunoco merger and two additional mergers: (i) Mid-Valley Pipeline Company and Energy Transfer Crude Oil Company LLC (Energy Transfer Crude); and (ii) The Premcor Pipeline Co. and Valero Partners Lucas, LLC (Valero Lucas).[133] Joint Commenters disagree with AOPL's proposals to reflect mergers between Mid-Valley-Energy Transfer Crude and Premcor-Valero Lucas.[134]

2. Commission Determination

61. We will adjust the data set to reflect mergers between: (1) Plains Southcap Inc. and Plains Pipeline, LP; (2) Red River Crude Pipeline LLC and Enterprise Crude Pipeline LLC; (3) Regency Liquids Pipeline LLC and Lone Star NGL Pipeline LP; (4) Independent Trading & Transportation Company I, L.L.C. and Hiland Crude, LLC; (5) Phillips 66 Pipeline LLC and Phillips 66 Carrier LLC; and (6) Excel Pipeline LLC

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[132] Joint Commenters Reply Comments, Brattle Group Report, Attachment D at 2, 4-7 (Data Merger Analysis).

[133] Shehadeh Initial Decl., Ex. A1 (Companies Consolidated to Adjust for Mergers, Acquisitions, and Changes in Corporate Form 2014-2019).

[134] Joint Commenters Reply Comments, Brattle Group Report at 48-50.

and Sunoco Pipeline L.P.[135] We have verified through a review of Form No. 6 data that these mergers took place during the 2014-2019 period and will therefore revise the data set to combine these pipelines' costs in 2019 as appropriate.

62. We decline, however, to adopt AOPL's proposal to reflect mergers between Mid-Valley-Energy Transfer Crude and Premcor-Valero Lucas. We find that the record does not support adjusting the Form No. 6 data to reflect these mergers. For instance, a review of the total miles owned at year end does not indicate that any transfer of assets took place between these companies during the review period.[136] The Commission's review of other Form No. 6 data likewise did not confirm whether these mergers in fact took place.[137]

IV. 2021-2026 Oil Pipeline Index

63. Based upon the foregoing, we calculate the index level used to determine annual changes to oil pipeline rate ceilings for the five-year period beginning July 1, 2021 as follows. First, as shown in Attachment A (Exhibit 2) we remove those pipelines that did not provide Form No. 6, page 700 data or provided incomplete data. Second, as shown in Attachment A (Exhibit 5), we consider the data on Form No. 6, page 700 to calculate

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[135] The Commission identified the Excel Pipeline LLC-Sunoco Pipeline L.P. merger in the NOI proposal but did not combine their data for 2019.

[136] Joint Commenters Reply Comments, Brattle Report at 49-50.

[137] For example, despite its alleged merger with Energy Transfer Partners, Mid-Valley continued filing Form No. 6 in its own name for each year of the review period through 2019.

each pipeline's cost change on a per barrel-mile basis over the prior five-year period (e.g., the years 2014-2019 in this proceeding). Third, to remove statistical outliers and spurious or unrepresentative data, we trim the data set to those pipelines in the middle 80% of cost changes. Fourth, as shown in Attachment A (Exhibit 5), we calculate three measures of the middle 80%'s central tendency: the median, the mean, and a weighted mean. Fifth, we calculate a composite by taking a simple average of those three measures of central tendency, as shown in Attachment A (Exhibit 1). Finally, we compare this composite to the value of the PPI-FG index data over the same period (0.52% in this proceeding) and set the index level at PPI-FG plus (or minus) this differential. Using these calculations, we establish an index level of PPI-FG+0.78% for the five-year period beginning July 1, 2021.

The Commission orders:

Consistent with the discussion in this order, the Commission determines that the appropriate oil pipeline index level for the next five years, July 1, 2021 through June 30, 2026, is PPI-FG+0.78%.

By the Commission. Commissioner Glick is dissenting with a separate statement attached.
Commissioner Clements is not participating.

(S E A L)

Kimberly D. Bose,
Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Five-Year Review of Oil Pipeline Index Docket No. RM20-14-000

(Issued December 17, 2020)

GLICK, Commissioner, *dissenting*:

1. Today's order is a complete abdication of the Commission's responsibility to protect oil pipeline customers. It overthrows well-established Commission policy and goes back on explicit promises we made to customers just a few years ago. As a result, the Commission is handing oil pipelines a multi-billion-dollar windfall for which customers are left to pick up the tab. I dissent strongly from those unreasoned and indefensible determinations.

* * *

2. A little background is necessary to appreciate just how seriously the Commission has fallen down on the job. In the Energy Policy Act of 1992, Congress directed the Commission to promulgate a rule to simplify its ratemaking methodology for oil pipelines.[1] Shortly thereafter, the Commission issued Order No. 561, which adopted an indexing methodology as part of the Commission's approach for regulating oil pipeline rates.[2] Under that approach, if an oil pipeline increases its rates by less than the annual ceiling established by the index, the pipeline does not need to justify those rates through a cost-of-service filing.[3] The majority of oil pipelines under the Commission's jurisdiction use this index to demonstrate that their rate increases are just and reasonable.

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[1] Energy Policy Act of 1992, Pub. L. No. 102-486, § 1801(a) (Oct. 24, 1992) (codified at 42 U.S.C. § 7172 note (2006)).

[2] *Revisions to Oil Pipeline Reguls. Pursuant to Energy Pol'y Act of 1992*, Order No. 561, FERC Stats. & Regs. ¶ 30,985, at 30,955 (1993) (cross-referenced at 65 FERC ¶ 61,109), *order on reh'g*, Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 (1994) (cross-referenced at 68 FERC ¶ 61,138), *aff'd sub nom. Ass'n of Oil Pipe Lines v. FERC*, 83 F.3d 1424 (D.C. Cir. 1996).

[3] At least absent a protest to the update. *See* Order No. 561, FERC Stats. & Regs.

3. Following Order No. 561, the Commission updates the index every five years to ensure that it represents a reasonable measure of the annual change in a typical oil pipeline's cost of service. To set the annual index, the Commission calculates each jurisdictional pipeline's change in its cost-of-service over the previous five-year period—we call this oil pipelines' "cost change data." The Commission then uses that data to determine an appropriate adjustment to the Producer Price Index for Finished Goods (PPI-FG) established by the U.S. Department of Labor.[4] To avoid outliers or other anomalous, unrepresentative cost data, the Commission has historically relied on only the cost change data for the middle 50% of pipelines when updating the index—that is, it excludes data from the 25% of pipelines with the lowest cost changes and the data from the 25% of pipelines with the highest.[5]

4. In June of this year, the Commission issued a notice of inquiry that commenced its five-year update to the index. In that notice, the Commission proposed an index level of PPI-FG+0.09, based on our historical practice of relying on the middle 50% of cost change data.[6] Today's order tosses that historical practice aside and establishes an index level that is *nearly ten times higher* at PPI-FG+0.78.[7] That order of magnitude increase is largely the result of a pair of unreasoned, illogical and unsupported changes that lack any meaningful support in the record before us. I'll discuss them in turn.

5. The Commission's first major mistake is to abandon its well-established practice of updating the index using the cost change data from the middle 50% of oil pipelines. As noted, in order to weed out potential anomalous, unrepresentative cost data and ensure that the cost change data reflects the experience of a typical pipeline, the Commission's

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¶ 30,985 at 30,947.

[4] *Five-Year Rev. of the Oil Pipeline Index*, 173 FERC ¶ 61,245, at P 5 (2020) (2020 Index Review). The resulting index level is expressed as the PPI-FG plus or minus a value that corresponds to the cost change data adjustment.

[5] This practice of excluding the top and bottom 25% was part of Dr. Alfred Kahn's original proposal that the Commission adopted in 1994. *Ass'n of Oil Pipe Lines v. FERC*, 876 F.3d 336, 340 (D.C. Cir. 2017) (noting that in 1994 Dr. Kahn "omitted from his analysis the pipelines within the upper and lower 25 percent of the cost spectrum in order to exclude statistical outliers and incomplete or questionable data").

[6] *Five-Year Rev. of the Oil Pipeline Index*, 171 FERC ¶ 61,239, at P 9 (2020).

[7] 2020 Index Review, 173 FERC ¶ 61,245 at P 2.

established practice is to "trim" the data down to the middle 50% of cost changes. The Commission has explained that relying only on those central values best approximates the operations of a typical pipeline because it prevents the Commission from relying on unrepresentative cost changes, such as a one-time increase in rate base, plant retirement, significant expansions or acquisitions, or localized changes in supply and demand.[8]

6. Today's order abandons that approach and instead uses the data from the middle 80% of pipelines.[9] That change dramatically increases the likelihood that the updated index will reflect anomalous data that does not shed light on the cost changes experienced by a typical pipeline, which, in practice, skews the index upwards. Relying upon those relative outliers is particularly inappropriate here since the middle 50% of pipelines corresponds to a much larger percentage of the total barrel-miles shipped over the last five years than in previous index updates.[10] In other words, the middle 50% already corresponds to a significantly larger percentage of total oil transportation service provided than in previous index updates, which would seem to undermine any need to expand the data set.

7. The Commission's justification for abandoning the 50% approach consists of nothing more than variations on the theme that more data is better.[11] But, as with most things in life, quality is more important than quantity. Including more cost change data is not necessarily an improvement when there is good reason to believe that the incremental data is made up of outliers whose experience is less representative of a typical oil pipeline with a normal cost structure. As noted, the purpose of the index is to approximate a typical oil pipeline's change in cost—an exercise that does not benefit from including cost change data from pipelines that are, by definition, unrepresentative of the average pipeline.[12] And that is exactly why the Commission has consistently rejected

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[8] *Five-Year Rev. of Oil Pricing Index*, 133 FERC ¶ 61,228, at P 61 (2010) (citing Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 at 31,097) (2010 Index Review); *Five-Year Rev. of Oil Pipeline Index*, 153 FERC ¶ 61,312, at P 24 (2015) (2015 Index Review).

[9] 2020 Index Review, 173 FERC ¶ 61,245 at P 25.

[10] The middle 50% of this data set contains 82% of total barrel-miles subject to the index while, in 2015 and 2010, the middle 50% contained only 56% and 76% of total barrel-miles, respectively. *Id.* P 23.

[11] *Id*. PP 26-29.

[12] *See* 2015 Index Review, 153 FERC ¶ 61,312 at P 43 ("[B]y definition, costs at the top (or bottom) of the middle 80 percent deviate significantly from the cost experience of other pipelines. To the extent that the middle 80 percent data conforms to a lognormal distribution, outlying cost increases per barrel-mile will not be offset by

replacing the 50% approach with the 80% approach adopted in today's order.[13] In addition, the Commission chastises shippers for not arguing that every pipeline whose cost change data would have been excluded using the middle 50% was an outlier.[14] As an initial matter, the shippers did provide illustrative data explaining why seven of those pipelines' cost change data was not representative, which you might think would suffice to support the Commission continuing its historical practice.[15] In any case, the burden to show that the index is reasonable is on the Commission, and it cannot be carried simply by arguing that the shippers should have done more.

8. The Commission's second major mistake is to break its promise to protect ratepayers following the U.S. Court of Appeals for the District of Columbia Circuit's decision in *United Airlines v. FERC*,[16] which struck down the Commission's practice of allowing Master Limited Partnerships (MLPs) to double recover their income tax cost.[17] As a result of that decision, MLPs may no longer recover an income tax allowance in their cost of service.[18] Following *United Airlines*, in 2018, the Commission required natural gas pipelines to immediately eliminate that double recovery,[19] but declined to

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similarly outlying cost decreases. Thus, using the middle 80 percent would skew the index upward based upon these outlying cost increases, which is contrary to the objective of the index to reflect normal industry-wide cost changes."); 2010 Index Review, 133 FERC ¶ 61,228 at P 63 ("[T]he use of the middle 50 minimizes the risk of including pipelines that experienced either large increases or decreases in cost (or errant data) that may be included in an 80 percent sample, while still capturing changes from a broad spectrum of the pipeline industry.").

[13] *See* 2015 Index Review, 153 FERC ¶ 61,312 at PP 42-44; 2010 Index Review, 133 FERC ¶ 61,228 at PP 60-63.

[14] 2020 Index Review, 173 FERC ¶ 61,245 at P 28.

[15] *Id.*

[16] *United Airlines, Inc. v. FERC*, 827 F.3d 122 (D.C. Cir. 2016) (finding that the Commission permitted a double recovery of income tax costs by allowing an MLP to recover both an income tax allowance and a return on equity determined pursuant to the discounted cash flow methodology, which already reflects income tax costs).

[17] *Inquiry Regarding the Commission's Pol. for Recovery of Income Tax Costs*, 162 FERC ¶ 61,227 (2018 Income Tax Policy Statement), *reh'g denied*, 164 FERC ¶ 61,030 (2018).

[18] *Id.* P 2.

[19] *Interstate & Intrastate Nat. Gas Pipelines; Rate Changes Relating to Fed.*

require something similar for oil pipelines, promising, quite explicitly, that it would address the issue when it next updated the index.[20]

9. So much for that. In today's order, the Commission goes back on its word and allows any oil pipeline that was an MLP in 2014 to retroactively remove its income tax allowance from its 2014 cost-of-service data.[21] That change juices the data to make it look like oil pipeline costs increased by more than they actually did between 2014 and 2019, thereby leading to a higher index value. And, as if that weren't bad enough, today's order also allows any pipeline that transitioned from an MLP to a C-Corporation, thereby regaining the right to an income tax allowance, to remove the income tax allowance from their 2014 numbers.[22] The result is, you guessed it, another increase in the cost change data, a higher index level, and more expensive rates for customers.

10. Nothing in today's order justifies that result. The Commission summarily concludes that the index update is not an appropriate vehicle for incorporating the post-*United Airlines*' policy changes.[23] That proposition is hardly self-evident, especially given that all five then-Commissioners felt differently just two years ago.[24] In any case, the fact of the matter is that tax costs are real costs,[25] meaning that oil pipelines' costs in the past five years have changed as a result of the *United Airlines* decision. Finally, reneging on our promise in the 2018 Income Tax Policy Statement perpetuates the effects

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Income Tax Rate, 162 FERC ¶ 61,226 (2018).

[20] The Commission's statement is worth reading in whole: "When oil pipelines file Form No. 6, page 700 on April 18, 2018, they must report an income tax allowance consistent with *United Airlines* and the Commission's subsequent holdings denying an MLP an income tax allowance. Based upon page 700 data, the Commission will incorporate the effects of the post-*United Airline*s' policy changes (as well as the Tax Cuts and Jobs Act of 2017) on industry-wide oil pipeline costs in the 2020 five-year review of the oil pipeline index level. In this way the Commission will ensure that the industry-wide reduced costs are incorporated on an industry-wide basis as part of the index review." 2018 Income Tax Policy Statement, 162 FERC ¶ 61,227 at P 46.

[21] 2020 Index Review, 173 FERC ¶ 61,245 at P 16.

[22] *Id.* P 20.

[23] *Id.* P 18.

[24] 2018 Income Tax Policy Statement, 162 FERC ¶ 61,227 at P 46.

[25] Ask anyone who pays their taxes.

of the double recovery gravy train that the court invalidated in *United Airlines*. That is simply indefensible.

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11. The Commission's actions today hand oil pipelines what will amount to a multi-billion-dollar windfall over the next five years. Calling these decisions arbitrary and capricious or unreasoned would let the Commission off easy. They represent a complete abdication of our statutory responsibility to protect consumers—the companies and individuals who will be stuck paying those additional billions of dollars to the oil pipelines. Although our responsibilities under the Interstate Commerce Act don't always get the same attention from the public as some of our other proceedings, today's order illustrates the tremendous financial consequences that they can have for everyday customers. I hope that proceedings like today's lead interested parties everywhere to more closely scrutinize the Commission's oil orders so that these multi-billion-dollar handouts do not become a matter of course.

For these reasons, I respectfully dissent.

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Richard Glick
Commissioner