

The Anatomy of a Rate Study

by Jeanette Hahn, Director, NBS

Before embarking upon a rate study, an agency should understand all the elements that are included in a comprehensive effort: the issues addressed and the outcomes generated by each. Not all elements need to be performed at once; therefore, by understanding the complete process, informed decisions can be made as to the exact scope of study needed at any given time. This may be of particular importance in times of limited financial resources, project staffing, or schedule.

Capacity Charge Analysis

In a comprehensive effort that proceeds in sequence, the first element of study determines the amount newcomers to the utility system should pay to gain equal footing with existing ratepayers. This means that newcomers – in the form of a capacity fee (or impact fee) paid as a condition of obtaining service – fund or mitigate the costs of existing infrastructure that has been built with capacity available to serve them and future facilities that will be built to accommodate the new demands they bring to the utility system. The product of this analysis is the maximum fee that could be imposed, as well as the projected revenue from service growth that might offset the financial burden otherwise borne by rates.

Revenue Requirements Analysis

The most commonly scrutinized element of a rate study is the Revenue Requirement Analysis. This phase not only sets the financial foundation for utility rates: when done with care, it can also become the long-term financial plan for the utility. This analysis can be done from two perspectives: defining revenues based on need or determining the needs that can be met based on how much the utility (or the customer) can afford. The fundamental products of this element of study are the overall adjustment needed to rates – most often, a rate increase – and the revenue to be generated by rates. However, as a financial plan, it also provides the forward-looking blueprint for the overall financing of the utility.

A major part of this analysis is the preparation of a capital financing plan. This module is an inventory of all capital projects planned to expand, improve, and rehabilitate the utility system. All available resources are then considered to find the optimal mix to be pursued. Resources can include the use of debt, grants, and contributions from service growth. In mature systems, financing often depends greatly on the ability for rates to accumulate dedicated cash reserves for ongoing repair and replacement of infrastructure.

Other modules of the analysis include forecasts of operating, maintenance, and administrative expenditures and forecasts of cash flow in all utility-related reserves. Reserve management – the accumulation and expenditure of cash balances for dedicated purposes, including monitoring minimum

It's about **WATER**. Water is an incredible resource, and one we have largely taken for granted in California. As the famous arch in Modesto proclaims, "Water, Wealth, Contentment, Health," these components are very interrelated here in our Golden State. This issue of the NBS Newsletter focuses largely on water and related issues.

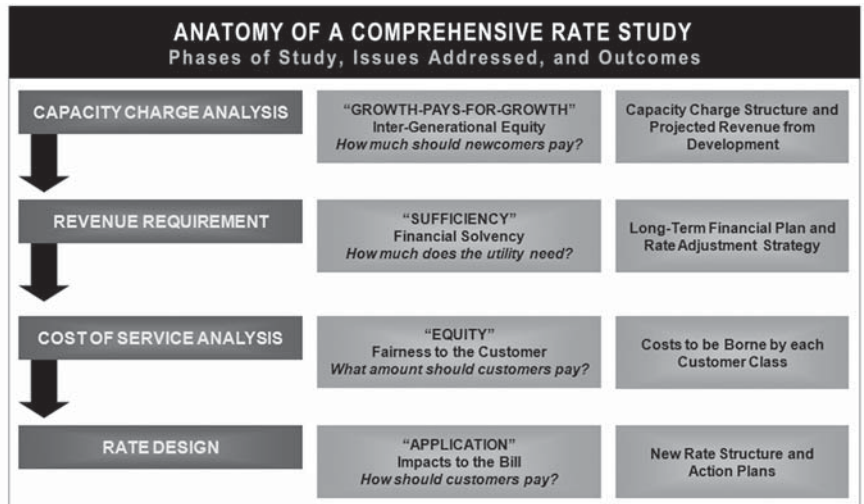
thresholds – should always be included in any utility financial plan. The development of fiscal policies which strengthen the utility and protect its resources is encouraged greatly.

Cost of Service Analysis

The Cost of Service Analysis is a series of cost allocations and demand analysis that determines how and from whom the annual rate revenue requirement should be recovered. While the Revenue Requirement Analysis defines the cost basis for rates, it is this element that addresses the proportionality of rates between different types of users. The product of this element is total revenue to be generated by each class of ratepayer.

A significant effort within this element is analysis of the demands placed on the utility system, as evidenced by historical usage – volume, pattern, and characteristics of that usage – service requirements adopted in the standards and practices of the utility, and even industry norms. Demand analysis is then coupled with the fundamental cost drivers of the utility, and the annual revenue requirement is allocated to classes of customers or individual users in proportion to the manner in which their observed or predicted demands drive each of those cost components.

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QUOTE

"The difficult we do right now; the impossible will take a little longer."
U.S. Navy Construction Battalions, or Seabees, motto, circa World War II

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Carlsbad Desal Plant Gets Final Approval

The San Diego Regional Water Quality Control Board has unanimously approved the Carlsbad Desalination Project, which means the project has cleared all the regulatory hurdles needed to start construction. When complete in late 2011, the plant will supply the Carlsbad Municipal Water District with the majority of its drinking water.

The project, being developed by Poseidon Resources Corp., will be the first large scale desalination plant on the West Coast and the largest of its kind in the Western Hemisphere. It will be located next to the Carlsbad power plant at the corner of Carlsbad Boulevard and Cannon Road.

The 50-million gallon a day seawater desalination plant will supply the San Diego region with approximately 10 percent of its drinking water needs. The three water agencies serving Carlsbad (Carlsbad Municipal Water District, Vallecitos Water District and Olivenhain Municipal Water District) have committed to purchase water from the project to supplement existing water supplies. Water agencies in Oceanside, San Marcos, San Diego, Encinitas, Solana Beach, Rancho Santa Fe, Escondido, Chula Vista, National City, Rainbow, Bonsall and Fallbrook also plan to use the plant's water.

Recognizing the importance of securing a sustainable future water supply that is locally controlled, more than 10 years ago Carlsbad officials took a leadership position in working with Poseidon Resources to develop a desalination project in Carlsbad.

Upcoming Conferences

League of California Cities Annual Conference
September 16 - 19, 2009
San Jose Convention Center, San Jose, CA
Visit us at Booth #319

California Special District Association (CSDA) Annual Conference
September 21 - 24, 2009
Renaissance Esmeralda Resort, Indian Wells, CA
Visit us at Booth #55

California Downtown Association (CDA)
Annual Conference
September 23 - 26, 2009
Crowne Plaza Ventura Beach, Ventura, CA
Come visit the NBS Booth

Association of California Water Agencies (ACWA)
Fall Conference
December 1 - 4, 2009
Town & Country Resort & Convention Center
San Diego, CA
Come visit the NBS Booth

League of California Cities
Financial Management Seminar
December 2 - 4, 2009
Monterey, CA

Various Bills in the Water and Stormwater Arena

AB 3030 added Government Code section 53756 which "allows" a local agency to provide notice and have a public hearing to adopt a schedule of fees or charges for water, sewer, and refuse rates for a period of up to five (5) years. This "schedule" may authorize automatic adjustments that pass through increases in wholesale charges for water or adjustments for inflation, if prescribed conditions are met. The intent of this bill was to help local agencies, while in reality it really limits agencies from what had been considered standard practice.

AB 2882, effective January 1, 2009, specifically authorizes water providers to impose tiered water-rate structures that reward conservation and penalize overuse of water. The use of tiered rates has been in existence for some time, though this bill may make it politically easier to do so. All agencies which impose tiered rates should consider the details of this bill, as its provisions may be helpful and failure to comply with its criteria may make a rate structure more vulnerable to legal challenge.

SCA 18 would add stormwater and urban runoff management fees to the short list of property-related fees of water, sewer, and refuse that do not require approval for imposition or increase. Stay tuned as this develops.

EMMA System Goes Live

The Electronic Municipal Market Access system, or EMMA, went "live" July 1, 2009. It is a comprehensive, centralized online source for continuing municipal disclosures, replacing the existing depositories including DisclosureUSA. NBS is actively working with this system, and can help you with any Continuing Disclosure requirements.

NBS Workshop Recap

More than 100 municipal officials from throughout California attended the workshops held in Livermore and Temecula, California this past May and June. This year's presentations were themed around the timely issue of "revenues." The following are a few statements from workshop attendees:

"Excellent info, helpful tools."
- Livermore Workshop Attendee

"This was my first workshop for revenue & it was very helpful as an overview with enough detail but without overwhelming me."
- Temecula Workshop Attendee

"Excellent. Good examples. Clear & knowledgeable."
- Temecula Workshop Attendee

"Great start time! Good lunch! Nice facility!"
- Livermore Workshop Attendee

If you would like to be added to our contact list for future workshops, please send an email to: contactnbs@nbsgov.com or call 800.676.7516.



Property Tax Postponement Program Shelved

On February 20, 2009, the Governor signed Senate Bill X3 8 (Chapter 4, Statutes of 2009), which immediately suspends the Senior Citizens' Property Tax Deferral Program. This legislation prohibits the filing of claims for property tax postponement and prohibits the Controller from accepting claims filed after February 20, 2009. For more info go to http://www.sco.ca.gov/ard-tax_prop_tax_postponement.html.

West County Wastewater District (WCWD) Solar Energy System Completion

Solar Power Partners, Inc. (SPP) and Premier Power Renewable Energy (Premier Power: PPRW) jointly announced today the completion of a solar energy system designed to replace 35 percent of WCWD's annual electricity usage with clean, renewable solar energy at zero out-of-pocket costs. Solar Power Partners, which owns and operates the solar equipment, set up a power purchase agreement (PPA) with WCWD. The agreement enables WCWD to buy the electricity at a contractually fixed rate (essential in its budgeting process), helping it to manage its operating costs and keep billings as low as possible for its ratepayers.

Source: Premier Power Renewable Energy, Inc.

Reclamation District Funds Levee Improvements

Reclamation District No. 17, established in 1863, serves a large area in San Joaquin County, including the Cities of Stockton, Lathrop, and Manteca. They recently raised \$16MM in a bond sale to make needed levee improvements, and perform work to comply with FEMA standards. The interest rate is approximately 7%, which is relatively good in these times. The bond payments are funded by an annual assessment, as allowed under the State Water Code. NBS is managing the annual assessment process on behalf of RD 17.

Anatomy of a Rate Study (continued from page 1)

Rate Design

The final element of study is design of a rate structure that recovers the total annual revenue needed from each class of customer, which further enhances proportionality of rates through the use of different types of fixed and variable charges. While linked to financial and demand requirements, Rate Design is often driven heavily by local policy. For example, a strong desire for very stable revenues leads an agency to higher fixed charges. That desire often has to be balanced by an equally strong ethic of encouraging conservation and water use efficiency through price signals on various levels of water consumption or types of uses (e.g., essential or discretionary). And, agencies are often interested in the impact of their rates on their more vulnerable populations, such as the poor or elderly. This leads to rate structure features that attempt to provide affordable service without compromising the required nexus between demands, costs, and rates.

All of these study elements answer valid questions for any utility; however, when constrained, quality of outcomes can be diminished by trying to accomplish too much. The utility is best served by prioritizing issues and designing the most effective process to meet its most important needs. NBS consultants would be glad to assist any agency in determining its own scope of study.

Water conservation tips

Fix those leaks! Leaks allow water and your money to go down the drain. To help detect hidden leaks, turn off anything that uses water and see if your water meter is still moving. If it is, there could be a leak somewhere.

Outdoor Tips

- Water lawns during the early morning hours when temperatures and wind speeds are the lowest.

- Do you see water runoff from your yard each time you water? This could mean that the lawn needs aeration.

- Install sprinklers that are the most water-efficient for each use. Micro-sprinklers, drip irrigation, high efficiency nozzles and soaker hoses are examples of water-efficient methods of irrigation.

- Do a weekly check for broken or clogged sprinkler heads and replace them right away.

- Raise your lawn mower blade to at least three inches.

- Avoid over-fertilizing your lawn.

- Mulch to retain moisture in the soil.

- Plant drought-tolerant grasses, ground covers, shrubs and trees.

- Do not hose down your driveway or sidewalk. Use a broom to clean leaves and other debris from these areas.

- Outfit your hose with a nozzle that stops water flow completely when not actually using the water.

- Consider using a commercial car wash that recycles water. Ask at the car wash if they recycle water: often they will display a sign stating that they do.

- If you wash your own car, use a bucket for the soapy water and a shut-off nozzle for your hose.

Source: <http://www.clwa.org/conservation/tips.cfm>

Why aren't the neighbours complaining about their water bills, Mr Tiddles?



NBS can help your agency to comply with **Proposition 218** for **water, sewer, and refuse fees**, assisting with notice development, mailings, and protest tabulations.



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SUMMER 2009 NEWSLETTER

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**ARE YOUR revenues
on life support?**

When was the last time
you reviewed your
fees & rates?

NBS CAN HELP WITH:

- UTILITY RATES
- REGULATORY FEES
- USER FEES
- DEVELOPMENT IMPACT FEES

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