



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Brown, Carlson, Barofsky, McRae and Schlossberg
FROM: Frank Lawson, CEO & General Manager; Rod Price, Assistant General Manager
DATE: May 31, 2023 (June 6, 2023, Board Meeting)
SUBJECT: Annual Capital Improvement Plan Assumptions and Priorities
OBJECTIVE: Information

Issue

EWEB's Electric and Water Capital Improvement Plans (CIP) are key elements impacting the Long-Term Financial Plan (LTFP) process. Details of the 10-year CIPs and the resulting LTFP will be reviewed with the Board in July. In preparation for the detailed July discussion, key assumptions, priorities, and risks will be discussed with the Board.

Background

The EWEB capital plans are key ingredients of the LTFPs and Board-approved Water and Electric annual budgets. In 2023, capital investments represented 49% and 19% of the Water and Electric annual budgets, respectively, not including debt service. Because EWEB's fulfillment of our mission is asset-intensive, maintenance, repair, and replacement of infrastructure is critical to both the safety and reliability of the delivery of water and electricity to our customers. In addition, the CIPs help forecast the 10-year investments needed to execute our strategic initiatives. The LTFPs provide a long-term view of the impacts of near-term Board approved annual budgets. When developing the CIPs for Board review, Engineering and Finance employ a variety of assumptions related to asset management/priorities and financial mechanisms which are iterated to meet community and Board priorities.

Included herein are highlights of the guiding assumptions and priorities used to develop this year's CIPs, along with a review of the known risks and mitigation approaches to the 10-year CIPs in support of Board LTFP discussions in July. A historic in-depth discussion of the assumptions and principles behind the CIP process can be found in the June 1, 2021, Board memo titled *Capital Plan Assumptions and Principles* ([2021 Capital Plan Memo](#)).

Discussion

There are two main interlinked components to establishing the budgets for the 10-year CIPs. First, the total amount of planned investment in a 10-year period and, second, the mapping of yearly funding within the 10 years. The yearly mapping of projects helps establish yearly budgets and funding strategies.

Total 10 Year Investment

The total amount of investment is determined by balancing the relationship between capital investments for both EWEB’s mission and strategy. To assist with this understanding, EWEB categorizes CIP projects into three main areas:

- **Compulsory:** Projects and programs which are required for the continuation of services within specified timelines including regulatory and customer-driven work. Examples include new service connections and the repair or replacement of failed equipment.
- **Strategic:** Projects of programs inclusive of the strategic plan, with timelines that position the organization for future opportunities. Examples include AMI, EWEB Enterprise Solutions (EES), and Second Water Treatment Plant.
- **Risk Based:** Small to medium business continuity-oriented projects with discretionary timelines that trade off, or balance, risk and rate impacts (affordability). These projects are largely influenced by reliability, resiliency, asset conditions, and customer needs. Examples include main upgrades and end-of-planned-life equipment replacement.

In both Water and Electric CIPs, minimum 10-year spending is determined by using historical Compulsory levels or yearly depreciation rates, which are currently \$8 MM and \$25 MM respectively. Then, Strategic project budgets over the upcoming ten years are added to the compulsory levels. Finally, Risk-Based projects are added to ensure optimum reliability and asset management while meeting financial requirements such as Age of System, Debt Service Ratios and approved rate trajectories. It is staff’s intent to forecast inflation in the upcoming 10-Year CIPs at 5% for 2024 and 2025 and then 3% for years 2026 to 2033.

Historically, 2.5 times the 10-year average annual depreciation amount (\$175 MM and \$550 MM, Water and Electric, respectively) provided a reasonable balance between reliability and affordability. In 2021, the Board supported increases in both Water and Electric for the 2022 CIP 10-year totals with the goals to maintain compulsory needs by increasing our replacement of aging assets (reliability), meet our approved strategic needs and to increase focus on risk-based work (resiliency).

With the increased focus on reliability and resiliency, and addition of Leaburg expenses in Electric, the ratio of expected CIP budgets to yearly depreciation is expected to increase to about 3.5 in each Division for the 2024 10-year CIP. Table 1 shows the 2022 and last years (2023) approved CIP totals that meet rate trajectory metrics.

Table 1: 2022 CIP Budget to Depreciation Ratios

	Yearly Depreciation x 10 (millions)	Approved 10-year 2022 CIP Totals (millions)	10-year 2023 CIP Totals (millions)	Proposed 10 - year CIP Ratio of Budget/Dep
Metric Target				~ 2.5
Water	\$80	\$316	\$345	4.3 (Note 1)
Electric	\$250	\$457	\$584	2.

Note 1: In 2021, the Board approved an additional rate trajectory in the W CIP to include the second source. If the \$100 MM for the second source is removed, the ratio drops to 3.1

Besides compulsory investments, the capital priorities of the Water Utility include strategic projects like AMI and the construction and commissioning of a second water treatment plant on the Willamette River, along with Risk-Based projects including replacing five (5) end-of-life water storage facilities and upgrading water main systems.

In addition to compulsory investments, including near-term Leaburg Canal risk mitigation and general infrastructure replacements, the capital priorities of Electric Utility include strategic projects like AMI and Carmen-Smith Relicensing, along with Risk-Based projects like the rebuild/modernization of ten (10) substations. Additionally, staff is assuming the decommissioning of the Leaburg Hydroelectric Project, and the prefunding of the capital needed, will begin to occur within the 10-year CIP and LTFP periods.

Shared services projects include benefits for both Water and Electric and generally split funding between both CIPs by 24% and 76%, respectively. CIP Shared Services focus continues to include replacement of our current enterprise/IT systems as part of EWEB Enterprise Solutions (EES), reducing average age of our vehicle fleet (currently at 16 years), facilities including Roosevelt property expansion, ROC seismic hardening, and replacement of end-of-life telecommunications infrastructure.

Rate of Yearly Funding

After the 10-year CIP totals are approximated, specific projects and categories are mapped out yearly to meet rate targets, develop budgets, and address financing strategies. Coordinating overall investment and specific timing of investments over the 10-year plan is an iterative process that takes place over several months between Finance and Engineering staff.

The type of funding for individual projects is typically based on the type and size of project. Smaller projects, including most compulsory work, is funded through rates and fees. Risk-Based work is funded using a combination of rates and borrowing (municipal bonds), while Strategic projects are almost always large and primarily municipal-bond funded. Where possible, state and/or federal loans and grants are used to augment these funds.

Factors influencing CIP development and LTFPs

Considering external conditions will impact the scope, schedule, and budgets of EWEB's planned capital investments. The planning environment will be influenced by the following internal and external conditions over the next five (5) years.

Electric and Water CIP Planning Environment and EWEB Approaches:

- Emergent Work – compulsory response to equipment and system failures have impacted the schedule of risk-based proactive replacement projects. Major equipment failures in recent years delayed the substation replacement plan, including the Currin substation replacement that is now underway. Mitigating the influence of compulsory response on proactive risk-based projects includes expanding the scope of contracting to an entire design/build out to a single contractor to help manage loss of EWEB resources during emergencies.
- Supply Chain/Material Resourcing – shortages, extended lead times and unpredictability are impacting programs like AMI, cable replacement programs, wildfire, and earthquake mitigation. EWEB's response incorporates developing intentional priorities, including halting AMI meter deployment, ordering materials with lead times more than a year, and currently limiting some customer requests to save materials for emergent work.
- Inflation Higher than Past CIP assumptions – reduces the buying power (materials and contracted labor) of money over 5- or 10-year plans, which may reduce overall number and scope of risk-based

projects that can be executed in the planning period. To better align with experienced inflation, EWEB's CIP and LTFP assumptions will increase overall inflation rate assumptions from 3% to 5% in the years 2023 and 2024. The scope of EWEB's CIPs will be adjusted to meet financial obligations and commitments within the high-than-historic inflationary period.

- Labor Constraints in Technical Fields: Increased capital spending over the ten-year period includes increased EWEB staffing. The acquisition and depth of key staff positions may impact the execution of both Utility's CIPs. Organizational leadership and management are exploring ways to fill vacancies with creative approaches. In Electric and Water, creating a two-year ramp up of design and construction FTE will enable increased project support by 2025, which simultaneously working with Workforce Services in the near term to fill vacancies in an efficient manner.
- Leaburg Canal Outage Mitigation/Hydro Project Decommissioning. While the decision has been made to proceed with a retirement of the power production facilities and return the project to a stormwater conveyance, there are unknowns in the permitting and regulatory compliance measures needed to achieve the targeted direction. Also, near-term dam and canal safety mitigation investments will be assumed requirements. Initial forecasted Leaburg decommissioning costs will commence in the outer years of the upcoming 2023 LTFP 10-year planning period.
- Dam Safety Uncertainties: Currently Trail Bridge is operating at reduced capacity and Walterville is being monitored for FERC regulated dam safety issues. While these issues are thought to be slowly evolving risks, there is potential to impact EWEB from reduced generation revenues as well as large Capital improvements to mitigate risks. Tactical response is to maintain current mitigation budget of \$2 million to fund "quick fix" opportunities and examine financial impacts as details emerge in the next two years.
- Electrification growth and related impacts from our Integrated Resource Planning. Along with the acquisition of electricity-generating resources, the EWEB distribution system will need to evolve to support our future energy strategies. For now, EWEB will budget capital based on current assumptions for Distribution upgrades and replacement in the LTFP and adjust as details and options develop over the next few years and electrification trends and regulations emerge.
- Second Source on the Willamette: Land use and permitting details will impact the final design and schedule of the Willamette treatment plant and related transmission main projects. Staff will continue to execute the project consistent with the Willamette plant budgets and schedules as approved in 2022 and adjust CIP yearly as changes in scope and schedule emerge.
- Contractor Challenges. EWEB Water Division relies on contracting for most of its large projects. Contractors are experiencing similar uncertainties with materials and labor as EWEB is. For now, EWEB will continue to execute the 5-year CIP budgets and schedules as presented in 2022 and adjust plans yearly as challenges with individual projects emerge.

Emerging details to the projects and overall CIPs are addressed in the quarterly reports as well as in the CIP budget process. Key projects and issues to monitor for scope, schedule, and budget impacts:

Electric:

- Currin and substation and transmission upgrades related east service territory
- Carmen Smith Relicensing
- Leaburg Canal outage mitigation
- Potential Dam Safety mitigation at Trail Bridge and Walterville projects
- Emergent failures that move from risk-based to compulsory projects (Dillard, Prairie, Weyco (IP) service etc...)
- Labor and material pricing and shortages

Water:

- Willamette River second source treatment plant project
- Reservoir replacement projects
- Water main upgrade program, includes transmission mains related to second source and reservoir replacements

Shared Service projects

- EWEB Enterprise Solutions (EES) – upgrading our business systems
- AMI – water and electric smart meter deployment, delayed part way through the deployment of smart meters but expected to resume in 2024
- Communication infrastructure upgrades – fiber and related network electronics, microwave and radio end of life upgrades, communications site hardening.
- Vehicle and related tool availability, lead times are currently over two years
- HQ and Bertelsen-Roosevelt property plans and schedules

At the July Board meeting, staff will request concurrence with the proposed Water and Electric CIP assumptions and priorities in the context of the forecasted impacts to the LTFPs of each utility. Following Board guidance, EWEB staff will begin formulating the 2024 annual budgets and rates for Board discussions and public hearings commencing in the Fall.

Request Board Action

This memorandum is provided as background information for discussion of CIP and LTFP assumptions and priorities at the June 6, 2023, Board Meeting. No action is requested at this time.