FERC'S POLICIES ARE INCENTIVIZING THE EXERCISE OF MARKET POWER THROUGH UNDER-DEVELOPMENT OF OIL AND NATURAL GAS LIQUIDS PIPELINE CAPACITY

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Synopsis: The Federal Energy Regulatory Commission (FERC or the Commission) regulates oil and natural gas liquids (NGL) pipelines rates.[1] As the rate level permitted to be charged is a crucial element in a decision for a pipeline to invest in capacity, FERC's policies toward regulating rates have a direct impact on investment in oil and NGL pipeline infrastructure.

Fundamental principles of competitive economics dictate that optimal development of oil pipeline transportation capacity is achieved when pipeline transportation rates reflect the long-run marginal cost of developing incremental capacity, as would be the case in a workably competitive market.[2] However, certain of FERC's current policies for review of negotiated "committed" rates and for approving market-based rate authority actually work against the objective of promoting optimal investment in pipeline infrastructure. That is, rather than ensuring oil pipeline rates are set at competitive levels reflective of long-run marginal cost, FERC's current approach instead incentivizes pipeline companies to exploit the natural monopoly characteristics of the oil pipeline industry to under-develop capacity in an exercise of market power.

With respect to approving market-based rates, FERC's policies for assessing whether a particular oil pipeline transportation market is competitive effectively begin with the tautological assumption that all the prevailing prices and alternatives in that market reflect competitive circumstances.[3] In addition, with respect to the approval of contract rates involving multi-year take-or-pay volume-commit-

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1. Interstate Commerce Act, 49 U.S.C. app. §§1(5), 2, 3(1), 15(1), 15(7) (1988).

2. "Long-run marginal cost" refers to the costs of providing incremental output over time horizons when all factors of production can be changed. A "short-run marginal cost" refers to the incremental cost of producing an incremental unit in the short-run, when factors of production are fixed. Thus, long-run marginal cost includes incremental capital investment associated with incremental output, whereas short-run marginal cost includes only the variable operating costs required to provide one more unit of output.

3. The specific flawed FERC statement and resulting policies referenced here are identified and discussed in sections I.B and III.A below.

ments, FERC has stated it does not have an obligation to review negotiated committed shipper rates based on whether the rates produce a reasonable, rather than excessive, return on investment for the pipeline.[4]

We recommend the Commission discontinue its economically unsound presumptions that all "used" alternatives and prevailing rate levels are competitive for purposes of market power analysis. Instead, we recommend that the Commission adhere to the fundamental principles of competitive economics by affirmatively clarifying that a reasonable proxy for a competitive rate for purposes of an oil pipeline market power analysis should be tied to the underlying costs of providing the transportation service at issue. To remedy the incentive for the underdevelopment of capacity supported by committed shipper contracts, we recommend the Commission clarify that any "duty to support" contract clauses do not foreclose the ability of shippers to challenge the reasonableness of the rates.

4. The specific flawed statement and resulting policies referenced here are identified and discussed in sections I.B, IV.A. and IV.B below.

I. INTRODUCTION

The Federal Energy Regulatory Commission (FERC or the Commission) does not have regulatory authority regarding entry, abandonment, or expansion of oil and natural gas liquids (NGL) pipelines,[5] but it does have regulatory authority over the rates charged by such pipelines.[6] As the level of rates permitted to be charged is a crucial element in a decision for a pipeline to construct a new system or invest in a change in the capacity of its operations, FERC's policies for regulating rates have a direct impact on investment in oil and NGL pipeline infrastructure.

From a policy perspective, the objective of FERC's practices and precedents for regulating oil and NGL pipeline rates should promote the development of infrastructure that is supported by adequate market demand at rates that are compensatory, but not excessive. However, as discussed below, FERC's recent statements that it will not review the reasonableness of committed shipper rates on oil and NGL pipelines—as well as certain key aspects of the Commission's method for evaluating whether oil pipelines possess market power in the context of approving

5. *See*, *e.g.*, Farmers Union Cent. Exch. v. FERC, 584 F.2d 408, 410 n.1 (D.C. Cir. 1978) (stating that the Interstate Commerce Commission, FERC's predecessor in interest, did not have regulatory authority over acquisition of a pipeline company); Arco Alaska v. FERC, 89 F.3d 878 (D.C. Cir. 1996) (holding that FERC did not have regulatory authority to require carriers to "publish operating rules governing allocation of capacity among carriers").

6. Interstate Commerce Act, 49 U.S.C. app. §§ 1(5), 2, 3(1), 15(1), 15(7) (1988).

market-based ratemaking authority—actually serve to incentivize oil and NGL pipelines to exercise market power by allowing them to profitably increase rates through an under-development of capacity.

A. Background – FERC's Regulation of Oil Pipeline Rates

Congress delegated oil pipeline ratemaking authority to FERC with the mandate that rates be "just and reasonable."[7] The D.C. Circuit Court noted in *Farmers Union II* that for rates to be "just and reasonable," there exists a "zone of reasonableness" wherein rates can be neither "less than compensatory" nor "excessive."[8] Within the zone of reasonableness, a just and reasonable rate is high enough to "both maintain the producer's credit and attract capital," while low enough to prevent "exploitation", or an exercise of market power, by the pipeline.[9]

A primary impetus for the economic regulation of oil pipeline rates is that oil and NGL pipelines have many of the characteristics of a natural monopoly.[10] The economies of scope and scale associated with the operation of oil pipeline systems, as well as the significant fixed costs and time associated with entry or expansion, contribute to the barriers to entry: the ability of an incumbent pipeline to serve incremental demand from customers sooner and at lower cost than a new entrant creates circumstances where incumbents can deter entry.

However, in key respects, FERC's existing policies for granting market-based ratemaking authority and approving negotiated committed shipper rates fail to constrain oil pipeline rates to a zone of reasonableness consistent with optimal investment in capacity. Rather, these policies provide oil pipeline companies with the incentive and the opportunity to earn excessive profit by exercising market power through under-development of capacity.

B. Existing FERC Regulatory Policies That Incentivize the Exercise of Market Power

In oil and NGL transportation markets, market power exists when pipeline capacity is constrained and/or there is an insufficient number of alternatives competing with incumbent pipelines.[11] If pipeline capacity is constrained and barriers to entry limit the timely availability of competitive alternatives, shippers' willingness to pay for the existing capacity (or any potential incremental capacity) can exceed the underlying cost to provide that capacity, such that incumbent pipelines can charge committed shipper rates or market-based rates above competitive levels. As the Commission has correctly and succinctly summarized the concern,

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7. Farmers Union Cent. Exch. Inc. v. FERC, 734 F.2d 1486, 1501-02 (D.C. Cir. 1984) [hereinafter Farmers Union II].

8. *Id.* at 1502.

9. *Id.* (internal citation omitted).

10. U.S. DEP'T OF JUSTICE, OIL PIPELINE DEREGULATION, at iv (May 1986), https://www.ferc.gov/sites/default/files/2020-06/doj-report.pdf.

11. See, e.g., David W. Savitski, Price Tests for Market Power Analysis of Natural Gas Storage Providers, 37 ENERGY L.J. 177, 184-85 (2016).

"[b]asic economic theory holds that firms with market power, like pipelines, will construct less capacity than competitive firms because doing so results in higher prices and profits."[12]

By contrast, in a competitive market with adequate alternatives and no constraints, sellers of capacity have a profit incentive to expand or enter when price exceeds their long-run marginal cost to provide capacity, such that competition among sellers of capacity drives the market price to the long-run marginal cost level. Thus, sound economics dictates that in context of analyzing whether a market is workably competitive, a reasonable proxy for a competitive rate should be based on an estimate of the long-run marginal cost of providing incremental transportation capacity, and competitive alternatives should be identified based on whether shippers *would* and *could* shift volumes to the alternatives in response to a rate increase by the subject pipeline above a competitive level.

Before approving market-based rates, FERC requires the applicant pipeline to demonstrate that adequate competitive alternatives exist in the relevant origin and delivery markets to discipline its potential to exercise market power, where such exercise consists of sustaining rates substantially above the rate levels that would be expected to persist in a workably competitive market.[13] However, following the economically flawed D.C. Circuit *Mobil Pipeline Co. v. FERC* decision,[14] the Commission issued a series of decisions that no longer identify competitive alternatives based on whether shippers *would* and *could* shift volumes to the alternatives in response to a rate increase by the subject pipeline above a competitive level.[15] Rather, the *Mobil* decision and FERC's subsequent *Seaway* decisions articulate a policy that presumes that any alternative currently observed to be "used" in the market is necessarily a competitive alternative (even if operating at capacity),[16] and that any prevailing commodity price locational differential associated with "used" alternatives represents a competitive *transportation* rate level, even if the prevailing commodity price locational differential significantly exceeds the underlying long-run marginal cost of providing the relevant transportation service.[17]

The economically unsound statements at the heart of this policy are in direct conflict with the Commission's own prior correct ruling—in the 1998 *Koch Gateway* decision—that competitive alternatives are appropriately identified in relation

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12. Order No. 712-A, *Promotion of a More Efficient Capacity Release Market*, 125 F.E.R.C. ¶ 61,216 at P 33 (2008) [hereinafter Order No. 712-A].

13. Order No. 572, *Market-based Ratemaking for Oil Pipelines*, F.E.R.C. STATS. & REGS. ¶ 31,007, 59 Fed. Reg. 59,148 (1994) [hereinafter Order No. 572].

14. Mobil Pipeline Co. v. FERC, 676 F.3d 1098 (D.C. Cir. 2012).

15. *Enterprise Products Partners L.P. and Enbridge Inc.,* 146 F.E.R.C. ¶ 61,115 (2014) [hereinafter *Seaway I*]; *order on reh'g*. 152 F.E.R.C. ¶ 61,203 (2015) [hereinafter *Seaway II*]. Note that there are additional FERC decisions issued following the *Seaway I* and *Seaway II* decisions that implement economically flawed analyses that are discussed in section III *infra*.

16. *Seaway I*, *supra* note 15, at P 56; *Seaway II*, *supra* note 15, at P 4.

17. *Seaway I*, *supra* note 15, at P 55.

to a long-run competitive equilibrium wherein a competitive price level is "determined by the long-run marginal cost for the marginal supplier" of the transportation service in question.[18] Indeed, even in the flawed *Seaway II* decision, the Commission continued to correctly recognize that marginal cost is the relevant reference point for market power analysis.[19] Nevertheless, in the *Seaway* decisions and subsequent decisions, the Commission has ignored long-run marginal cost as the relevant indicator of a competitive price level. Instead, FERC implements a policy that effectively begins the evaluation of whether oil pipeline transportation markets are sufficiently competitive to prevent an exercise of market power by tautologically *assuming* that prevailing prices and "used" alternatives reflect the outcome of workable competition in the subject market. This fundamental flaw biases FERC's market power analyses toward indicating that markets are more competitive than they actually are—thereby permitting pipelines that possess market power to nevertheless charge market-based rates.

Under the Commission's current flawed policies, if a pipeline is applying for market-based rates, or has market-based rates, that pipeline is incentivized to under-develop capacity. In the case of a pipeline applying for market-based rates, if the applicant pipeline is constrained, shippers are likely to be using less attractive alternatives, such as rail, waterborne, or trucking, as an outlet to serve transportation demand in excess of the constrained pipeline capacity. Under the Commission's presumption that "used" alternatives are competitive alternatives, these lower quality or higher cost "used" alternatives would be deemed viable competitive alternatives and assumed to be setting a competitive rate level for the subject pipeline. However, such alternatives would not be *used* at all if there were adequate pipeline capacity being provided at a competitive price consistent with the long-run marginal cost to expand pipeline capacity and alleviate the constraint.

The tautological presumption that the observed usage of alternatives and the observed market prices of used alternatives necessarily reflect competitive outcomes is known as the "Cellophane Fallacy" (or sometimes the "Cellophane Trap"), so-named for a case involving DuPont's exercise of market power in raising the price for cellophane to the point that higher cost alternative wrapping materials became used substitutes in the market. The Cellophane Fallacy has been recognized by academics and the Commission as a logically flawed approach to identifying competitive alternatives when analyzing markets to evaluate the existence of market power.[20]

While FERC claims that the Cellophane Fallacy is unlikely to occur in the oil pipeline industry with regulated rates,[21] FERC's reasoning is unsound because it fails to account for the fact that the vast majority of FERC-jurisdictional oil pipeline tariff rates are not set on a cost-of-service basis and are not constrained to be

18. *Koch Gateway Pipeline Co.*, 85 F.E.R.C. ¶ 61,013, at 61,045 (1998) [hereinafter *Koch Gateway*].

19. *Seaway II, supra* note 15 at P 30, Appendix at P 7.

20. *Id.* at PP 22-24; *see also* W. KIP VISCUSI, JOSEPH E. HARRINGTON, JR. & JOHN M. VERNON, ECONOMICS OF REGULATION AND ANTITRUST 297 (4th ed. 2005).

21. *See infra* section III.A.1.a.

reflective of costs. Ultimately, the Commission's approach is a kind of self-fulfilling prophecy: by asserting that its analyses are immune from the Cellophane Fallacy, FERC permits that very fallacy to influence the results in ways that reinforce the faulty presumption of immunity.

FERC's policies also facilitate the exercise of market power with respect to committed shipper contracts. When offering expanded capacity, pipelines can enter into contracts with shippers whereby a shipper will commit to ship a certain volume at a specified rate. Within these committed contracts, pipelines often include a "duty to support" clause for committed shippers to support the initially filed rates and terms of service.[22] Despite this, FERC has stated it will not review the initial filing of negotiated committed shipper rates to evaluate whether the rates produce a reasonable (rather than excessive) return, even though it has acknowledged that the revenue generated by committed shipper contracts often far exceed the pipeline's underlying costs.[23] Thus, FERC's committed shipper rate approval policies effectively foreclose regulatory recourse for shippers desiring to ensure competitive rate levels – leaving them to negotiate in an environment where the pipeline party has no clear check on its ability to exercise market power.

C. Proposed Changes to Remedy the Incentive for Oil Pipelines to exercise Market Power

With respect to its analysis of market power when determining whether to grant (or continue to allow) market-based ratemaking authority, the Commission should not presume that all "used" alternatives are necessarily competitive in terms of price and availability, nor presume that the prevailing prices charged by alternatives and associated prevailing commodity price locational differentials determine competitive transportation rate levels for the subject pipeline.

Consistent with existing Commission practice, a netback price analysis in an origin market or a delivered price analysis in a destination market can be applied for evaluating shippers' willingness to shift volumes in response to a rate increase by the subject pipeline *above a competitive level*.[24] However, such an analysis will only provide a valid indication of whether potential alternatives are competitive in terms of price *if the competitive transportation price level incorporated into the analysis is reflective of the long-run marginal cost* to provide the relevant transportation service.

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22. *GT Pipeline, LLC*, 161 F.E.R.C. ¶ 61,066, at P 29 (2017) (citing *Colonial Pipeline Co.*, 146 F.E.R.C. ¶ 61,206, at P 32 (2014); *Nexen Mktg. U.S.A., Inc. v. Belle Fourche Pipeline Co.*, 121 F.E.R.C. ¶ 61,235, at PP 51-52 (2007)).

23. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151 at PP 25-27 (2014).

24. When analyzing an origin market, a netback price is the effective commodity price received by a seller in the origin market by subtracting transportation cost from the destination commodity price. When analyzing a destination market, a delivered price is the effective commodity price received at a destination, determined by starting with an origin commodity price and adding the transportation cost from that origin to the destination. Comparing a netback price or delivered price attainable on a subject pipeline (after a rate increase above a competitive level) to the netback or delivered prices attainable via other transportation alternatives is the analysis that should be used to identify competitively priced alternatives that would be available to shippers to discipline an exercise of market power by the subject pipeline.

With respect to pipelines' incentive to obtain and exercise market power when negotiating committed shipper rates for new or expanded pipeline transportation services, the essential policy changes are ones that (i) give current or potential shippers the freedom to investigate whether the actual or proposed rates are at reasonable levels reflective of the pipelines' costs, and (ii) ensure that shippers have access to the information necessary to perform such assessments. If the Commission were to clarify that any duty to support clauses in committed shipper contracts do not foreclose the ability of shippers to challenge the reasonableness of the committed rates and require that pipelines include segmented cost of service data in their annual Form 6 filings, shippers would have the opportunity and ability to evaluate whether committed shipper rates are within a zone of reasonableness. Committed shippers would be in a position to balance the likelihood of a rate adjustment against their incurrence of litigation cost—just as shippers currently do for non-committed rates (when adequate cost information is available).

The remainder of this article proceeds as follows. First (in section II), we provide an overview of the economics of capacity decisions and the incentives to expand or contract capacity. Next (in section III), we examine the disincentive for capacity development created by FERC's existing policies and practices for granting market-based ratemaking authority and explain our recommendations for an economically sound approach to evaluating levels of competition to ensure that market base rates can only be charged by pipelines that truly lack market power in the relevant origin and destination markets. Finally (in section IV), we explain how FERC's existing policy toward committed shipper rates incentivizes oil and NGL pipelines to under-develop capacity and advance recommendations to alleviate this concern.

II. ECONOMICS OF OIL PIPELINE CAPACITY DECISIONS

A. Profit-Maximizing Output in Competitive and Uncompetitive Markets

A firm's profit maximizing output is determined by the additional cost incurred to produce additional output ("marginal cost") relative to the additional revenue received for selling the additional output ("marginal revenue").[25] If a firm's marginal cost is less than the marginal revenue it is earning at a given level of output, it will be profitable for that firm to increase output. Conversely, if a firm's cost to produce an additional unit of output exceeds the revenue it can earn from selling that unit (*i.e.*, its marginal cost exceeds marginal revenue), then incremental output reduces the firm's overall profits. Consequently, profit is maximized where marginal cost equals marginal revenue. Importantly, this is true both for "price taking" firms operating in competitive markets *and* for firms that possess and exercise market power in uncompetitive markets.[26]

All firms maximize profit where marginal cost equals marginal revenue, but the degree of competition in markets determines what price and output levels give

25. PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 503a at 115 (3d ed. 2007) [hereinafter Areeda *et al*.].

26. *Id.* at ¶ 503a.

rise to this profit-maximizing condition. While firms operating in a competitive environment maximize profit where their marginal cost equals the market price, firms operating in uncompetitive markets maximize profit by restricting their output to a level where the market price *exceeds* their marginal cost. Firms in competitive markets are "price takers" because they have no agency to unilaterally raise their prices and must sell at the competitive market price or not at all. In competitive markets, equilibrium occurs with multiple price-taking firms each producing the levels of output that set their respective marginal costs equal to the market price.[27] By contrast, a firm with market power would lose *some*, *but not all* of its sales in response to an increase in the price it charges. Such a firm has an incentive to restrict its output below the competitive equilibrium level, thereby raising the market price it can charge for every unit it sells. Thus, a comparison of market price to marginal cost can indicate whether a firm is behaving competitively or exercising market power. Specifically, a clear separation of market price from marginal cost can indicate that a market participant is exercising market power.[28]

For oil and NGL pipelines, the *short-run* marginal cost (*i.e.*, the incremental cost of transporting an additional barrel) can be very low when existing capacity is not constrained,[29] and very high when serving an additional unit of product demand requires a capital-intensive expansion of capacity. As discussed further below, owing to this "capital indivisibility" characteristic of the oil pipeline industry, it is an examination of price in relation to *long-run* marginal cost[30]—including the incremental capital costs necessary to expand capacity and serve incremental demand—that permits determination of whether an oil or NGL pipeline is behaving competitively or exercising market power.

B. Market Incentives to Expand or Reduce Capacity

There are several incentives to expand or reduce oil and NGL pipeline capacity that are directionally common in both competitive and uncompetitive markets. Incentives to expand capacity include increases in market demand, decreases in long-run marginal costs, and the ability to enter into long-term contracts, as well as the incentive for low-cost incumbents to deter entry by potential competitors. Conversely, incentives for market participants to reduce capacity include decreases in market demand, increases in long-run marginal costs, and constraints

27. *Id.*

28. *Id.*

29. When capacity is not constrained, the short-run marginal cost of transporting one more barrel of product is the cost associated with additional fuel and power (and potentially drag-reducing agent).

30. A "long-run marginal cost" refers to the costs of providing incremental output over time horizons when all factors of production can be changed. A "short-run marginal cost" refers to the incremental cost of producing one more unit in the short-run, when factors of production are fixed. In the case of oil pipelines that charge a single rate to recover variable costs, as well as return of and on capital, it is long-run marginal costs that are relevant to be recovered in rates associated with changes in capacity. *See also* Areeda *et al*., *supra* note 25, at p. 122-123 ¶ 504.

on long-term contracting, as well as the ability of incumbent pipelines to exercise market power.[31]

An increase in market demand incentivizes increases in oil and NGL pipeline capacity, whether or not the transportation market is competitive. When pipelines have built capacity to a point where marginal revenue equals long-run marginal cost, an increase in market demand (meaning a greater quantity of transportation is demanded at every price level) will induce expansion of capacity because the willingness to pay for the existing transportation capacity will have increased.[32] Conversely, a decrease in market demand incentivizes oil and NGL pipeline to reduce capacity, whether or not the transportation market is competitive. When pipelines have built capacity to a point where marginal revenue equals long-run marginal cost, a decrease in market demand will cause the intersection of the marginal revenue curve and a pipeline's long-run marginal cost curve to move to a lower quantity (capacity) and price (rate) level.[33]

A decrease in long-run marginal cost provides an incentive to expand capacity, working in a similar manner to an increase in demand. When long-run marginal cost decreases (for example due to a decrease in the cost of line pipe materials for constructing an expansion), firms that had previously installed capacity up to a point where long-run marginal cost equated to marginal revenue would now be in a position where long-run marginal cost is less than marginal revenue, and hence would have an incentive to expand capacity. Conversely, an increase in long-run marginal cost provides an incentive to restrict capacity, working in a similar manner to a decrease in demand.[34]

Long-term contracting incentivizes capacity expansion by reducing the risk associated with capital investment to be recovered over a long, useful life. Committed shipper contracts are typically multi-year (or even multi-decade) commitments by customers to pay specified rates to transport specific monthly or annual volume levels. The ability for pipelines to obtain these types of long-term take-or-pay volume commitments provides some financial assurance that a pipeline entity will receive consistent revenue streams sufficient to recoup its invested capital and expect to earn at least a fair market rate of return over the economic life of the assets. This positively affects the pipeline's ability to secure financing and reduces the risk of the investment.[35]

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31. This section provides an overview of incentives to expand or reduce/restrict capacity and does not attempt to catalogue all potential incentives that may exist in particular markets.

32. Importantly, pipelines with market power *also* have an incentive to expand capacity when market demand goes up, since the increased willingness to pay means greater marginal revenue is obtainable for each unit of additional output. *Guttman Energy, Inc. v. Buckeye Pipe Line Co.*, 161 F.E.R.C. ¶ 61,180, at P 299 (2017) [hereinafter *Guttman*].

33. Areeda *et al.*, *supra* note 25, at ¶ 503a.

34. *Id.*

35. *See Express Pipeline P'ship,* 76 F.E.R.C. ¶ 61,245 (1996) (stating that "[u]ncommitted shippers do not provide the revenue assurances [. . .] that term shippers provide" and explaining that the amount of risk shifted from the pipeline to the term contract shipper increases with the length of the volume commitment). *See also*

Finally, incumbent pipelines may have an incentive to expand capacity when doing so can deter competition from potential new pipelines seeking to enter a transportation market. Oil and NGL pipeline have large economies of scale due to their high fixed costs and low variable costs, which causes average total costs to decline over the range of volumes up to the pipeline's capacity. Given these "natural monopoly" features of pipeline transportation,[36] an incumbent pipeline with excess capacity—or with the ability to engage in comparatively low-cost expansion projects[37]—can deter entry of potential alternative pipelines.[38]

C. Policy Implications of Market Incentives

It is certainly appropriate for FERC to be aware of legitimate incentives for oil and NGL pipelines to reduce or restrict capacity in response to market signals, and it is commendable that FERC permits pipelines and shippers to enter into long-term contracts in order to incentivize needed investment. However, FERC must also remain vigilant against the incentive some pipelines have to raise prices and restrict capacity due to their ability to exercise market power. As discussed above, the profit-maximizing capacity decision for a firm with market power is to reduce or restrict capacity below levels that would prevail in a competitive market.[39]

When pipeline capacity is constrained, shippers' willingness to pay for transportation is determined by the commodity price differential between the pipeline's origin and destination, which can be significantly greater than both the pipeline's average total cost and its long-run marginal cost to expand capacity.[40] When the

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Colonial Pipeline Co., 146 F.E.R.C. ¶ 61,206, at P 38 (2014) (acknowledging that volume guarantees in committed shipper contracts "create financial certainty" for the pipeline) and *North Dakota Pipeline Company LLC*, 147 F.E.R.C. ¶ 61,121, at P 22 (2014) (discussing how FERC's declaratory order process serves to remove regulatory uncertainty associated with the provision of proposed new service, thereby "allow[ing] an oil pipeline to obtain appropriate financing and/or move forward with its investment decisions").

36. Declining average total costs is a primary characteristic of "natural monopoly," where there are lower total costs for a single firm to provide total industry output than multiple firms. W. KIP VISCUSI, JOSEPH E. HARRINGTON, JR., AND JOHN M. VERNON, ECONOMICS OF REGULATION AND ANTITRUST at 337-339 (3rd ed. 2001).

37. In typical circumstances, an incumbent pipeline can add capacity more cheaply than a potential new-build pipeline, since the incumbent can increase flow rates by augmenting pumping facilities or making other incremental improvements, while a new entrant must install line pipe and pumping stations.

38. Avinash Dixit, *The Role of Investment in Entry Deterrence*, 90 ECON. J. 95 (1980) at 98-99. *See also* VISCUSI, *supra* note 36, at 178-82. Note that, in the situation described, even if a pipeline is operating at its chosen capacity that deters entry of rival firms, output will be lower than the level that would occur in a competitive market and price will be higher than the level that would occur in a competitive market.

39. Areeda *et al*., *supra* note 25, at ¶ 501.

40. Note that when seasonal variations cause commodity price differentials to exceed long-run marginal cost in certain periods but not in others, these circumstances *could* be consistent with a workably competitive market. *Explorer Pipeline Co.*, 87 F.E.R.C. ¶ 61,374, at p. 62,394. However, more typically in oil and NGL transportation markets, situations of constrained capacity or excess capacity persist over longer periods of time as transportation demand responds to longer-term shifts in commodity market conditions. For example, the demand for pipeline transportation of crude oil from a producing basin is unlikely to be seasonal. Instead, overall demand is dependent on whether drilling (and associated production) is increasing or decreasing in response to long term commodity price fluctuations relative to the cost of production.

market value of transportation persists at levels greater than long-run marginal cost, it is both (i) a signal that an expansion of capacity is warranted, and (ii) a sufficient *incentive* for market participants to expand and serve incremental demand. Competition among numerous sellers of transportation capacity is the market mechanism that drives competitive rates to the level of long-run marginal cost.

However, because pipeline capacity expansion is inherently slow, transportation rates that are able to persist at levels above long-run marginal cost represent a valid market power concern. Barriers to entry—primarily stemming from the necessity of large capital investments (referred to as "extremely high sunk costs" in *Farmers Union II*)—are a source of market power in the oil pipeline industry and a major impetus for economic regulation of oil pipeline rates.[41] Without barriers to entry, it would be difficult to sustain a price increase above a competitive price level, and any basis for price regulation would be significantly lessened.[42] But given the high barriers to entry and other natural monopoly characteristics of the oil pipeline industry, it is essential that FERC adopt and apply regulatory policies that are effective at preventing the exercise of market power and constraining pipeline rates to fall within a zone of reasonableness indicative of the long-run marginal cost to provide oil and NGL pipeline transportation service.

D. Reasonable Regulatory Policy for Incentivizing Capacity Levels that Would Occur in Competitive Markets

As explained above, for oil and NGL pipelines, it is a comparison of prevailing price to long-run marginal cost that is relevant for determining whether a pipeline is behaving competitively or exercising market power. Thus, comparing rates that are charged (or could be charged) by a given oil pipeline to an estimate of the long-run marginal cost for the transportation service in question is a reasonable regulatory policy for incentivizing capacity levels that would occur in competitive markets, even in situations where an entity may possess market power.[43]

Notably, this principle is already embedded in certain aspects of the Commission's economic regulation of pipelines. For example, when pipelines and shippers pre-negotiate committed rates associated with expansion and greenfield pipeline projects, the committed (and uncommitted) rates for which FERC approval is sought are structured to provide for recovery of the incremental capital costs associated with the expansion project.[44] Accordingly, these negotiated rates

41. *Farmers Union II*, 734 F.2d at 1509 n.51.

42. As discussed in Areeda *et al*., *supra* note 25, at ¶ 420a.

43. ALFRED E. KAHN, 1 THE ECONOMICS OF REGULATION 160-161 (7th prtg. 1998) (1970-71). *See also* Order No. 572, *supra* note 13, at 31,180 (quoting Tejas Power Corp. v. FERC, 908 F.2d 998, 1004 (D.C. Cir. 1990)).

44. *See e.g*., *Express Pipeline P'ship*, 76 F.E.R.C. ¶ 61,215 (1996); Petition for Declaratory Order or Seaway Crude Pipeline Company LLC, FERC Docket No. OR13-10-000, Attachment 2 at P 3 (Dec. 10, 2012) ("Seaway requests that the FERC consider and approve this Petition as soon as possible, as Seaway must make imminent decisions regarding whether to make hundreds of millions of dollars in additional capital investments to continue expanding the Seaway Pipeline.").

necessarily represent a price level that is *at least* equal to (and may be greater than) the long-run marginal cost of the expansion project, otherwise pipeline companies would not agree to go forward with development on the basis of the pre-negotiated rates. In addition, regulated rates based on cost of service are designed to approximate a long-run competitive rate, which is tied to long-run marginal cost.[45] As the D.C. Circuit noted in *ExxonMobil*, "[i]t is certainly reasonable for FERC to use a cost-of-service computation as an approximation for a pipeline's economic circumstances; the purpose of a cost-of-service rate, after all, is to simulate what a pipeline's economic behavior would be in a competitive market."[46]

When it originally established the regulations governing market based rates for oil pipelines, FERC properly recognized the central role of long-run marginal cost in determining a reasonable proxy for a competitive rate:

> In a competitive market, where neither buyer nor seller has significant market power, it is rational to assume that the terms of their voluntary exchange are reasonable, and specifically to infer that the price is close to marginal cost, such that the seller makes only a normal return on its investment.[47]

In this context, the reference to the competitive price being "close to marginal cost, such that the seller makes only a normal return on its investment" refers to a *long-run* competitive price that includes a "normal" fair market rate of return on invested capital in addition to the return of capital and recovery of incremental operating cost.[48]

In the *Seaway II* decision, the Commission correctly reiterated the relevance of long-run marginal cost in determining a competitive rate, stating that "for purposes of the market power analysis, the Commission uses the marginal costs of the marginal supplier"[49] and that "[o]nly actual costs are relevant under the Commission's methodology, and the burden is on the applicant to demonstrate that the costs utilized in its application for market-based rate authority are actual costs, and not those set above the marginal cost of the marginal supplier, by any means."[50] These statements are consistent with its earlier *Koch Gateway* decision, which unequivocally stated, "[a]n appropriate base price in a market power evaluation of

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45. *SFPP, L.P.*, 121 F.E.R.C. ¶ 61,240, at P 14 (2007) ("[C]ost-of-service rate making seeks to replicate a competitive rate. Since under competition firms set their prices to recover costs, including a reasonable return, a regulated rate is designed to replicate that competitive situation. Thus it is reasonable to view a rate in a cost context even if negotiation or other market factors were involved in constructing the rate.").

46. *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 961 (D.C. Cir. 2007). Note what while a competitive rate will be independent of the vintage of the assets owned by any specific competitor, over the long run such a rate must still provide a level of return sufficient to reasonably compensate the owner for its investment in the assets. Thus, a competitive rate may be expected to involve a different pattern of capital recovery over time compared to a cost-of-service based rate, but both will be expected to produce a net present value of cash flows equal the capital investment.

47. Order No. 572, *supra* note 13, at 31,180 (quoting *Tejas Power Corp.*, 908 F.2d at 1004).

48. *Seaway II, supra* note 15, at P 44. ("[t]he Commission will not utilize a tariff rate that does not include expansion costs as a competitive price proxy when the appropriateness of such a proxy relies on the occurrence of expansion at the tariff rate.")

49. *Id.* at Appendix P 7.

50. *Id.* at P 30 (footnote omitted).

this type is the long-run competitive price. The long-run transportation price between given points in a competitive market will be determined by the long-run marginal cost for the marginal supplier of building and operating transportation facilities. . . ."[51]

Thus it should not be considered controversial that an evaluation of oil pipeline transportation rates in relation to the long-run marginal cost of providing the transportation service in question is the appropriate basis for determining whether rates reflect competitive behavior or not. However, as discussed in sections III and IV below, certain aspects of FERC's current policies and practices concerning market-based rates and committed rates have diverged from (and are not consistent with) the fundamental economic principles that were previously recognized by the Commission. In the remainder of this article, we describe the deficiencies in FERC's current approach and explain how they can be remedied by using established techniques for estimating long-run marginal cost to provide relevant evidence of whether prevailing or applied-for tariff rates for oil and NGL pipelines reflect competitive levels.

III. FERC'S POLICY TOWARD MARKET-BASED RATES INCENTIVIZES OIL AND NGL PIPELINES TO EXERCISE MARKET POWER AND UNDER-DEVELOP CAPACITY

As discussed above, the Commission's current policies are logically flawed in that they presume competitive circumstances prevail when the Commission's goal is to evaluate whether the markets in question are sufficiently competitive to discipline an exercise of market power. Specifically, in *Seaway I*, the Commission began a policy of presuming that any "used" alternatives are necessarily competitive alternatives.[52] Further, following the same flawed reasoning, when evaluating whether a given alternative is competitive in terms of price, the Commission defines the competitive transportation rate to be one that would equate the subject pipeline's netback price to the lowest netback price (in origin markets) or equate the subject pipeline's delivered price to the highest delivered price (in destination markets) provided by a "used" alternative.[53]

These presumptions are economically unsound because if a pipeline with market power is operating at capacity, shippers are likely to be using higher-cost alternatives (such as rail or waterborne transportation), even though the subject pipeline (or other pipelines in the market) could profitably expand and displace those higher cost alternatives. If such a pipeline is permitted to charge market-based rates—which rates may exceed its or other similar pipelines long-run marginal cost of expansion—the pipeline will be incentivized to withhold expansion

51. *Koch Gateway*, *supra* note 18, at p. 61,045.

52. *See Seaway I*, *supra* note 15, at P 76.

53. *Id.* at P 56; *Seaway II, supra* note 15, at P 34 (note that Dr. Arthur provided testimony in this docket on behalf of Continental Resources, Inc., Husky Marketing and Supply Company, Suncor Energy Marketing, Inc., and Canadian Natural Resources Limited).

capacity in an exercise of its market power.[54] In that case, the underdevelopment of capacity will result in incumbent pipelines earning supranormal profits by charging supracompetitive transportation rates. Meanwhile shippers are forced not only to pay the incumbent pipeline's excessive rates, but also to use higher cost transportation alternatives in lieu of more efficient pipeline expansion capacity that is being withheld.

To remedy the current incentive for incumbent pipelines to exercise market power and under-develop capacity, we recommend that the Commission cease its current practice of tautologically presuming that existing market outcomes (including prices, locational commodity price differentials and "usage" of alternatives) reflect competitive circumstances when trying to evaluate whether market power exists. Rather, a reasonable proxy for a competitive transportation rate in a market power analysis should be based on an estimate of the long-run marginal cost of providing incremental transportation capacity, and competitive alternatives should be identified based on whether shippers would and could shift volumes to the alternatives in response to a rate increase by the subject pipeline above a competitive level. Specifically, to evaluate shippers' willingness to shift to potential alternatives in response to a rate increase above a competitive level—and thus, whether an alternative should be considered competitive—a netback analysis (in an origin market) or a delivered price analysis (in a destination market) can be applied based on the *appropriate competitive rate level estimated based on long-run marginal cost*. In addition, the Commission should clarify that only alternatives that are available to receive volumes diverted from a subject pipeline should be considered competitive alternatives. These clarifications and changes to the Commission's current policy would work to ensure that market-based rates are charged only where truly competitive transportation alternatives exist, thereby mitigating the potential for abuse of market power.

A. Overview of FERC's Existing Policy for Market-Based Rates

The primary methodology utilized by the Commission for assessing market power is a structural analysis that infers the presence of market power from indirect evidence about the number of competitors in a market.[55] In such an analysis, the presence of few competitors and a high degree of difficulty for entry provides indirect evidence that an incumbent firm possesses market power. The Commission requires oil and NGL pipelines applying for market-based rates to define the relevant product and geographic markets—both origin and destination markets—in which the pipeline seeks to show that it lacks significant market power.[56] Once

54. *Seaway II*, *supra* note 15, at P 45. When a pipeline that *could* profitably expand chooses not to do so, that is functionally equivalent to restricting the capacity available in the market, thereby permitting uncompetitive higher cost alternatives to serve marginal transportation demand and set the market-clearing price. In other words, in these circumstances, the choice not to expand (or expand by an amount less than the amount that would be demanded at a competitive rate level) may represent an exercise of market power.

55. Order No. 572, *supra* note 13.

56. *Id.* at 31,187-89.

relevant markets are defined, competitive alternatives are identified in order to make an inference whether adequate competitive alternatives exist such that the subject pipeline lacks significant market power.[57]

As discussed above, the Commission's current policies toward defining relevant markets and identifying competitive alternatives were first delineated in *Seaway I* and *Seaway II,*[58] following a decision regarding a market-based rates application by the D.C. Circuit *Mobil* decision.[59] With respect to identifying competitive alternatives to the subject pipeline, the Commission states that alternatives must be competitive in terms of availability, quality, and price, stating:

> For an alternative to be competitive, it must possess the ability to discipline, or prevent, a potential increase in price above the competitive level by the pipeline applicant. A competitive alternative also must be available to receive product diverted from the applicant in response to a price increase, and must be of the same quality as the applicant. *Mobil* did not alter this analysis.[60]

This criteria for identifying competitive alternatives to a subject pipeline makes economic sense in that in order to a discipline a rate increase above a competitive level by the subject pipeline, shippers on the subject pipeline *would* and *could* shift volumes from the subject pipeline to an alternative transportation provider. The "would" part of this concept is that the alternative is competitive in terms of price and quality. The "could" part is that the alternative is competitive in terms of availability. As the Commission previously recognized:

> If an alternative source has not been shown to be a good alternative, it should not be included in the relevant geographic market and used in market share, HHI, or other market power statistics. Such statistics are meaningless if all of the alternatives are not good alternatives.[61]

In Order No. 572 the Commission indicated that, in general, delivered prices—not transportation rates—should be compared to determine good, competitive alternatives in terms of price to a subject pipeline in a destination market. The Commission stated:

> [W]here competitive alternatives constrain the applicant's ability to raise transport prices, the effect of such constraints is ultimately reflected in the price of the commodity transported. Hence, the delivered commodity price (relevant product price plus transportation charges) generally will be the relevant price to be analyzed for making a comparison of the alternatives to a pipeline's services.[62]

For origin markets, the Commission has previously stated that netback prices (destination prices less transportation rates) should be compared for purposes of determining which alternatives are competitive alternatives in terms of price.[63]

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57. *Id.* at 31,191.

58. *Seaway I, supra* note 15, at P 56; *Seaway II*, *supra* note 15, at P 34.

59. *Mobil*, 676 F.3d at 1105.

60. *Seaway I, supra* note 15*,* at P 45 (footnote omitted).

61. *TE Products Pipeline Co., L.P.*, 92 F.E.R.C. ¶ 61,121, at p. 61,467 (2000).

62. Order No. 572, *supra* note 13, at 31,189.

63. *Magellan Pipeline Company, L.P.*, 132 F.E.R.C. ¶ 61,016, at P 35 (2010) (footnotes omitted) (note that Dr. Arthur provided testimony in this docket on behalf of Frontier Oil and Refining Company).

However, in *Seaway I*, the Commission effectively abandoned this principle, stating that netback price analyses for origin markets (analogous to delivered price analyses for destination markets) are not required to identify competitive alternatives in terms of price. Rather, *Seaway I* posits that "[u]sage [. . .] becomes the necessary 'proxy' for determining whether an alternative is in fact a good alternative."[64] In this context, the Commission's current policies of presuming (i) that all "used" alternatives are automatically competitive alternatives in terms of price, availability, and quality, and (ii) that a competitive price level is necessarily reflected in prevailing commodity price differentials, lead to alternatives that are not in fact competitive being included in market power statistics. In turn, the inclusion of uncompetitive alternatives in market concentration calculations biases the market power statistics toward a finding of adequate competition, even when the subject pipeline actually possesses significant market power.

1. Economic Flaws in FERC's Current Policy for Identifying Competitive Alternatives

a. The Cellophane Fallacy in Presuming "Used" Alternatives Are Competitive

The assumption that "used" alternatives, *i.e.*, those alternatives that consumers have demonstrated a willingness to substitute to at *prevailing* price levels, are necessarily competitive alternatives, is a recognized error known as the Cellophane Fallacy. This name refers to the Supreme Court's decision in *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956), wherein the Court upheld a finding that cellophane was sold in a competitive market because "[c]ellophane was indeed a close substitute for other wrapping materials at the going price for cellophane."[65] However, the market power analysis presented to the Court was flawed because it failed to recognize that "cellophane's price contained a monopolistic margin over its marginal cost."[66] In presuming that the prevailing price for cellophane represented a proxy for the competitive price, the market power analysis had failed to account for the fact that "[a] rational monopolist would, in fact, raise price until its product became a substitute for alternatives."[67]

Basic economic principles dictate that a firm with market power will increase its price until enough consumers are *just* becoming willing to substitute away from using a service. Thus, there can appear to be competitively priced substitutes when

64. *Seaway I*, *supra* note 15, at P 56. *See also White Cliffs Pipeline, L.L.C.*, 173 F.E.R.C. ¶ 61,155, at P 52 (2020) (note that Dr. Arthur provided testimony in this docket on behalf of ConocoPhillips Company, HighPoint Resources Corporation, Kerr McGee Oil & Gas Onshore, LP, and Noble Energy, Inc.).

65. W. KIP VISCUSI, JOSEPH E. HARRINGTON, JR., AND JOHN M. VERNON, ECONOMICS OF REGULATION AND ANTITRUST 297 (4th ed. 2005).

66. *Id*.

67. *Id*.; *See also* Areeda *et. al.*, *supra* note 25, ¶ 539 at 300 ("[I]n seeking out a profit-maximizing price, the monopolist or oligopoly finds a price so high that a yet further price increase would be unprofitable because too many sales would be lost. As a result, cross-elasticity of demand is high when prices are already monopolistic.")

prices in a market reflect an exercise of market power, whereas if incumbent firms were charging a price close to a competitive level (a price reflective of the underlying cost of providing the service),[68] consumers would be unwilling to substitute away in response to a small but significant increase in price above the *competitive* price level. Hence, as succinctly explained by Professors Viscusi, Vernon, and Harrington, to avoid falling prey to the Cellophane Fallacy, "substitutes in consumption should be evaluated at prices that are reasonably close to marginal costs."[69]

Thus, usage does not demonstrate that an alternative is competitively priced, because that usage could be the result of a market price being charged by the subject pipeline that is above a competitive level. This is precisely the Cellophane Fallacy," as the Commission has recognized.[70] Yet, despite the clear economic principles dictating that "a high degree of substitution by consumers between two products must exist *at competitive prices* for the two products to be placed in the same market,"[71] the Commission continues to presume that all alternatives observed to be "used" at *prevailing* market prices should be treated as competitive alternatives in terms of price.

The Commission *has* correctly recognized in certain instances that the possibility of the Cellophane Fallacy means that automatically treating "used alternatives" as competitive is not valid when existing rates may be above competitive levels.[72] However, the Commission has failed to consistently apply this principle.[73] FERC has held (wrongly in our opinion) that there is a low likelihood of the Cellophane Fallacy arising as part of its methodology for evaluating market based rate applications, for two reasons. First, the Commission alleges an entity *seeking* market-based rates would not be able to charge rates above a competitive level.[74] Second, the Commission has argued that "if an unregulated monopolist did exist in the market, and such monopolist charged a monopoly price so that alternatives charging supra-competitive prices would be "used" in the market, the Commission's methodologies concerning market shares and market calculations would effectively capture such a scenario and reflect a non-competitive market".[75] Both of these rationales for minimizing concerns of the Cellophane Fallacy are seriously flawed.

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68. *See supra* section II.A.

69. VISCUSI, *supra* note 65, at 326.

70. *Seaway II*, *supra* note 15, at PP 22–24.

71. W. KIP VISCUSI, JOSEPH E. HARRINGTON, JR., AND JOHN M. VERNON, ECONOMICS OF REGULATION AND ANTITRUST at 261 (3rd ed. 2000) (emphasis added).

72. *Guttman*, *supra* note 35, at P 125 (note that Dr. Arthur provided testimony in this docket on behalf of Guttman Energy Inc. and PBF Holding Company LLC).

73. Put simply, whenever a capacity-constrained pipeline is applying for (or already charging) market-based rates, shippers are likely to be using higher cost alternatives that would not necessarily be used if there were adequate pipeline capacity being provided at a competitive price.

74. *Seaway II, supra* note 15, at PP 27-29.

75. *Id.*

The Commission's first assumption—that an applicant pipeline would not have the ability to exercise market power—is flawed because the vast majority of liquids pipeline rates are set by negotiation or indexing of prior non-cost-based rates. Indeed, FERC Staff recently calculated that only 1% of oil pipeline rate changes were based on cost of service.[76] Consequently, there can be no assurance, and certainly no presumption, that oil pipeline rates reflect competitive levels tied to the underlying cost of providing service.[77] The Commission's second assumption—that its prescribed market share and concentration calculations would reveal an entity exercising market power—amounts to circular logic. If the Commission persists in assuming that "used" alternatives are competitive and that prevailing prices reflect competitive levels—precisely the two conditions that lead to the Cellophane Fallacy[78]—its market share and concentration analysis will tend to include alternatives that may not actually represent good alternatives when evaluated relative to true cost-reflective competitive price levels.[79] Thus, the Commission's approach is a self-fulfilling prophecy: by asserting that its analyses are immune from the Cellophane Fallacy, it permits that very fallacy to influence the results in ways that reinforce the faulty presumption of immunity.

b. Flaw in Presuming Constrained Alternatives Can Discipline a Rate Increase Above a Competitive Level

The Commission's current policy regarding whether an alternative is competitive in terms of availability is that "the Commission has found that inclusion of used alternatives is permitted even if such alternatives are being used to their full capacity"[80] and further that "the market share of an alternative also should not be excluded if it is at full capacity."[81] This treatment of any alternative operating at capacity as a valid competitive alternative to a subject pipeline is economically flawed and inconsistent with the Commission's own prior statements. As the

76. FERC Staff calculated that 81% of oil pipeline rate changes were made pursuant to indexing, 18% were made pursuant to negotiated settlement rates or market-based rates, and 1% were made pursuant to cost of service-index. Rick Smead, *Now Here You Go Again – FERC Prepares to Slash the Liquids Pipeline Rate Index*¸ RBN ENERGY (June 21, 2020), https://rbnenergy.com/now-here-you-go-again-ferc-prepares-to-slash-the-liquids-pipeline-rate-index.

77. Indeed, given that mitigating potential market power concerns for entities with natural monopoly characteristics is the primary basis on which the rates of liquids pipelines are subject to economic regulation, it would be more reasonable to presume the opposite—that existing rates set by negotiation or other non-cost-based means *do not* reflect competitive levels.

78. W. KIP VISCUSI, JOSEPH E. HARRINGTON, JR., AND JOHN M.VERNON, ECONOMICS OF REGULATION AND ANTITRUST 297 (4th ed. 2005).

79. In turn, inappropriately expanding the market definition to include Cellophane Fallacy alternatives that give the false appearance of being competitively priced may cause the market share and HHI statistics to falsely indicate an unconcentrated market.

80. *White Cliffs Pipeline, L.L.C.*, 173 F.E.R.C. ¶ 61,155, at P 52 (2020) (note that Dr. Arthur provided testimony in this docket on behalf of ConocoPhillips Company, HighPoint Resources Corporation, Kerr McGee Oil & Gas Onshore, LP, and Noble Energy, Inc.).

81. *Id*.

Commission correctly recognized, "[a] competitive alternative also must be available to receive product diverted from the applicant [subject pipeline] in response to a price increase."[82] A monopolist is able to profitably sustain a rate increase above a competitive level because there are no alternatives for shippers to shift volumes to in response to a rate increase above a competitive level. Similarly, a subject pipeline with all alternatives operating at capacity would also be able to profitably sustain a rate increase above a competitive level because shippers could not shift volumes to the alternatives in response to a rate increase above a competitive level.[83] Just as alternatives that shippers *would not* switch to (because they are not competitive in terms of price or quality) should be excluded from market power statistics, alternatives that shippers *could not* switch to (*i.e.,* alternatives that not available) should likewise be excluded.

2. Economic Flaws in FERC's Current Policy for Identifying a Proxy for a Competitive Rate Level

In a delivered price or netback price analysis, an appropriate competitive price proxy is required in order to identify alternatives—either "used" or "unused"—that would be competitive with the subject pipeline if the subject pipeline were to implement a small but significant and non-transitory increase in price *above a competitive level* (SSNIP test). As mentioned above and explained further below,[84] the fundamental principle relevant for determining a reasonable proxy for a competitive rate is that competition drives prices to the level of long-run marginal cost to provide the service in question. However, according to its current policy, the Commission contends that "the appropriate proxy for a competitive price is one that recognizes the marginal supplier: the supplier providing the lowest netback in the market."[85] Unfortunately, as revealed in the following quote from the Commission's *Seaway I* decision, this approach to determining a competitive *transportation* rate confuses the relationship of netback *commodity* prices with transportation rates and is also erroneously grounded in the presumption that all "used" alternatives are competitive.

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82. *Seaway I*, *supra* note 15, at P 45 ("[a] good alternative is an alternative that is available soon enough, has a price that is low enough, and has a quality high enough to permit customers to substitute the alternative for Koch Gateway Pipeline Company's ("Koch Gateway") service. In addition, to constrain Koch Gateway's exercise of market power, the alternative must be available in sufficient quantity to make Koch Gateway's price increase unprofitable.") (citing *Koch Gateway*, *supra* note 18).

83. PHILLIP E. AREEDA, HERBERT HOVENKAMP, & JOHN L. SOLOW, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 507b at 111 (2d ed. 2002) ("[t]he more elastic the demand a firm faces, the less market power it has. This particular demand – that is, the demand facing the individual firm rather than the demand facing the entire market – is called *residual demand*, which is defined as the entire *market demand* minus the *production* of all other producers.") If existing alternatives are unavailable such that shippers *could not* switch to them in response to a rate increase by the subject pipeline, the residual demand facing the subject pipeline is inelastic, indicating it possesses market power.

84. *See infra* section III.B.

85. *Seaway II*, *supra* note 15, at P 40.

> In a market, the competitive price will be the netback of the alternative that provides the lowest netback among used alternatives (the "marginal netback"). Shippers in this market will seek to earn the highest netback among available alternatives, and will use the alternative with the highest netback until it no longer offers capacity. Shippers will then seek to ship on the alternative offering the next highest netback, and so on until the marginal netback is reached. **The marginal netback is the lowest netback generated among used alternatives. Thus, all used alternatives produce netbacks at or above the marginal netback and are therefore competitively priced.** The key is that nothing being used offers a negative netback, or was unprofitable to the shipper.[86]

As discussed in the preceding section, in the presence of market power, it may be the case that higher cost "used" alternatives are only used *because* lower-cost incumbent suppliers are exercising their market power by withholding capacity in order to raise the market price. Ultimately, it is the long-run marginal cost at which lower-cost providers could *expand capacity to increase their market shares*—not the prices charged by higher cost alternatives that may be "used" in response to inadequate low-cost supply—that determines what price would be expected to prevail in a competitive market. Thus, by concluding that the lowest "used" netback commodity price (or highest "used" delivered commodity price) provides a valid basis for determining a proxy for the competitive transportation rate, FERC risks falling victim to the Cellophane Fallacy. However, this is just one of several logical flaws in the Commission's reasoning (and that of the D.C. Circuit Court's *Mobil* decision) that underlies its current policy for determining a competitive price proxy.

a. Flawed Reliance on Commodity Price Differentials Associated with "Used" Alternatives Providing Differentiated Services

First, the Commission's approach of treating marginal netback (or delivered) *commodity* prices as indicative of the costs associated with supplying the transportation in question is not valid if the marginal commodity netback (or delivered) price is associated with an alternative providing a *differentiated* service. For example, when an alternative is providing transportation between different origins and destinations than those served by the subject pipeline, or when an alternative is not providing transportation service at all (such as selling crude oil in a basin as an alternative to transporting crude oil out of the basin), the netback (or delivered price) associated with that alternative does not provide any relevant information about marginal cost of providing transportation service *between the specific origin and destination markets* in question. Put simply, differentiated transportation services have different cost structures. So, while transporting the commodity in question to or from different markets (than those served by the subject pipeline) or pursuing non-transportation alternatives to market the commodity *may* represent valid competitive alternatives (if they are indeed competitive in terms of quality,

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86. *Seaway I*, *supra* note 15, at P 55 (emphasis added; footnotes omitted); *see also Enterprise TE Products Pipeline Company LLC*, 146 F.E.R.C. ¶ 61,157, at P 19 (2014) (note that Dr. Arthur provided testimony in this docket on behalf of Chevron Products Company, HWRT Oil Company, LLC, Phillips 66 Company, and Murphy Oil Corporation).

availability, and price) for inclusion in a market concentration analysis, they should *not* be treated as providing meaningful information about the marginal cost of the transportation service in question.

Further, the Commission has in the past correctly recognized that the commodity price differential between an origin and a destination does not necessarily reflect a competitive *transportation rate* between that origin and destination (even if commodity markets at the origin and at a destination may be independently competitive with large numbers of buyers and sellers). This is because an exercise of market power by an incumbent transportation provider can increase the commodity price differential between locations above a competitive level.[87] Intuitively, the prevailing average commodity price differential, the origin and destination of a subject pipeline's transportation service represents the implicit "value" to a shipper of transporting the commodity between those points.[88] Thus, simply put, the Commission has correctly recognized that the prevailing *value* of transportation between two locations does not necessarily represent a competitive transportation rate between those two points.[89]

Despite this, the Commission's current policy for determining a competitive *transportation* rate, as embodied in the passage from *Seaway I* quoted above, focuses on exactly these differences in netback (or delivered) *commodity* prices that represent the value of transportation between two locations.[90] In our opinion, this Commission precedent, which erroneously mandates the use of commodity price netback or delivered price differentials to establish a competitive transportation rate,[91] is both incorrect and irreconcilable with the Commission's correct statements in *Koch Gateway* and *Seaway II* regarding the relevance of marginal *transportation* costs for determining competitive *transportation* rate levels.

In *Seaway II,* the Commission clearly articulated that cost data for determining marginal cost is relevant in a market power analysis, stating that "[a] true and accurate market picture is derived by following basic economic and competition

87. *Natural Gas Pipeline Negotiated Rate Policies and Practices*, 114 F.E.R.C. ¶ 61,042, at PP 3–10 (2006) ("a pipeline charging negotiated rates tied to basis differentials could increase its revenues by withholding capacity in order to increase the relevant basis differentials. The Commission concluded that pricing mechanisms that invest pipelines with an incentive to use market power to manipulate the commodity price of gas would hinder the Commission's attempt to maintain and improve the competitive natural gas market."), *reh'g and clarification denied*, 114 F.E.R.C. ¶ 61,304 (2006); *Koch Gateway, supra* note 18, at 61,045 ("The long-run transportation price between given points in a competitive market will be determined by the long-run marginal cost for the marginal supplier of building and operating transportation facilities –not by the difference in short-term gas spot prices between various points. Gas spot price differentials at a given time could be above the long-run marginal cost of providing transportation between the points. A monopoly pipeline could charge transportation prices based on gas spot price differentials between selected points that would be above the long-run competitive transportation price.").

88. This is intuitive, since the locational price differential represents the incremental commodity value realized by selling at the destination rather than the origin. *See generally Seaway II*, *supra* note 15, at P 30.

89. *Seaway II*, *supra* note 15, at P 30.

90. *Seaway I, supra* note 15, at P 55, 69.

91. *See, e.g., Guttman*, *supra* note 32, at PP 128, 141 and *Guttman Initial Decision*, 155 F.E.R.C. ¶ 63,008, at P 203 (2016); *see also Seaway Crude Pipeline Co. LLC*, 157 F.E.R.C. ¶ 63,024, at P 22.

principles, which require that a competitive price proxy be based on the costs of the marginal supplier."[92] Further, in *Koch Gateway* (quoted above) the Commission clearly identified that it is the marginal supplier of the *same or similar transportation* service whose marginal cost determines the competitive rate level for that transportation service.[93] These economically sound rulings by the Commission contradict the Commission's post-*Mobil* statements and policy that erroneously support using differences in commodity prices or prevailing tariff rates as to determine a competitive rate level for the transportation service provided by a given subject pipeline.

The Commission's current flawed policy of treating the market value of transportation measured using prevailing netback or delivered commodity price differentials as determinative of the competitive transportation rate is built upon, what is, in our opinion, a fundamental economic error committed in the D.C. Circuit's decision in *Mobil*.[94] In *Mobil* (which was issued in 2012 and preceded FERC's *Seaway I* and *Seaway II* decisions), the D.C. Circuit Court concluded that a competitive rate level for Mobil's Pegasus pipeline was above its existing tariff rate level because the market value of the transportation service, as determined by the differential of the prevailing commodity price levels between the origin and destination of the transportation service, exceeded the prevailing tariff rate. The Court stated:

> As FERC's expert staff explained, the [Commission's SSNIP analysis performed using Pegasus's regulated rate] demonstrates only that Pegasus's regulated rate is below the competitive rate. The regulated rate does not reflect Pegasus's full value to Western Canadian crude oil producers and shippers. Therefore, the possibility that the market rate might be higher than the regulated rate does not show that Pegasus possesses market power.[95]

Unfortunately, the D.C. Circuit's *Mobil* decision fell into the Cellophane Fallacy when it assumed that market values and/or market clearing rates for transportation reflected a competitive level without any examination of what an actual competitive price level for the transportation service at issue would be.[96] The *Mo-*

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92. *Seaway II*, *supra* note 15, at Appendix P 6; see also *id*. at P 30 ("[T]he Commission in the Order on Rehearing held that the competitive price is the marginal cost of the marginal supplier, not the prevailing price. [. . .] Only actual costs are relevant under the Commission's methodology, and the burden is on the applicant to demonstrate that the costs utilized in its application for market-based rate authority are actual costs, and not those set above the marginal cost of the marginal supplier, by any means."); see also *id.* at P 30 n.47 *(*"This includes not only supra-competitive rates supported by an alternative's market power, but other means of setting rates above costs, to include settlement and negotiated rates. . . .").

93. *Koch Gateway*, *supra* note 18, at 61,045.

94. *See, e.g.*, *id.* at PP 42, 18; *See also Mobil Pipeline Co.*, 676 F.3d 1098.

95. *Mobil Pipeline Co.*, 676 F.3d at 1103-04.

96. The manifestation of the Cellophane Fallacy in the *Mobil* proceeding was succinctly summarized by the presiding Administrative Law Judge in that case: "Suppose that a pipeline hypothetically *did* have market power. If I improperly assumed that the pipeline's market clearing rate was competitive and used that rate as the benchmark in the market power analysis, I would likely include alternatives to the pipeline in my market share calculation that were not in fact good competitive alternatives. The improper inclusion of alternatives would in

bil Court incorrectly implied that a competitive rate level was reflected in "Pegasus's full value to Western Canadian crude oil producers and shippers."[97] To the contrary, as the Supreme Court has correctly recognized, "focus on the willingness or ability of the purchaser to pay for a service is the concern of the monopolist, not of a governmental agency charged both with assuring the industry a fair return and with assuring the public reliable and efficient service, at a reasonable price."[98]

Notably, the *Mobil* decision did not address the fact that the "regulated" rate that was used as a baseline in the Commission's analysis of Pegasus was a "negotiated" rate voluntarily agreed to by Pegasus prior to undergoing its capital investment. In contrast to the Court's *Mobil* decision, the significance of Pegasus implementing a negotiated rate was thoroughly and correctly analyzed by the presiding Administrative Law Judge in the Pegasus proceeding, who stated:

> I believe that the assumption that the market clearing rate is necessarily competitive puts the cart before the (winged) horse. The purpose of this market power proceeding is to determine whether there exist sufficient competitive alternatives to constrain Pegasus' rates to just and reasonable levels. **Clearly, the market power analysis should not begin with that very potential outcome: the benchmark price should not be based on the as yet unproven assumption—indeed the presumption—that the rate Pegasus would be able to charge if granted market-based authority would necessarily result from a truly workably competitive market.** Here the Staff's [as also relied on by the D.C. Circuit in its *Mobil* decision] presumption assumes the conclusion of its analysis. . . .
>
> Further, Suncor/CNRL points out that because Pegasus' prevailing tariff rate was a negotiated tariff rate, which was filed with no cost justification provided, there is no evidence that any cost advantage is reflected in the prevailing rate. Further, Suncor/CNRL argues that the prevailing tariff rate must be greater than Pegasus' long-run average cost; otherwise Pegasus would not have voluntarily agreed to the long-term rate. . . .
>
> I find that Pegasus' prevailing tariff rate reasonably reflects the long-run competitive price for transportation services in Pegasus' origin market. . . . **I find that the evidence presented by Shippers demonstrate that Pegasus' prevailing tariff rate reasonably reflects—and perhaps somewhat overstates—Pegasus' long-run average costs.**[99]

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turn reduce my calculation of the pipeline's relative market share and would possibly lead me, again, to improperly conclude that the pipeline *did not* have market power. This phenomenon is known as the 'Cellophane Trap.'" *Mobil Pipe Line Co.*, 128 F.E.R.C. ¶ 63,008, at P 77 (2009).

97. *Mobil Pipeline Co.*, 676 F.3d at 1103-04. Note that this statement by the Court is economically incorrect for the same reason that the Commission's statement in *Seaway I* that "a competitive price is by definition at the point where supply and demand intersect" is wrong. *Seaway I*, *supra* note 15, at P 49. It is true that any market price is determined by the intersection of supply and demand. But not all market prices reflect *competitive* price levels, for the simple reason that not all markets are competitive. If the supply and demand curves in question are determined by competitive forces, then the market price occurring where they intersect will be a competitive price. However, if supply in a market is influenced by the exercise of market power, then the market price will reflect that exercise of market power, and will *not* represent a competitive price.

98. Gainesville Util. Dept. v. Florida Power Corp., 402 U.S. 515, 528 (1971).

99. *Mobil Pipe Line Company*, 128 F.E.R.C. ¶ 63,008, at PP 69, 76, 87 (emphasis added) (note that Dr. Arthur provided testimony in this docket on behalf of Suncor Energy Marketing Inc. and Canadian Natural Resources Limited).

Pegasus pipeline had implemented its new transportation service in April 2006, and at the time of its market-based rates application in August 2007, it remained the only supplier of crude oil transportation from Patoka, Illinois, to the Gulf Coast, which in turn was the only route for Canadian heavy crude oil to reach the Gulf Coast.[100] As the ALJ noted, the fact that Pegasus had voluntarily accepted a negotiated rate means that its long run marginal costs and long-run average costs were below the $1.218/bbl negotiated rate level.[101] However, when Pegasus was granted market-based rates in 2012 following the *Mobil* decision, Pegasus increased its rates by approximately 300% to $5.0791/bbl.[102] According to the *Mobil* Court's erroneous reasoning, this much higher rate would be deemed "competitive" because it reflected the *value* of Pegasus's transportation to shippers, even though it clearly exceeded Pegasus's long-run marginal costs, which were below $1.218/bbl.

Further evidence that the Court erred in finding that Pegasus's regulated rate was below a competitive level was provided when another pipeline later began offering the same transportation service. In May 2017, the Energy Transfer Crude Oil Company, LLC pipeline voluntarily agreed to charge a negotiated uncommitted tariff rate of $1.85/bbl for a new crude oil transportation service from Patoka to Nederland, TX,[103] indicating that its long-run marginal cost of implementing the *same crude oil transportation service as Pegasus*—approximately ten years *after* Pegasus initiated service—was at or below that rate, which when deflated back to a 2008 level, is within 5% of Pegasus' negotiated rate of $1.218/bbl.[104]

To summarize: two pipelines implemented the same transportation service, both voluntarily agreeing to charge negotiated rates of approximately the same magnitude—and which necessarily must have been at least as high as each pipeline's respective long-run marginal cost of providing the same transportation service. This is strong direct evidence that a long-run competitive rate level for transportation from Patoka, Illinois, to the Gulf Coast is at or below the negotiated rate levels charged by Pegasus and Energy Transfer Crude Oil Company, LLC. Clearly, a conservatively *high* estimate of a competitive rate level is in the vicinity of Pegasus's $1.218/bbl negotiated rate at the time of its application, which was the competitive price proxy relied on by the ALJ.[105]

In contrast, the *Mobil* Court wrongly focused on the *value* to shippers of crude oil transportation from Patoka to the Gulf Coast as representing a competitive rate level, instead of considering the underlying long run marginal cost of that transportation service, and consequently reached the faulty conclusion that Pegasus's $1.218/bbl rate was *below* a competitive level. Pegasus's implementation of a

100. *Id*. at PP 2, 35. Pegasus's initial negotiated uncommitted rate was $1.10/bbl, which was indexed to $1.218/bbl at the time Pegasus filed its application for market-based rates in August 2007.

101. *Id*. at P 87. Otherwise Pegasus would not have expended capital to initiate the transportation service.

102. Mobil Pipe Line Company Local and Proportional Tariff, F.E.R.C. No. A-1210.3.0 (Oct. 1, 2012).

103. Energy Transfer Crude Oil Company, LLC Local Pipeline Tariff, F.E.R.C. No. 2.0.0 (May 14, 2017).

104. A $1.85/bbl rate in 2017, if deflated based on the 44.4% cumulative increase in FERC's oil pipeline index level between late 2007 and early 2017, would be worth $1.2815/bbl at the time of Pegasus's market based application in 2008, which is within 5% of the $1.218/bbl negotiated rate Pegasus had at that time.

105. *Mobil Pipe Line Co.*, 128 F.E.R.C. ¶ 63,008, at PP 69, 76, 87.

$5.071/bbl rate after being granted market-based rates confirms the inaccuracy of the Commission's and Court's determination that the presence of multiple "used" alternatives for crude oil transportation from Western Canada was sufficient to prevent the exercise of market power by Pegasus. The $5.071/bbl market-based rate charged by Pegasus clearly dramatically exceeded both Pegasus's and Energy Transfer Crude Oil Company, LLC's long-run marginal cost of providing the same crude oil transportation service. Given that competitive rates are defined by being reflective of the long-run marginal cost of the marginal supplier of the service in question, Pegasus's implementation of a rate more than *four times greater than marginal cost* represents direct evidence that Pegasus possessed—and exercised—market power.

b. Flawed Reasoning Regarding "Excess Demand"

Another flaw in the Commission's policy for identifying a competitive price proxy relates to its economically unsound interpretation of "excess demand" that may exist at a prevailing tariff rate. Both the Commission and the D.C. Circuit Court have also expressed concern that existing tariff rates may be far below a competitive rate due to the presence of "excess demand" at the existing tariff rates,[106] leading to a "reverse cellophane trap" where competitive alternatives are inappropriately excluded from the market share analysis, thereby biasing the analysis toward a finding of market power.[107] Specifically, referencing the *Mobil* Court's incorrect conclusion that Pegasus's negotiated rate was below a competitive rate, the Commission has incorrectly reasoned that "where a pipeline experiences excess demand at its current tariff rate, [. . . t]o reach the competitive price, the pipeline's rate would need to increase to a point that eliminated excess demand."[108]

However, contrary to the Commission's and Court's erroneous reasoning, fundamental economics clearly demonstrates that excess demand *does not* indicate whether prevailing price is above or below the competitive price level. In fact, excess demand may be present when a price is moving from below a competitive level toward a competitive level, but it is just as likely to be observed when a price is moving up from a competitive level toward a monopoly price level. If price is artificially held below a competitive price level, then excess demand at that price would be expected—since with a typical upward-sloping supply curve and downward sloping demand curve, there will be more demand than supply at any price below the market-clearing intersection of the curves. However, excess demand can also occur when price is increasing from a competitive level to a level reflecting the exercise of market power. Prices rise from competitive levels to monopoly

106. *Seaway II*, *supra* note 15, at P 33; *Mobil Pipeline Co.*, 676 F.3d at 1103.

107. *Seaway II*, *supra* note 15, at P 26.

108. *Id*. at P 39 (citing *Mobil Pipeline Co.*, 676 F.3d 1098). As discussed above, *Mobil* erroneously concluded that Pegasus's negotiated rate was below a competitive level because shippers valued the constrained transportation service above the negotiated tariff rate.

levels as supply is restricted below competitive supply levels, creating excess demand at the competitive price level. Prices rise to equate demand with a lower monopoly supply, but the resulting price is a monopoly price, not a competitive price that reflects marginal cost. Thus, the presence of excess demand at any given price level does not determine whether price is moving from below a competitive level up toward that competitive level, or moving above the competitive level toward a monopoly level.[109] Rather it is the relationship between price and marginal cost that determines whether a price is competitive or monopolistic.

c. Market Power vs. "Scarcity Rent"

With respect to the use of long-run marginal cost as a metric to evaluate the competitiveness of oil pipeline transportation rates, the Commission has argued that pipelines may not be able to expand and take business away from higher cost alternatives, meaning that rates may not be driven to any pipeline's long-run marginal cost level:

> [U]nlike some businesses, oil pipelines cannot easily expand capacity in order to take every customer away from higher-priced competitors. Not only can expansion be time consuming, and involve a plethora of legal, geographic, political, and engineering hurdles, expansion can involve costs far in excess of existing tariff rates or even competitor's rates.[110]

While the Commission appears to have intended these comments to suggest that even under competitive conditions market prices may not be driven to long-run marginal cost, its reasoning on this point is flawed. In fact, the circumstances that make entry and expansion difficult and slow in the oil pipeline industry are precisely the circumstances that confer natural monopoly characteristics to oil pipelines, which is the basis for the economic regulation of their rates to prevent the potential exercise of market power.[111] As such, the barriers to entry in the oil pipeline industry are actually one reason why long-run marginal *is* a relevant consideration when determining a reasonable proxy for a competitive rate.

The Commission has also held that rates in a competitive market for oil pipelines may not be driven to the lower costs of any given alternative and that "[w]here multiple entities are selling into a market, one must first identify the marginal supplier and then examine that entities costs when determining a competitive price proxy."[112] Here the Commission is raising the possibility that some pipelines may have costs below those costs of a marginal supplier of the same service, such that these "infra-marginal suppliers" would earn "scarcity rents," wherein higher returns are earned because of advantaged access to a scarce input rather than due to an exercise of market power.

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109. Contrary to its more recent statements, the Commission has correctly understood these principles in the past. *See* Order No. 712-A, *supra* note 12, at PP 33–34.

110. *Seaway II*, *supra* note 15, at P 43.

111. OIL PIPELINE DEREGULATION – REPORT OF THE U.S. DEPARTMENT OF JUSTICE, ANTITRUST DIVISION (May 1986). *See also Farmers Union II*, 734 F.2d at 1509 n.51.

112. *Seaway II*, *supra* note 15, at P 41.

As discussed above, extraordinary profits resulting from market power (known as "monopoly rents") are earned when price exceeds marginal cost. In contrast, "scarcity rents" are earned when a firm has access to a specific input that cannot be duplicated by other firms in the market.[113] Importantly, there is a test for distinguishing between "monopoly rents" and "scarcity rents" – simply put, a firm charging prices in excess of its own marginal cost is exercising market power and not earning "scarcity rents." Areeda *et al*. explain the distinction as follows:

> Importantly, the firm earning scarcity rents rather than monopoly returns sets price at marginal cost, just as the competitor does. [. . . I]ts prices are above average total cost, thus giving it the high return, but not above marginal cost. The firm operates under the same constraint that generally faces the competitor: it can produce as little or as much as it pleases at the market price, but it has no power to raise the market price by reducing output. This fact is important because the elimination of high profits per se is not the goal of the antitrust laws, and, indeed, sometimes we say that marginal cost pricing *is* an important antitrust goal. By this measure, the firm earning scarcity rents is in full compliance.[114]

This suggests that comparing a pipeline's prevailing tariff rate to its long-run marginal cost is a straightforward method for discerning between scarcity rents and profits from the exercise of market power. As Areeda *et. al.* aptly summarize, "at least some power over price—and hence some monopoly profit—is indicated where price exceeds *marginal* cost for the firm in question; and substantial power is clear when the firm could expand its capacity and satisfy the entire market demand at costs well below the current price.[115] Thus, any uncertainty regarding whether a pipeline is earning a scarcity rent or exercising market power is testable, and there is no basis for *presuming* that prevailing rates in excess of average or marginal cost represent scarcity rents, as is done in the Commission's current policies. Indeed, given the economies of scale associated with a large pipeline system, it is at least as reasonable to begin with precisely the *opposite* presumption: that a large incumbent pipeline *would* be able to expand at a marginal cost level below the rates of higher cost alternatives, but the ability to maintain rates above its marginal cost incentivizes it to instead withhold expansion capacity in an exercise of market power.

B. Recommended Changes to FERC's Policy for Market-Based Rates

To remove the incentive for an incumbent pipeline to withhold transportation capacity prior to or after being granted market-based rates, we recommend that the Commission cease its policies of presuming that "used" alternatives are competitive, and that prevailing locational commodity price differentials represent a competitive rate level for oil and NGL pipeline transportation service. Instead, we recommend that the Commission adopt a policy that (i) a reasonable proxy for a competitive transportation rate should be based on an estimate of the long-run marginal cost of providing incremental transportation capacity, and (ii) competitive alternatives should be identified based on whether shippers *would* and *could*

113. Areeda *et al*., *supra* note 25, at ¶ 516c at 138–139.

114. *Id.* (emphasis added).

115. *Id.*

shift volumes to the alternatives in response to a rate increase by the subject pipeline above a competitive level.

We recommend that the Commission identify competitive alternatives to a subject pipeline to be included in market share and market concentration statistics in an origin (or destination) market according to: (1) whether the alternative provides a netback (or delivered) price greater than the netback (or delivered) price attainable on the subject pipeline at a long-run marginal cost-reflective competitive transportation rate level increased by a small but significant amount (competitive in terms of price); (2) whether the alternative could transport additional volumes shifted from the subject pipeline (competitive in terms of availability);[116] and (3) whether the alternative is of comparable quality to the subject pipeline.

1. Clarifying the Relevance of the Long-run Marginal Cost of Transportation in Determining a Proxy for a Competitive Rate

To understand the relevance of long-run marginal cost in the context of a large incumbent pipeline system offering a given transportation service (such as might be at issues in a FERC market-based rates proceeding), we think it is useful to contemplate and compare alternative ownership structures for such a system. One possible organizational structure for a pipeline system is an undivided joint interest (UJI), where there are multiple independent owners—each one having a separate management team, offering its own separate services, and charging its own tariff rates—but all using the same physical pipeline facilities. In such circumstances, the UJI owners pool their resources to make the large capital investments necessary to achieve economies of scale. However, each separate owner of the UJI pipeline system retains its individual right to undertake incremental expansions of the combined system at its own cost to capture incremental volumes.[117]

The UJI pipeline structure provides a useful analytical model to think about incentives to expand and compete in situations where the significant economies of scale inherent in a capital intensive pipeline system serve to deter new entrants that would have to replicate an incumbent's facilities to compete. Consider what would happen if the ten owners of a hypothetical UJI pipeline system had ten different managerial entities, each with its own distinct profit motive. Under these circumstances, the separate individual owners of the hypothetical UJI pipeline

116. As discussed above, we recommend that alternatives operating at capacity—such that shippers could not shift volumes to those alternatives from the subject pipeline—be excluded from market power statistics when evaluating whether the subject pipeline possesses market power. *See supra* section III.A.1.b.

117. For example, Saddlehorn Pipeline Company, LLC (Saddlehorn) and Grand Mesa Pipeline, LLC (Grand Mesa) entered into a UJI pipeline arrangement to provide crude oil transportation service. Saddlehorn and Grand Mesa are independently owned and managed entities, and each has the right and ability to undertake expansions of the combined system at its own cost, and in doing so capture incremental volumes at its own tariff rates. *See, e.g.*, *Saddlehorn Pipeline Company, LLC*, 155 F.E.R.C. ¶ 61,225, at PP 1-8 (2016). In fact, Saddlehorn undertook an incremental expansion of the original combined system, whereby the incremental volumes move under Saddlehorn's tariff rates rather than Grand Mesa's tariff rates. *Saddlehorn Pipeline Company, LLC*, 129 F.E.R.C. ¶ 61,118, at PP 1-6 (2019).

would have an incentive to compete with each other to capture incremental volumes associated with expansions of the overall pipeline system. In that case, each owner would be willing to undertake an expansion that provided expected incremental revenue that recovered its incremental cost of expansion, including a reasonable return on investment. In other words, each UJI owner would be incentivized to expand by the ability to charge a rate greater than or equal to its long-run marginal cost. It is precisely this dynamic of *multiple sellers competing with each other (which, as the UJI example illustrates, does not have to entail multiple systems) that produce a competitive outcome*, where price is driven to a competitive level equal to long run marginal cost.[118] The same principles apply when analyzing a market in which an incumbent pipeline is *not* a UJI, but rather has a traditional ownership structure with a unitary profit incentive. Though the competitive dynamics associated with UJI owners competing to expand capacity would not exist in this situation, it is still the case that the long-run marginal cost that would be incurred to expand capacity remains a relevant indicator of a competitive rate level for that transportation service.

In its *Seaway II* decision, despite inappropriately assuming that a pipeline without market-based rates would be unable to exercise market power,[119] the Commission correctly recognized that prevailing transportation rates, including those set by market-based rates, settlement, or negotiated rates, cannot be assumed to reflect competitive levels. Further, the Commission's discussion indicates that anyone performing an analysis of market competitiveness must demonstrate that the competitive price proxy is not above the marginal costs of the marginal supplier:

> [T]he Commission in the Order on Rehearing held that the competitive price is the marginal cost of the marginal supplier, not the prevailing price. [. . .] The Commission did not find that *any* market-clearing price was by definition a competitive price, or that prevailing prices are by definition just and reasonable rates. Only actual costs are relevant under the Commission's methodology, and the burden is on the applicant to demonstrate that the costs utilized in its application for market-based rate authority are actual costs, and not those set above the marginal cost of the marginal supplier, by any means. [*footnote*: This includes not only supra-competitive rates supported by an alternative's market power, but other means of setting rates above costs, to include settlement and negotiated rates . . .][120]

While the passage of *Seaway II* quoted above does not precisely explain what constitutes the "marginal supplier" for determining the competitive transportation price, the Commission has correctly defined this term in prior decisions. For example, the *Koch Gateway* decision addressing market power analysis makes clear

118. Order No. 572, *supra* note 13, at 31,180 (quoting *Tejas Power Corp.*, 908 F.2d at 1004).

119. *Seaway II*, *supra* note 15, at PP 26-29. Given that the majority of pipelines rates are not cost-based and a significant number are negotiated (*e.g.*, committed rates), it is inappropriate to presume that the rates are set by competitive forces. *See infra* section IV.

120. *Id.* at P 30 (one footnote omitted).

that marginal supplier of *transportation* between given points that is the relevant marginal supplier.[121] As the Commission stated in *Koch Gateway*:

> An appropriate base price in a market power evaluation of this type is the long-run competitive price. The long-run transportation price *between given points* in a competitive market will be determined by the long-run marginal cost for the marginal supplier of building and operating transportation facilities.[122]

According to these correctly-reasoned statements from *Koch Gateway* and *Seaway II*, identifying the relevant marginal cost of the marginal supplier requires examining suppliers of the *same or similar* transportation services to the one being provided by the subject pipeline.[123]

Consequently, we recommend that the Commission clarify that a competitive price proxy for the identification of transportation alternatives that are competitive in terms of price be determined based on an estimate of the long-run marginal cost of the marginal supplier the *same or similar transportation service* provided by the subject pipeline. Further, in contrast to the Commission's current flawed policy of presuming that "used" alternatives are competitive, we recommend that a cost-reflective price proxy be appropriately employed in a netback or delivered price analysis as part of a SSNIP test to provide an economically sound basis for identifying competitive alternatives in terms of price for inclusion in market concentration calculations.

2. Methodology for Reliably Estimating the Long-run Marginal Cost of Transportation

Where information exists regarding the costs incurred by current market participants to *expand* transportation service, these actual experienced costs can provide a reliable estimate of the long-run marginal cost to serve the marginal unit of demand for the transportation service in question. In this section, we discuss how established estimation techniques and readily-available relevant data can be employed to derive reliable estimates of long-run marginal cost to employ as a competitive rate proxy in a market power analysis.

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121. *Koch Gateway*, *supra* note 18, at 61,045.

122. *Id.* at 61,045 (emphasis added). Similarly, in *Seaway II*, the Commission presented a hypothetical with five pipelines providing the *same* transportation service, one of which was identified as the marginal provider of transportation *between the given points*, consistent with the Commission's prior statement in *Koch Gateway*. *Seaway II*, *supra* note 15, at Appendix PP 1–7. Note that Commission's example in the Appendix relies on an erroneous assumption that each pipeline's prevailing tariff rate equals its marginal cost, an assumption the Commission clearly states should not hold without examining the underlying marginal costs of each alternative. *Id.* at P 30. Further, note that the inclusion of alternatives operating at capacity in the *Seaway II* Appendix's example HHI calculations is clearly inconsistent with the Commission's prior correct recognition that alternatives that are operating at capacity are not good alternatives in terms of availability and should be excluded from HHI calculations. *Seaway I*, *supra* note 15, at P 45.

123. As discussed above in section III.A.2.a, it does not make economic sense to infer that the marginal costs of a *dissimilar* transportation services—including non-pipeline transportation alternatives—could represent the marginal cost of the marginal supplier in the transportation service being provided by the subject pipeline. Rather, only the marginal costs of suppliers of *like* transportation services are relevant when determining which supplier is the marginal supplier of that service.

There is a history of academic research concerned with methods for estimating long-run marginal costs in capital-intensive utility industries. For example, Professor Ralph Turvey published a survey of applications of marginal cost concepts in the electric, water, railroad, and natural gas transmission industries.[124] Another article by Mann, Saunders, and Warford summarized common estimation methods and discusses their relative merits in the context of water infrastructure investment.[125] This literature establishes that when an industry (such as the oil pipeline industry) is characterized by "capital indivisibility"—featuring a "lumpy" pattern of periodic large investments in incremental expansion facilities—the "Average Incremental Cost" (AIC) method provides the most relevant estimate of long-run marginal cost.[126] Unlike other methods, AIC considers all incremental investment costs and associated incremental operating expenses used to meet all incremental demand over a specified time horizon.[127]

Calculating average incremental cost involves the following steps: (1) forecast incremental demand (*i.e.*, demanded transportation throughput in excess of current levels) over a specific time horizon; (2) forecast the incremental operating expenses and capital investments necessary to meet incremental demand over that time period; and (3) compute the discounted sum of all incremental costs and divide this by the discounted sum of all incremental throughput during the forecast horizon.[128]

While in some contexts data on incremental cost may not be available,[129] it is very often the case that internal analyses commonly performed by pipeline com-

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124. Ralph Turvey, *What are Marginal Costs and How to Estimate Them?*, UNIV. OF BATH (2000).

125. Patrick C. Mann, Robert J. Saunders, & Jeremy J. Warford, *A Note on Capital Indivisibility and the Definition of Marginal Cost*, 16 WATER RESOURCES RESEARCH 602, 602-04 (1980).

126. *Id*.

127. This is important when estimating the long-run marginal cost for oil transportation by pipeline between an origin and a destination because pipeline transportation rates reflect the costs to meet demand for that transportation service over a projected future period. If all incremental demand over the forecast horizon can be met with a single capacity expansion, the capital costs for that expansion should be averaged over all the incremental demand in that period—not just the incremental demand in the year of the expansion. Further, the capital costs included in the AIC calculation should reflect only the portion of the expansion's useful life that is used to serve output during the forecast period. This can be handled either by annuitizing the capital expenditures to be incurred annually over the forecast period, or by treating the unamortized "terminal" value of each capacity addition capital investment as a "negative" cost in the final year of the specified forecast horizon. *See* Turvey, *supra* note 124, at 29-31.

128. We note that it is appropriate to use the firm's cost of capital to discount both the incremental costs as well as the incremental throughput when attempting to estimate the firm's marginal cost per unit.

129. In circumstances where no expansions of relevant transportation capacity have been performed or even considered over any extended period, then the data necessary to derive a reliable estimate of long-run marginal cost may not be available. However, a lack of consideration of projects to develop or expand capacity over a sustained period of time indicates that there is sufficient capacity associated with the subject pipeline's transportation service and its alternatives. In such circumstances, examining the subject pipeline's long-run average cost is a potential alternative to examining long-run marginal cost because at a long-run competitive equilibrium, long-run marginal cost equals long-run average cost. *See, e.g.*, CHARLES E. FERGUSON & J.P. GOULD, MICROECONOMIC THEORY at section 8.6c (5th ed.). Thus, even when transportation markets have not undergone

panies in the course of evaluating and executing expansion projects provide reliable and relevant data for estimating the long-run marginal costs to expand. Additionally, (and alternatively in instances where it is not possible to examine internal company analyses), FERC-regulated oil pipelines provide public cost and volume data in their annual and quarterly FERC Form No. 6 and Form No. 6-Q ("Form 6" and "Form 6-Q") filings, which data can be used to estimate the average incremental cost of expanded capacity.

We note that in a recent decision involving White Cliffs Pipeline's application for market-based rates, the Commission declined to rely on what it called "high-level estimates of marginal cost based on information from FERC Form No. 6 annual reports" and found that "data reported on FERC Form No. 6 annual reports can be difficult to rely upon for purposes of evaluating market power because of the aggregated nature of such data."[130] However, it is unclear why sworn quarterly and annual data that is provided by pipelines according to FERCs regulations cannot be relied on for purposes of estimating incremental capital and operating cost changes, especially since the Commission has relied on the very same data for the past twenty-five years to determine the level of its oil pipeline index.[131] Indeed, the primary reason that oil pipeline cost data reported in Form 6 remains "aggregated" in nature is that FERC has declined to require pipelines to provide more granular segmented data that regarding "costs that are more closely associated with [. . .] particular rate[s]."[132] We recommend requiring segmented Form 6 data to improve the transparency and usefulness of the reported cost data to evaluate the reasonableness of rates.

Further, even to the extent an estimate of long-run marginal cost must rely on data reported in FERC Form 6, any "aggregation" inherent in such data is likely to systematically *over*state the costs associated with specific incremental capacity, thus leading to a conservatively *high* estimate of the long-run marginal cost of providing transportation capacity between the relevant origin and destination markets. In contrast, FERC's current policy rejects any conservatively high imprecision that may result from aggregate reporting on FERC Form 6 in favor of a tautological presumption that prevailing tariff rates are free of the influence of market power.[133]

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recent expansions, fundamental economic principles strongly tilt in favor of estimating the competitive price based on the underlying costs of providing the transportation service, as opposed to by assuming prevailing prices or prevailing commodity price locational differentials reflect competitive levels as suggested by recent Commission precedent.

130. *White Cliffs Pipeline, L.L.C.,* Opinion No. 573, 173 F.E.R.C. ¶ 61,155, at P 51 (2020).

131. *See, e.g.,* Five-Year Review of the Oil Pipeline Index, 153 F.E.R.C. ¶ 61,312 (2015). *See also* Order No. 561, FERC STATS & REGS ¶ 30,985 (1993) and Order No. 561-A, FERC STATS & REGS ¶ 31,000.

132. *Withdrawal of Advanced Notice of Proposed Rulemaking and Order Denying Petition for Rulemaking*, 170 F.E.R.C. ¶ 61,134, at Glick (Commissioner) Dissent, P 2 (2020) (note that Dr. Arthur and Mr. Tolleth provided testimony in this docket on behalf of Airlines for American, the National Propane Gas Association, and Valero Marketing & Supply Company).

133. *See*, *e.g.*, *White Cliffs Pipeline, L.L.C.,* Opinion No. 573, 173 F.E.R.C. ¶ 61,155, at P 49.

When a pipeline undertakes an expansion project, it is standard for the pipeline to perform economic analyses as part of the process of obtaining internal management approval for the capital expenditure. These internal project evaluations, which are based on standard corporate finance analyses taught in undergraduate and graduate programs,[134] model the projected cash flows in order to estimate the net present value (NPV)[135] or the internal rate of return (IRR)[136] of the project. In evaluating which projects are economically beneficial to undertake, pipeline companies rely on data and projections of incremental capital costs, incremental expenses, and incremental volume to derive NPV and/or IRR estimates in support of their capital budgeting positions. [137]

An estimate of long-run marginal cost operates on the same principles and relies on the exact same inputs, except instead of relying on exogenous projections of the rates that a pipeline expects to charge, a long-run marginal cost analysis determines the rate level that makes the project break-even on a present value basis. In this context, the long-run marginal cost is equal to the rate level that would yield an NPV of $0 (and, equivalently, an IRR equal to the cost of capital) if it were levied on the incremental volumes over the applicable forecast horizon.[138] Consequently, calculating long-run marginal cost is not more complex and does not require more data than the standard internal analyses of NPV and IRR that are routinely conducted by firms across industries.

IV. FERC'S POLICY CONCERNING COMMITTED RATES INCENTIVIZES OIL AND NGL PIPELINES TO UNDER DEVELOP CAPACITY

Pipelines can enter into "committed" rate contracts with shippers whereby a shipper will commit to ship a certain volume at a specified tariff rate for durations of typically three to twenty years. The ability to enter into long-term contracts provides a clear incentive to expand capacity and provides benefits for both pipelines—which get greater certainty of cash flows for recovering invested capital—and shippers, who gain certainty of access to desired expansion capacity. However, FERC has stated that the revenue generated by negotiated committed shipper

134. *See, e.g.*, RICHARD A. BREALEY, STEWART C. MYERS, AND FRANKLIN ALLEN, PRINCIPLES OF CORPORATE FINANCE 101-155 (10th ed. 2011).

135. NPV is a measure of the discounted incremental revenues less discounted incremental costs resulting from a project.

136. IRR is the achieved rate of return on investment computed on a levelized basis over the life of the project. In making capital budgeting decisions, a firm can compare a project's IRR to the cost of capital needed to finance the project. If the expected IRR exactly equals the cost of capital, the NPV of the project would be $0. If the expected IRR exceeds the cost of capital, the firm can expect to earn economic profits by undertaking the project (*i.e.*, the project has a positive NPV).

137. When performing internal financial analysis to evaluate an expansion project, the pipeline makes and multiplies projections of incremental volumes by the rates it expects to charge to develop incremental revenues; the pipeline then subtracts projected incremental capital and operating costs to calculate the incremental cash flows expected to be generated by the expansion project. These incremental cash flows are used to calculate the NPV and/or IRR metrics used to assess the economic benefits of the project.

138. Mann, Saunders, & Warford, *supra* note 125, at 602-604.

contracts can far exceed the pipeline's underlying costs, yet the Commission will not review the reasonableness of the negotiated committed rates.[139] In addition, within these committed contracts, pipelines often include a "duty to support" clause that requires the shipper not to challenge the reasonableness of the rate and to support the rates if challenged before FERC when the pipeline initially files those rates.[140] As discussed further below, these existing positions permit pipelines to implement committed rates in excess of the long-run marginal cost to expand capacity, and incentivize pipelines to expand capacity to levels less than would prevail under truly competitive circumstances. In our view, revising FERC's policies so as to apply comparable regulatory scrutiny to committed rates as well as other types of rates would maintain the beneficial aspects of committed shipper rates while (i) incentivizing greater development of capacity consistent with demand at competitive rate levels and (ii) protecting shippers against the exercise of market power by pipeline entities.

A. Overview of FERC's Existing Policy for Committed Shipper Rates

In first approving a proposed committed rate structure, the Commission reasonably noted "[t]he Commission finds that issuing a declaratory order is appropriate for a new oil pipeline entrant, such as Express, because it needs to acquire and guarantee financing in order to begin construction."[141] Over the last twenty years, the Commission has approved numerous other petitions for declaratory orders for committed rates for new and expansion capacity, and has clarified that committed rates will not be permitted without an expansion of capacity.[142]

The Commission also has approved committed and uncommitted rate structures based on "negotiated" committed and uncommitted rates where there was no cost data provided.[143] While uncommitted rates that are protested are required to be justified on a cost-of-service basis,[144] committed rates will only be reviewed by the Commission to determine whether the open season and contract formation process was "open, transparent, and free of the traditional contract nullifiers such as fraud."[145] The Commission will also assess whether committed rates are non-discriminatory.[146] However, the Commission has taken the position that it does not

139. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151, at PP 25-27 (2014).

140. *Colonial Pipeline Co.*, 146 F.E.R.C. ¶ 61,206, at P 32 (2014).

141. *Express Pipeline P'ship,* 75 F.E.R.C. ¶ 61,303 (1996); *order on reh'g*, 76 F.E.R.C. ¶ 61,245 (1996).

142. *Colonial Pipeline Co.*, 146 F.E.R.C. ¶ 61,206, at P 35.

143. *See e.g. Express Pipeline P'ship*, 76 F.E.R.C. ¶ 61,245 (1996); *Seaway Crude Pipeline Co.*, 142 F.E.R.C. ¶ 61,201 (2013).

144. *Seaway Crude Pipeline Co.*, 139 F.E.R.C. ¶ 61,109 (2012); *see also* Commission rule 342.2(a), 18 C.F.R. § 342.2(a), and Order No. 561, *Revisions to Oil Pipeline Regulations pursuant to Energy Policy Act of 1992*, [Regs. Preambles 1991-1996] F.E.R.C. STATS. & REGS. ¶ 30,985 (1993), *order on reh'g and clarification*, Order No. 561-A, [Regs. Preambles 1991-1996] F.E.R.C. STATS. & REGS. ¶ 31,000 (1994), *aff'd,* Ass'n of Oil Pipe Lines v. FERC, 83 F.3d 1424 (D.C. Cir. 1996).

145. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151, at P 37.

146. *Express Pipeline P'ship*, 76 F.E.R.C. ¶ 61,245.

have to review the reasonableness of negotiated committed rate levels based on their relationship to underlying cost levels.[147]

The Commission "has always expressed concern that a pipeline with market power may establish an unjustly high rate through negotiation."[148] Indeed, as stated by one Commissioner, "[i]t would be illogical and inconsistent with the spirit of the Commission's oil pipeline rate regulation regime under the Interstate Commerce Act to require consumer protections to justify an initial rate, but to allow a carrier to exercise market power without check beyond the initial rate by entering into a long-term settlement rate devoid of consumer protections."[149] However, the Commission has nevertheless reasoned—wrongly in our opinion—that all market power concerns associated with negotiated committed rates "are remedied by providing a cost-of-service alternative [the uncommitted rate] to the negotiated [committed] rates."[150] In addition, while "duty to support" clauses—whereby a shipper entering into the contract is bound to support the rates and other terms of the contract as initially filed before FERC—appear to be routinely implemented in committed shipper contracts, the Commission stated that "it appears to be reasonable for contract shippers to support the specific rates to which they agreed."[151]

B. How FERC's Existing Policy Toward Committed Shipper Rates Incentivizes the Under Development of Capacity

As explained above, a pipeline with any market power has an incentive to exercise it by under-developing capacity so as to implement higher rates than would be supportable based on the cost to develop an economically efficient level of capacity.[152] This under development of capacity leads to the commodity price differential between an origin and a destination being higher than it otherwise would be, and permits pipelines with market power to charge committed rates higher than their long-run marginal cost. Because FERC has stated that it does not have to review the reasonableness of negotiated committed rates in relation to the underlying costs,[153] pipelines have the freedom to attempt to implement rates as high as possible, without ever having demonstrated to FERC that they do not have the ability to exercise market power.

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147. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151, at PP 25-27.

148. *Id*. at P 29; Order No. 561, F.E.R.C. STATS. & REGS. ¶ 30,985 at 30,959.

149. *ONEOK Elk Creek Pipeline, L.L.C.*, 167 F.E.R.C. ¶ 61,277, at P 6 (2019) (Glick, commissioner, concurring).

150. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151, at PP 31-32.

151. *Colonial Pipeline Co.*, 146 F.E.R.C. ¶ 61,206, at P 32.

152. See the discussion in sections II and III above. *See also Guttman, supra* note 32, at P 299.

153. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151, at PP 24-38 ("Once these rates are negotiated and accepted, any divergence between the rates and cost-of-service rates is not an issue of over-recovery . . . " "There is no question that the Commission allows for negotiated rates for committed shippers, and these rates will not be determined unjust and unreasonable solely due to a divergence from cost-of-service rates.").

In addition, "duty to support" clauses in committed shipper transportation service agreements attempt to foreclose the ability of the committed shippers from challenging the level of the committed rates upon their initial filing.[154] A "duty to support" clause creates a situation where a shipper can be offered a rate that is higher than would prevail in competitive circumstances (higher than long-run marginal cost), yet the shipper is better off accepting the rate, gaining access to the capacity, and potentially foreclosing its ability to challenge the reasonableness of the rate—as compared to not having access to expanded transportation capacity in a market with higher commodity price differentials due to depressed origin prices or elevated destination prices.

With respect to FERC's assertion that requiring *uncommitted* rates to be set at a cost-based level in the event of protest remedies *all* market power concerns associated with negotiated committed rates,[155] having cost-based uncommitted rates is *not* equivalent to a "recourse rate" that can mitigate market power concerns in the context of the Commission's natural gas pipeline regulation. FERC permits natural gas pipelines to charge negotiated rates that can be greater than its cost-based rate, including negotiated rates based on fluctuating commodity price basis (locational) differentials, but also requires the natural gas pipeline to offer a cost-based rate, which it refers to as a "recourse" rate.[156] When entering into a contract or transportation service agreement with a natural gas pipeline, a shipper, while having the ability to *keep all the non-rate terms of the contract the same*, also has the *option* of selecting a cost-based recourse rate if the shipper does not find the negotiated rate being offered to it by the natural gas pipeline acceptable. Thus, if the natural gas pipeline shipper is contemplating entering a *firm* transportation contract, where the shipper assumes a take-or-pay obligation in exchange for its right to reserve capacity, the shipper has the *option* of paying a cost-based recourse

154. *Colonial Pipeline Co.*, 146 F.E.R.C. ¶ 61,206, at P 32.

155. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151, at PP 29-32; *White Cliffs Pipeline, L.L.C.*, 173 F.E.R.C. ¶ 61,155, at P 49 (2020) ("We find that it is reasonable to conclude that the negotiated rates in the market do not reflect an exercise of market power. The contract rates in the market were freely negotiated between the pipelines and the shippers using an open season process pursuant to the Commission's committed rate policy . . . because the contracts were freely negotiated, we find no reason to believe that any duty-to-support clauses in these freely negotiated contracts inhibits competition. The same reasoning also applies to rates set under section 342.2 of the Commission's regulations based upon the agreement of a non-affiliated shipper. Such rates are presumed competitive because they are freely negotiated between the pipelines and the shippers.") (footnotes omitted).

156. *See Natural Gas Pipeline Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 F.E.R.C. ¶ 61,134 (2003), *order on reh'g and clarification*, 114 F.E.R.C. ¶ 61,042, *dismissing reh'g and denying clarification,* 114 F.E.R.C. ¶ 61,304 (2006). *See also Interstate and Intrastate Natural Gas Pipelines; Rate Changes Relating to Federal Income Tax Rate*, 162 F.E.R.C. ¶ 61,226, at P 14 (2018) ("In order to be granted negotiated rate authority, a pipeline must have a cost-based recourse rate on file with the Commission, so a customer always has the option of entering into a contract at the cost-based recourse rate rather than a negotiated rate if it chooses.")

rate instead of the negotiated rate offered by the natural gas pipeline, *while maintaining all the same priority access rights* to the capacity.[157] In contrast, shippers contemplating entering into committed contracts on oil pipelines do not have the *option* of a cost-based recourse rate instead of the "negotiated" committed rate level offered by the pipeline. Indeed, oil pipeline uncommitted rates differ from natural gas pipeline recourse rates in two main respects.

First, the non-rate terms of service for uncommitted service are not equivalent to the non-rate terms of service for committed rates. Consequently, a cost-based alternative rate cannot be a "recourse" rate if a shipper can only have the cost-based rate if other non-rate terms of service are different from those for the committed service. Of particular note, the priority given to committed shippers in the allocation of constrained capacity is commonly a significantly higher quality than the priority given to uncommitted shippers. For example, Seaway Pipeline entered into committed shipper contracts prior to commencing its new crude oil transportation service.[158] However, when Seaway implemented the rules and regulations associated with its new crude oil transportation service, committed shippers were defined as "regular shippers" that would be allocated 90% of available capacity to at least the volume level associated with their contract volume level, while uncommitted shippers were defined as "new shippers" that collectively would be allocated 10% of available capacity.[159] Consequently, the terms of service associated with priority for pro-rationing on Seaway were clearly different for committed and uncommitted shippers, as illustrated by uncommitted "new" shippers on Seaway making nominations for 2.1 *billion* barrels for transportation in April 2013 associated with just 900,000 barrels of capacity set aside for the uncommitted shippers.[160] The uncommitted shippers on Seaway were attempting to build shipper history in the presence of significant pro-rationing of their nominations while committed shippers were being allocated capacity at their committed volume level. In these circumstances, uncommitted shippers are clearly receiving a different class of service, and paying a cost-based uncommitted rate does nothing to improve the uncommitted shippers' terms of service to the point of being similarly situated with committed shippers. Consequently, a cost-based uncommitted rate cannot be considered a "recourse rate" capable of mitigating market power concerns with respect to the committed shipper rate offered by a pipeline.

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157. *Natural Gas Pipeline Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, *dismissing reh'g and denying clarification,* 114 F.E.R.C. ¶ 61,304, at P 4 (2006) ("The availability of a recourse service would prevent pipelines from exercising market power by assuring that the customer can fall back to cost-based, traditional service if the pipeline unilaterally demands excessive prices or withholds service.").

158. *See* Petition for Declaratory Order of Seaway Crude Pipeline Company LLC, FERC Docket No. OR12-10-000, at 4-6 (Dec. 10, 2012).

159. *See* Seaway Crude Pipeline Company LLC, Tariff FERC No. 2.0.0, item 17, filed April 13, 2012, effective May 12, 2012. Uncommitted shippers could not be eligible to be considered "regular shippers" until they had developed 12-months of history shipping on the pipeline. *Id*.

160. *Seaway Crude Pipeline Co.*, 143 F.E.R.C. ¶ 61,036, at P 13 (2013). Note that nominations represented approximately 237,000% of the capacity made available to the uncommitted shippers.

Second, a shipper does not have an *option* to enter into a cost-based committed rate instead of the "negotiated" committed rate offered by an oil or liquids pipeline. For example, when Seaway was offering committed rates and associated terms of service in an open season, a prospective shipper "sent a letter and a marked-up version of the proposed Transportation Services Agreement (TSA) to Seaway proposing changes in the rates and other terms and conditions contained in the TSA."[161] The prospective shipper states that it "received no response from Seaway to its letter and proposed modifications to the TSA."[162] In this circumstance, the committed rates offered during an open season do not appear to be "negotiated" rates, and there is not the option of having a cost-based committed recourse rate. A shipper in these circumstances is in a take it or leave it situation, where the prospect of paying rates above a competitive level can be, and often, is, still preferable to foregoing access to transportation capacity and receiving a suppressed commodity price at a constrained origin (or paying an inflated commodity price at a constrained destination). By permitting oil and liquids pipelines to specify the committed rate level for their proposed service, with required "duty to support" clauses that potentially forecloses a committed shipper's ability to take any action other than supporting the committed rate level[163] and the absence of review by the Commission, pipelines have the incentive to exercise whatever market power they possess, resulting in higher rate levels and less expansion capacity than would prevail in competitive circumstances.

C. Recommended Changes to FERC's Policy Toward Committed Rates

In order to provide a balance that incentivizes oil and liquids pipelines to construct capacity consistent with competitive levels and provides the opportunity to earn a reasonable return on investment, while ensuring that rates are within a zone of reasonableness and not excessive, we recommend that FERC's existing policy toward committed rates be revised to (1) permit challenges to the just and reasonableness of committed rates based on the relationship of the rates to underlying costs (recognizing that oil and NGL pipeline uncommitted rates are not equivalent to natural gas pipeline cost-based recourse rates in their ability to mitigate market power concerns), and (2) clarifying that any "duty to support" clauses in transportation services agreements for committed shipper rates do not foreclose a shipper's ability to challenge the reasonableness of rates, including potentially during an open season process prior to entering into a committed shipper contract or after the committed rates are implemented. We also recommend that pipelines file Form 6 data that is segmented by each system associated with a separate rate base that would be used for establishing rates (including committed rates), thus

161. *Id*.

162. *See* the *Answer of Suncor Energy Marketing Inc. and Canadian Natural Resources Limited to Motions for Expedited Consideration, for Leave to Intervene Out-of-Time, for Leave to File Briefs on Exceptions, and for Leave to File Amicus Curiae Briefs*, FERC Docket No. IS12-226-000 at 1-2 (Oct. 30, 2013).

163. *Colonial Pipeline Co.*, 146 F.E.R.C. ¶ 61,206, at P 32 (". . . it appears reasonable for contract shippers to support the specific rates to which they agreed.").

providing sufficient cost and volume information to make a determination whether a particular rate is reasonable.

While the Commission states that a case-by-case inquiry into the extent of market power reflected in committed shipper rates would be "serving the questionable interest of protecting a buyer who voluntarily entered into an agreement with a dominant seller,"[164] under the Commission's current policy, potential committed shippers currently have no protection from an exercise of market power and an under-development of capacity is incentivized. Pipelines offering transportation services agreements with "duty to support" clauses, as well as the Commission's position that it will not review the reasonableness of committed shipper rates, limits the ability of a potential committed shipper from negotiating with a pipeline regarding committed shipper rates in the absence of several competing expansion proposals from other alternatives.

While the Commission is concerned that "[a] case by case inquiry into the presence and extent of market power in negotiated contracts would inject a new and potentially burdensome element into the analysis,"[165] an analysis of market power is not required. Rather, permitting committed shippers to seek an examination before the Commission into whether committed rates reflect reasonable levels would suffice to level the negotiations between potential shippers and a pipeline with market power. This is precisely the mechanism that leads to negotiated/settlement rates in protested rate filings or complaint proceedings that are filed with the Commission.

The potential for Commission oversight would facilitate the sharing of information during negotiations over a committed rate level, and increases the likelihood of negotiated rates being in a zone of reasonableness, where rates are neither "less than compensatory" nor "excessive."[166] Pipelines would not be expected to go forward with an expansion if the rates were expected to be less than compensatory, and the potential for regulatory oversight would facilitate sharing of information regarding the expected cost of the expansion project. Significantly, with the ability to exercise market power reduced, pipelines would also be incentivized to construct a level of capacity where the willingness to pay by shippers equals the long-run marginal cost of the expansion capacity, consistent with the outcome that would be expected to occur in a workably competitive market.[167] While the pos-

164. *Seaway Crude Pipeline Co.*, 146 F.E.R.C. ¶ 61,151, at P 32.

165. *Id*.

166. *Farmers Union II*, 734 F.2d at 1501-02.

167. In a negotiation regarding expansion capacity, there are currently constraints in the existing transportation capacity and potential shippers have a demand for expansion capacity. In these circumstances, potential shippers desire expansion capacity, and while they would certainly prefer a lower rate, also recognize that the project will not go forward if the rates are less than compensatory. Further, expansion projects are likely to have uncertainties regarding the level of cost associated with the expansion. In situations of significant uncertainty, the sharing of expected costs can also facilitate negotiated outcomes whereby shippers are willing to bear a portion of the risk associated with cost uncertainties. For example, there have been executed committed shipper contracts whereby the implemented committed rates can vary based on the difference between the actual capital

sibility of a request for Commission oversight can increase the burden on the Commission, this would be limited by shippers' incentive to avoid unnecessary litigation before the Commission. Because they bear 100% of their expenses associated with the litigation, shippers do not have an incentive to attempt to effectuate relatively minor changes in rates, and are only likely to seek redress from the Commission when committed rates being offered by a pipeline are far in excess of competitive levels.

V. CONCLUSIONS

FERC's recent pronouncements regarding its policies for approving committed shipper rates and evaluating market power associated with market-based rates applications create a regulatory environment where pipelines are incentivized to under-develop capacity and create capacity constraints from which they can profit by exercising market power. In order to provide a balance that (1) incentivizes oil and liquids to construct capacity levels consistent with competitive levels, (2) provide the opportunity to earn a reasonable return on investment in expansion capacity, and (3) ensures that rates that are within a zone of reasonableness and not excessive, we recommend certain specific changes to FERC's existing policies. With respect to the Commission's policies for evaluating oil pipeline market-based rates, we recommend that the Commission not presume that "used" alternatives are competitive, nor presume that higher cost alternatives, including non-pipeline alternatives, or prevailing locational commodity price differentials represent a competitive rate level for oil and liquids pipeline transportation service. Instead, we recommend that the Commission adhere to the fundamental principles of competitive economics by affirmatively clarifying that a reasonable proxy for a competitive rate should be based on an estimate of the long-run marginal cost of providing incremental transportation capacity, or tied to the underlying costs of providing the transportation service at issue. When it comes to the approval of committed shipper rates, in our opinion the Commission should recognize that uncommitted rates are not a recourse rate that mitigates any potential for the exercise of market power. Consequently, we recommend that the Commission articulate a clear policy that challenges to the reasonableness of negotiated committed rates in relation to underlying costs by committed shippers will be permitted, even in the presence of any "duty to support" clauses in transportation services agreements for initial committed shipper rates.

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costs and the pre-construction estimate. *TransCanada Keystone Pipeline, LP*, 125 F.E.R.C. ¶ 61,025, at P 20 (2008).