



OFFICE OF THE CITY AUDITOR COLORADO SPRINGS, COLORADO

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22-10 Colorado Springs Utilities Sustainable Energy Plan Monitoring

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Purpose

The purpose of this audit was to monitor the multi-year Sustainable Energy Plan (SEP) for effective project management, adherence to procurement policies, and financial information.

Highlights

Colorado Springs Utilities (Utilities) embarked upon the SEP in 2020 following approval of the Gas and Electric Integrated Resource Plans (GIRP and EIRP) by the Utilities Board.

We conclude program and project management efforts to date have been effective. We evaluated cost proposals and contract terms for projects in the procurement phase and conclude Utilities procedures were followed. We conclude costs were being reported accurately, however initial budget projections have been exceeded. We identified a commendable practice regarding effective collaboration by subject matter experts during cost and contract development in an effort to control costs. We plan to continue monitoring SEP as work progresses.

Background

The Utilities Energy Vision aims to achieve an 80% carbon reduction and retire all coal generation by 2030. The SEP calls for grid modernization, integration of renewable energy, and incorporation of new technologies such as energy storage. Utilities executed numerous lump sum contracts for construction work to install the natural gas generators and expand substations and transmission lines to support the retirement of the Drake and Nixon coal power plants. Initial anticipated cost of the program was \$1.56 billion over 30 years.

Due to design refinements, supply chain issues, and Covid impacts, the actual cost in 2021 and 2022 has been higher than originally anticipated. For example, the cost proposal for installation of six Temporary Natural Gas Generators (TNGG) at the Drake power plant was 55% higher than originally estimated. To enable the retirement of the Drake coal generation by December 31, 2022, temporary natural gas generators are scheduled to be placed at the Drake downtown site to ensure system reliability. Once new transmission projects are completed in the coming years these six units will potentially be relocated.

Commendable Practice:

We noted there was a collaborative effort from various departments and experts at Utilities and the external portfolio manager to review contracts. The review of contracts included but was not limited to contract terms, scope of work, materials, and costs. We observed the collaboration resulted in refinements to the contract terms, design improvements, and cost modifications that helped to address budget overruns. We encourage Utilities to continue this practice.

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The SEP includes six sub-portfolios, each consisting of numerous projects. Additionally, Utilities System Planning and Projects Division engaged an outside professional portfolio management firm to augment and support SEP technical and management tasks. The chart shows annual cost by sub-portfolio, indicating initial investment in TNGG's to allow Drake decommissioning in 2022 and Nixon in 2029. The cost of Distributed Generation Resources is designed to replace generation from the Nixon site beginning in 2029.

1. Drake Generation:

To retire the Drake Power Plant by December 31, 2022, six temporary natural gas generators (TNGG) will be installed at Drake. The TNGGs will be potentially relocated after the completion of upgrades. Active years: 2020-2022

2. Electrical

Infrastructure:

Construction of

new and expansion of existing substations along with construction of new and additional transmission lines to serve the additional growth of Colorado Springs. Active years: 2020-2030

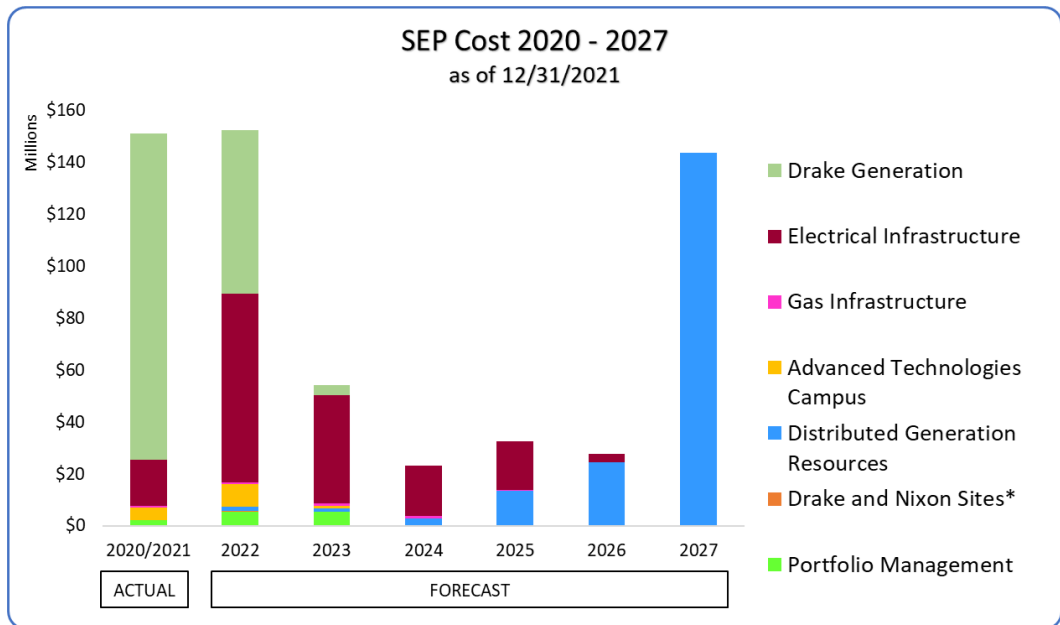
3. Gas Infrastructure: Supports electric generation needs from a gas perspective and will implement projects to support the growth of the gas system. Gas meters for the TNGGs, Propane Air Plant expansion, distribution of gas line and gate station upgrades to accommodate increased gas demands. Active years: 2020-2049

4. Advanced Technologies Campus (ATC): A campus where new technology in the utility sector will be tested (electric, gas, water and wastewater). Research, development, and testing for technologies to lessen Utilities' carbon footprint and provide more resilient services. The campus may house a new solar array, test microgrid, and battery storage systems. Active years: 2020-TBD

5. Distributed Generation Resources: Replace coal-fired generation with renewable energy. This sub portfolio includes adding 500 MW of wind, 417 MW of battery capacity, 150 MW of solar, 76 MW of demand-side management and 10 MW each of biomass and geothermal. Active years: 2020-2049

6. Drake & Nixon Sites*: Decommission and deconstruction of the Drake and Nixon coal power plants. Cost to date has been minimal, therefore costs are not visible on the chart above. Major expenditures to be incurred after 2027. Active years: 2020-2030

7. Portfolio Management: Cost for outside specialized professional portfolio management firm.



We would like to thank Colorado Springs Utilities staff for their support during this audit.

This audit was conducted in conformance with the International Standards for the Professional Practice of Internal Auditing, a part of the Professional Practices Framework promulgated by the Institute of Internal Auditors.