United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued February 7, 2025 Decided January 23, 2026

No. 23-1348

PETRO STAR INC.,
PETITIONER

v.

FEDERAL ENERGY REGULATORY COMMISSION AND UNITED STATES OF AMERICA,
RESPONDENTS

ANADARKO PETROLEUM CORPORATION, ET AL.,
INTERVENORS

Consolidated with 24-1012, 24-1013

On Petitions for Review of an Order of the
Federal Energy Regulatory Commission

Kenneth M. Minesinger argued the cause for petitioner Petro Star Inc. With him on the briefs were *Dominic Draye* and *Howard L. Nelson*.

Steven A. Adducci argued the cause for petitioner ConocoPhillips Alaska, Inc. With him on the briefs were *Gregory S. Wagner* and *William G. Bolgiano*.

Amy L. Hoff argued the cause for petitioner TAPS Carriers. With her on the briefs was *Dean H. Lefler*.

Scott Ray Ediger, Attorney, Federal Energy Regulatory Commission, argued the cause for respondent. With him on the brief were *Matthew R. Christiansen*, General Counsel, and *Robert H. Solomon*, Solicitor. *Robert J. Wiggers* and *Robert B. Nicholson*, Attorneys, entered appearances.

Lorrie M. Marcil argued the cause for Shipper intervenors in support of respondents. With her on the joint brief were *Eugene R. Elrod*, *Steven A. Adducci*, *Gregory S. Wagner*, *William G. Bolgiano*, *Robin O. Brena*, *Kelly M. Moghadam*, *Joseph S. Koury*, *Andrew T. Swers*, and *Tina M. Grovier*.

Joel F. Wacks, *Deanne E. Maynard*, *Bradley S. Lui*, and *Kerry C. Jones* were on the brief for intervenor State of Alaska in support of respondents.

Kenneth M. Minesinger, *Dominic Draye*, and *Howard L. Nelson* were on the brief for intervenor Petro Star Inc. in support of respondents.

Before: PILLARD, RAO, and CHILDS, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* RAO.

RAO, *Circuit Judge*: The Trans Alaska Pipeline System ("TAPS") transports crude oil from Alaska's North Slope to the Port of Valdez, 800 miles south. The oil inserted into TAPS by different shippers is commingled in a common stream but

varies in quality. To compensate shippers that put higher-quality oil into the pipeline but receive lower-quality commingled oil, the TAPS owners implemented a "Quality Bank." Shippers of below average quality oil must pay into the Bank, while shippers of above average quality oil are paid by the Bank. Oil quality is determined by the relative proportions of nine components, known as "cuts." The Quality Bank formula is regulated by the Federal Energy Regulatory Commission ("FERC") and incorporated into the TAPS owners' tariffs.

This case involves a decades-long dispute between shippers over the formula for valuing the lowest-quality cut, called "Resid." Petitioner Petro Star thinks Resid is undervalued relative to the other cuts, while petitioner ConocoPhillips Alaska thinks Resid is overvalued. The TAPS owners separately petition to challenge FERC's conclusion that the TAPS Quality Bank administrator violated the tariff.

We deny all three petitions. Petro Star and ConocoPhillips have failed to demonstrate that the existing Quality Bank formula for valuing Resid is unjust or unreasonable. We also deny the petition of the TAPS owners because FERC's finding of a tariff violation was not unlawful or arbitrary.

I.

A.

TAPS is a privately owned pipeline subject to FERC's ratemaking authority under the Interstate Commerce Act. The TAPS owners are required to set just and reasonable rates, and FERC may prescribe new rates if it finds existing rates are unjust or unreasonable.

Shippers inserting oil into TAPS must account for its quality through the Quality Bank formula. In 1993, FERC approved the formula's current methodology, which values crude oil based on the relative proportions of nine component cuts. This court affirmed the general methodology in *OXY USA*, *Inc. v. FERC*, 64 F.3d 679, 687–92 (D.C. Cir. 1995), but litigation continued over how to set prices for certain cuts. While the lighter and more valuable cuts have published market prices, three of the heavier, lower-quality cuts—including Resid—do not. FERC must therefore estimate the value of these cuts.

The dispute in this case centers on the formula for estimating the value of Resid, the heaviest cut. Resid is essentially the sludge left over after all other components of crude oil have been boiled out in the refining process. Resid can be used to make asphalt or processed in a specialized refinery unit called a "coker" to produce marketable liquid fuels and a coal-like solid fuel called "coke." Because Petro Star's two refineries lack cokers, Petro Star returns substantial amounts of Resid to TAPS. As the only shipper returning Resid to the common stream, Petro Star benefits from a Quality Bank formula that attributes a higher value to Resid because it lowers the payments Petro Star must make for its degradation of the common stream. *See Petro Star Inc. v. FERC*, 835 F.3d 97, 101 (D.C. Cir. 2016). The other shippers, by contrast, benefit from a lower valuation for Resid, which increases the payments Petro Star must make.

In the absence of a market for unprocessed Resid, the Quality Bank formula presumes that Resid will be processed in a coker to produce finished products that are sold at published market prices. The value of Resid is calculated by estimating its value as a coker feedstock, that is, as the raw material processed by a coker. Resid's value as a coker feedstock is

determined by subtracting the costs of coking a barrel of Resid from the published market price of the finished products that result from coking a barrel of Resid. The current Resid valuation formula was adopted by an administrative law judge ("ALJ") in 2004 after an extensive hearing and was affirmed by both FERC and this court. *Trans Alaska Pipeline Sys.*, 113 FERC ¶ 61,062, 61,174–80 (Oct. 20, 2005); *Petro Star Inc. v. FERC*, 268 F. App'x 7, 8–9 (D.C. Cir. 2008).

B.

This case arose in 2013, when FERC opened an investigation into whether the formula for pricing Resid was still just and reasonable under the Interstate Commerce Act.[1] Petro Star and ConocoPhillips intervened in the proceedings, arguing the formula misvalued Resid. FERC concluded the parties failed to establish that the existing method for valuing Resid was unjust or unreasonable. We found FERC's explanation inadequate and remanded to the agency. *Petro Star*, 835 F.3d at 103, 110. FERC again found the formula just and reasonable. *BP Pipelines (Alaska) Inc.*, 162 FERC ¶ 61,147, slip decision ¶ 2 (Feb. 20, 2018). After Petro Star petitioned for review, we granted FERC's unopposed motion for voluntary remand.

On remand, an ALJ held a nine-week hearing featuring hundreds of exhibits and more than a dozen expert witnesses and concluded that the formula for valuing Resid remained just and reasonable. *BP Pipelines (Alaska), Inc.*, 179 FERC ¶ 63,013, slip decision ¶ 7 (May 16, 2022) ("Initial ALJ

[1] Exercising authority under the Interstate Commerce Act, FERC may, after a complaint or on its own initiative, investigate the lawfulness of existing tariffs and prescribe "just and reasonable" rates if it finds that existing rates are unjust or unreasonable. 49 U.S.C. app. §§ 15(1), 13(2) (1988).

Decision"). FERC largely affirmed the order as to the valuation of Resid. *BP Pipelines (Alaska), Inc.*, 185 FERC ¶ 61,206, slip decision ¶ 2 (Dec. 20, 2023) ("Final Order"). FERC also concluded that the Quality Bank administrator violated the tariff by testing the properties of Resid in the pipeline on a monthly basis without updating the yields in the Resid valuation formula. *Id.* ¶¶ 2, 73–74. Petro Star, ConocoPhillips, and the TAPS owners timely petitioned for review, while the remaining shippers and the State of Alaska intervened to defend FERC's order.

II.

Before reaching the merits, we consider our jurisdiction. "Initial review occurs at the appellate level only when a direct-review statute specifically gives the court of appeals subject-matter jurisdiction to directly review agency action." *Watts v. SEC*, 482 F.3d 501, 505 (D.C. Cir. 2007). We have consistently exercised direct review jurisdiction over challenges to FERC orders involving oil pipelines, relying on the direct review provisions applicable to the Interstate Commerce Commission ("ICC"). After the ICC Termination Act of 1995, however, we continued to exercise direct review jurisdiction without identifying the source of our authority. We now confirm that the courts of appeals have direct review jurisdiction over FERC orders involving oil pipelines under the Hobbs Act.

Judicial review of FERC orders shall "be made in the manner specified in or for" the substantive law under which FERC acts. 42 U.S.C. § 7192(a). Because FERC acts under the authority of the ICC (as set forth in the Interstate Commerce Act) when it regulates oil pipelines, and because ICC orders were subject to direct review in circuit courts under the Hobbs Act, FERC orders regulating oil pipelines were similarly

subject to direct review.[2] *See* 28 U.S.C. § 2342 (1976) (adding ICC orders to those reviewable under the Hobbs Act); 49 U.S.C. § 60502 (codifying the 1977 transfer of powers relating to "the transportation of oil by pipeline" from the ICC to FERC); *Earth Res. Co. of Alaska v. FERC*, 628 F.2d 234, 235 (D.C. Cir. 1980) (per curiam) ("[T]his court has the same jurisdiction to review FERC orders concerning oil pipelines as it has to review orders of the [ICC] under [the Hobbs Act].").

In 1995, Congress enacted the ICC Termination Act, which removed references to the ICC from the Hobbs Act and replaced them with references to the Surface Transportation Board. Pub. L. No. 104-88, § 305, 109 Stat. 803, 944–45. Although there are now no orders of the ICC referenced in the Hobbs Act, this court has continued to exercise direct review jurisdiction over FERC oil pipeline orders, but without explaining how such jurisdiction is consistent with the ICC Termination Act.[3] *See, e.g.*, *Husky Mktg. & Supply Co. v. FERC*, 105 F.4th 418, 421 (D.C. Cir. 2024); *MarkWest Michigan Pipeline Co., LLC v. FERC*, 646 F.3d 30, 34 (D.C.

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[2] When Congress recodified and partially repealed the Interstate Commerce Act in 1978, it provided that the Act was "not repealed" to the extent its provisions "related to the transportation of oil by pipeline." Pub. L. No. 95-473, § 4(c), 92 Stat. 1337, 1470. The 1977 version of the Interstate Commerce Act remains the governing organic statute for FERC's oil pipeline authority, even though the Act is no longer part of the U.S. Code. *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 956 & n.1 (D.C. Cir. 2007) (per curiam).

[3] In a challenge to FERC oil pipeline orders, this court ordered the parties to be prepared to discuss the effect of the ICC Termination Act on direct appellate jurisdiction. *See* Order, *United Airlines, Inc. v. FERC*, No. 11-1479 (D.C. Cir. Mar. 11, 2016). Although discussed at argument, the court assumed jurisdiction without explanation. *See United Airlines, Inc. v. FERC*, 827 F.3d 122, 127–28 (D.C. Cir. 2016).

Cir. 2011); *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 958 (D.C. Cir. 2007) (per curiam); *Ass'n of Oil Pipe Lines v. FERC*, 83 F.3d 1424, 1432 n.14 (D.C. Cir. 1996).

Although the ICC is no longer listed in the Hobbs Act, its removal was simply a function of Congress reconstituting the erstwhile ICC as the Surface Transportation Board. Deletion of the ICC from the Hobbs Act did not *sub silentio* eliminate direct appellate review of orders made under authority previously transferred from the ICC to FERC. We reached a similar conclusion with respect to authority transferred from the ICC to the Department of Transportation ("DOT"), holding that the ICC Termination Act did not eliminate direct review of DOT orders. *Aulenback, Inc. v. Fed. Highway Admin.*, 103 F.3d 156, 165 (D.C. Cir. 1997). Because there was no "indication that Congress intended a contrary result," orders issued under DOT's inherited ICC authority remained "reviewable under [the Hobbs Act]." *Id.* The abolition of the ICC did not affect direct appellate review of powers previously transferred from the ICC to other agencies.

In sum, the ICC Termination Act did not eliminate direct appellate review jurisdiction over FERC orders involving oil pipelines. We therefore have jurisdiction over these petitions under the Hobbs Act.

III.

When reviewing a FERC order, we "assess whether it is 'arbitrary, capricious … or otherwise not in accordance with law.'" *Petro Star*, 835 F.3d at 102 (quoting 5 U.S.C. § 706(2)(A)). The arbitrary and capricious standard requires that an agency decision "be reasonable and reasonably explained." *Mobil Pipe Line Co. v. FERC*, 676 F.3d 1098, 1102 (D.C. Cir. 2012). The reviewing court "is not to substitute its judgment for that of the agency." *OXY USA*, 64 F.3d at 690.

FERC may prescribe "just and reasonable" rates for oil pipelines if, after a "full hearing," it finds that existing rates are "unjust or unreasonable." 49 U.S.C. app. § 15(1) (1988). The proponent of a rate change bears the burden of showing that the existing rate is unjust or unreasonable. *BP Pipelines (Alaska) Inc.*, 149 FERC ¶ 61,149, 61,975–76 (Nov. 20, 2014). A rate may be "just and reasonable" even if the methodology underlying it is not "the only reasonable methodology." *OXY USA*, 64 F.3d at 692.

IV.

Petitioners Petro Star and ConocoPhillips challenge FERC's conclusion that the TAPS Quality Bank formula for valuing Resid remains just and reasonable. Petro Star claims Resid is undervalued, causing Petro Star to receive too little credit for the Resid it injects into the pipeline. Conversely, ConocoPhillips maintains that Resid is overvalued and that Petro Star's payments into the Quality Bank are insufficient to offset its degradation of the common stream. We deny both petitions.

A.

Because there is no established market price for Resid, the Quality Bank estimates the value of a barrel of Resid. To find this value, the formula subtracts coking costs from the value of coker yields and then divides by the number of barrels of Resid processed by a hypothetical coker. The value of coker yields is estimated by multiplying the quantity of finished products yielded through coking (generated by an agreed-upon model) by the published market prices of those products. Coking costs

are found by adding the capital costs, fixed operating costs, and variable operating costs of the hypothetical coker.[4]

The current dispute is over the "capital costs" component of the coking costs in the Quality Bank formula. Capital costs are estimated by reference to the capital invested in building a coker (the "investment base"). Under the current formula, the investment base is the cost of constructing a hypothetical West Coast coker in the year 2000, adjusted for inflation using a cost index. To calculate annual capital costs, this inflation-adjusted amount is multiplied by a 20 percent "capital recovery factor," which is meant to "reflect the capital recovery West Coast cokers would extract from … customers through their charges for processing Resid into products with published prices." Final Order ¶ 152. Put another way, the Quality Bank formula calculates annual capital costs as 20 percent of the coker's inflation-adjusted investment base. Based on the Quality Bank formula, when the capital costs—and therefore coking costs—are higher, the per-barrel value of unprocessed Resid is lower. That is to say, the more it costs to process Resid into useful products, the less the unprocessed Resid is worth.

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[4] For the purposes of analyzing this petition, the formula may be simplified as follows:

$$\textit{Per Barrel Value of Resid} = \frac{\textit{Value of Coker Yields - Coking Costs}}{\textit{Barrels of Resid Processed}}$$

where:

Coking Costs = Capital Costs + Fixed Costs + Variable Costs.

See Initial ALJ Decision ¶ 83 (providing a more detailed formula). Again, the Quality Bank formula uses market prices of coker yields, and the parties stipulated to the number of barrels of Resid processed. *See id.* ¶¶ 14–16, 83–87 & n.234. The dispute here is limited to the capital costs component of coking costs.

B.

Petro Star advances three reasons why FERC's approach to valuing Resid is arbitrary and capricious because it overstates capital costs and therefore undervalues Resid. We conclude that FERC reasonably rejected Petro Star's arguments.

1.

Petro Star first contends the Resid valuation formula is unjust and unreasonable because the coker investment base, which is embedded in the capital costs component of coking costs, should not be increased with inflation.[5] As a result of inflation adjustments, the investment base has grown from $351.9 million to approximately $632 million as of 2020. Petro Star maintains that this perpetual growth is unjust because "in the real world, the $351.9 million sunk costs of the Coker would not change and thus should not be inflated in the [Quality Bank formula]." Petro Star insists the "ever-increasing" investment base is inconsistent with "commercial realities," "punitive," and akin to a "mortgage [that] can never be paid off."

FERC's rejection of this argument was not arbitrary or capricious. As FERC explained, estimating the "current market value of Resid" requires "consider[ing] the current cost of

[5] The inflation adjustment is technically applied last, to the entire coking costs part of the formula. But because the inflation adjustment can be distributed to each component of the coking costs (capital costs, variable costs, and fixed costs), and because the order of operations for applying the inflation adjustment and 20 percent capital recovery factor does not matter, the inflation adjustment can be described as applying directly to the investment base. This is how Petro Star characterizes the inflation adjustment.

coking Resid." Final Order ¶ 104. The valuation formula reasonably adjusts capital costs for inflation just as it does the coker's fixed and variable costs. Without a uniform adjustment to coking costs—including capital costs—the value of coker yields would reflect current prices but coking costs would not. This would understate coking costs and consequently overvalue Resid.

Petro Star's argument that applying an inflation adjustment to the capital costs far exceeds any construction costs of building a coker misconstrues the formula. Again, applying the inflation adjustment to capital costs is necessary to ensure the formula reflects the current costs of coking. The adjustment is not intended to update "the actual construction cost of building a coker." Initial ALJ Decision ¶ 237; Final Order ¶¶ 105–06. Nor is there any "real coker to which the capital costs can be attributed." Final Order ¶ 106. As FERC has repeatedly explained (and Petro Star recognized with respect to a different cut), the cost index "is simply an adjustment … for inflation and the passage of time." Initial ALJ Decision ¶ 237 (cleaned up).

FERC likewise reasonably dismissed Petro Star's argument that increasing the investment base over time is inconsistent with evidence that coking activity has declined on the West Coast and that no new cokers have been built in recent years. FERC found that coker utilization rates remain high and that West Coast refineries have made capital improvements to existing cokers even if they have not built new ones. Even the closure of a coking refinery does not establish that coker profitability is generally declining. *See id.* ¶ 236 (observing that recent closures and project cancellations were "due to other business and economic reasons"). As FERC recognized, the closure of a refinery that has a coker unit could *increase* the profitability of the cokers at other refineries due to

consolidation. Evidence of ongoing, profitable coking activity supports FERC's conclusion that capital costs should continue to be adjusted upward with inflation.

In sum, FERC reasonably explained why an inflation adjustment was appropriately applied to the capital costs calculation.

2.

Petro Star's second objection is related to its first: it claims the 20 percent capital recovery factor is too high, again resulting in excessive coking costs and a corresponding undervaluation of Resid. Petro Star argues the capital recovery factor should be replaced with a metric based on the weighted average cost of capital.

FERC's rejection of these arguments was reasonable. As FERC explained, applying the 20 percent capital recovery factor results in a capital cost of $10 per barrel of Resid in 2020, up from $5.54 per barrel in 2000. Petro Star's witness testified that this $10 figure matches the "rule of thumb" coker margin expected within the refining industry.[6] It is also consistent with or even lower than the coker margins expert witnesses calculated during the extensive 2021 hearing. *See, e.g.*, J.A. 1670 (FERC witness estimating real-world coker margin of $11.20 per barrel of Resid); J.A. 1851 (ConocoPhillips's witness estimating coker margin of $16.78 per barrel during 2014–2019 period); *see also* J.A. 1157 (TAPS owners' witness

[6] The coker margin is the additional value generated from processing a barrel of Resid through a coker. Generally speaking, this margin is "calculated by taking revenues less the cost of feedstock and certain operating costs." Final Order ¶ 144 n.327. We follow the parties in referring to this interchangeably as "coker margin" or "coker profit margin."

comparing range of estimates). As FERC explained, "[b]ecause there are no published prices for Resid, the profit margins data for West Coast cokers provides relevant evidence of existing commercial realities" that bear on "actual costs West Coast cokers would impose … for processing Resid." Final Order ¶ 152 (cleaned up).

Against this evidence, Petro Star points to overall refinery margins, which, according to Petro Star, are much lower than those suggested by the 20 percent capital recovery factor. But FERC reasonably explained that Petro Star's evidence was about refineries in general—rather than cokers in particular—and "[e]ven Petro Star's witnesses acknowledge[d] that cokers add significant value to a refinery." Initial ALJ Decision ¶ 120. Petro Star's evidence was accordingly insufficient to prove the Resid valuation formula was unjust or unreasonable. While Petro Star quibbles with the expert witnesses' analyses, it presented no competing evidence regarding actual coker margins. Given the lack of evidence, FERC reasonably concluded that Petro Star failed to carry its burden of showing the 20 percent capital recovery factor was unjust or unreasonable.

Finally, FERC reasonably explained why it declined to use the weighted average cost of capital, Petro Star's preferred metric. First, this metric was again based on costs for refineries in general rather than for coking projects in particular. But as FERC found, cokers generally face greater risks, and thus have higher expected returns compared to other refinery operations. Final Order ¶ 170. Second, and more fundamentally, the "capital recovery factor does not and never was intended purely to represent the financing cost of capital." Initial ALJ Decision ¶ 117. Instead, it reflects expected financial returns from operating a hypothetical coker, a fact Petro Star acknowledged in prior proceedings when it described the relevance of "coker

profit margins" to the capital recovery factor. *Id.* ¶ 108. Because the record shows coker profit margins are at least $10 per barrel of Resid, it was not unreasonable for FERC to reject Petro Star's proposal to use a metric that would allocate much lower profits to cokers.

3.

Lastly, Petro Star argues the Quality Bank formula is unjust and unreasonable because of a mismatch between its components: the formula uses newer, year-2000 construction costs to calculate the coking costs but uses yields from older, pre-1985 cokers to calculate the value of coker yields.

In 2002, the relevant parties—including Petro Star—stipulated that the product yields from coking would "be determined through the use of PIMS," which is "a standard, commercially available computer model … used to simulate refinery operations." *Trans Alaska Pipeline Sys.*, 108 FERC ¶ 63,030, slip decision ¶¶ 32 n.19, 1135 (Aug. 31, 2004). Petro Star now argues the PIMS model it agreed to was based on pre-1985 cokers that have less valuable yields than modern cokers. Because the base year for coker capital costs is 2000, Petro Star argues the Resid valuation formula should reflect the higher-value yields achieved by newer cokers. In the alternative, Petro Star argues the investment base—and therefore capital costs—should be lowered to reflect an older base year.

FERC reasonably rejected Petro Star's arguments. First, FERC explained it would be inaccurate to assume Petro Star's Resid would be processed in a coker built after 2000. To the contrary, as one of Petro Star's witnesses conceded, "most of the West Coast cokers are older cokers." Final Order ¶ 53 n.117; *see also id.* ¶ 53 n.119 (explaining "90% of [West Coast cokers] were designed and built before 2000").

Second, relying on record evidence, FERC found that the agreed-upon PIMS model continues to reflect actual West Coast coker yields. While Petro Star identifies a theoretical mismatch between the PIMS yields (based on coker data from the mid-1980s) and the earnings of the hypothetical coker (based on a coker built in 2000), Petro Star fails to present evidence that this mismatch has any real world effects. The record establishes that the PIMS model still reflects the actual yields of West Coast cokers, within 2.1 percent or less. *See* Initial ALJ Decision ¶ 332 (describing trial staff analyses comparing PIMS yields to historical yield data). And as discussed, the capital cost calculation—which multiplies the inflation-adjusted investment base by the capital recovery factor—continues to accurately reflect actual coker profit margins. Because both the PIMS-generated yield estimates and coker costs "resemble those of a typical West Coast coker," there is no actual mismatch. Final Order ¶ 58. FERC therefore did not act arbitrarily by declining to change the Quality Bank formula in response to Petro Star's mismatch arguments.

C.

ConocoPhillips also petitions for review, arguing FERC acted unreasonably by not *increasing* the capital recovery factor. It contends the existing formula understates coker margins for several reasons. First, ConocoPhillips maintains that the inflation-adjusted investment base has not kept pace with actual coker construction costs. Second, ConocoPhillips argues that market data and earnings expectations demonstrate that coker margins are substantially higher than the $10 per barrel reflected in the 20 percent capital recovery factor.

We are not persuaded that FERC acted arbitrarily by declining to increase the capital recovery factor. After explaining at length why it was unnecessary to decrease the 20

percent capital recovery factor, FERC concluded that "on balance" the evidence also did not support an increase. Final Order ¶ 178. While ConocoPhillips's models were supportive of FERC's decision not to reduce the capital recovery factor, they did not show that an increase was required. FERC reasonably found that the model prepared by agency staff—which produced an estimated capital recovery factor of 22.26 percent and an estimated coker margin of $11.20 per barrel of Resid—also supported the existing 20 percent capital recovery factor. While FERC's goal is to assign a value to Resid "reflecting its actual market price as closely as possible," *Petro Star*, 835 F.3d at 100, this court has never "demanded 100 percent accuracy," which would "hold the agency to an impossibly high standard," *Exxon Co., USA v. FERC*, 182 F.3d 30, 38 (D.C. Cir. 1999) (cleaned up).

In light of the imprecision involved in estimating the value of Resid, FERC reasonably concluded that the existing capital recovery factor remained just and reasonable. *See OXY USA*, 64 F.3d at 692 (explaining a rate may be "just and reasonable" even if the methodology underlying it is not "the only reasonable methodology").

* * *

Petro Star and ConocoPhillips both failed to establish that the existing Resid valuation formula, or any of its challenged components, is unjust or unreasonable. Estimating the value of Resid in the absence of a market price, as the formula requires, is an inherently imprecise endeavor that may result in a range of just and reasonable rates. Judicial scrutiny is essential to

ensure the Commission acted reasonably, and we conclude it did so here.

V.

Finally, we address the petition of the TAPS owners: ConocoPhillips Transportation Alaska, Inc., ExxonMobil Pipeline Co., LLC, and Harvest Alaska, LLC. These companies provide transportation services to oil producers and administer the Quality Bank according to the terms of the Quality Bank tariff. FERC determined on remand that the Quality Bank administrator violated the tariff because he tested the composition of the Resid in the pipeline but failed to use those test results to update the Quality Bank formula. The TAPS owners petition for review because they claim Petro Star intends to seek damages for this violation.[7]

As previously discussed, the Quality Bank formula relies on an industry model to determine the quantity of finished products created from coking. These quantities vary based on "yield multipliers" that reflect the characteristics of the Resid in the pipeline. In 2004, an ALJ set these yield multipliers based on a 2001 lab analysis of Resid. Section III.G.5 of the Quality Bank tariff explicitly sets forth the circumstances for retesting the common stream and updating the yield multipliers:

> The Quality Bank Administrator shall have the discretion to retest the API gravity, sulfur content and carbon residue of the Resid component of the

[7] According to FERC, "Petro Star has disclaimed any claim to relief from the Commission for this violation" and "instead will seek damages in another forum." Final Order ¶ 191. We do not address the availability, if any, of retrospective relief for the violation of this tariff provision.

> common stream whenever he believes that there may be a change in the common stream that will significantly affect the Resid component unit values. If the Quality Bank Administrator elects to retest the Resid component of the common stream and is satisfied that the sample is properly taken and tested, the new values for API gravity, sulfur content and carbon residue content shall be used to calculate the multipliers (product yields) in the Resid formulas[.]

J.A. 1795. Since at least 2006, the administrator has chosen to conduct monthly tests of Resid properties in the TAPS common stream. Notwithstanding these tests, the administrator has continued to use the results from the 2001 analysis.

FERC found the administrator violated section III.G.5 by failing to update the yield multipliers with the results of the monthly tests. FERC also found that it was reasonable to continue the monthly testing schedule the administrator had been following, but that monthly updating of the formula would introduce unreasonable volatility and uncertainty. FERC therefore ordered a tariff modification to require monthly testing and annual revisions to the yield multipliers in the Quality Bank formula.

The TAPS owners advance two arguments for why FERC's finding of a tariff violation was arbitrary and capricious and contrary to law. Neither is persuasive.

First, the TAPS owners argue FERC acted arbitrarily in finding a violation because section III.G.5 is reasonably read to require continued use of the 2001 baseline Resid properties until a significant change occurred. But FERC's interpretation is correct under the plain terms of the Quality Bank tariff. *Oklahoma Gas & Elec. Co. v. FERC*, 11 F.4th 821, 827 (D.C. Cir. 2021) ("A tariff provision must be understood according

to its plain meaning, which we draw from its text and context."). The tariff expressly gave the administrator "discretion to retest … whenever he believes that there may be a change in the common stream that will significantly affect the Resid component unit values." J.A. 1795. But "[i]f the Quality Bank Administrator elects to retest," then "the new values ... *shall be used* to calculate the multipliers (product yields) in the Resid formulas." *Id.* (emphasis added). In short, the administrator was not required to test, but he violated section III.G.5 by testing and then failing to update the formula with the new results.

Second, the TAPS owners argue it was arbitrary and capricious for FERC to enforce a tariff provision—here, the requirement to update the Quality Bank formula every time Resid was retested, regardless of frequency—that FERC later found to be unjust and unreasonable. We disagree. Under the filed rate doctrine, regulated entities must "charge only the rates filed with FERC." *Oklahoma Gas*, 11 F.4th at 829. And under a corollary to this principle, "agencies may not alter rates retroactively." *OXY USA*, 64 F.3d at 699. In *OXY USA*, we explained that "[a]lthough the Quality Bank valuation methodology" is not a "rate" in the traditional sense, "the filed rate doctrine applies to changes in that methodology" because it has long "been an integral element of the TAPS [owners'] tariff structure." *Id.* The administrator was bound to comply with the plain terms of the Quality Bank tariff, which he failed to do. After finding that the testing schedule prescribed by the tariff was not just and reasonable, FERC appropriately ordered a prospective modification to the tariff. *See id.* (explaining that under section 13(2) of the Interstate Commerce Act, which "reflect[s] these general doctrinal rules" about filed rates, FERC "has no authority … to apply a change retroactively").

In sum, FERC first correctly found that the administrator violated the plain terms of the tariff. Then, considering the administrator's experience with regular testing, FERC reasonably ordered a tariff change to require monthly testing (consistent with the administrator's practice) and annual updating of the Resid properties.

* * *

Because neither Petro Star nor ConocoPhillips carried its burden of showing that the existing formula for valuing Resid was unjust or unreasonable, we deny their petitions. And because FERC did not err in finding the Quality Bank administrator violated the tariff, we deny the TAPS owners' petition as well.

So ordered.