Performing a Utility Financial Check-Up

Presentation by Utility Financial Solutions, LLC

Presenter:

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Utility Financial Solutions, LLC

- International consulting firm providing cost of service and financial plans and services to utilities across the country, Canada, Guam and the Caribbean.

- Instructors for cost of service and financial planning for APPA, speakers for organizations across the country.

- Hometown Connections preferred vendor.
Introduction

- Overview of basic indicators to determine overall financial health
- Concepts we talk about are what we repeatedly see working in the industry – there are exceptions to everything in this presentation
- Being out of the “range”, doesn’t necessarily mean you have a problem!
- Methodical review the same any size of utility
- Review can apply to other utility types
Where Do I Find the Information?

- All you need is:
  - Income Statement
  - Balance Sheet
  - Cash Flow Statement

- Most of the time a pretty accurate picture of financial health can be determined after a quick review
Do You Know What I’m Talking about?

- We haven’t had a rate increase in XX years 😊
  - Board/Council avoids rate adjustments
  - Operating at a loss
  - Spending down cash
  - Foregoing capital investment
  - Keeping rates artificially low
  - System aging
  - Have to borrow for regular capital
  - Need major improvements
  - We want to be the lowest cost provider….
Reasons for Changes in Financial Risk
Increasing Costs

- General inflation
- Power Costs
- System Growth
- Capital Costs
- Aging System
- Insurance
- Pension Costs
Decreasing Sales

- General Economy
- Large sector of business from one type customer
- Large customer leaves system
Some Key Indicators
Days Cash on Hand

- Pay expenses
- Fund system improvements help ensure reliability
- Pay Debt Service
- Maintain stable rates for customers
- Fund unanticipated cost contingencies
- Phase in large rate adjustment
- Keep utility healthy for future Management
## Calculate Days Cash on Hand

<table>
<thead>
<tr>
<th>Cash On Hand</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utility A</strong></td>
<td></td>
</tr>
<tr>
<td>A  $ 33,945,391</td>
<td>O&amp;M Expenses</td>
</tr>
<tr>
<td>B  $ 5,205,300</td>
<td>Cash on Hand (non-restricted)</td>
</tr>
<tr>
<td>(A/B) 6.52 Factor</td>
<td></td>
</tr>
<tr>
<td>365/Factor 56</td>
<td>Days Cash on Hand of Total O&amp;M for Electric</td>
</tr>
<tr>
<td></td>
<td>LOW</td>
</tr>
</tbody>
</table>

Find this information on your income statement and balance sheet

Establish a Cash reserve policy for each utility

Higher Bond Rating 150 Days
Minimum Cash Reserves
Do you have a formal policy?
Why a Formal Policy?

- Future management, Boards and Councils will continue to maintain adequate reserve levels
- Periodic reviews of cash levels and rate adjustments
- List methodology and show calculations in policy for ease of update in the future
- Identify time period to restore cash reserve if falls below minimum cash levels
  - Cash restored through issuance of debt, rate adjustments, reduced expenses
Rate of Return %

- Adequate rate of return on investment to help ensure current customers are paying their fair share of the use of the infrastructure and not deferring the charge to future generations

- Typical range for a municipal 4–6%
# Calculate Rate of Return

<table>
<thead>
<tr>
<th>Rate of Return</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utility A</strong></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>33,057,749 Net Book Value</td>
</tr>
<tr>
<td>B</td>
<td>$ (1,071,944) Operating LOSS 2013</td>
</tr>
<tr>
<td>C</td>
<td>$ 478,000 Operating Income 2012</td>
</tr>
<tr>
<td>(C/A)</td>
<td>1.45% 2012 Return Percent</td>
</tr>
</tbody>
</table>

Comments:
- NBV on Balance Sheet
- Operating Income on Income statement
- Divide Operating Income by NBV to get return %
- Cost of service study and/or financial projection to set a rate track to meet operating income
- Rate of Return (Typical range 4-6%)
Debt Coverage Ratio

- Identifies cash generated by operations above the debt service payment
- Debt coverage ratios mandated by covenants and established in bond ordinances
- Know your requirements and calculate with the yearly budget process
General Calculation

- Cash Generated by Operations divided by Debt Service
- Typical Formula:
  - Net Income, plus depreciation expense plus interest expense
  - Divided by Debt Service Payment
- Typical requirements are 1.25X
Build in Safety Factor

• When setting rates a safety factor must be built into the coverage ratio for planning purposes
  ◦ Electric sales dependent on weather
  ◦ Power supply prices fluctuate
  ◦ Unexpected expense can occur
  ◦ Unexpected Transfers to City

• Potentially causes the utility to fall below coverage requirements

• Safety factor of 0.2 is typically added to Bond Coverage requirement – (1.25 + 0.2 = 1.45)
# Calculate Debt Coverage Ratio

<table>
<thead>
<tr>
<th></th>
<th>Utility A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$ (1,071,944) Net Income</td>
</tr>
<tr>
<td>B</td>
<td>1,936,076 Depreciation</td>
</tr>
<tr>
<td>C</td>
<td>511,963 Interest</td>
</tr>
<tr>
<td>(Sum A-C)</td>
<td>$ 1,376,095 Cash from operations to pay Debt</td>
</tr>
<tr>
<td>D</td>
<td>$ 760,000 Yearly Debt Payment</td>
</tr>
<tr>
<td>Sum (A-C)/D</td>
<td>1.81 Debt Coverage Ratio</td>
</tr>
</tbody>
</table>

## Comments:
- Revenue Bonds 1.20 or Higher (General Obligation 1.0 minimum)
- Know your specific requirements!
- Info available on Balance Sheet, Income Statement, Cash Flow Statement

Acceptable
Debt % of NBV

- Identifies the amount of debt outstanding against the remaining Net Book Value
  - How “leveraged” is the system
- Typical of what we see (Can be zero to ??)
  - Between 30 – 70 %; 70% MAX
    - 30-50% for Distribution only system
    - Up to 70% for Distribution and Production
## Calculate % Debt to NBV

<table>
<thead>
<tr>
<th>Outstanding Debt %</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Utility A**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$33,057,749</td>
<td>NBV</td>
</tr>
<tr>
<td>B</td>
<td>$10,030,000</td>
<td>Principal</td>
</tr>
</tbody>
</table>

\[(B/A)\] 30%

**Acceptable**

**Comments:**
- Typically 30 - 70%; Less than 70%
- Find Info on your Balance Sheet
Age of System

- Recording depreciation with reasonable depreciation rates?
- Regular Investment in system?
- Ever cut capital to keep rates low?
- Over 60% watch for aging and check capital plan
## Calculate Age of System

<table>
<thead>
<tr>
<th>Utility A</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A $63,263,861</td>
<td>Historical Investment</td>
</tr>
<tr>
<td>B $29,370,067</td>
<td>Accum Depreciation</td>
</tr>
<tr>
<td>(B/A)</td>
<td>46% Percent Depreciated</td>
</tr>
</tbody>
</table>

**Comments:**

- 50% or less = Newer
- Over 65% should be watched for aging
- In general; Reinvest in Capital at least rate of depreciation
- Info Available on Balance Sheet

**Acceptable**
Capital Investment

◦ “Pay as you go” for regular capital
◦ Bonding for extra-ordinary capital
◦ Future reinvesting in the system (at least depreciation, can be age dependent)
◦ Should the capital plan come from Accounting???
◦ Realistic Capital Plan
Recommendation:
Yearly Capital Expenditure ON AVERAGE should mirror Depreciation (Some years will be more, some less)
This should be looked at in conjunction with the "Age of System" : Older may need to reinvest more than depreciation

<table>
<thead>
<tr>
<th>Yearly Depreciation</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 1,863,509 Depreciation</td>
<td>Acceptable</td>
</tr>
<tr>
<td>$1,500,000 Average Capital</td>
<td></td>
</tr>
</tbody>
</table>
When was the last time your utility had a COS?

- Was the study used?
- Key indicator can be the monthly customer charge
Cost of Service Studies

- Cost of Service studies should be completed every three to five years or when substantial changes in costs occur
  - Change in supply/treatment contract,
  - Adding additional asset resources
  - Major distribution or collection investment
Revenue Stability Assessment
Cost Based Customer Charge

- Costs that do not vary with usage:
  - Creates Revenue Stability
  - Reduces Seasonal Subsidies

- Typical cost based residential customer charge:
  - $12+ /Month
Revenue Stability
Non-Recurring/ Stable Revenues

- Non-Recurring revenues are from sources not recurring each year
  - Connection charges (Impact Fees) for new customer
  - Over-reliance on non-recurring or non-stable revenues can result in failure to meet bond covenants or reduced cash reserves
  - Over-reliance can ultimately lead to large rate increases
## Non-Stable Revenues Example

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Income</td>
<td>$587,422</td>
<td>$581,043</td>
<td>$346,587</td>
<td>$56,575</td>
<td>$61,304</td>
<td>$8,347</td>
</tr>
</tbody>
</table>
Power Cost Adjustment (PCA)

Rate Structures Ability to Mitigate Changes in Power Supply Costs
(PCA) Power Cost Adjustment

• Automatic kWh charge that is passed-through to customers for increasing power costs
• Used by about 60% of the municipal systems and most investor owned
• Limits utilities expense risk (PP 60-80% O&M)
  • Does not limit board control of rates, concentrate on things more likely in their control – distribution and admin related (20% – 40%)
• Reduces amount and frequency of rate adjustments
Possible PCA Pitfalls

- Large fluctuations can cause customer complaints
  - 6 to 12 month rolling average
- Are modifications subject to influences other than changes in power costs?
  - If so not a true PCA
- Are you “fixing” your PCA?
  - Are you trueing up the PCA? If not could hurt large users – Distribution example
    - Economic Development
What Does Rolling Average Mean?

<table>
<thead>
<tr>
<th></th>
<th>Month One</th>
<th>Month Two</th>
<th>Month Three</th>
<th>Month Four</th>
<th>Month Five</th>
<th>Month Six</th>
<th>Month Seven</th>
<th>Month Eight</th>
<th>Month Nine</th>
<th>Month Ten</th>
<th>Month Eleven</th>
<th>Month Twelve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example Numbers</td>
<td>7.0</td>
<td>8.0</td>
<td>9.0</td>
<td>7.5</td>
<td>8.2</td>
<td>9.2</td>
<td>7.5</td>
<td>8.0</td>
<td>9.5</td>
<td>8.5</td>
<td>7.5</td>
<td>9.0</td>
</tr>
<tr>
<td>Rolling Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.2</td>
<td>8.2</td>
<td>8.4</td>
<td>8.3</td>
<td>8.4</td>
<td>8.3</td>
<td>7.5</td>
<td>8.0</td>
<td>9.5</td>
<td>8.5</td>
<td>7.5</td>
<td>8.3</td>
</tr>
</tbody>
</table>

These are example numbers to show the mathematics of rolling average.
How Does it Effect Rates?

Affects of Rolling Average

These are example numbers to show the mathematics of rolling average.
Wrap Up

- Hopefully you have been given some guidance on financial areas to check
  - Income Statement, Balance Sheet, Cash Flow Statement
- Being out of the “range” may lead to further investigation
- Find you need help with an overall assessment, don’t hesitate to call or email.
- Very inexpensive and effective way to get an overall financial assessment – excellent for Managers, Board/Council Members and City Managers
Questions?

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