

# LEPA Workshop

## Introduction to FERC Ratemaking

Michael Webb, Regulatory Economics Group, LLC  
&

Dean Lefler, CBL Energy Law PLLC

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# Discussion Outline

- **Part I:** Overview of FERC
- **Part II:** Oil Pipeline Duties and Prohibitions
- **Part III:** FERC Rate-Setting Methodologies

## Part I

# Federal Energy Regulatory Commission Introduction

- Independent federal agency
- Congress and President have indirect controls but cannot dictate FERC decisions
- FERC orders subject to judicial review
- Funded by fees charged to the entities it regulates
- Regulates approximately 200 oil pipelines
- Also regulates the electric, natural gas pipeline and hydroelectric industries

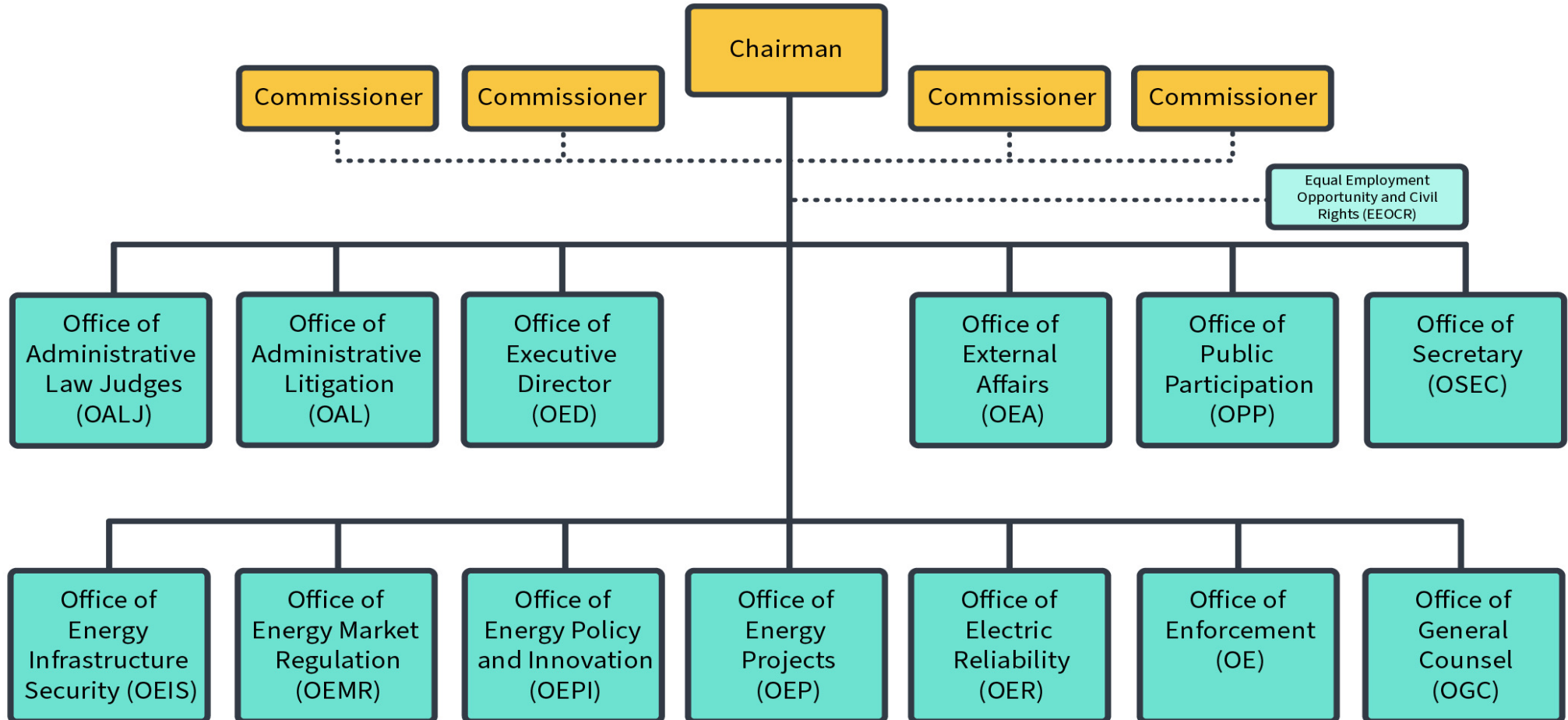
## Part I - FERC

# Scope of Jurisdiction Over Oil Pipelines

- Regulates oil pipeline rates and terms of service
- Does not regulate pipeline safety (DOT/PHMSA)
- Does not regulate certification/right-of-way issues (left to individual states and State Department for cross-border pipelines)
- Does not have jurisdiction over oil pipeline abandonment of service

# Part I - FERC Organizational Chart

## Federal Energy Regulatory Commission



## Part I - FERC

# Office of Energy Market Regulation

- Principal advisor to the Commission on regulatory issues
- Oversees energy market structure and performance
- Oversight of compliance of market participants with the Commission's rules
- Conducts analytical studies of energy markets
- OEMR Division Key to Oil Pipelines:
  - Division of Pipeline Regulation (Director, Marsha Palazzi)
  - Pipeline Group 1 oversees most oil pipeline related matters

## Part I - FERC

### **Division of Pipeline Regulation (Pipeline Group 1)**

- Reviews oil pipeline tariff filings to ensure that rates, terms and conditions of service are just and reasonable and not unduly discriminatory or preferential
- Advises Commission on oil pipeline-related orders (e.g., related to tariff filings, complaints, initial decisions, declaratory orders, market-based rate applications, rulemakings)
- Assists pipelines in complying with regulations (e.g., ensuring tariffs meet all of the pertinent requirements)

## Part II - Oil Pipeline Duties

# Interstate Commerce Act

- Primary statutory authority governing oil pipelines
  - Requires carriers to post tariffs for rates and terms of service
  - Rates and practices must be “just and reasonable”
  - Carriers must provide transportation upon reasonable request
  - Prohibits undue discrimination and preference
  - Prohibits rebates and concessions
  - Protects confidential shipper information



## Part II - Oil Pipeline Duties

# Primary FERC Regulations

- Tariff Filings – 18 C.F.R. part 341
- General Rate Procedures – 18 C.F.R. part 342
- Protests/Complaints – 18 C.F.R. part 343
- Cost-of-Service Rates – 18 C.F.R. part 346
- Depreciation Studies – 18 C.F.R. part 347
- Market-Based Rates – 18 C.F.R. part 348
- Uniform System of Accounts – 18 C.F.R. part 352
- Form 6 and Form 6Q – 18 C.F.R. part 357

## Part II - Oil Pipeline Duties

### **Tariffs** - 18 C.F.R. part 341

- Tariffs filed with FERC (electronically) and served on subscriber list
- Must include rates and rules that affect value of service provided
- Must file on 30-60 days notice unless short-notice permitted
- Transmittal letters must explain the nature and basis for the filing

## Part II - Oil Pipeline Duties

# Tariffs

## (Continued)

- Tariff format specified in 18 C.F.R. part 341
- Pre-filing advice is available from FERC's oil pipeline group
- If tariff is challenged, FERC may (1) accept it, (2) reject it, or (3) suspend it and allow it to take effect subject to refund and investigation
- Suspension can be up to seven months, but is usually only for a nominal period

## Part II - Oil Pipeline Duties

# Protests and Complaints

- **Protest** – Challenges a tariff filing
  - Must have “substantial economic interest” to file
  - Due within 15 days of tariff filing; 5 calendar days to respond
  - Potential refunds to all shippers; prospective relief also available
  - Burden of proof on pipeline

## Part II - Oil Pipeline Duties

# Protests and Complaints

- **Complaint** – Challenges an existing rate or practice
  - Any person may file complaint (but must show that he or she is somehow “adversely affected” by the challenged rate or practice)
  - May be filed at any time; response due within 20 days
  - Potential reparations to complaining shipper for up to two years prior to complaint; prospective relief also available
  - Burden of proof on complainant

# Part II - Oil Pipeline Duties

## Form 6

- **What is the Form 6?**
  - Required Annual Report of Oil Pipeline Companies
- **Purpose of the Form 6:**
  - Provides General Corporate Information, Operational Statistics
  - Sets Forth Pipeline Financial Statements Consistent with USOA
  - Shows Pipeline Cost-of-Service (Page 700)
  - Compares Costs and Revenues
  - Provides “screening tool” for protests and complaints
  - Allows FERC to assess index rate adjustments
  - Used in 5-year review of FERC index
- **Filing Dates:**
  - Year-End (Form 6)- April 18<sup>th</sup>
  - Quarterly (Form 6-Q) (70 days after the quarter ends)

# Part III

## Rate-Setting Methodologies

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- ✓ Initial Rates
- ✓ Indexed Rates
- ✓ Grandfathered Rates
- ✓ Settlement Rates
- ✓ Market-Based Rates
- ✓ Cost-of-Service Rates

## Tariff Rate Types

# Initial Rates

(18 C.F.R. § 342.2)

- A carrier must justify an initial rate for a new service by:
  - Filing a cost-of-service to support such rate, or
  - Filing a sworn affidavit that the rate is agreed to by at least one non-affiliated shipper who intends to use the service in question (a negotiated rate)



## Tariff Rate Types

# Indexed Rates

(18 C.F.R. § 342.3)

- A rate may be changed, at any time, to a level not to exceed the ceiling level
- The current period ceiling level equals the product of the previous index year's ceiling level and the most recent index published by the Commission
- Index published prior to June 1 of each year

## Tariff Rate Types

# Indexed Rates

(Continued)

- The annual index is currently the Producer Price Index for Finished Goods -0.21% (or +0.78%)
- The index applies to the five-year period from July 1, 2021 through June 30, 2026
- FERC reviews the index every five years

## Tariff Rate Types

# Indexed Rates

(18 C.F.R. § 342.3)

- Shippers may protest an index adjustment if  $\text{Change in the Index} - \text{Change in Cost} > +10\%$ .
- Example: Index=9% Costs=-2%:  $9 - (-2) = +11\%$  (remember 2 negatives make a positive).
- The Commission has accepted protests for a couple of pipelines that were slightly over the 10% threshold.
- These pipelines withdrew their increase and re-filed a slightly lower increase that kept them below the 10% threshold.

## Tariff Rate Types

# Grandfathered Rates

- Section 1803(a) of the Energy Policy Act of 1992 (“EPAAct”) deems just and reasonable “any rate in effect for the 365-day period ending on the date of the enactment of this Act ... if the rate in effect... has not been subject to protest, investigation or complaint during such period.

## Tariff Rate Types

# Grandfathered Rates

(Continued)

- A grandfathered rate can be challenged if a “substantial change” has occurred after October 24, 1992:
  - “in the economic circumstances of the oil pipeline which were a basis for the rate,” or
  - “in the nature of the services provided which were the basis of the rate”
- Grandfathered rates can be important for older pipelines, especially if they have not significantly changed their rates since 1992
- Maintaining records is particularly important

## Tariff Rate Types

# Settlement Rates

(18 C.F.R. § 342.4)

- A carrier may change a rate without regard to the ceiling level if the proposed change has been agreed to, in writing, by each person who, on the day of the filing of the proposed rate change, is using the service covered by the rate

## Tariff Rate Types

# Market-Based Rates

(18 C.F.R. § 342.3)

- Carrier must demonstrate that it lacks significant market power in the in the origin market and the destination market
- Filing requirements established in 18 C.F.R. part 348
- FERC rules require a relatively lengthy application
- If the application is approved, the carrier may set rates at whatever level the market will bear

## Tariff Rate Types

# Cost-of-Service Rates

(18 C.F.R. § 342.4)

- Carrier must show that there is a substantial divergence between the actual costs experienced by the carrier and the rate resulting from the application of the index such that the rate at the ceiling level would preclude the carrier from being able to charge a just and reasonable rate
- Filing requirements established in 18 C.F.R. part 346



# Which Ratemaking Methodology is Best?

- Evaluating which ratemaking methodology most closely meets the commercial objectives of a specific company is a fact intensive process.

# Cost-of-Service (COS)

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## Rates

# Cost-of-Service

## Introduction

- Types of Cost-of-Service Methodologies:
  - Depreciated Original Cost (“DOC”)
  - Trended Original Cost (“TOC”)
- Opinion No. 154-B: FERC’s Cost-of-Service Methodology
  - Issued June 28, 1985
  - Uses a TOC rate base
  - Has been modified and clarified by subsequent decisions
  - This topic is discussed in more depth in Session 2

Cost-of-Service

## **Depreciated Original Cost (DOC)**

Operating Expenses

- + Return of Rate Base (Depreciation)
- + Return on Rate Base
- + Amortization of Allowance for Funds Used During Construction (“AFUDC”)
- + Income Tax Allowance

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**= Cost of Service (Revenue Requirement)**

## Cost-of-Service **Operating Expenses**

- Salaries and Wages
- Materials and Supplies
- Outside Services
- Fuel and Power
- Pensions and Benefits
- Insurance
- Oil Losses and Shortages
- Taxes other than Income Taxes
- Allocated Overhead

## Operating Expenses

# Allocated Overhead

- For pipelines that are subsidiaries of a larger corporation, allocated overhead can represent a significant component of the COS
- The Commission generally uses a three factor approach consisting of revenue, plant and payroll to allocate overhead
- Other approaches may be permissible
- The critical issue is that the allocation methodology match cost with causation

# Cost-of-Service Depreciation

- Depreciation Example:
  - Beginning of Year 1 Rate Base = 1000
  - Estimated Life = 20 years
  - Year 1 Depreciation Expense =  $(1000 / 20) = 50$
- Group Method of Depreciation:
  - A number of similar or related assets are included in a group to which a single composite depreciation rate is applied

# Cost-of-Service

## Rate Base

Carrier Property in Service

- Accumulated Depreciation
- + Allowance for Funds Used During Construction (“AFUDC”)
- Accumulated Amortization of AFUDC
- + Working Capital Allowance
- Accumulated Deferred Income Taxes (“ADIT”)

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**= DOC Rate Base**



## Cost-of-Service

# Accumulated Deferred Income Tax

### Calculation of ADIT

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Tax Depreciation	33.3	33.3	33.3	-
Book Depreciation	25.0	25.0	25.0	25.0
Timing Difference	8.3	8.3	8.3	(25.0)
Deferred Income Taxes	<u>4.2</u>	<u>4.2</u>	<u>4.2</u>	<u>(12.5)</u>
ADIT	4.2	8.3	12.5	-

### Assumptions

Property	100
Book Depreciation	25%
Tax Depreciation	33%
Income Tax Rate	50%
Equity %	100%
ROE	10%

Cost-of-Service

## Return on Rate Base

$$\begin{aligned} & \text{Debt \%} \times \text{Cost of Debt} \\ & + \frac{\text{Equity \%} \times \text{Nominal Equity Rate of Return}}{\phantom{+}} \\ & = \textbf{Weighted Cost of Capital} \end{aligned}$$

$$\begin{aligned} & \text{Average DOC Rate Base} \\ & \times \frac{\text{Weighted Cost of Capital}}{\phantom{\times}} \\ & = \textbf{Return on DOC Rate Base} \end{aligned}$$

Cost-of-Service

## **Allowance for Funds Used During Construction (AFUDC)**

Average Monthly Construction Work in Progress  
("CWIP") Balance

$$\times \text{ Weighted Cost of Capital } \\ = \text{ **AFUDC** }$$

Average AFUDC Balance

$$\times \text{ Useful Life Factor } \\ = \text{ **Amortization of AFUDC** }$$

Cost-of-Service

## Income Tax Allowance

$$\begin{aligned} & \text{Equity Portion of Return on DOC Rate Base} \\ & + \text{Amortization of Equity AFUDC} \\ & = \text{Taxable Elements of Return} \\ & \times \text{Net-to-Tax Multiplier} \\ & = \text{Income Tax Allowance} \end{aligned}$$

$$\begin{aligned} & \text{Income Tax Rate}^* \\ & \div (1.0 - \text{Income Tax Rate}) \\ & = \text{Net-to-Tax Multiplier} \end{aligned}$$

\*Generally based on the statutory marginal tax rate for corporations

## Cost-of-Service

# Tax Allowance and ADIT for MLPs

- In PL17-1, the Commission stated its belief that the combination of the DCF return and a tax allowance causes MLPs to “double recover.”
- On rehearing the Commission stated that if a particular MLP pipeline can demonstrate that it will not double-recovery, it can include a tax allowance.
- The Commission also determined that because shippers do not have an “equity interest” in the ADIT balance MLP pipelines can eliminate this balance.
- This is an issue likely to continue to generate controversy.

# Cost-of-Service

## **DOC Recap**

Operating Expenses

- + Return of Rate Base (Depreciation)
- + Return on Rate Base
- + Amortization of Allowance for Funds Used During Construction (“AFUDC”)
- + Income Tax Allowance

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**= Cost of Service (Revenue Requirement)**

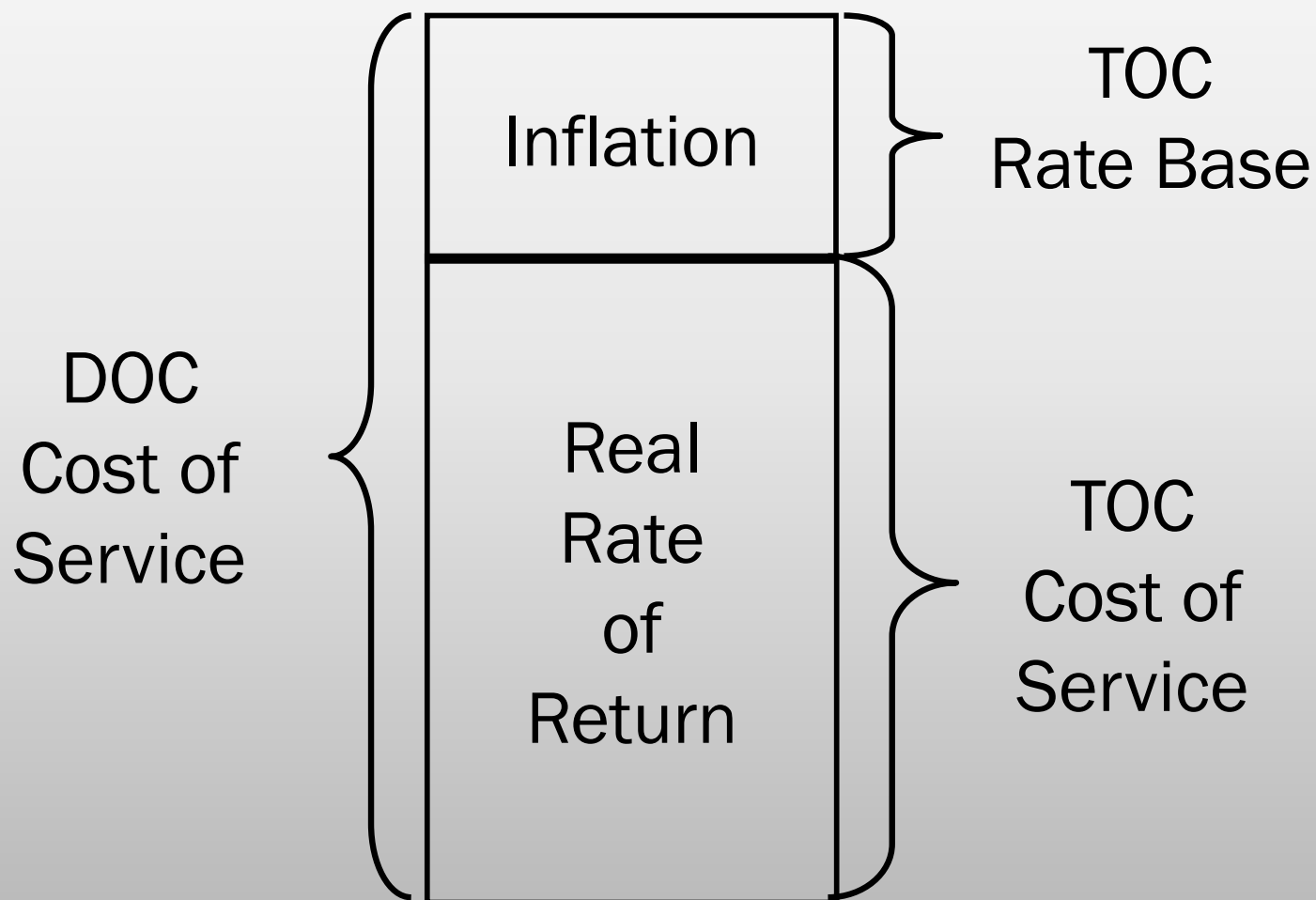
Cost-of-Service

## Trended Original Cost (TOC)

- Variation of DOC
- Stores inflation adjustment in Rate Base and recovers as “Deferred Return” over life of assets
- Applies Real Return on Equity (“ROE”) to “equity” portion of Rate Base and Cost of Debt (“COD”) to debt portion of Rate Base
- Trends portion of Rate Base funded by equity to reflect inflation as measured by the CPI-U

Cost-of-Service

## Nominal Equity Rate of Return





Cost-of-Service

## Calculation & Amortization of Deferred Return

$$\begin{array}{l} \text{Trending Base (Equity Rate Base)} \\ \times \text{ Inflation Factor} \\ \hline = \text{Deferred Return} \end{array}$$

$$\begin{array}{l} \text{Deferred Return} \\ \times \text{ Useful Life Amortization Factor} \\ \hline = \text{Amortization of Deferred Return} \end{array}$$

## Cost-of-Service

# Opinion No. 154-B

- Issued June 28, 1985
- Adopts the trended original cost rate base (“TOC”) for oil pipelines wishing to establish or change their tariff rates by filing a cost-of-service
- Provides a transition from the previous valuation rate base methodology, referred to as the “starting rate base” (“SRB”)
- Establishes a preference for use of the pipeline’s actual capital structure
- Case-by-case determination of many issues

\* FERC Opinion No. 154-B, as modified and clarified by subsequent decisions

## Cost-of-Service

# Starting Rate Base

- Intended to provide transition from prior methodology
- One-time calculation as of December 31, 1983
- SRB Formula:

$$\begin{aligned} & (\text{Debt \%} \times \text{Net Original Cost}) \\ & + \underline{(\text{Equity \%} \times \text{Net Reproduction Cost New})} \\ & = \textbf{Starting Rate Base} \end{aligned}$$

$$\begin{aligned} & \text{Starting Rate Base ("SRB")} \\ & - \underline{\text{DOC Rate Base}} \\ & = \textbf{SRB Write-Up} \end{aligned}$$

## Cost-of-Service

# Starting Rate Base Write-Up

- SRB Write-Up is included in Opinion No. 154-B Rate Base
- SRB Write-Up is amortized
- Amortization of SRB Write-Up is excluded from Cost of Service
- Carrier's Return On Rate Base includes a return on the unamortized SRB
- SRB Write-Up is included in Trending Base when computing Deferred Return

# Cost-of-Service Rate Base Components

$$\begin{aligned} & \text{DOC Rate Base} \\ & + \text{SRB Write-Up} \\ & - \text{Accumulated Amortization of SRB Write-up} \\ & + \text{Deferred Return} \\ & - \text{Accumulated Amortization of Deferred Return} \\ & = \textbf{154-B TOC Rate Base} \end{aligned}$$

## Cost-of-Service **Income Tax Allowance**

Equity Portion of Return on TOC Rate Base  
+ Amortization of Deferred Return  
= Subtotal  
x Net-to-Tax Multiplier  
= **Income Tax Allowance**

## Cost-of-Service

# Base & Test Periods

- A **base period** must consist of 12 consecutive months of actual experience adjusted to eliminate non-recurring items; Carrier may include appropriate normalizing adjustments in lieu of non-recurring items
- See 18 C.F.R. § 346.2

## Cost-of-Service

# Base & Test Periods

- A **test period** must consist of a base period adjusted for changes in revenues and costs which are known and measurable with reasonable accuracy at the time of filing and which become effective within nine months after the last month of available actual experience utilized in the filing. For good cause shown, the Commission may allow reasonable deviation from the prescribed test period.
- See 18 C.F.R. § 346.2



# Critical Take-Aways on COS

- The calculations contain a number of variables that function in tandem
- Some of the required inputs involve data going back over 25 years
- The higher the quality of the data the more successful a cost-based rate filing will be

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# Questions?