A Holistic Approach to Infrastructure Financing

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Introductions

Randy Goff
• Project Principal
• 30 years experience

Joe Healy
• Senior Financial Analyst
• 12 years experience

Shawn Koorn
• Associate Vice President/Senior Financial Analyst
• 12 years experience
HDR Inc. One Company Many Solutions

HDR has 7,972 employees in more than 185 locations worldwide

- Policy development, baseline studies, NEPA environmental documentation, permitting, wetlands delineation, habitat mitigation/enhancement, air quality, noise studies, fish salvage, levee inspection, construction monitoring
- Water treatment & distribution, wastewater collection & treatment, surface water management, rates/finance & economic services
- Transportation planning/studies, traffic analysis & operations, roadway design, interchange improvements, grade separation, right-of-way acquisition, bridges, transit, construction management
The real world as we know it
Why We Should Be Concerned

Capital improvement needs are continuing to increase
- $1 Trillion of needed improvements
- Regulations continue to drive the need for improvements

Operating costs are continuing to increase

Outside funds are getting tougher to obtain

Results in the need for a more comprehensive approach
Why Are Some Utilities Financially Strong?

They followed the basic fundamentals:

- Written financial policies were adopted to aid in establishing the financial plans and rates for their utilities.
- Established cost-based rates to adequately fund O&M and capital infrastructure renewal and replacement.
- Weren’t over-reliant upon impact fees to fund growth-related capital or debt service.
- Maintained adequate to strong reserve levels (cash is “king” and provides tremendous flexibility).
- Routinely adjusted rates on an annual basis – small annual adjustments are preferred to large “one-time” adjustments.
But what if That’s Not Us?

Start by “sharpening your pencils”

- Utilities need to be run “like a business” --- because they are multi-million dollar businesses
- Analyze costs and analyze your rates in a comprehensive manner
- If needed, provided comparative utility performance measures to demonstrate existing efficiencies or deficiencies (un-met needs)
- Be able and prepared to demonstrate your “needs”
- Consider retaining outside / independent expertise
Utility Best Management Practices

1. Long-term financial forecast
2. Debt policies
3. Policies for financial margins, debt service coverage
4. Regular financial reporting and monitoring
5. Prioritized capital improvement programs
6. Use of professional experts
7. Limited dependency on growth sensitive revenue
8. Collection policies with enforcement for late or non-payers
9. Coordination with regional growth planners
10. Rate affordability index
11. Defined financial relationship to the general purpose government so that the utility revenue can be relied on for utility purposes
12. Strategies to track changing regulatory mandates
13. Strong accounting practices and internal controls
14. Professional recognition of budget and accounting process

Adopted from “Water and Sewer Revenue Bond Rating Guidelines,” published by Fitch Ratings
Where we were before...

- Significant historical growth
  - Growth related fees adequately funded capital improvements
  - Rate revenues funded increasing O&M costs

- In addition to customer growth, consumption appeared to be increasing
  - Most likely the result of new connections, not increased consumption

- Customers were paying their bills
  - Low delinquencies/non payments
Where we are today…

- Growth has essentially disappeared • May be coming back...?
- Capital improvements were funded with long-term debt • Assumed a portion, hopefully not all, to be funded through future growth related fees
- Declining/flat sales • resulting in reduced/flat revenues
- Increasing delinquencies/non payments • Impacts of foreclosures
Setting the Stage

• Need to look at the big picture
  – Not just one part at a time in a vacuum
• Make sure you take into account ALL revenues and expenses
• Develop a plan for future regulatory driven capital and O&M needs
• Development of WRITTEN financial policies
  – Setting prudent financing criteria
    • Renewal and replacement funding levels
    • Minimum reserve levels
    • Adequate debt service coverage targets
Holistic Approach to Infrastructure Funding

- O&M Expenses
- Taxes/Transfer Payments
- Debt Service (P&I)
- Capital Projects Funded from Rates

= Total Revenue Requirements

- Miscellaneous Revenues

= Balance Required from Rates

- Total Capital Projects
  - Revenue Bonds (Bond Proceeds)
  - Grants
  - Customer Contributions (e.g. SDC’s)

= Capital Projects Funded from Rates

(i + Term) ≥ Annual Deprec. Exp.

Developed for each year of the planning period reviewed
So… What Can We Do?

• Revenue Options
  – Impacts of policy decisions
  – Other possible revenue sources
• Operation and Maintenance Expenses
  – Benchmarking
  – Cost sharing
• Capital Funding Options
  – Adequately funding renewal and replacements
  – Long-term debt options
• Financial Planning Tool
Revenue

Remember a penny saved is a penny earned
Revenue Options

- **Rate Levels**
  - Phasing in prudent rate levels
  - Timing of adjustments
  - Need time educate customers (start early!)
  - Affordability measures

- **Rate Structure**
  - Fixed vs. variable charges
  - Revise to increase revenue stability

- **Discounted Rates**
  - Low income/senior rates/etc.
    - As rates increase, customer need increases
  - Revenue impacts from these types of policies
  - Rate structure may be able to provide alternative to specific discounted rate
Revenue Options (Cont’d)

• Other Fees
  – Inspection/permit/bad check/late/account set up/turn on/turn off/etc.
  – Compare to other utilities to see what you may be able to add

• Growth Related Fees
  – Keep current
  – Review best bang for the buck

• Other sources of revenues
  – Hydro-electric facilities
  – WWTP energy generation
  – Wholesale customer/contracts
Operation and Maintenance Expense

Options to reduce Operation and Maintenance Expense
Operation and Maintenance Expenses - Benchmarking

• Check to see if costs are where they “should be”
  – Compare to other National utilities
    • AWWA survey
  – Compare to other local utilities
    • Similar operating/construction needs
• Obviously specific utility costs need to be taken into account
• Can include:
  – Staff costs
  – Chemical costs
• Will provide at least a comparison to see if savings are available, or costs are reasonable
Operation and Maintenance Expenses – Costs of Operations

- In house vs. out of house
  - Can contract with a company to perform this function
  - Issues over non-union and union labor
  - How do you deal with retirement plans
  - Health care costs
  - Does this provide the least cost option
    - Maintenance
    - Return on investment
    - Potential litigation
    - Loss of Control
    - Liability with permit
Operation and Maintenance Expenses – Energy/Chemical costs

- Energy Costs
  - Review Energy Costs
  - Energy Audits

- Cost Saving Options
  - Will depend on the rate structure of the utility providing service
  - Look a rebates for installation of low energy options
    - Lights
    - Thermostats
    - Light Sensors
Operation and Maintenance Expenses – Energy/Chemical costs

• Develop plan for energy savings
  – Use of installed generation for peak load shaving
  – Aggregation of load for demand charge determination
  – Open market purchase of energy
  – Plant optimization (off-peak usage)

• Open Market Energy Purchase
  – Based on allowance under state law
  – Must manage energy purchasing
  – Can contact to a third party

• Issues
  – Long term purchases vs. market purchase
  – Trade off of risk vs. reward
Operation and Maintenance Expenses – Energy/Chemical costs

• Chemical Costs
  – Do a treatment plant study to optimize chemical usage
  – Review new technology to determine if it is cost effective to chemicals – UV disinfection vs. chloride disinfection
Operation and Maintenance Expenses – Wholesale Contracts

- Wholesale Contract Structure
  - Update on an annual basis
  - Minimum take provisions (take or pay)
  - “True-Up” provisions
Capital Funding Options
Things to consider in capital planning
General Capital Funding Options

- Rates/Taxes
- Revenue Bonds/GO Bonds
- Low interest Loans
- Grants ("FREE MONEY!")
- Customer Contributions
- Local Improvement Districts
- Public/Private Partnerships
Capital Funding Options – Impact Fees

- Lots of great discussion at this conference
- Reminders…
  - Fees can only be used to support growth related debt service or capital improvements
    - In Oregon, the “reimbursement fee” or buy-in component can be used for non-growth related capital
  - Keep current with any changes to the long-term plan to reflect costs
  - Monitor use of these funds so that you don’t get overextended if when fee generation slows down
    - Only allocate an average amount over several years to fund projects
  - Impacts of reducing eliminating impact fees
    - Rates need to be adequate to support policy decision
Capital Funding Options – Long Term Debt

- Various options available
  - Revenue bonds
  - General Obligation (GO) bonds
  - Low interest loans
    - Federal/State programs
    - Tracking application deadlines
- Take into consideration ability to revise term/rate
  - 20-year vs. 40-year term
  - Shaping debt to meet long-term goals/needs
- Determine best fit for projects to minimize rate impacts
  - May result in need for greater public involvement
Capital Funding Options – Renewal and Replacement

- Can be called “Asset Management”
  - Various methods to meeting this goal
  - Range from basic to very sophisticated modeling
- Need to determine best fit for your utility
- Based on specific needs of your utility
  - Look at the condition of your infrastructure
  - Accounting useful life vs. actual/estimated useful life
  - Simply funding annual depreciation won’t get you there anymore
- Being proactive can reduce the “tidal wave” of improvements down the road
Capital Funding Options – Timing of Improvements

• First Step – Prioritize long-term improvements
• Develop a financing plan for the next 5 – 10 years
  – Determine what those rate impacts may be
  – Do you need to address rate affordability?
• How does the current timing of project design and construction work with Federal/State loan/grant programs
• Can projects “shift”? 
  – How does that change rate impacts?
• Are any projects “linked” together? 
  – If so, how can you revise to maintain critical infrastructure improvements?
Summary

- Remember to take a look at all the components, both revenue and expenses
  - How do the capital requirements impact the plan
- All these components need to come together into one planning model
- Provides the ability to revise assumptions to determine the outcome and present alternatives
- Next a demonstration of a financial planning model
Strategic Financial Planning
Dynamic Tools for Planning and Management
Financial management is relevant during all five phases of a typical capital project cycle.

Study Phase
- Economic Feasibility

Operations
- Rate and Funding Support

Pre-Design
- Financial Planning/Bond Feasibility Studies

Construction
- Rate Impacts and Funding Alternatives

Design
- Funding Alternatives
Financial planning is a long-term focus on cash flow and financial health

**Focus is Long-Term**
- 5- to 10-years or longer

**Cash-Flow Perspective**
- How much is needed?
- When do we need it?
- Where will it come from?

**Key Performance Ratios**
- Rate revenue adjustments
- Targets and benchmarks
A financial plan serves four main functions for utility financial management:

- **Planning**
  - Big-picture forecast
  - Funding strategies

- **Communication**
  - Highlight upcoming issues and opportunities
  - Focus on key performance issues

- **Information**
  - External
  - Internal

- **Policy Assessment**
  - Scenario and sensitivity analyses
  - Reserve policies
A dynamic financial planning process helps the utility assess policies and goals.

- Consider Financing Options
  - Long-term debt
  - Cash and reserves

- Lower, Smoother Rate Changes
  - Send price signals
  - Avoid rate shock
A dynamic financial planning model also helps assess the impacts of assumptions.

**Sensitivity Analysis**
- Inflation
- Interest rates
- Customer growth assumptions

**Scenario Analysis**
- What if we delay a portion of the CIP?
- What if we use more debt?
Strategic Financial Planning Model
Dynamic Tool for Planning and Management