Principles and Standards for Accounting and Reporting
GENERAL DISCUSSION TOPICS

- Accounting Principles and Concepts
- Financial Statements and Definitions
- Uniform Systems of Accounts
- Regulatory Accounting Examples
ACCOUNTING

The system of recording and summarizing business and financial transactions and analyzing, verifying, and reporting the results.
Generally Accepted Accounting Principles

- Uniform set of principles, rules, procedures, standards and guidelines of financial accounting and reporting

- GAAP is subject to change
  - As needs of users of financial statements change
  - As unique transactions become more common
  - As new problems arise (Enron, the housing crash)
GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

- Used in the preparation of accounting records and financial statements (by most larger companies)
- Must be complied with in order to obtain an unqualified (“clean”) opinion from an independent auditor
- Must be complied with for securities to be listed on a stock exchange and to issue new securities (Publicly Traded Companies)
NOT ALL REPORTING IS THE SAME

- **Reporting Differences**
  - Financial Reporting (Reports to Shareholders)
  - Income Tax Computations
    - Different depreciation rates
    - Differences in what is expensed or capitalized when computing net income or net taxable income
- **Rate Regulation**
  - Certain expenses may not be included in rates
  - May have different accounting treatment (e.g., deferrals)
BASIC ACCOUNTING CONCEPTS

■ MATCHING
  ■ Revenues and Expenses shown on the income statement must be matched for the period, in order to show the true profit of the business.

■ BUSINESS ENTITIES
  ■ Every business enterprise is treated as a separate entity, separating the business from the owners.

■ GOING CONCERN
  ■ It is assumed that a business will continue to operate into the foreseeable future
BASIC ACCOUNTING CONCEPTS

■ PERIODICITY
  ■ Divide the life of the business into accounting periods of not more than one year and measure the business’ status at the end of each period.
    ■ Monthly, Quarterly, Annual

■ CONSERVATISM
  ■ Given two options to value a business transaction, the amount recorded should be the lower rather than the higher.
BASIC ACCOUNTING CONCEPTS

- **CONSISTENCY**
  - Consistent application in the company of any given accounting method, period after period.

- **COST**
  - Regulatory accounts reflect original cost of assets – cost at the time that the assets were first put into service
    - Even in states where use “fair value” for ratemaking, the books and records reflect original cost
MATERIALITY

When dealing with items of little significance, one should weigh the costs of complying with a particular accounting principle against the extra accuracy gained.

Information is material if its omission or misstatement could influence the economic decisions of the users of the financial statements.
OBJECTIVITY

- Business transactions should be supported to the fullest extent possible by objective evidence.

FULL DISCLOSURE

- Financial Statements and Footnotes and other explanatory materials should disclose fully and completely all relevant data of a material nature relating to the financial position and operating results of the company.
ACCRUAL ACCOUNTING

- Expenses are recognized in financial statements when they are incurred and revenues recognized when they are earned.

- Recording of the transaction is not dependent upon the receipt or payment of cash.

- Ties into the Matching Principles used for Ratemaking.
CASH ACCOUNTING

- Revenues and Expenses are accounted for based on cash receipts and cash payments.

- Cash Basis not used by large, publicly traded firms but may be used by some small utilities (e.g. family owned water company).
FINANCIAL STATEMENTS

- **Balance Sheet (Statement of Financial Position)**
  - Presentation of the Assets and Liabilities of the Entity

- **Income Statement (Profit and Loss Statement)**
  - Reflects items of profit and loss recognized during the period

- **Cash Flow Statement**
  - Provide relevant information about the cash receipts and cash payments of an entity during a period

- **Footnotes (Notes to Financial Statements)**
  - Accounting policies judged by management to be most appropriate to fairly present the entity’s financial statements

- **Auditor’s Opinion**
  - Financial statements fairly presented and free of material misstatement?
DEFINITIONS OF TERMS

- **Assets**
  - Per FASB: Assets are probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events. (Concept Statement 6)
  - The resources, property and property rights owned by a business that will provide benefits over more than one year

- **Intangible Assets**
  - Assets which are neither physical nor financial in character (e.g., licenses, rights of way, etc.)

- **Current Assets**
  - Cash or assets that can be turned into cash fairly rapidly (within one year) in the normal course of business
DEFINITIONS OF TERMS

- **Liabilities**
  - Per FASB: Liabilities are probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events. (Concept Statement 6)
  - Current or future economic obligations that a business is obligated to pay (or money owed to others)

- **Current Liabilities**
  - Recognized claims against the business that are considered to be payable within one year
DEFINITION OF TERMS

- **Regulatory Asset**
  - Postponement of the recognition of an expense already paid
  - Recorded on the utility’s financial statements contingent to a commitment by the regulator to allow the cost to be recouped through rates
  - Example: storm damage repairs to be amortized over multiple years

- **Regulatory Liability**
  - Postponement of the recognition of revenue already received
  - Recorded on a utility’s financial statements resulting from a requirement by the regulator that certain amounts are to be paid by the utility in the future
  - Example: gain on sale of asset to be refunded to customers
DEFINITION OF TERMS

- **Acquisition Adjustment**
  - The difference between the purchase price paid by the utility to acquire plant that previously had been placed into utility service and the cost of that plant to the original owner. (Goodwill)

- It is up to each jurisdiction to decide how this will be treated for ratemaking.
  - The treatment may be different from case to case depending on the facts and circumstances.
DEFINITIONS OF TERMS

- **Revenues**
  - Per FASB: Inflows or other enhancements of assets of an entity or settlements of its liabilities (or a combination of both) from delivering or producing goods, rendering services, or other activities that constitute the entity’s ongoing major or central operations. (Concept Statement 6)
  - Actual or expected cash inflows that have or will occur from the sale of goods or services
DEFINITIONS OF TERMS

- **Expenses**
  - Per FASB: Outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity’s ongoing major or central operations. (Concept Statement 6)
    - Using up an asset = Depreciation
    - Incurrences of liabilities = generally involves a cash outlay
  - Economic costs a business incurs through its operations to earn revenue
DEFINITIONS OF TERMS

- Expenses
  - Depreciation
    - Spreads the cost over the useful life in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use
      - Spreads the cost in a systematic and rational manner
      - Process of allocation, not valuation

\[
\text{Original Cost of the Asset} + \text{Expected Cost of Removal} - \text{Expected Salvage Proceeds}
\]
\[
\text{Amount Necessary to Recover} \div \text{Expected Life of the Asset}
\]
Annual Depreciation Expense
DEFINITIONS OF TERMS

- **Accumulated Depreciation**
  - The sum of the past years’ depreciation expense
  - Represents the cost of the asset that has already been recorded as an expense
  - May include estimated amounts for salvage or cost of removal
DEFINITIONS OF TERMS

- **Equity**
  - Per FASB: In a business enterprise, the equity is the ownership interest. (Concept Statement 6)
  - Ranks after liabilities as a claim to or interest in the assets of the business
  - Is the difference between assets and liabilities

- **Retained Earnings**
  - The accumulated earnings of a corporation from its inception minus any losses or dividends
BALANCE SHEET

- A financial statement that details the assets, liabilities, and owner’s (or shareholders’) equity of a firm as of a point in time

- Assets = Liabilities + Owner’s Equity
# BALANCE SHEET SUMMARY

## ASSETS

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Net Utility Plant</td>
<td>$304,357,127</td>
</tr>
<tr>
<td>Total Current and Accrued Assets</td>
<td>17,850,610</td>
</tr>
<tr>
<td>Total Deferred (Regulatory) Assets</td>
<td>26,501,059</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$348,708,796</strong></td>
</tr>
</tbody>
</table>

## EQUITIES AND LIABILITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Proprietary Capital (Equity)</td>
<td>$154,671,177</td>
</tr>
<tr>
<td>Total Long Term Debt</td>
<td>109,855,000</td>
</tr>
<tr>
<td>Total Current and Accrued Liabilities</td>
<td>29,422,714</td>
</tr>
<tr>
<td>Total Deferred (Regulatory) Liabilities</td>
<td>54,759,905</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$348,708,796</strong></td>
</tr>
<tr>
<td>Item</td>
<td>Amount</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Intangible Plant</td>
<td>$1,340,878</td>
</tr>
<tr>
<td>Production Plant</td>
<td>184,542,754</td>
</tr>
<tr>
<td>Transmission Plant</td>
<td>10,366,408</td>
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<tr>
<td>Distribution Plant</td>
<td>142,345,868</td>
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<tr>
<td>General Plant</td>
<td>15,679,583</td>
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<tr>
<td>Acquisition Adjustment</td>
<td>2,934,588</td>
</tr>
<tr>
<td>Construction Work in Progress</td>
<td>23,025,575</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$380,235,654</strong></td>
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<tr>
<td><strong>Accumulated Provision for Depreciation</strong></td>
<td><strong>(75,878,527)</strong></td>
</tr>
<tr>
<td><strong>NET UTILITY PLANT</strong></td>
<td><strong>$304,357,127</strong></td>
</tr>
</tbody>
</table>
## BALANCE SHEET:
### Current and Accrued Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$350,545</td>
</tr>
<tr>
<td>Customer Accounts Receivable</td>
<td>8,068,986</td>
</tr>
<tr>
<td>Other Accounts Receivable</td>
<td>813,117</td>
</tr>
<tr>
<td>Accumulated Provision for Uncollectible Accounts</td>
<td>(105,223)</td>
</tr>
<tr>
<td>Accounts Receivables from Associated Companies</td>
<td>545,866</td>
</tr>
<tr>
<td>Materials and Supplies</td>
<td>3,936,306</td>
</tr>
<tr>
<td>Prepayments</td>
<td>1,016,543</td>
</tr>
<tr>
<td>Accrued Revenues</td>
<td>3,224,470</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT AND ACCRUED ASSETS</strong></td>
<td><strong>$17,850,610</strong></td>
</tr>
</tbody>
</table>
## BALANCE SHEET: Deferred Debits

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unamortized Debt Expense</td>
<td>$817,890</td>
</tr>
<tr>
<td>Other Regulatory Assets</td>
<td>21,339,748</td>
</tr>
<tr>
<td>Preliminary Survey and Investigation Charges</td>
<td>15,399</td>
</tr>
<tr>
<td>Unamortized Loss on Reacquired Debt</td>
<td>262,863</td>
</tr>
<tr>
<td>Accumulated Deferred Income Taxes</td>
<td>4,065,159</td>
</tr>
<tr>
<td><strong>TOTAL DEFERRED DEBITS</strong></td>
<td><strong>$26,501,059</strong></td>
</tr>
<tr>
<td>Description</td>
<td>Amount</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Common Stock Issued</td>
<td>$1</td>
</tr>
<tr>
<td>Premium on Capital Stock</td>
<td>57,214,205</td>
</tr>
<tr>
<td>Other Paid in Capital</td>
<td>60,960,875</td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>36,496,096</td>
</tr>
<tr>
<td><strong>TOTAL PROPRIETARY CAPITAL</strong></td>
<td><strong>$154,671,177</strong></td>
</tr>
<tr>
<td>Bonds</td>
<td>$109,855,000</td>
</tr>
<tr>
<td><strong>TOTAL LONG TERM DEBT</strong></td>
<td><strong>$109,855,000</strong></td>
</tr>
</tbody>
</table>
## BALANCE SHEET:
Current and Accrued Liabilities

<table>
<thead>
<tr>
<th>Liability</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Payable</td>
<td>$8,869,583</td>
</tr>
<tr>
<td>Payables to Associated Companies</td>
<td>9,315,742</td>
</tr>
<tr>
<td>Customer Deposits</td>
<td>1,139,785</td>
</tr>
<tr>
<td>Taxes Accrued</td>
<td>2,554,415</td>
</tr>
<tr>
<td>Interest Accrued</td>
<td>584,492</td>
</tr>
<tr>
<td>Tax Collections Payable</td>
<td>503,496</td>
</tr>
<tr>
<td>Misc. Current and Accrued Liabilities</td>
<td>6,455,201</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT &amp; ACCRUED LIAB.</strong></td>
<td><strong>$29,422,714</strong></td>
</tr>
</tbody>
</table>
### BALANCE SHEET:
Total Deferred Debits

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Advances for Construction</td>
<td>$1,172,550</td>
</tr>
<tr>
<td>Accumulated Deferred Investment Tax Credits</td>
<td>266,296</td>
</tr>
<tr>
<td>Other Regulatory Liabilities</td>
<td>7,094,090</td>
</tr>
<tr>
<td>Unamortized Gain on Reacquired Debt</td>
<td>572,518</td>
</tr>
<tr>
<td>Accumulated Deferred Income Taxes</td>
<td>45,654,451</td>
</tr>
</tbody>
</table>

**TOTAL DEFERRED CREDITS**  $54,759,905
INCOME STATEMENT

- Sometimes called a Profit and Loss Statement

- Report of operations summarizing the revenues, expenses, and income attributed to a specified period (a year, a quarter, a month)
# INCOME STATEMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Revenues</td>
<td>$128,069,553</td>
</tr>
<tr>
<td>Operation Expense</td>
<td>$74,018,489</td>
</tr>
<tr>
<td>Maintenance Expense</td>
<td>4,700,282</td>
</tr>
<tr>
<td>Administrative and General Expense</td>
<td>10,452,797</td>
</tr>
<tr>
<td>Depreciation and Amortization Expense</td>
<td>9,588,317</td>
</tr>
<tr>
<td>Taxes Other than Income Taxes</td>
<td>2,563,323</td>
</tr>
<tr>
<td>Income Taxes</td>
<td>5,805,957</td>
</tr>
<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>$107,129,165</td>
</tr>
<tr>
<td><strong>NET UTILITY OPERATING INCOME</strong></td>
<td>$20,940,388</td>
</tr>
</tbody>
</table>
NET OPERATING INCOME

- Revenues – Expenses = Net Operating Income

- Reflects the income from the primary operations of the company, and excludes income from peripheral activities

- Excludes interest expense
## NET INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Utility Operating Income</td>
<td>$20,940,388</td>
</tr>
<tr>
<td>Other Income</td>
<td>538,665</td>
</tr>
<tr>
<td>Other Deductions</td>
<td>(123,712)</td>
</tr>
<tr>
<td>Interest Charges</td>
<td>(5,139,913)</td>
</tr>
<tr>
<td>Income Taxes on Other Income</td>
<td>(1,845)</td>
</tr>
<tr>
<td><strong>NET INCOME</strong></td>
<td><strong>$16,213,583</strong></td>
</tr>
</tbody>
</table>
NET INCOME

- Net Operating Income + Other Income and Deductions – Interest Expense

- The ultimate profit or loss of the company from all operations (including extraordinary events)

- Impacts the Retained Earnings for the year
CASH FLOW

- Cash Flow Statement
  - Shows a company’s sources and uses of cash – or cash inflows and outflows -- during a specified period (usually a one-year period)
  - Shows changes over time rather than absolute amounts at a point in time

Cash Flow ≠ Profit
CASH FLOW

- Required to classify cash receipts and payments into categories
  - Operating Activities
  - Investing Activities
  - Financing Activities
CASH FLOW

According to GAAP, cash flow statements should assist with the assessment of:

- The ability to generate positive future cash flows
- The ability to meet obligations, ability to pay dividends, and needs for external financing
- The reasons for differences between net income and associated cash receipts and payments, and
- The effects of investing and financing transactions during the period.

Per FASB Accounting Standards Codification, Section 230-10-10-2
CASH FLOW

Regulatory Uses:

- Evaluate management’s abilities to manage cash now and in the future
- Assess the company’s ability to pay dividends and to pay creditors
- Better understand the changes of assets and liabilities which occurred during the period

Rating agencies care about cash flow when looking at company’s ability to repay its debt or meet other obligations.
WHY YOU WANT TO READ THE FOOTNOTES

DILBERT

STOCKHOLDERS ARE WORRIED THAT OUR PROFITS ARE NOTHING BUT ACCOUNTING GIMMICKS.

I’M PUTTING YOU IN CHARGE OF DESTROYING ALL OF OUR ACCOUNTING RECORDS.

THAT’S ILLEGAL.

OH. THEN JUST MAKE THEM MORE CONFUSING.

by Scott Adams
An Important Part of the Financial Statements

- Provide the fine print to the income statement, balance sheet, and statement of cash flow
- Describe the *Accounting Methods* used in creating the financial results
- Provides an expanded explanation of important *Operational and Financial Results*

Footnotes expand on the quantitative financial statements by providing qualitative information that allows for a greater understanding of a company’s true financial performance over a specified time period.

Financial Footnotes: Start Reading the Fine Print, *Investopedia*
TYPES OF FOOTNOTES
(from 10-K for Black Hills Corporation, Annual Report for period ended 12/31/18)

- Business Description and Significant Accounting Policies
- Acquisition
- Property, Plant and Equipment
- Jointly Owned Facilities
- Business Segment Information
- Long Term Debt
- Notes Payable
- Asset Retirement Obligations
- Risk Management Activities
- Fair Value Measurements
- Fair Value of Financial Instruments
- Equity
TYPES OF FOOTNOTES
(from 10-K for Black Hills Corporation, Annual Report for period ended 12/31/18)

- Regulatory Matters
- Operating Leases
- Tax Cuts and Jobs Act (TCJA)
- Other Comprehensive Income
- Supplemental Disclosure of Cash Flow Information
- Employee Benefit Plans
- Commitments and Contingencies
- Guarantees
- Discontinued Operations
- Oil and Gas Reserves
- Quarterly Historical Data
Pepper ... and Salt
THE WALL STREET JOURNAL

“These numbers are way off. But I do like them better than the auditor’s numbers.”
AUDITOR’S OPINION

- Deals with the credibility of the financial statements.
  - The financial statements are management’s responsibility.
  - The auditor’s responsibility is to express an opinion as to whether the financial statements are fairly presented and are free of material misstatement
    - Use sampling to test whether there is evidence to support the numbers in the financial statements
    - Assess the accounting principles used
    - Assess the significant estimates made by management
AUDITOR’S OPINION

Types of Audit Opinions

- Unqualified Opinion
  - Financial Statements are fairly presented in accordance with GAAP

- Explanatory Language
  - Unqualified Opinion but certain circumstances require explanation
AUDITOR’S OPINION

Types of Audit Opinions

- **Qualified Opinion**
  - Fair financial statements (no misrepresentation) except for the effects of the matter to which qualification relates

- **Adverse Opinion**
  - Financial Statements not fairly presented – not conform with GAAP

- **Disclaimer of Opinion**
  - Auditor does not express an opinion on the financial statements
UNIFORM SYSTEM OF ACCOUNTS

- Generally Based on GAAP
- Primary Sponsors of USOA
  - Electric/Gas/Pipeline = FERC
    - [https://www.ferc.gov/enforcement/acct-matts/usofa.asp](https://www.ferc.gov/enforcement/acct-matts/usofa.asp)
  - Telephone = FCC (Part 32 of Title 47)
    - [https://www.ecfr.gov/cgi-bin/text-idx?SID=570594afaa59ba8a8b62ddf8d1acc1f2&mc=true&node=pt47.2.32&rgn=div5egulations-title-47](https://www.ecfr.gov/cgi-bin/text-idx?SID=570594afaa59ba8a8b62ddf8d1acc1f2&mc=true&node=pt47.2.32&rgn=div5egulations-title-47)
  - Cooperatives = RUS (USDA)
  - Water/Wastewater = NARUC
  - Some states have their own versions
UNIFORM SYSTEM OF ACCOUNTS

- Prescribe accounting classifications and instructions to achieve uniform accounting records
- Maintain consistent application among companies
- Maintain consistency year-to-year
- Used to report financial analysis to the regulatory agency
UNIFORM SYSTEM OF ACCOUNTS

Contents:
- Definitions
- Accounting Instructions
- List of Accounts
  - Account Number
  - Account Title
  - Description of Transactions to be Recorded in the Account
  - Examples of Types of Items to Include
UNIFORM SYSTEM OF ACCOUNTS – ELECTRIC EXAMPLE

- 100 – Assets
- 200 – Liabilities
- 300 – Plant
- 400 – Income
- 500 – Operations and Maintenance
- 900 – Administrative and General
USOA DEFINITION EXAMPLES

- **Original Cost**
  - As applied to electric plant, means the cost of such property to the person first devoting it to public service

- **Cost of Removal**
  - Means the cost of demolishing, dismantling, tearing down or otherwise removing electric plant, including the cost of transportation and handling incidental thereto.
Distribution of Pay and Expenses of Employees

The charges to electric plant, operating expense and other accounts for services and expenses of employees engaged in activities chargeable to various accounts, such as construction, maintenance, and operations, shall be based upon the actual time engaged in the respective classes of work, or in case that method is impracticable, upon the basis of a study of the time actually engaged during a representative period.
Account 151, Fuel Stock

This account shall include the book cost of fuel on hand.

1. Invoice price of fuel less any cash or other discounts.
2. Freight, switching, demurrage and other transportation charges, not including, however, any charges for unloading from the shipping medium.
3. Excise taxes, purchasing agents’ commissions, insurance and other expenses directly assignable to cost of fuel.
4. Operating, maintenance and depreciation expenses and ad valorem taxes on utility-owned transportation equipment used to transport fuel from the point of acquisition to the unloading point.
5. Lease or rental costs of transportation equipment used to transport fuel from the point of acquisition to the unloading point.
CONTRIBUTIONS IN AID OF CONSTRUCTION

- Non-refundable amounts paid to a utility to help finance construction of utility plant.
  - Electric/Gas – deducted directly from plant costs
    - Generally true, although some states may differ and have their own rules and standards
  - Water/Wastewater
    - Some states reflect separate account, treated as deduction to rate base
    - Some states deduct direct from plant costs

Related Item: Advances in Aid of Construction
(Advances tend to be refundable for a period of time)
DEFERRED INCOME TAXES

Deferred Income Taxes

- The portion of income taxes currently collected in rates and recorded as a liability on the balance sheet, but not payable to the IRS until some future date

Causes of Differences

- Basis Differences (Permanent Differences)
  - Differences in what is recognized as income or expense
- Depreciation Life Differences (Timing Differences)
  - IRS specified lives versus physical or technological life
- Depreciation Method Differences (Timing Differences)
  - Accelerated methods versus straight line
## DEFERRED INCOME TAXES

$3,000 Asset  
3 year Tax Life  
5 year Book Life  
21% Tax Rate

FOR IRS COMPUTATION

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Oper. Expenses</th>
<th>Interest</th>
<th>Depreciation</th>
<th>Taxable Income</th>
<th>Income Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$5,000</td>
<td>2,000</td>
<td>300</td>
<td>1,000</td>
<td>$1,700</td>
<td>$ 357</td>
</tr>
<tr>
<td>Year 2</td>
<td>$5,000</td>
<td>2,000</td>
<td>300</td>
<td>1,000</td>
<td>$1,700</td>
<td>$ 357</td>
</tr>
<tr>
<td>Year 3</td>
<td>$5,000</td>
<td>2,000</td>
<td>300</td>
<td>1,000</td>
<td>$1,700</td>
<td>$ 357</td>
</tr>
<tr>
<td>Year 4</td>
<td></td>
<td>2,000</td>
<td>300</td>
<td>0</td>
<td>$2,700</td>
<td>$ 567</td>
</tr>
<tr>
<td>Year 5</td>
<td></td>
<td>2,000</td>
<td>300</td>
<td>0</td>
<td>$2,700</td>
<td>$ 567</td>
</tr>
</tbody>
</table>

Total Income Taxes = $2,205
### DEFERRED INCOME TAXES

$3,000 Asset  3 year Tax Life  5 year Book Life  21% Tax Rate

FOR RATEMAKING COMPUTATION

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Oper. Expenses</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Interest</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Depreciation</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Taxable Income</td>
<td>$2,100</td>
<td>$2,100</td>
<td>$2,100</td>
<td>$2,100</td>
<td>$2,100</td>
</tr>
<tr>
<td>Income Taxes</td>
<td>$ 441</td>
<td>$ 441</td>
<td>$ 441</td>
<td>$ 441</td>
<td>$ 441</td>
</tr>
</tbody>
</table>

**Total Income Taxes = $2,205**

<table>
<thead>
<tr>
<th>Difference</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 84</td>
<td>$ 84</td>
<td>$ 84</td>
<td>($126)</td>
<td>($126)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accum. DIT</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 84</td>
<td>$ 168</td>
<td>$ 252</td>
<td>$126</td>
<td>$ 0</td>
<td></td>
</tr>
</tbody>
</table>
What are Excess Accumulated Deferred Income Taxes?
- Amount of accumulated funds that will never need to be paid to the IRS
- Primarily due to policy changes, such as reduced income tax rates on a going forward basis
  - Deferral was based on a higher tax rate than the tax rate that will apply at the time that the taxes will need to be paid

Required Treatment of Excess ADIT
- Amount associated with depreciation is required to be normalized
- To normalize, reduce the reserve at a pace not more rapidly than over the remaining lives of the assets that gave rise to the deferred income taxes
- Often referred to as Reverse South Georgia Method
EXCESS ACCUMULATED DEFERRED INCOME TAXES

- Simplified Reverse South Georgia Example
  - Example is Simplified for Depreciation Rate Difference Only

<table>
<thead>
<tr>
<th></th>
<th>Book Value</th>
<th>Tax Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant in Service</td>
<td>$120,000</td>
<td>$120,000</td>
</tr>
<tr>
<td>Accum. Depreciation</td>
<td>30,000</td>
<td>94,000</td>
</tr>
<tr>
<td>Net Plant</td>
<td>$ 90,000</td>
<td>$ 26,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$64,000</td>
</tr>
<tr>
<td>New Tax Rate</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>Computed ADIT</td>
<td></td>
<td>$13,440</td>
</tr>
<tr>
<td>Actual ADIT on the Books (at 35% tax rate)</td>
<td></td>
<td>$22,400</td>
</tr>
<tr>
<td>Excess ADIT Reserve</td>
<td></td>
<td>$8,960</td>
</tr>
<tr>
<td>Remaining Book Life</td>
<td></td>
<td>8 Years</td>
</tr>
<tr>
<td>Annual Amortization</td>
<td></td>
<td>$1,120</td>
</tr>
</tbody>
</table>

There is likely some portion of the excess deferred income taxes that is not required to be flowed back on the average rate assumption method.
Rate Base Deduction
- The balance of the Deferred Income Taxes are deducted from rate base, under the theory that these funds were not provided by investors, and thus, investors should not earn a return on any investment derived from these funds.

Cost Free Capital
- The balance of the Deferred Income Taxes are treated as an element of the capital structure, at a zero cost, under the theory that these funds are available for the utility’s use, without an associated cost due to shareholders or bondholders.
DEFERRED INCOME TAXES  --  
RATE TREATMENT (CONT.)

<table>
<thead>
<tr>
<th>Cost of Capital</th>
<th>Rate Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate Base</td>
<td>$1,000</td>
</tr>
<tr>
<td>DIT Reduction</td>
<td>0</td>
</tr>
<tr>
<td>Balance</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

Capital Structure

<table>
<thead>
<tr>
<th></th>
<th>Rate Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt</td>
<td>$500 @ 6%</td>
</tr>
<tr>
<td>Equity</td>
<td>$400 @ 9.5%</td>
</tr>
<tr>
<td>Deferred Income Tax</td>
<td>$100 @ 0%</td>
</tr>
</tbody>
</table>

Total Weighted Cost of Capital 6.8%  7.54%

Rate Base x Cost of Capital $68  $68
CONSTRUCTION WORK IN PROGRESS

- Plant under construction but not yet completed and placed in service

- Ratemaking treatment is determined by each jurisdiction
  - Historically, most often is not included in rate base
  - Some jurisdictions include in rate base – often as incentive to invest
ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION

- An amount added by a utility to its *Construction Work in Progress*
  - Compensates the utility for the use of its funds (borrowed and equity) during construction of major assets and prior to their completion and inclusion in rates
  - Becomes part of the cost of the plant in service
  - Should stop including as a cost when project become commercial (project is completed and no longer under construction)
# COMMON RATEMAKING WITH AFUDC

(Simplified Assumptions)

## CWIP not in rates during construction

<table>
<thead>
<tr>
<th></th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Yr 5</th>
<th>Yr 6</th>
<th>Yr 7</th>
<th>Yr 8</th>
<th>Yr 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Year’s Total</td>
<td>1,080</td>
<td>2,246</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bricks and Steel</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitalized Labor</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFUDC (8%)</td>
<td>80</td>
<td>166</td>
<td>260</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total CWIP</td>
<td>1,080</td>
<td>2,246</td>
<td>3,506</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                      |      |      |      |      |      |      |      |      |      |
| Accumulated Depreciation Rate Base | 584 | 1,168 | 1,752 | 2,336 | 2,920 | 3,506 |
| Return on Rate Base (8.3%) | 243 | 194  | 146  | 97   | 49   | 0    |
| Depreciation Expense | 584  | 584  | 584  | 584  | 584  | 584  | 586  |
| Additional Rate Impact | 827 | 778  | 730  | 681  | 633  | 586  |

Total Rate Impact = $4,235 (Depreciation = $3,506; Return = $729)

(Did Not Consider Time Value of Money, Timing of Rate Changes, Different Finance Rates, Cash Flow, State Policies, etc.)
RATEMAKING WITH CURRENT RECOVERY OF RETURN ON CONSTRUCTION
(With Simplifying Assumptions)

Allow return on CWIP during construction period, update annually

<table>
<thead>
<tr>
<th></th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Yr 5</th>
<th>Yr 6</th>
<th>Yr 7</th>
<th>Yr 8</th>
<th>Yr 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Year’s Total</td>
<td>0</td>
<td>1,000</td>
<td>2,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Bricks and Steel</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Capitalized Labor</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>AFUDC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total CWIP</td>
<td>1,000</td>
<td>2,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
</tr>
</tbody>
</table>

Plant (CWIP)

<table>
<thead>
<tr>
<th></th>
<th>1,000</th>
<th>2,000</th>
<th>3,000</th>
<th>3,000</th>
<th>3,000</th>
<th>3,000</th>
<th>3,000</th>
<th>3,000</th>
<th>3,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc Deprec.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>500</td>
<td>1,000</td>
<td>1,500</td>
<td>2,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Rate Base</td>
<td>1,000</td>
<td>2,000</td>
<td>3,000</td>
<td>2,500</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
<td>500</td>
<td>0</td>
</tr>
</tbody>
</table>

Return (8.3%)

<table>
<thead>
<tr>
<th></th>
<th>83</th>
<th>166</th>
<th>249</th>
<th>208</th>
<th>166</th>
<th>125</th>
<th>83</th>
<th>42</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deprec. Exp.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Rate Impact</td>
<td>83</td>
<td>166</td>
<td>249</td>
<td>708</td>
<td>666</td>
<td>625</td>
<td>583</td>
<td>542</td>
<td>500</td>
</tr>
</tbody>
</table>

Plant put into Rates, Earning a Return, and being Depreciated

Total Rate Impact = $4,122 (Depreciation = $3,000; Return = $1,122)
(Did Not Consider Time Value of Money, Timing of Rate Changes, Different Finance Rates, Cash Flow, Used and Useful Policies, etc.)
FUTURE QUESTIONS

Denise Parrish
Office of Consumer Advocate
Wyoming Public Service Commission
(307) 777-5743
Denise.Parrish@wyo.gov