



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners McRae, Barofsky, Schlossberg, Brown, and Carlson
FROM: Frank Lawson, CEO & General Manager; Rod Price, Assistant General Manager
DATE: June 4, 2024, 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 related to the 10-year CIPs in Water and Electric 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 2024, capital investments represented approximately 44% and 18% of the Water and Electric annual budgets, respectively. Because EWEB's fulfillment of our mission is asset-intensive, the 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 to fulfilling our mission, the CIPs help forecast the 10-year investments needed to execute our strategic initiatives. 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 emergent and ongoing issues impacting the development this year's CIPs. 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](#)). For quick reference, a summary of the 2021 Capital Plan memo and related scope increase in the CIP presented in the July 2021 meeting is provided in the Appendix along with some 2024 updates.

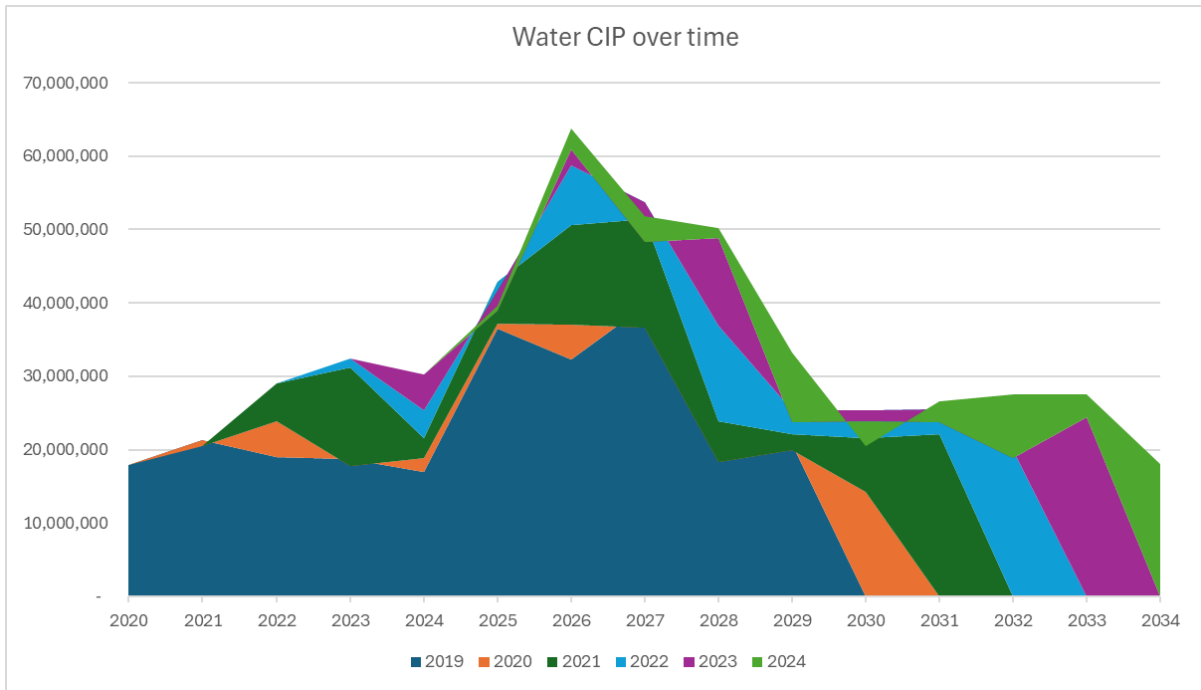
Discussion

In July of 2021, the Board approved increased spending rates in the Water and Electric CIPs to address aging infrastructure, reliability, and resiliency goals. Ten-year CIP level increases were approved but the increases needed to continue to meet financial metrics and keep the LTFP rate trajectories within inflationary increases over the ten-year period. To date, CIPs have meet the metrics and rate trajectory guidelines.

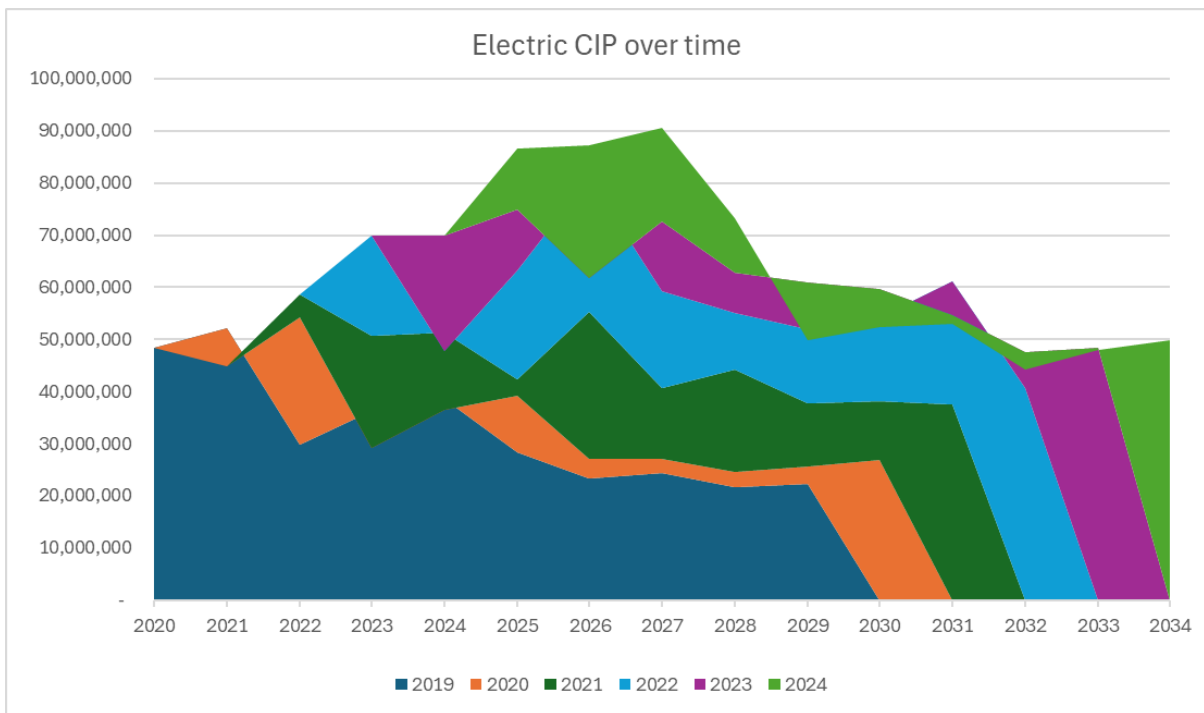
Emergent CIP Risks

This year, draft LTFPs have indicated stressed rate trajectories, in part due to the draft CIPs. The draft CIPs have included both changes in expense magnitudes of ten-year totals and heavily front-loaded totals in the early years of the plans. For the draft Water CIP, changes are mostly related to construction inflationary

issues and not scope, or timing as illustrated by Graph 1. For the draft Electric plan, construction inflation is a factor as well as refined strategic project budgets and emergent dam safety impacts as illustrated in Graph 2.



Graph 1
Illustrates the change from 2025 to 2028 the Water 10-year CIP levels.



Graph 2
Illustrates the change from 2022-34 the Electric 10-year CIP levels.

Additional details.

- Construction inflation assumptions: 3% construction inflation assumptions in CIPs tracked with the construction cost index through 2021. A very high inflationary environment in 2022 created a disparity from plan assumptions and actual inflation. With continued inflationary pressure, a 5% inflation assumption is used in 2025, and 2026 before reverting to 3% in later years of the capital plan. As Engineering updates project estimates, 10-year total CIP forecasts are inclusive of the recent inflation impacts and further pressure of draft rate trajectories. The bottom line is significantly more cost than previously thought to accomplish the scope of the CIPs presented in the 2021 budget cycle.
- Project timing: In both draft CIPS, the first five years have increased in total expenses contributing pressure on draft near term rate trajectories.
 - In Electric, supply chain and construction delays, and inflation have impacted projects like Currin rebuild and Carmen-Smith relicensing. Increased scope due to dam safety and refined budget from strategic projects since 2021 have contributed to increases as well. Increases in total also reflect the ongoing yearly investment in substation and distribution age system replacements.
 - In Water, the second source and related transmission projects design and build costs have increased with construction inflation as well as the stacking of reservoir projects in the same years are contributing to larger total expense years planned in the early years.
- Mitigating the CIP growth and timing impacts: Optimizing the scope, timing and financial constrains may involve reduction or tradeoffs which will be presented in July.
 - Staff will be reviewing the way construction and other inflation rates are calculated and applied moving ahead. One option would be to use a more regressive look at inflation as well as using government projections.
 - Staff will be working to optimize CIP project timing to determine what projects can be moved or removed to smooth or reduce the impacts of forward loading of the CIPs.
 - Staff is considering the strategies of rate trajectories, bonding and grants to understand how changes from past practices in funding will impact metrics like rate trajectories and debt service. For example, shifting capital funding from rates to bonds may improve cash flows and rate trajectories, but negatively impact our debt service metrics.

Ongoing Risks

Some risks identified last year persist.

- 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 20% overstocking of key materials and pre-ordering materials with lead times more than a year.
- 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, management and Workforce Services are working on strategies and plans 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 Leaburg power production facilities and return the project to 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 for both Leaburg investments will be assumed requirements. Initial forecasted Leaburg decommissioning costs are now in the outer years of the upcoming 2024 LTFP 10-year planning period.
- Dam Safety Uncertainties: Currently Trail Bridge is operating at reduced capacity and Waltherville is out of service and being monitored for FERC regulated dam safety issues. While these issues are

thought to be slowly evolving risks, there is potential impact to EWEB from reduced generation revenues as well as large Capital improvements to mitigate risks.

- 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. EWEB continues to 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.

Engineering and Finance staff will work together to mitigate the emergent CIP impacts and present plans that will have some built-in flexibility with noted tradeoffs where there are some. 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.

Request Board Action

This memorandum is provided as background information for discussion and feedback of CIP and LTFP assumptions and priorities at the June 4, 2024, Board Meeting. No action is requested at this time.

Appendix - Annual Capital Improvement Plan Assumptions and Priorities

Summary: May 6, 2021 Capital Plan Assumptions and Principles backgrounder for CIPs 2022-2031
(for 2024 and CIPs 2025-2034 updates in parenthesis)

- When developing the CIPs for Board review, Engineering and Finance coordinate using iterative methods and several guiding principles as outlined in this backgrounder.
- CIPs consist of yearly lists and expense summaries of capital projects and programs to meet EWEB's goals in a spreadsheet format.
- CIPs are developed in two main functions that are optimized to meet the financial goals and guidelines.
 1. The first and second 5-year sub total expenses and 10-year total expenses.
 2. The timing of the execution of the programs and projects within the 10-year period are arranged to optimize our labor and financial capacity and funding methods.
- CIPs projects and programs are categorized in two different ways:
 - In understanding and prioritizing which projects are included in the CIPs, projects are categorized by:
 - Compulsory: Required to fulfill immediate mission with specific timelines. Regulatory/Customer driven. Examples include new service connections and the repair or replacement of failed infrastructure.
 - Strategic: Aligned with strategic plan, future payback, opportunity timelines and prioritized by/between the Board and executive management. Examples include AMI, Carmen-Smith, and Second Water Treatment Plant.
 - Risk Based: Small to medium projects based on asset management plans and principles, generally containing more projects than available funding and discretionary timelines. Staff adds to Compulsory and Strategic project mix to round out CIPs. Consistent with staff-managed asset plans and/or risk assessments, these projects are largely driven by reliability and resiliency goals and asset conditions and customer needs.
- Per Board policy consistent with EL1, projects are categorized and presented in the CIP spreadsheet and quarterly report by:
 - 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 are 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)
- Water (W) and Electric (E) are separate utilities financially but share some services like fleet, finance, etc... splits in 2021 were 80%/20% for E/W. (currently in 2024 it is 74%/26% E/W)
- Overheads in 2021 28% for typical projects and 2.8% for some projects greater than \$1 MM. (28% OH is still standard rate with 2.6% OH on projects >\$1MM and 80% or more contractor work)
- Capital projects are budgeted at present day costs and then budgeted forward using a 3% capital inflation rate. (modified 6%, 5%, 5% for 2024, 2025, and 2026)

- Funding based on the size of projects Type 1 = 1 rate funded, Type 2 = mix of rate and bond funded to optimize financials, Type 3 = 3 bond funded to spread out large, short-term expenses over the life span of the assets.
- General rule to set maximum 10-year expense levels at 1.5 to 2.0 times the estimated 10-year depreciation total. Setting the investment level higher than the depreciation level helps insure EWEB maintains positive value in our assets and does not get behind in replacing end of life infrastructure. (increased in 2021 to 2.5 and higher to add strategic projects like Second Source)
- In 2021 yearly depreciation for W = \$7 MM/yearly or \$70 MM over ten years, E = \$22 MM/yearly or \$220 MM for ten years. (in 2024 depreciation for W = \$9 MM/yearly or \$90 MM over ten years, E = \$26 MM/yearly or \$260 MM for ten years)
- Age of system is a Board approved metric (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. Water does not have well established industry metrics. Electric AOS in 2020 = 2020 62% and in Water = (As of 3/31/24, figures from Q1 Operational Report, Water AOS was 43%, and Electric was 59%. Target is less than 60%)

Investment priorities from 2021 added During July CIP/LTFP presentation and Board meeting

Investment levels of CIP approved by Board with limits on spending to depreciation increased up to 2.5 times, with allowance for additional increase per strategic addition of second source project in Water. Additional CIP funding also constrained by overall rate trajectory of 3% per year or compound amount of 34% over 10 years.

Summary of CIP scope increases approved in July 2021.

- Water Investment Priorities - For reliability and resiliency, EWEB needs to scope and construct a treatment plant on the Willamette River, while simultaneously restoring the McKenzie watershed. By taking a comprehensive “source to tap” approach to water quality and reliability and given that significant investments have been made over the past decade at the Hayden Bridge Treatment Plant, EWEB’s priority now shifts to strengthening base-level water storage and in-town transmission infrastructure.
- Electric Investment Priorities - With significant electricity delivery infrastructure installed in the 1960s and 1970s, EWEB needs to attenuate and manage the “ballooning” need to replace this concurrently aging equipment while maintaining reliability and increasing resiliency to potentially disruptive events. We will target yearly investment rates of 2.0 to 2.5 times the depreciation rates to drive the Electric Age of System (AOS), the percentage of fully depreciated electric assets, from our 2020 calculation of 62% down to a 2031 target of 51%. Electricity investments will be managed by prioritizing high-customer-impact assets and those systems that increase resiliency to community-critical locations.

Shared Organizational Investment Priorities – Within the horizon of the Long-Term Financial Plan, EWEB needs to replace legacy information systems using an integrated Enterprise Resource Planning (ERP, now EES) approach, as discussed with the Board in May.