



MEMORANDUM
EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Schlossberg, Brown, Carlson, Barofsky and McRae
FROM: Frank Lawson, General Manager; Rod Price, Assistant General Manager
DATE: May 26, 2021 (June 1, 2021 Board Meeting)
SUBJECT: Capital Plan Assumptions and Principles
OBJECTIVE: Information/Feedback

Issue

This memorandum, and associated presentation, intends to provide context to EWEB’s electric and water Capital Improvement Plans (CIPs) that will be presented at the July Board Meeting.

Background

EWEB’s capital plans are important drivers of each utility’s (water and electric) Long-Term Financial Plan (LTFP) and associated financial decisions, including the pursuit of financial resources and the setting of customer rates.

There is no right answer or single way to build the CIPs. Each utility’s CIP forecasts the 10-year investments needed to meet policies, maintain operational standards, and execute strategic initiatives. When developing the CIPs for Board review, Engineering and Finance coordinate using iterative methods and several guiding principles.

Discussion

There are two broad interlinked components of the CIPs. First, the total amount of forecasted capital funding needed in a ten-year planning period. Second, the scheduling of the projects and yearly expenditures within the ten years, intended to optimized access to funding and management of the organization’s resources. The yearly mapping of projects helps establish budgets and funding strategies.

Total 10-Year Forecasted Funding

The CIP totals often requires that each utility balance benefits (e.g. reliability, resiliency, etc.) with affordability (e.g. rates). To assist with this understanding, EWEB categorizes CIP projects into three main areas:

- **Compulsory:** No choice, fixed timelines. Regulatory/Customer driven. Examples include new service connections and the repair or replacement of failed infrastructure.
- **Strategic:** Targeted to strategic plan, future payback, opportunity timelines. Board/Executive driven. Examples include AMI, Carmen Smith, and Second Water Treatment Plant.
- **Risk Based:** Small to medium projects, more projects than available funding typically, discretionary timelines. Staff driven. These projects are largely driven by reliability and resiliency goals and asset conditions and customer needs.

At a high level, the ten-year total funding amount is developed based on historic Compulsory levels to determine base level, adding in Strategic programs and projects, and then adjusting in Risk Based projects to meet our financial goals around rate trajectories and financial metrics like debt coverage and reserve levels.

As the CIP and LTFP are complex financial models, engineering staff use a rule of thumb to help in planning discussions relating rates to expenses. For the Electric utility, \$1.7 million dollars yearly expenses (or \$17 million in ten years) are equal to about 1% of electric rates. In the Water utility, \$300,000 per year or, \$3 million over ten years contributes about 1% to rates. Note, bond funded projects will not follow this rule of thumb.

The Water and Electric utilities are statutorily required to be financially separate entities. Although, there are capital investments that benefit both utilities, such as in Fleet, Information Services, Facilities, and Telecommunications. This spending is referred to as “Shared Services”, with funding presently split between Electric (80%) and Water (20%) utilities. Present overhead costs are budgeted within each project and is generally 28% of the parts and direct labor cost.

In addition, the capital plan is inflated to capture rising construction costs. Currently the annual inflation rate used is 3%.

Rate of Yearly Funding

After the ten-year CIP totals are forecasted and estimated, specific projects and categories are mapped out yearly to achieve rate targets, develop budgets and address funding strategies. Coordinating overall funding and specific spending and budgeting is an iterative process that takes place over several months between Finance and Engineering.

They type of funding for individual projects generally is based on the type and size of project. The collection of routine projects, including most compulsory work, is funded through rates and fees. Larger Risk Based projects are funded using a combination of rates and municipal bonds, while strategic projects are almost always Bond funded. This approach attempts to align the timing of the benefit received with the expenses incurred. Where possible, state and/or federal loans and grants are also used to augment these funds.

To assist with the resource management (financial and labor) of projects or programs across multiple years, consistent with Board Policy EL1, EWEB categorizes capital projects as follows:

- Type 1 – General Capital Renewal and Replacement. Routine or regimented year to year replace in kind type work. (e.g. replacements of poles, pipes, vehicles, servers etc...)
- Type 2 –Infrastructure Rehabilitation & Expansion. Discrete projects of replacement, enhancement, or expansion that is multiyear and greater than \$1 million (e.g. substations, water pumping stations, water reservoirs, AMI etc...)
- Type 3 - Strategic Projects/Programs greater than \$10 million, requiring significant stand-alone strategic investment and commitment (e.g. Carmen-Smith, Second Water Treatment Plant)

After projects and programs are scheduled across the planning horizon, sources of financial capital funding are explored and optimized, including the following resources:

- Rates and Fees – Generally applied to routine Type 1 and 2 categories.

- Municipal Bonds - Generally allocated to Type 2 and Type 3 projects/programs. Bond funding generally needs to commence within 3 years of funding.
- State and/or Federal Loans/Grants – Awarded for specific objectives or projects or outcomes.

An often-used guide to set minimum yearly capital spending levels is based on the annual depreciation of assets, or approximately \$22 million per year for the Electric Utility and \$7 million per year for the Water Utility. If EWEB does not invest capital at the minimum rate, over time the value of the installed assets will decline, the assets average age will increase, becoming less reliable. To help monitor and guide yearly spending amounts related to depreciation, we often refer to the Board-approved metric of “Age of System” (AOS), which is the ratio of asset value to depreciated asset value. In the electric system, there are some well-established benchmarks for the AOS metric, with a target being 60% or less.

Because of significant infrastructure investments made in the 1960s and 1970s, over the last five years the Electric AOS has been increasing, and in some categories are exceeding the target levels. To address the trend, and account from present replacement cost trends, EWEB should be targeting yearly investment levels of 1.5-2.0 times the average yearly depreciation rate. In the last five years, significant funding has focused on strategic and compulsory investments like Carmen Smith and AMI, with deliberate choices made to defer Risk Based spending in some areas. As a note, Risk Based investments are often used to smooth the yearly spending levels (turning the dial) to meet overall CIP goals. As equipment ages beyond planned life and failures increase, expenses transfer to Compulsory due to emergency restoration. This strategy is sometimes referred to as “run to failure”.

In the Water utility, the AOS metric is not well benchmarked and is less specific. However, the Water utility is statutorily required to have ten-year master plans that are benchmarked, which include capital spending guides. EWEB’s water master plan maps out capital investments “source-to-tap”, with significant investments in compulsory and strategic projects like customer work and smoothed out yearly by varying Risk Based spending such as reservoirs, pumping stations and pipe replacements.

To make sure the CIPs are developed in good context, EWEB presently uses industry benchmarks provided by the following organizations:

- Electric – American Public Power Association (APPA)
- Water – American Water Works Association (AWWA) and Water System Master Plan
- Generation – Energy Utility Cost Group (EUGC),
- Information Services – Industry Consultants, Gartner (future)

Request Board Action

This information is presented as context for the ten-year CIPs and 2022 forecasted capital budgets that will be presented in July. Commissioner feedback is welcome.