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National  
Association of  
Regulatory  
Utility  
Commissioners

# Utility Accounting Approaches and Asset Valuation

**Presented By:  
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# OVERVIEW

1. Financial Analysis
2. Techniques Employed in Asset Valuation
3. Treatment of Depreciation
4. Models for Predicting Revenue & Investment Requirements
5. Mechanisms to Review Investment Decisions



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## 1. FINANCIAL ANALYSIS

Proper and adequate financial analysis requires:

1. Common accounting standards for all public utilities – for us that means FERC’s Uniform System of Accounts (USOA)
2. Development of specific forms/reports utilizing USOA
3. Regular/periodic interval for report submission
4. Supplemented through special reports & filings with PUCO and other regulatory agencies
5. Also supplemented through independent evaluations including those by investment community



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# 1. FINANCIAL ANALYSIS - SOURCES OF INFORMATION

- Investment community analyses & reports
  - Debt Analysts
    - Standard & Poor's
  - Equity Analysts
    - Salomon Brothers
- Governmental filings
  - SEC 10-K, 10-Q
  - FERC Form 2
  - PUCO Annual Reports
- Independent evaluations
  - Examination of financial health of publicly traded public utilities (independent auditor's reports for Annual Reports)



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## 1. FINANCIAL ANALYSIS

### Regular/periodic reports

- Annual Reports filed with PUCO – overall financial statement, including:
  1. Ownership
  2. Board of Directors & Officers
  3. Sales & Throughput
  4. Revenues recovered by customer class
  5. Income & Expenses
  6. Customer counts
  7. Plant depreciation, etc.
- GCR/PGA filings



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# 1. FINANCIAL ANALYSIS

## Rate Case Filings

- Pre-filing notice (PFN)
- Rate Case Filings
- Staff Report
- Intervenor testimony & information



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## 2. TECHNIQUES EMPLOYED IN ASSET VALUATION

- Original book cost – traditional means of putting used and useful assets into rate base
- Market value – may be used by investment community but generally not used by regulatory bodies
- Debt recovery on sale of assets



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## 3. TREATMENT OF DEPRECIATION

- What is depreciation?
  - The recognition of the decrease in value suffered by an asset with a long life
- Straight line depreciation
  - Handy-Whitman index
  - Index for asset life
- Accelerated depreciation
  - For tax purposes
  - Double-declining
  - Sum of years' digits



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## 3. TREATMENT OF DEPRECIATION

- Depreciation
  - Wear and tear
  - Decay
  - Inadequacy
  - Changes in demand
  - Obsolescence
  - Technological advances
  - Changes in requirements of regulatory authorities



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## 3. TREATMENT OF DEPRECIATION

- Depreciation Rates
  - Methods: straight line and accelerated
  - Procedures: broad group, vintage group, unit depreciation
  - Techniques: whole life, remaining life



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## 3. TREATMENT OF DEPRECIATION

- **Straight Line**
  - Most common form of depreciation
  - Equal amounts of depreciation expense allocated each year in the service life
- **Accelerated Depreciation**
  - For U.S. income tax purposes, federal government often allows accelerated depreciation on certain assets to promote investment



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### 3. TREATMENT OF DEPRECIATION

- Procedure: Group or Unit Depreciation
  - Except for buildings and major equipment, service lives more predictable for groups rather than individual units
  - Derives from insurance industry; stable statistical ratios normally appear with large group data, allowing for reasonably accurate calculation of average life



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### 3. TREATMENT OF DEPRECIATION

- Techniques: Whole life or Remaining life
  - Whole life: rate determined by property's average service life
  - Remaining life: rate determined by property's average service life less average age of property
- Service life estimated by past experience as modified by reasonable expectations related to future events



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## 4. PREDICTIVE MODELS – REVENUE & INVESTMENT

- Rate Case issues
  - Rate design & cost allocation issues:
    - Balancing fixed costs and incremental/variable costs across rate structure
    - Monthly charge (fixed) vs. throughput
  
- Decoupling revenues from sales
  - Vectren Energy Delivery of Ohio
  - Gradualism - rate design trend towards allocating costs based on causation



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## 4. PREDICTIVE MODELS – REVENUE & INVESTMENT

# Gradualism



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## 5. INVESTMENT DECISION REVIEW MECHANISMS

- Rate cases
- Defined triggers
- AUDITS
- Compliance Investigations (a type of audit)
- Other regular, periodic reviews by the regulatory authority