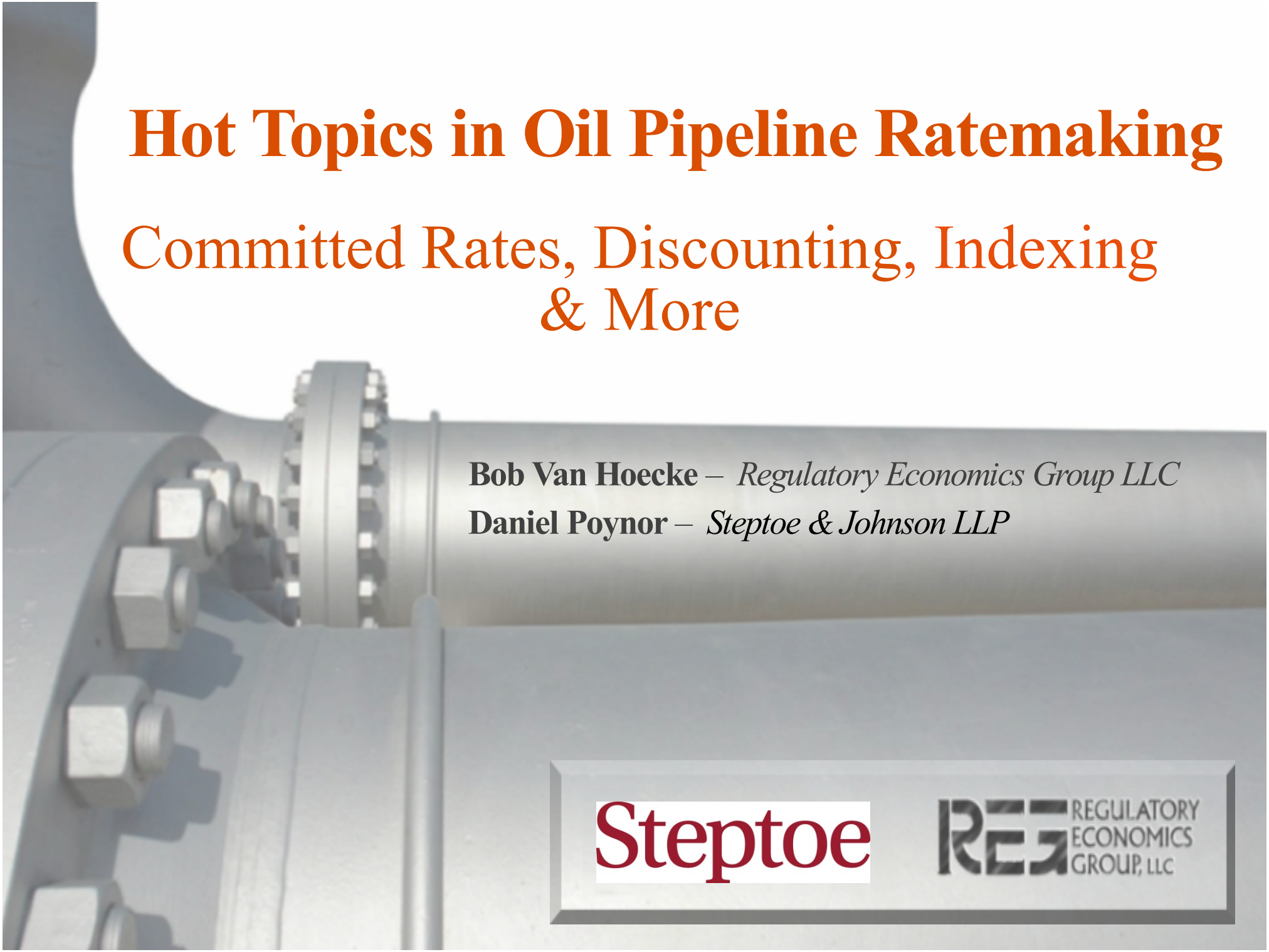
Hot Topics in Oil Pipeline Ratemaking

Committed Rates, Discounting, Indexing & More



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Agenda

- Overview of Ratemaking "toolkit"
- Review cost recovery through rate design, including rate-setting options
- Options for committed rates and transportation services agreements
- Update on index rate standards
- This presentation is directed at interstate rates and may not apply to intrastate rates

The Basic Ratemaking "Toolkit"

- Initial Rate established (18 CFR § 342.2):
  - Un-affiliated shipper agreement
  - Cost-of-service support
- Existing Rate adjusted by:
  - Indexing
  - Cost-of-service support
  - Settlement
  - Market-based rates

Adjustments under Indexation

- Carrier can decrease or increase existing rate to any level at or below the "ceiling" without justification (18 CFR § 342.3(a))
- Annually rates can be adjusted (effective July 1st) based on current pipeline index issued by the Commission
- Index Ceiling Adjustments:
  - Automatically changes July 1st by applying index to existing ceiling rate, independent of any rate adjustment
  - Ceiling level is reset if Cost of Service or Settlement rates are established

The Basic Ratemaking "Toolkit"

- These and other alternatives reflect the various approaches pipelines have taken and continue to develop to capture business, maintain volume, or target cost recovery
- Let's explore some fundamental concepts that help inform these goals and approaches

Cost Recovery through Rate Design

Cost Recovery:

Introduction to Rate Design

- Purpose of rate design is to translate cost of providing service into individual rates for point to point transportation
- Designing rates is the process of distributing costs over different services and individual movements
- There are many ways to design a pipeline's rates to account for economic and operational circumstances, while conforming to commercial and regulatory goals
  - There is no "one size fits all" rate design

Cost Recovery:

Goals of Rate Design

- Regulatory Goal is to develop just and reasonable rates while affording the pipeline an opportunity to recover its costs, including an allowed return on investments (i.e., revenue requirement)
- Commercial Goal is consistent with the regulatory goal; to develop an optimal rate design—one which will most likely generate the pipeline's revenue requirement while remaining sensitive to commercial issues

Cost Recovery:

Coexisting Goals

- Unique regulatory situation facing pipelines
  - Rate regulation does not guarantee the pipeline its revenue requirement, but must afford an opportunity for recovery
  - Interstate oil pipelines do not need certificates of public necessity or convenience before construction, and for that reason FERC cannot limit competition from other pipelines, or limit intermodal competition
- FERC therefore has relatively limited ability to *ensure* oil pipelines, especially those that operate in competitive markets, will recover their costs
- Thus, the pipeline seeks to design a rate structure that both attracts shippers and generates sufficient revenue within the bounds of FERC regulation

Cost Recovery:

Economic Circumstances

- Pipeline operations can be characterized as operating along a continuum of competition
  - Monopoly on one end, robust competition on the other
- If in all markets a pipeline faces no competition, or at the other end of the continuum, if it faces a large amount of competition, then rate design and cost recovery have relatively simple solutions

Cost Recovery:

Monopoly

- Carrier less concerned with rate design, fully allocated cost rates will likely lead to full cost recovery
- A straightforward solution for cost recovery if pipeline faces no competition in all the markets served
- Fully Allocated Cost Rates - Cost of service is allocated to individual movements
  - Non-Distance costs: volumetric basis
    - G&A costs, such as Salaries, Materials & Supplies, Outside Services, etc which do not vary with length of movements
  - Distance costs: distance basis
    - Distance based costs generally include operating expenses, return on rate base, income tax allowance, depreciation expense, amortization of AFUDC and of deferred return

* *The characterization of a particular set of costs as distance or non-distance may change depending on the particular carrier's operation.* –The proper method for allocating costs may vary due to operational or policy reasons

Cost Recovery:

Competition

- When the Commission approves market based rates, it is less concerned with rate design and permits Carrier to set rates responsive to varying market conditions in order to maximize cost recovery
- Market Based Rates – set by Carrier without reference to cost. (i.e., the rate is determined by what the market will bear)
- Commission leaves the rate design to the pipeline so it may pursue its commercial objectives within the bounds of regulatory goals
- Straightforward solutions apply when all markets served by pipeline are competitive and authorized for Market Based Rates

Cost Recovery:

What makes these instances straightforward?

- The relevant consideration at all points along continuum of competition is the shippers' elasticity of demand
- In monopoly circumstances the pipeline has a reasonable expectation to recover its Revenue Requirement because shippers do not face alternatives
- In competitive circumstances the pipeline may be more concerned with rate design as Fully Allocated Cost Rates may not be competitive and attract volume to the system. Shippers may have more elastic demands (more responsive to price due to available alternatives)

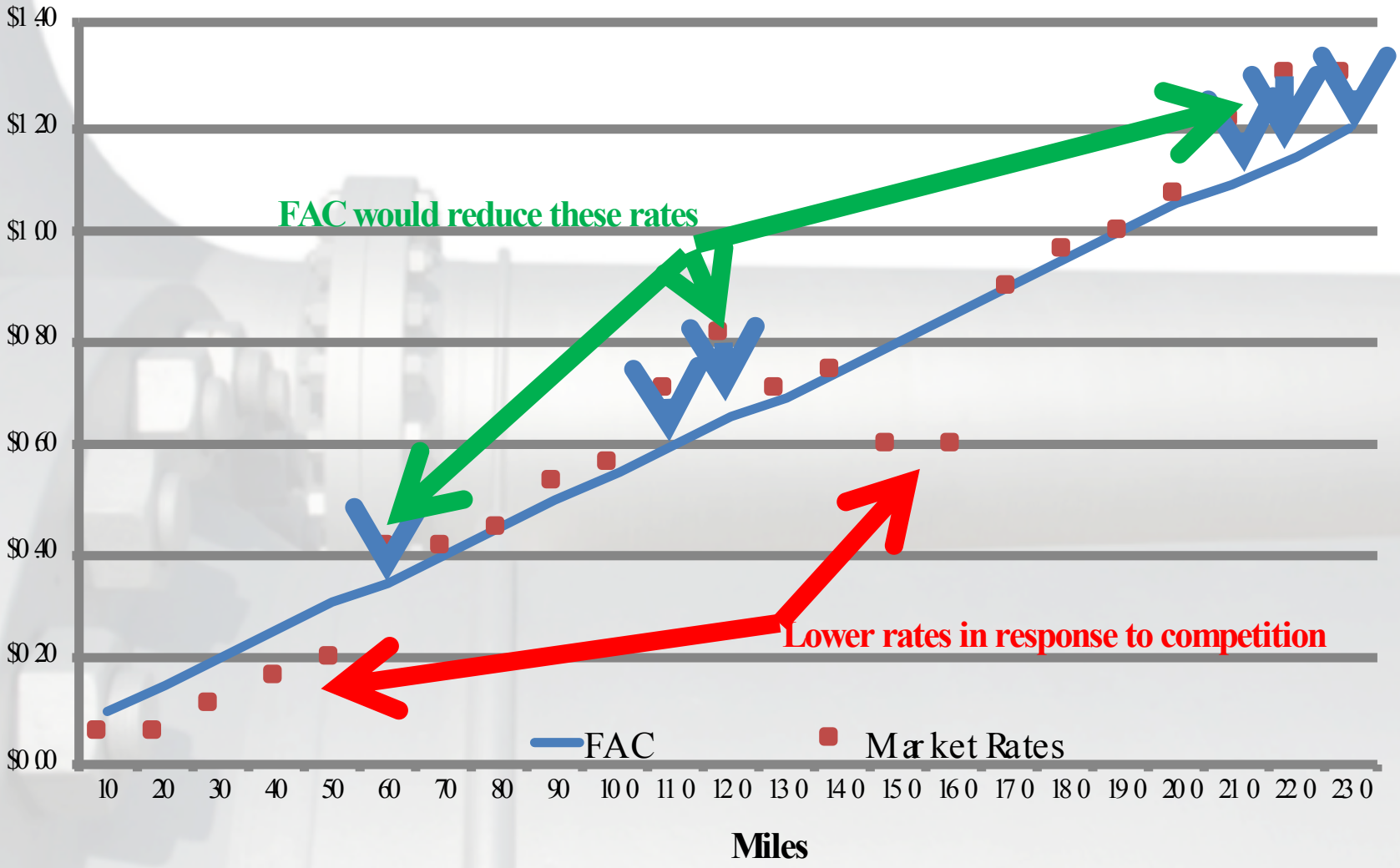
Cost Recovery:

Departing from extremes

- When a pipeline is not characterized by either monopoly or competition in all markets in which it operates, rate design becomes much more important.
  - Consider where pipelines move away from the extremes to face competition in some markets, and none in other markets.
  - What if shippers are more sensitive to price at some origins and/or destinations than others?

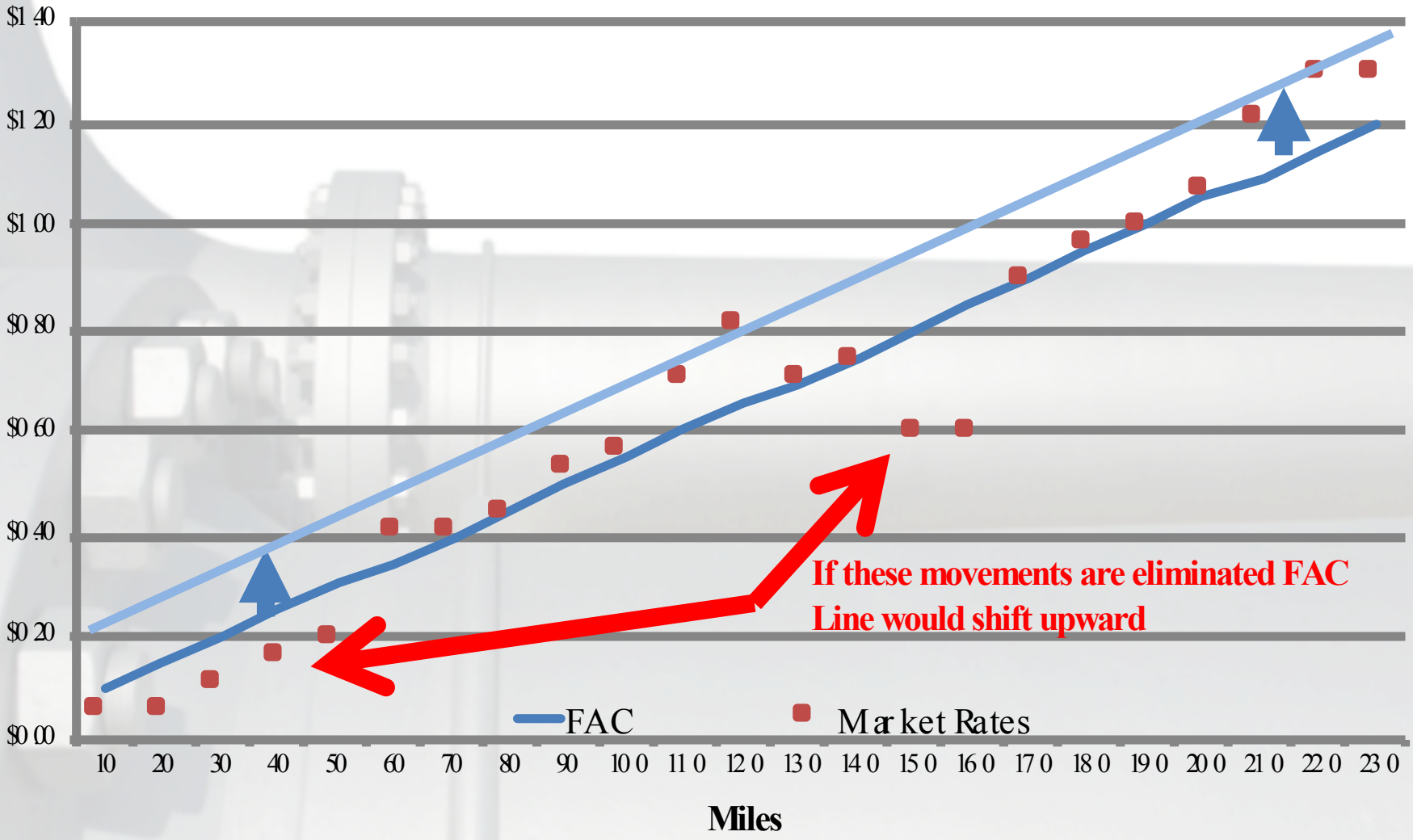
Cost Recovery:

The Cost Recovery Death Spiral



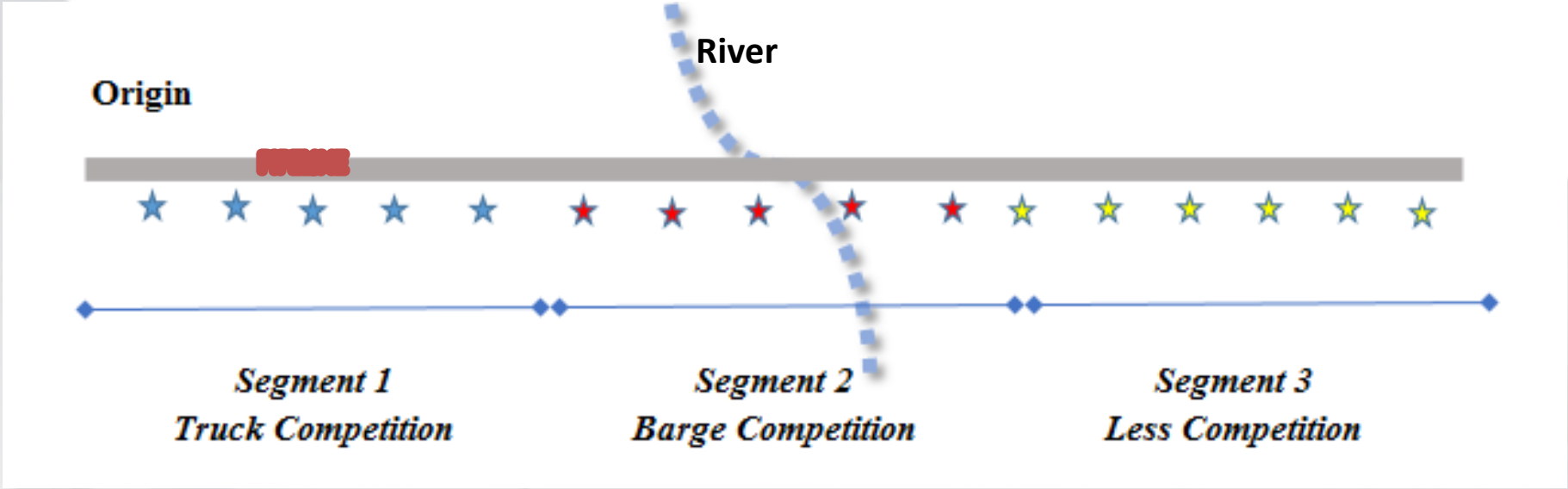
Cost Recovery:

The Cost Recovery Death Spiral



Cost Recovery:

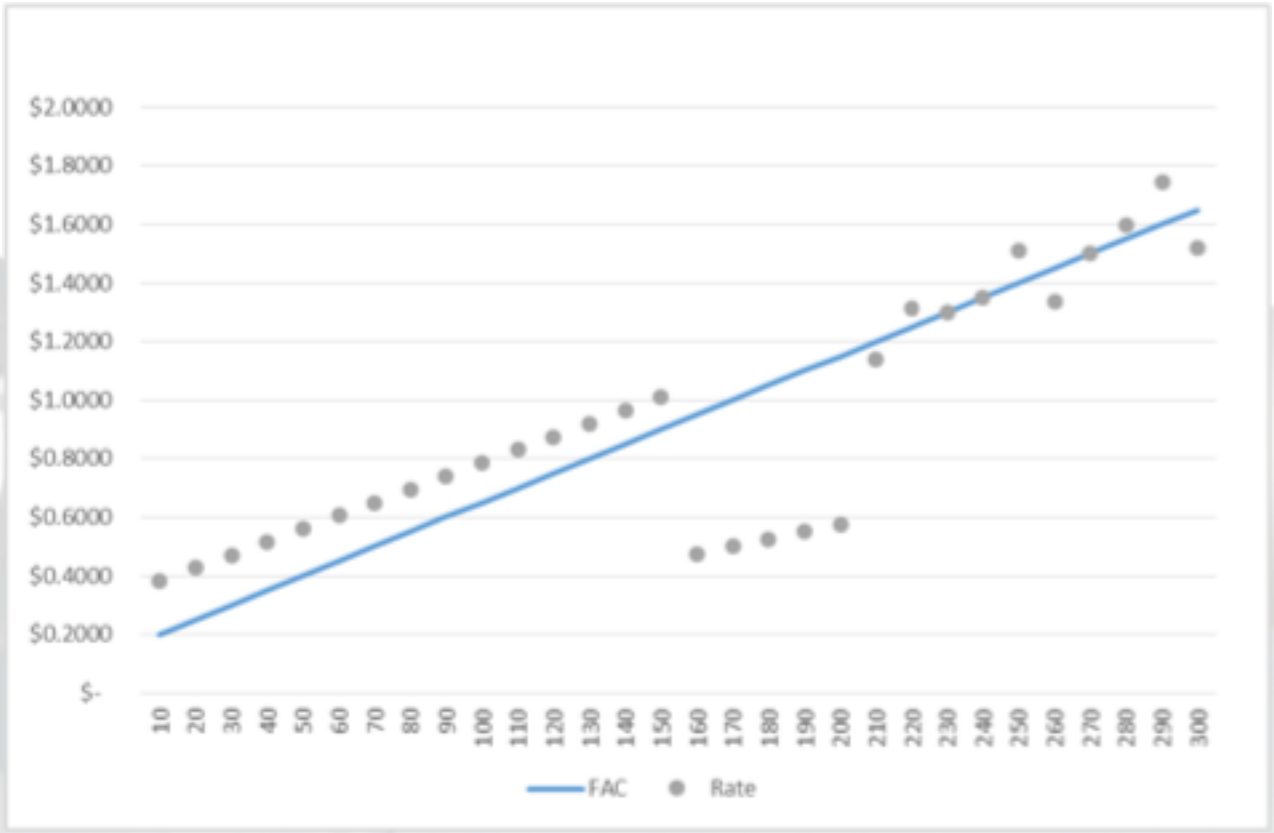
Segmentation Cost Recovery Death Spiral



★ Destination Terminals

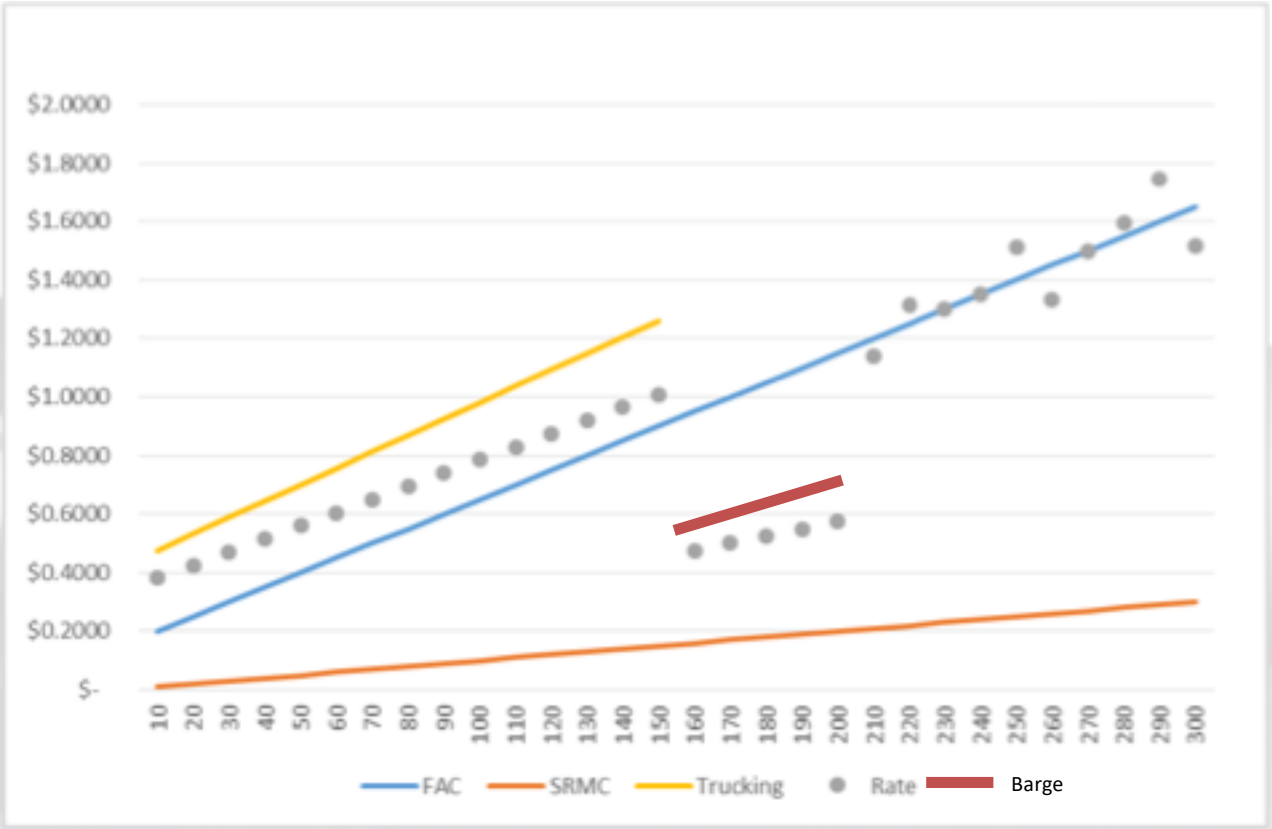
Cost Recovery:

Segmentation Cost Recovery Death Spiral



Cost Recovery:

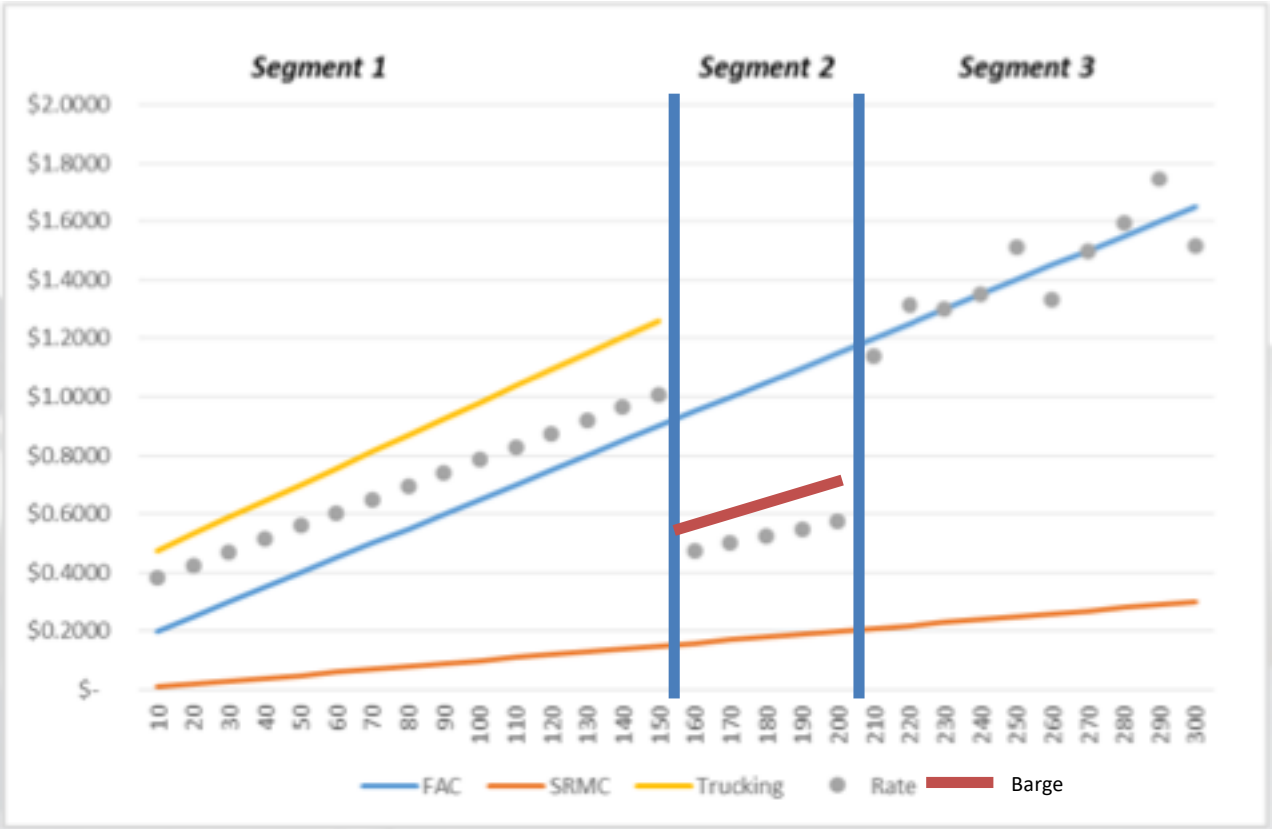
Segmentation Cost Recovery Death Spiral



* Segment 2 has 4th section rates

Cost Recovery:

Segmentation Cost Recovery Death Spiral

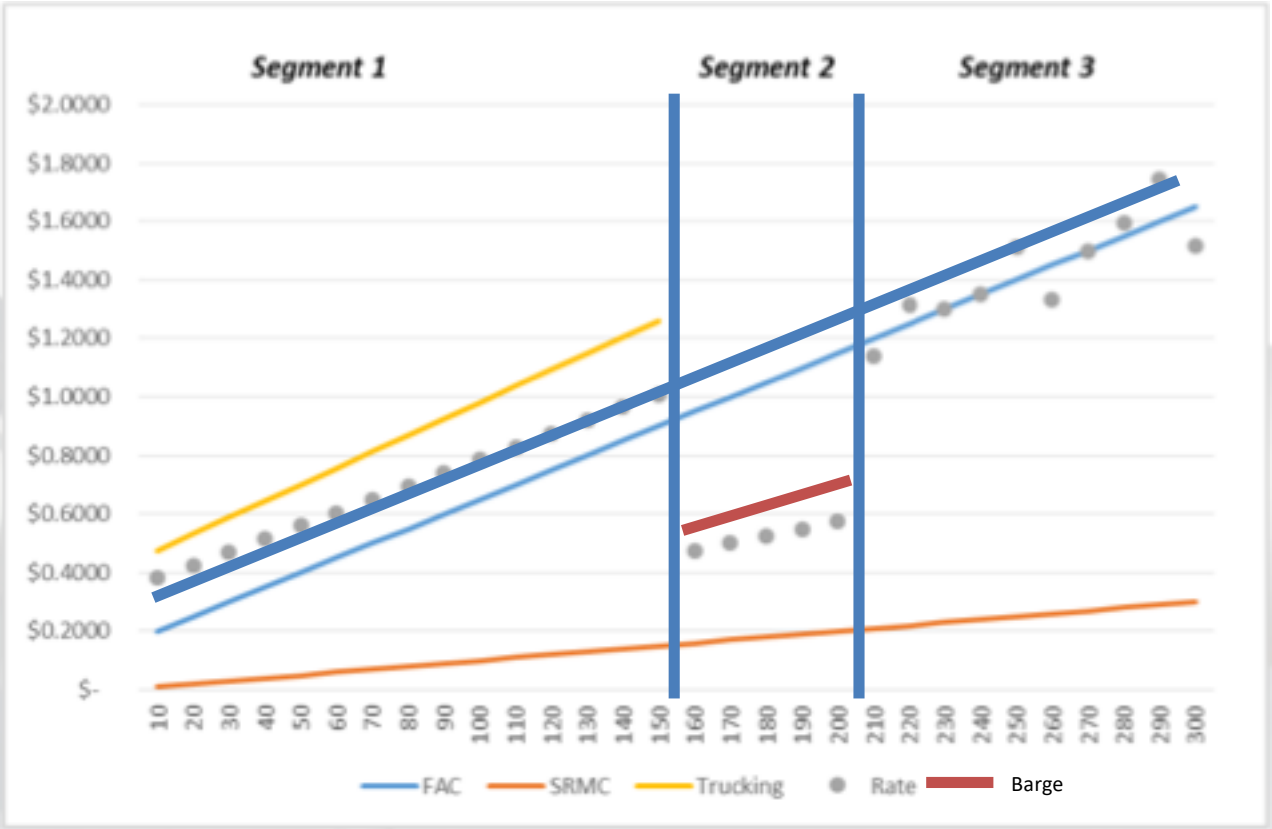


Segment 1	Segment 2	Segment 3	Total Company
Revenue > COS	Revenue < COS	Revenue = COS	Revenue < COS

* Segment 2 has 4th section rates

Cost Recovery:

Segmentation Cost Recovery Death Spiral



If segmented, shippers would argue that rates in Segment 1 need to decrease despite the fact that COS > Revenue at the Total Company level.

If company stops movement to segment 2, then the FAC line would shift upward for both Segment 1 and Segment 3.

Cost Recovery:

Departing from extremes

How have Carriers and the Commission sought to address unique challenges to balance commercial and regulatory objectives?

Cost Recovery:

What has been done?

- As noted at the outset, in addition to FAC Rates and Market Based Rates, various approaches are taken by pipelines to capture business, maintain volume or target cost recovery:
  - Discount rates (volume, term)
  - Seasonal rates
  - Formula rates
  - Zone rates
  - Surcharges
  - Committed rates

Cost Recovery:

What has been done?

- Volume incentive rates have been structured in different ways with a common goal of incentivizing incremental movements of product or to maintain existing volumes
  - Volume Commitments: Discounts on aggregate volume commitment based on certain thresholds
  - Excess Volume Incentive Rates: Discounts on barrels in excess of specified shipment volume
  - Term Commitments: Discounts on barrels when shipper commits to ship production over a term
  - User-Based Volume Commitments: Discounts on volume commitment, limited by class of customer
    - In settlement, FERC accepted limiting incentive to jet consumers, finding marketers not similarly situated, *Delta Airlines v. Buckeye,* 153 FERC ¶ 61,120 (2015)

Cost Recovery:

What has been done?

Seasonal Rates:

- Offered to incentivize shipments during periods in which pipeline experiences weak demand

Formula Rates:

- In certain circumstances the pipeline may be able to develop a formula which could adjust rates in response to market forces

Zone Rates:

- Zones are large geographic areas encompassing multiple origins/destinations on the pipeline. Costs are allocated to zones and then shared among all shippers. Consequently, the rate in each zone is uniform.

Cost Recovery:

What has been done?

Surcharges

- Allow the pipeline to recover costs specific to certain activities or cost drivers
- Shippers charged based on level of activity, thus the use of surcharges may more accurately match cost recovery to cost causation, where feasible
- This is consistent with regulatory aim of matching cost with causation
- May also align with commercial goals

Cost Recovery:

What has been done?

Surcharges

- *Oryx Southern Delaware Oil Gathering and Transport LLC*, 154 FERC ¶ 61,065 (2016) (declaratory order allowing pipeline to recover certain compliance costs from committed shippers)
- But see:
  - *Tesoro Logistics Northwest Pipelines LLC*, 153 FERC ¶ 61,118 (2015) (denying surcharge for certain pipeline integrity and remediation expenses)
  - *Chevron Pipe Line Company*, 163 FERC ¶ 61,238 (2018) (denying surcharge for methanol treatment facilities)

Cost Recovery:

What has been done?

Open Season / Committed Rate Structures

- Under certain conditions, a pipeline may recover costs associated with a significant capital investment to increase infrastructure or expand capacity by establishing T&D agreements with committed shippers during open season at mutually agreed rates.
  - Contract rates offered in exchange for volume commitment or acreage dedication
  - Contract rates are considered settlement rates under Commission regulations
  - Generally limited to 90% of incremental capacity
  - Can provide firm service at premium rates

Closer Look at Committed Rates

Open Season / Committed Rate Structures

- Structure is used heavily
  - What are the commercial goals underlying its use?
  - What are the regulatory goals or limits?

Committed Rates

Current shape of the "envelope"?

- Continues to widen through rational evolution in PDO process
- *Colonial* order demonstrated it does have limits and FERC unlikely to approve where:
  - No new construction proposed
  - Pipeline is at capacity
  - Pipeline proposes to "create two classes of shippers, committed and uncommitted, out of one class of shippers who are currently receiving the same service on existing capacity"

Committed Rates

Current shape of the "envelope"?

- Committed structure is generally acceptable in cases of:
  - Green-field pipelines
  - Expansions
  - Reversals or reconfigurations of existing pipelines to serve new markets or respond to changing market conditions
  - Combinations of new construction and leases of under-utilized capacity; *see, e.g., Buckeye Pipe Line Transp., LLC*, 154 FERC ¶ 61,130 (2016) *Palmetto Products Pipe Line LLC*, 151 FERC ¶ 61,090 (2015)

Committed Rates

FERC Will Honor Contract Rates

- *Seaway Crude Pipeline Company LLC*, 154 FERC ¶ 61,070 (2016)
- Committed rates are just and reasonable as a matter of law and are not subject to cost-based review
- Uncommitted rates must be justified on other grounds (e.g., cost-of-service)
- In setting cost-based uncommitted rates, pipeline is no required to credit revenue received from contract rates against the cost of service

Committed Rates

Ability to Provide Firm Service

- Firm service at premium rates
- Non-firm service at discount rates
- Deeming shipper history for committed shippers
- Hybrids of the above
  - Discount with "springing" firm in periods of allocation

Committed Rates

Re-Contracting Committed Space

- Pipelines may give committed shippers various rights to extend the term of the contract – and even make the contract evergreen – if the extension rights are available during the open season and permission is obtained through the initial PDO process
- Pipelines may hold new open season to offer new volume commitments upon expiration of current commitments to shippers other than current committed shippers provided this mechanism is set out in the initial open season and permission is obtained through the initial PDO process, *see Oryx Southern Delaware Oil Gathering and Transport LLC*, 154 FERC ¶ 61,065 (2016)
- *Can a pipeline re-contract committed space after the current contracts expire if the pipeline did not obtain permission to do so originally?*
  - *CCPS Transportation, LLC,* 163 FERC ¶ 61,206 (2018) (permitting re-contracting of a portion of capacity for committed service, with pipeline permitted to offer both firm and non-firm service)

Cost Recovery:

What is inbound & on the frontier?

Iterative Discounting

- A cost based rate design that accounts for commercial realities faced by pipelines which operate in both competitive and uncompetitive markets
- Rationale: If a pipeline is able to attract additional volume at a rate less than Fully Allocated Cost, using that higher level of throughput to calculate maximum pipeline rates can result in under-recovery of the cost-of-service
- Iterative discounting finds its basis in gas pipelines but has been used in oil pipelines on occasion:
    - *Laclede Pipeline Company,* 114 FERC ¶ 61,335 (2006)
    - *TransCanada Keystone Pipeline, L.P.*, 144 FERC ¶ 61,089 (2013)
    - *Marketlink, LLC*, 144 FERC ¶ 61,086 (2013)
- How does the rate design work?

Cost Recovery:

Iterative Discounting

Simple Example from Laclede (n.4)

- "Laclede states that its total cost of service is $1,139,991 and total throughput is 882,000 barrels, so a true per barrel initial rate for the system would be $1.29/bbl."
- "Laclede says that it cannot charge that to third party shippers, and can only get $0.15 per barrel from them because of competition. That results in revenue of $102,300 (682,000 barrels at $0.15 per barrel) from third party shippers, leaving a remaining cost of service to be recovered from Laclede Gas of $1,037,691."

Ln.	Item	Amount	Note
1	COS	$ 1,139,991	
2	Throughput	882,000	
3	True per-barrel rate	$ 1.29	(1) / (2)
4	Maximum 3rd Party Rate	$ 0.15	
5	3rd Party Throughput	682,000	
6	3rd Party Revenue	$ 102,300	(4) * (5)
7	Remaining COS	$ 1,037,691	(1) - (6)

Cost Recovery:

Iterative Discounting

Simple Example from Laclede (n.4)

- "Spreading that over the remaining 200,000 barrels results in a $5.19 per barrel rate to be charged to Laclede Gas. "
- "Of course, if there were no third party shippers, then Laclede Gas would have to cover the whole cost of service, and assuming that its throughput would still be only 200,000 barrels, that would result in a rate of $5.70 per barrel."

Ln.	Item	Amount	Note
1	COS	$ 1,139,991	
2	Throughput	882,000	
3	True per-barrel rate	$ 1.29	(1) / (2)
4	3rd Party Rate	0.15	
5	3rd Party Throughput	682,000	
6	3rd Party Revenue	$ 102,300	(4) * (5)
7	Remaining COS	$ 1,037,691	(1) - (6)
8	Remaining Bbls	200,000	(2) - (5)
9	Rate for remaining Bbls	$ 5.19	(7) / (8)
10	Rate absent 3rd Party Bbls	$ 5.70	(1) / (8)

Cost Recovery:

Iterative Discounting

A slightly more complex example

- Assumptions

- System

Pipeline originates at Point A and delivers to Points B and C

Points B is 50 miles from Point A and has a throughput of 100 bbls

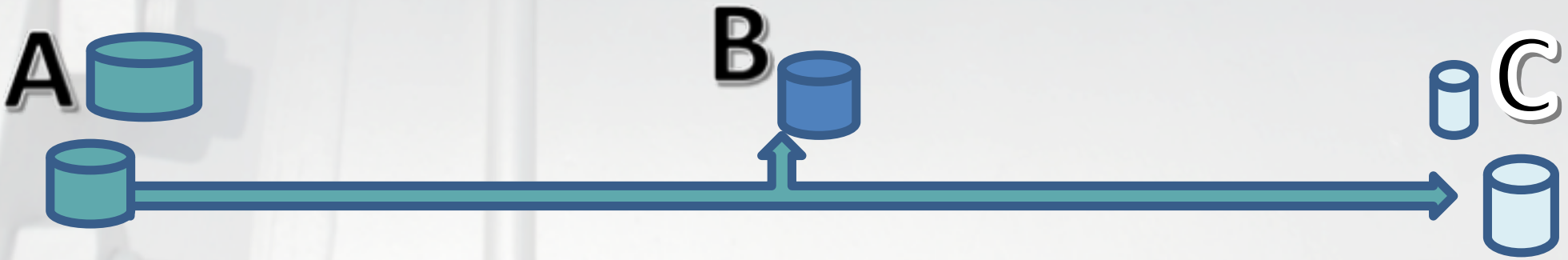
Point C is 100 miles from Point A and a throughput of 150 bbls

- Costs

Total Cost of Service $100

Distance Costs $90 Non Distance Costs $10

- Market based ratemaking authority at Point B



Cost Recovery:

Iterative Discounting

Ln.	Item	Note	Iteration 1
1	A-B Throughput	Assumption or Prior Ln. 1*Ln. 15	100
2	A-B Mileage	Assumption	50
3	A-B Barrel-Mile	Ln. 1 * Ln. 2	5,000
4	A-C Throughput	Assumption	150
5	A-C Mileage	Assumption	100
6	A-C Barrel-Mile	Ln. 4 * Ln. 5	15,000
7	Total Throughput	Ln. 1 + Ln. 4	250
8	Total Barrel-Miles	Ln. 3 + Ln. 6	20,000
9	Non Distance Cost /Bbl	$10 / Ln. 7	$ 0.0400
10	Distance Cost/Bbl	$90 / Ln. 8	$ 0.0045
11	**Initial FAC A-B Rate**	**Ln. 9 + (Ln. 10 * Ln. 2)**	**$ 0.2650**
12	Initial FAC A-C Rate	Ln. 9 + (Ln. 10 * Ln. 5)	$ 0.4900
13	**Max A-B Rate**	**Assumption**	**$ 0.2500**
14	Max A-C Rate	Assumption	$ 1.0000
	Revenue Check	**(Ln. 13 * Ln. 1) + (Ln. 12 * Ln. 4)**	**$ 98.50**

Cost Recovery:

Iterative Discounting

Ln.	Item	Note	Iteration 1
1	**A-B Throughput**	**Assumption or Prior Ln. 1*Ln. 15**	**100**
2	A-B Mileage	Assumption	50
3	A-B Barrel-Mile	Ln. 1 * Ln. 2	5,000
4	**A-C Throughput**	**Assumption**	**150**
5	A-C Mileage	Assumption	100
6	A-C Barrel-Mile	Ln. 4 * Ln. 5	15,000
7	Total Throughput	Ln. 1 + Ln. 4	250
8	Total Barrel-Miles	Ln. 3 + Ln. 6	20,000
9	Non Distance Cost /Bbl	$10 / Ln. 7	$ 0.0400
10	Distance Cost/Bbl	$90 / Ln. 8	$ 0.0045
11	**Initial FAC A-B Rate**	**Ln. 9 + (Ln. 10 * Ln. 2)**	**$ 0.2650**
12	Initial FAC A-C Rate	Ln. 9 + (Ln. 10 * Ln. 5)	$ 0.4900
13	**Max A-B Rate**	**Assumption**	**$ 0.2500**
14	Max A-C Rate	Assumption	$ 1.0000
	Revenue Check	**(Ln. 13 * Ln. 1) + (Ln. 12 * Ln. 4)**	**$ 98.50**

Cost Recovery:

Iterative Discounting

Volume determinants of constrained rates are adjusted based on a ratio of the discounted rate/FAC rate until full cost recovery.

Ln.	Item	Note	Iteration 1	Iteration 2
1	A-B Throughput	Assumption or Prior Ln. 1*Ln. 15	**100**	**94.34**
2	A-B Mileage	Assumption	50	50
3	A-B Barrel-Mile	Ln. 1 * Ln. 2	5,000	4,717
4	A-C Throughput	Assumption	150	150
5	A-C Mileage	Assumption	100	100
6	A-C Barrel-Mile	Ln. 4 * Ln. 5	15,000	15,000
7	Total Throughput	Ln. 1 + Ln. 4	250	244
8	Total Barrel-Miles	Ln. 3 + Ln. 6	20,000	19,717
9	Non Distance Cost /Bbl	$10 / Ln. 7	$ 0.0400	$ 0.0409
10	Distance Cost/Bbl	$90 / Ln. 8	$ 0.0045	$ 0.0046
11	Initial FAC A-B Rate	Ln. 9 + (Ln. 10 * Ln. 2)	$ 0.2650	$ 0.2692
12	Initial FAC A-C Rate	Ln. 9 + (Ln. 10 * Ln. 5)	$ 0.4900	$ 0.4974
13	Max A-B Rate	Assumption	$ 0.2500	$ 0.2500
14	Max A-C Rate	Assumption	$ 1.0000	$ 1.0000
15	Ratio of Max to FAC	Ln. 13/ Ln. 11	94.34%	92.88%
16	Revenue Check	(Ln. 13 * Ln. 1) + (Ln. 12 * Ln. 4)	$ 98.50	**$ 99.61**

Cost Recovery:

Iterative Discounting

Ln.	Item	Note	Iteration 1	Iteration 2	Iteration 3
1	A-B Throughput	Assumption or Prior Ln. 1*Ln. 15	**100**	**94.34**	**92.88**
2	A-B Mileage	Assumption	50	50	50
3	A-B Barrel-Mile	Ln. 1 * Ln. 2	5,000	4,717	4,644
4	A-C Throughput	Assumption	150	150	150
5	A-C Mileage	Assumption	100	100	100
6	A-C Barrel-Mile	Ln. 4 * Ln. 5	15,000	15,000	15,000
7	Total Throughput	Ln. 1 + Ln. 4	250	244	243
8	Total Barrel-Miles	Ln. 3 + Ln. 6	20,000	19,717	19,644
9	Non Distance Cost /Bbl	$10 / Ln. 7	$ 0.0400	$ 0.0409	$ 0.0412
10	Distance Cost/Bbl	$90 / Ln. 8	$ 0.0045	$ 0.0046	$ 0.0046
11	Initial FAC A-B Rate	Ln. 9 + (Ln. 10 * Ln. 2)	$ 0.2650	$ 0.2692	$ 0.2702
12	Initial FAC A-C Rate	Ln. 9 + (Ln. 10 * Ln. 5)	$ 0.4900	$ 0.4974	$ 0.4993
13	Max A-B Rate	Assumption	$ 0.2500	$ 0.2500	$ 0.2500
14	Max A-C Rate	Assumption	$ 1.0000	$ 1.0000	$ 1.0000
15	Ratio of Max to FAC	Ln. 13/ Ln. 11	94.34%	92.88%	92.51%
16	Revenue Check	(Ln. 13 * Ln. 1) + (Ln. 12 * Ln. 4)	$ 98.50	$ 99.61	**$ 99.90**

Cost Recovery:

Iterative Discounting

Ln.	Item	Note	Iteration 1	Iteration 2	Iteration 3	Iteration 4
1	A-B Throughput	Assumption or Prior Ln. 1*Ln. 15	**100**	**94.34**	**92.88**	**92.51**
2	A-B Mileage	Assumption	50	50	50	50
3	A-B Barrel-Mile	Ln. 1 * Ln. 2	5,000	4,717	4,644	4,625
4	A-C Throughput	Assumption	150	150	150	150
5	A-C Mileage	Assumption	100	100	100	100
6	A-C Barrel-Mile	Ln. 4 * Ln. 5	15,000	15,000	15,000	15,000
7	Total Throughput	Ln. 1 + Ln. 4	250	244	243	243
8	Total Barrel-Miles	Ln. 3 + Ln. 6	20,000	19,717	19,644	19,625
9	Non Distance Cost /Bbl	$10 / Ln. 7	$ 0.0400	$ 0.0409	$ 0.0412	$ 0.0412
10	Distance Cost/Bbl	$90 / Ln. 8	$ 0.0045	$ 0.0046	$ 0.0046	$ 0.0046
11	Initial FAC A-B Rate	Ln. 9 + (Ln. 10 * Ln. 2)	$ 0.2650	$ 0.2692	$ 0.2702	$ 0.2705
12	Initial FAC A-C Rate	Ln. 9 + (Ln. 10 * Ln. 5)	$ 0.4900	$ 0.4974	$ 0.4993	$ 0.4998
13	Max A-B Rate	Assumption	$ 0.2500	$ 0.2500	$ 0.2500	$ 0.2500
14	Max A-C Rate	Assumption	$ 1.0000	$ 1.0000	$ 1.0000	$ 1.0000
15	Ratio of Max to FAC	Ln. 13/ Ln. 11	94.34%	92.88%	92.51%	92.41%
16	Revenue Check	(Ln. 13 * Ln. 1) + (Ln. 12 * Ln. 4)	$ 98.50	$ 99.61	$ 99.90	**$ 99.97**

Cost Recovery:

Iterative Discounting

Ln.	Item	Note	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5
1	A-B Throughput	Assumption or Prior Ln. 1*Ln. 15	**100**	**94.34**	**92.88**	**92.51**	92.41
2	A-B Mileage	Assumption	50	50	50	50	50
3	A-B Barrel-Mile	Ln. 1 * Ln. 2	5,000	4,717	4,644	4,625	4,621
4	A-C Throughput	Assumption	150	150	150	150	150
5	A-C Mileage	Assumption	100	100	100	100	100
6	A-C Barrel-Mile	Ln. 4 * Ln. 5	15,000	15,000	15,000	15,000	15,000
7	Total Throughput	Ln. 1 + Ln. 4	250	244	243	243	242
8	Total Barrel-Miles	Ln. 3 + Ln. 6	20,000	19,717	19,644	19,625	19,621
9	Non Distance Cost /Bbl	$10 / Ln. 7	$ 0.0400	$ 0.0409	$ 0.0412	$ 0.0412	$ 0.0413
10	Distance Cost/Bbl	$90 / Ln. 8	$ 0.0045	$ 0.0046	$ 0.0046	$ 0.0046	$ 0.0046
11	Initial FAC A-B Rate	Ln. 9 + (Ln. 10 * Ln. 2)	$ 0.2650	$ 0.2692	$ 0.2702	$ 0.2705	$ 0.2706
12	Initial FAC A-C Rate	Ln. 9 + (Ln. 10 * Ln. 5)	$ 0.4900	$ 0.4974	$ 0.4993	$ 0.4998	$ 0.5000
13	Max A-B Rate	Assumption	$ 0.2500	$ 0.2500	$ 0.2500	$ 0.2500	$ 0.2500
14	Max A-C Rate	Assumption	$ 1.0000	$ 1.0000	$ 1.0000	$ 1.0000	$ 1.0000
15	Ratio of Max to FAC	Ln. 13/ Ln. 11	94.34%	92.88%	92.51%	92.41%	92.39%
16	Revenue Check	(Ln. 13 * Ln. 1) + (Ln. 12 * Ln. 4)	$ 98.50	$ 99.61	$ 99.90	$ 99.97	**$ 99.9933**

Cost Recovery:

Iterative Discounting

Ln.	Item	Note	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	(…)	Final Iteration
1	A-B Throughput	Assumption or Prior Ln. 1*Ln. 15	**100**	**94.34**	**92.88**	**92.51**	**92.41**		92.38
2	A-B Mileage	Assumption	50	50	50	50	50		50
3	A-B Barrel-Mile	Ln. 1 * Ln. 2	5,000	4,717	4,644	4,625	4,621		4,619
4	A-C Throughput	Assumption	150	150	150	150	150		150
5	A-C Mileage	Assumption	100	100	100	100	100		100
6	A-C Barrel-Mile	Ln. 4 * Ln. 5	15,000	15,000	15,000	15,000	15,000		15,000
7	Total Throughput	Ln. 1 + Ln. 4	250	244	243	243	242		242
8	Total Barrel-Miles	Ln. 3 + Ln. 6	20,000	19,717	19,644	19,625	19,621		19,619
9	Non Distance Cost /Bbl	$10 / Ln. 7	$ 0.0400	$ 0.0409	$ 0.0412	$ 0.0412	$ 0.0413		$ 0.0413
10	Distance Cost/Bbl	$90 / Ln. 8	$ 0.0045	$ 0.0046	$ 0.0046	$ 0.0046	$ 0.0046		$ 0.0046
11	Initial FAC A-B Rate	Ln. 9 + (Ln. 10 * Ln. 2)	$ 0.2650	$ 0.2692	$ 0.2702	$ 0.2705	$ 0.2706		$ 0.2706
12	Initial FAC A-C Rate	Ln. 9 + (Ln. 10 * Ln. 5)	$ 0.4900	$ 0.4974	$ 0.4993	$ 0.4998	$ 0.5000		$ 0.5000
13	Max A-B Rate	Assumption	$ 0.2500	$ 0.2500	$ 0.2500	$ 0.2500	$ 0.2500		$ 0.2500
14	Max A-C Rate	Assumption	$ 1.0000	$ 1.0000	$ 1.0000	$ 1.0000	$ 1.0000		$ 1.0000
15	Ratio of Max to FAC	Ln. 13/ Ln. 11	94.34%	92.88%	92.51%	92.41%	92.39%		92.38%
16	Revenue Check	(Ln. 13 * Ln. 1) + (Ln. 12 * Ln. 4)	$ 98.50	$ 99.61	$ 99.90	$ 99.97	$ 99.99		**$ 100.0**

Cost Recovery:

Iterative Discounting

This reduces the level of cost assigned to the price constrained routes

Cost Assignment	**Iteration 1**	**Iteration 2**	**Iteration 3**	**Iteration 4**	**Final Iteration**
Route A-B	$ 26.50	$ 25.40	$ 25.10	$ 25.02	$ 25.00
Route A-C	$ 73.50	$ 74.61	$ 74.90	$ 74.97	$ 75.00
Total COS*	$ 100.00	$ 100.01	$ 99.99	$ 99.99	$ 100.00

Actual Revenues	**Iteration 1**	**Iteration 2**	**Iteration 3**	**Iteration 4**	**Final Iteration**
Route A-B	$ 25.00	$ 25.00	$ 25.00	$ 25.00	$ 25.00
Route A-C	$ 73.50	$ 74.61	$ 74.90	$ 74.97	$ 75.00
Total Revenues	$ 98.50	$ 99.61	$ 99.90	$ 99.97	$ 100.00

* COS figures do not equal $100 due to rounding.

Cost Recovery:

What is inbound & on the frontier?

Iterative Discounting

- Well established rate design approach in natural gas pipeline industry
- Fewer instances in oil pipeline context although it has been used on occasion as previously noted

Cost Recovery:

What is inbound & on the frontier?

- Much of the existing oil pipeline infrastructure was installed decades ago.
- What are the rate design options for heavily depreciated pipelines?
  - Commercial Objectives
  - Regulatory Objectives

Indexed Rates

Closer Look at Indexed Rates

- Review current state of play in indexed rate area
  - "Conservation" of index ceiling year over year
  - "Preservation" of index ceiling absent adjudication of lawful rate
  - "Substantial exacerbation" standard
  - Standard for assessing index adjustment at hearing
- Discuss changes proposed by FERC ANOPR

Indexed Rates – Basic Rules

- Pipelines may increase rates to a level that does not exceed the index ceiling provided the rate increase is not "so substantially in excess of actual cost increases incurred by the carrier that the rate is unjust and unreasonable." 18 C.F.R. § 343.2(c)(1).
- If protested, FERC compares the percentage change in the pipeline's rates to the change in Page 700 cost of service. If the differential is less than 10 percentage points, the Commission has generally accepted the indexed rate change.
- The 10 percent test is also used to assess complaints, but a complaint may also go forward if it shows that (1) the pipeline is substantially over-recovering its cost of service, and (2) the indexing increase so exceeds the actual increase in the pipeline's costs that the resulting rate increase would substantially exacerbate that over-recovery.

Indexed Rates

Conservation of Index Ceiling

- In 2011, SFPP indexed its West Line rates by the full 6.88% index. SFPP Page 700 showed year-over-year cost decrease of 4%
- Index adjustment was protested; pipeline failed the 10 percent test and was set for hearing.
- FERC rejected the index rate adjustment (Opinion No. 527):
  - Pipeline ordered to pay refunds and revise rates to remove 2011 index
  - Did not order any change to ceiling levels
  - Rehearing was later granted in 2018, as we will discuss, but in the meantime …

Indexed Rates

In 2013…

- SFPP applied both the 2013 index (4.6%) and an unused portion of the 2012 index (3.2%) – for a total of 7.8% – which, when combined with its Page 700 year-over-year cost decrease of 0.56%, was within the 10% threshold
- Shippers protested pipeline's pulling unused index ceiling from prior year into current year index adjustment
- FERC rejected the protests, finding carrier may forego taking the full index in a year and apply the unused portion in a subsequent year – *SFPP L.P.*, 143 FERC ¶ 61,267 (2013)
- Shippers sought rehearing

Indexed Rates

- FERC denied rehearing, *SFPP, L.P.*, 147 FERC ¶ 61,012 (2014), confirming that
  - 8.35% divergence did not render index rate increase "a substantially in excess" of actual cost changes (P 7)
  - And "ceiling levels are cumulative, and the ceiling levels change with the index independent of SFPP's decision to change its rates" (P 6)
- **Take-away:** Unused ceiling survives and can be freely used in later years, provided the total adjustment fits within 10 percent threshold

Indexed Rates

- On July 3, 2013, after the 2013 index adjustment had taken effect, SFPP proposed to raise its West Line rates again
  - In its 2013 index filing, SFPP had already increased its rates by 7.8%
  - Combined with Page 700 year-over-year cost decrease of 0.56%, there was room under the 10% threshold
  - SFPP filed to apply 1.64% of the unused West Line ceiling from the 2011 index (6.88%) removed from the rates by Op. 527
- Shippers protested, arguing that SFPP's rate increase violated Op. 527 because the increase was based upon the 2011 index increase which FERC had rejected, in effect arguing that Op. 527 had not just rejected the rate increase but had also adjusted the ceiling level itself

Indexed Rates

- SFPP countered that
  - Op. 527 had found application of 2011 index unreasonable, but did not revise ceiling level, which, per FERC regulations, is adjusted independent of whether or not the carrier applies the index adjustment to its rates and
  - Combined adjustment was within 10% threshold
- FERC agreed, rejected protests (*SFPP*, 144 FERC ¶ 61,091)
- **Take-away:** Absent final adjudication determining lawful rate level, rejection of a particular index adjustment does not alter the ceiling level, which remains available for later use

Indexed Rates

What happens if you fail the 10 percent test at protest stage?

- Index rate is not rejected, but instead is set for hearing
- At hearing, FERC will generally use the 10 percentage point test, but will allow parties to argue for other standards if they can justify them, *SFPP, L.P.*, 162 FERC ¶ 61,230 (2018) ("Opinion No. 527-A") (rehearing of order regarding SFPP 2011 index rate adjustment discussed earlier)
- Hearing compares cost changes for two most recent years prior to the index adjustment – other years not relevant
- Review is not limited to costs as reported on face of page 700; pipeline and shippers may argue for adjustments
- Costs recovered through means other than indexed rates (*e.g.*, surcharges) should not be included in cost comparison
- Revenue not generally relevant, although if pipeline is under-recovering, it is entitled to the index adjustment

Indexed Rates

Substantial Exacerbation Test

2-part test:

- (1) Is pipeline "substantially" over-recovering its costs?
- (2) If over-recovery is substantial, will index increase substantially exacerbate over-recovery?
- FERC has not defined either prong in specific percentage or dollar terms
- Tension between the two elements of the test (as over-recoveries get smaller, the likelihood of "substantial exacerbation" grows)

Indexed Rates

- Page 700 and Indexing ANOPR (RM17-1)
  - Responded in part to a petition for rulemaking (RM15-19) brought by various shippers seeking segmented Page 700 data and workpapers
  - The ANOPR denied the request for workpapers, but proposed significant changes to FERC's indexing rules and Page 700 requirements
  - Comments filed by AOPL and numerous individual oil pipeline as well as other industry participants
  - Remains to be seen what next steps will be regarding the ANOPR

Indexed Rates

- Regarding the index, the ANOPR proposed two new tests:
  - The "exacerbate" test would deny any increase in the indexed rate if Page 700 revenues exceed costs by 15 percent or more for the prior two years
  - The "percentage comparison" test would deny any pipeline with a Page 700 "over-recovery" an increase in the indexed rate that exceeds five percentage points above the percentage change in the total costs *per barrel-mile* shown on Page 700 for the two most recent years
  - Tests apply to both rates and rate ceilings
  - Tests apply to both protests and complaints
  - If the pipeline fails either test, the index increase is denied without further hearing

Conclusions

- There are myriad regulatory and commercial factors associated with identifying the right rate design for your pipeline system.
- We've addressed a variety of those methods and considerations here. Depending on your pipeline's unique circumstances, the ratemaking process and associated rate design issues can be quite complex. Consequently, proper review of such circumstances by qualified professionals is necessary before making a determination.