Revenue Requirement

- Total amount which must be collected in rates for a utility to recover its prudently incurred operating expenses and earn a fair return.

- Key financial metric in evaluating energy resources.

- One goal of IRP is to minimize bill impacts to our customers.

Operating Expenses + Return on Rate Base = Revenue Requirement
Operating expenses are comprised of all expenses incurred in providing service to customers.

Included in the revenue requirement at cost (no profit component).

Cost categories:
- Fuel and purchased power
- Operations and Maintenance ("O&M")
  - Salaries and benefits
  - Materials and supplies
  - Insurance and other costs
- Taxes
Operating Expenses (Cont.)

- Depreciation and Amortization
  - Non-cash expense related to using long-lived plant and equipment
  - Reflects loss in service life attributable to gradual decrease in plant value as assets age and wear out
  - Expense is recorded on a straight line basis over estimated service lives
  - Estimated service lives are periodically reviewed and updated in general rate case proceedings

**Depreciation Example**

<table>
<thead>
<tr>
<th>Plant Cost:</th>
<th>$ 1,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Service Life:</td>
<td>50 years</td>
</tr>
</tbody>
</table>

Annual Depreciation Expense: $ 20,000
Return on Rate Base

- **Rate Base Components**
  - Original cost of plant and equipment devoted to utility service
  - Reduced by accumulated depreciation
  - Reduced by accumulated deferred income taxes, which are typically the result of tax depreciation methods that are faster than regulatory depreciation methods
  - Other items of rate base include working capital (e.g. materials and supplies) and regulatory assets/liabilities

- **Rate of Return**
  - Includes debt and equity returns
  - Example
    - 50/50 debt/equity weighting
    - 5% debt return/10% equity return
    - Rate of Return = 7.5% (50% x 5% + 50% x 10%)
Return on Rate Base (Cont.)

| + | Original Cost of Plant and Equipment |
| - | Accumulated Depreciation |
| - | Accumulated Deferred Income Taxes ("ADIT") |
| +/- | Working Capital & Other items |
| = | **Total Rate Base** |

\[ \text{Rate of Return} \times \text{Total Rate Base} = \text{Return on Rate Base} \]
Revenue Requirement Example

 Operating Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost (in USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>$25</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>$20</td>
</tr>
<tr>
<td>Property Taxes</td>
<td>$3</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$4</td>
</tr>
<tr>
<td>Income Taxes</td>
<td>$2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$54</strong></td>
</tr>
</tbody>
</table>

Return on Rate Base

- Plant: $200
- Accum. Depreciation: $(80)
- ADIT: $(25)
- Materials & Supplies: $5

Total Rate Base: $100

Rate of Return: 7.50%

Return on Rate Base: $7.50

Revenue Requirement: $61.50

- $2.50 Debt Return (Interest Expense)
- $5 Equity Return (Net Profit)
Allocating the Revenue Requirement

- Revenue Requirement is allocated by customer class
- Rate Options for each customer class designed to collect each “slice of the pie”
- Changes in customer usage:
  - Can shift revenue allocation and rates
  - However, fixed cost portion of revenue requirement may not change
Production Tax Credits ("PTC’s") are currently available, but are being phased out. Credits are available for 10 years following in service date of facility. Significantly reduces the revenue requirement over first ten years.
Changes in retirement date assumptions can have significant impacts on depreciation component of the revenue requirement.