

STAFF REPORT

Date: March 26, 2025

To: Mayor and City Council

Through: Jackie Bryant, City Manager

Subject: Staff Report (For Possible Action): Approval of Consulting Agreement for evaluation and pre-design services with Jacobs Engineering Group Inc. for the Truckee Meadows Water Reclamation Facility Backup Power Systems Project in the amount of \$235,954 with Reno's share being \$161,935.23. (Sewer Fund)

From: Matt Smith, Senior Civil Engineer

Department: Utility Services

Summary:

Electricity powers the equipment and machinery involved in treating wastewater at the Truckee Meadows Water Reclamation Facility (TMWRF) through three power lines from the NV Energy (NVE) Greg Street Substation. Although the plant has redundant power lines, TMWRF has experienced power outages from NVE's electrical services, causing several issues. The City of Reno (Reno) issued a request for qualifications (RFQ) to identify qualified consultants for evaluating and pre-designing backup power options at TMWRF, and selected Jacobs Engineering Group Inc. (Jacobs) as the consultant for this project. This agreement with Jacobs will provide an evaluation and pre-design of backup power options so TMWRF can independently manage and operate the facility during power outages. Staff recommends Council approve the Agreement for Engineering Services with Jacobs for an amount not to exceed \$235,954 (Reno's share being \$161,935.23 from the Sewer Fund).

Consent Review	Yes	No
1. Is this item an annual or standard item that comes before Council for regular approval?		X
2. Is this item an agreement required based on an item previously approved by Council?		X
3. Is this item included in the current budget approved and adopted by Council?	X	
Other Considerations		
What percent of the total City budget does this item represent?	0.03%	

Alignment with Strategic Plan:

Fiscal Sustainability

Infrastructure, Climate Change, and Environmental Sustainability

Previous Council Action:

There is no recent Council action relevant to this item.

Background:

The Cities of Reno and Sparks jointly own TMWRF, which uses electricity purchased from NVE to power the treatment facility’s equipment and machinery. TMWRF does not have any on-site backup power infrastructure, so when a power outage occurs, the plant is almost completely reliant on NVE to rectify the power outage to resume operations at the facility. The facility’s electrical loads and usage of electricity have not increased in the last decade; however, there has been a notable increase in power outages at the treatment plant over the last few years. The underlying issue of these power outages at TMWRF relates to NVE owned and operated infrastructure. When a power outage occurs at TMWRF, several issues arise dependent on the duration of the power outage including: inability to pump sewage from the collection system, pause of treatment, potential damage to equipment and piping, flooding, safety hazards, and potential permit violations. In 2023-2024 there were three extended power outages which were impactful to treatment performance, safety of staff, and equipment performance. A summary of these outages is shown in Table 1.

Table 1: Recent Extended Power Outages at TMWRF

Date	Duration (minutes)
6/1/2023	60
3/2/2024	160
3/26/2024	40

The most significant of these recent outages occurred on March 2, 2024, resulting in several pieces of corrupted computer-related infrastructure and damage or destruction to some physical infrastructure (pipes, pumps, electrical equipment). The power outage also required the off-shift personnel to manage the event, incurring overtime costs. Despite severe complications due to this power outage, TMWRF staff were able to prevent any permit violations. The cost incurred by plant staff and replacement equipment from this power outage alone (not including additional chemicals and pumping to resume normal operation) was \$12,271.41. There were no injuries during this outage, despite significant flooding and safety hazards that resulted from this power outage.

As part of the TMWRF Capital Improvement Program (CIP), “Risk Ranking” and paired comparison of infrastructure identifies project priorities, condition, and risk of failure. The Fiscal

Year 25/26 ranking process identified backup power as priority #13.

Discussion:

This agreement includes the evaluation and feasibility analysis of on-site backup power systems. Options may include: utilization of on-site renewable energy production, batteries, generators, and other alternatives to increase TMWRF’s electrical resiliency and operational sustainability.

Based on the increased number of power outages that have been experienced by TMWRF and the potential financial, legal, and safety ramifications of the power outages, it was directed by the Joint Coordinating Committee (JCC) to investigate backup power options at TMWRF. Jacobs, through a Request for Qualifications process, is a qualified professional engineering consultant with experience in assessing backup power systems for wastewater facilities.

Financial Implications:

The Backup Power Systems Project is in the current fiscal year’s CIP as approved by the TMWRF JCC and the respective City Councils of Reno and Sparks through the budget process. Reno will administer the agreement and reimbursed by the City of Sparks (Sparks) through the current cost sharing agreement for TMWRF operations and maintenance. Reno and Sparks share the cost of this project as follows: 68.63% for Reno and 31.37% for Sparks, as shown in Table 2. Costs for Reno are budgeted in the Sewer Fund.

Table 2: Cost Sharing Between Reno and Sparks

Total Cost of Agreement	Reno Share	Sparks Share
\$235,954	\$161,935.23	\$74,018.77
Percentages	68.63%	31.37%

Legal Implications:

The parties are bound by the terms of the agreement as prepared by the Office of the City Attorney.

Recommendation:

Staff recommends Council approval of the consultant agreement with Jacobs Engineering, Inc. for engineering services for the TMWRF Backup Power Systems Project in an amount not to exceed \$235,954 with Reno's portion being \$161,935.23 (Sewer Fund), and authorize the Mayor to sign.

Proposed Motion:

I move to approve the staff recommendation.

Attachments:

- Area & Vicinity Map for TMWRF Backup Power Systems Project
- Agreement with Jacobs Engineering Inc. - TMWRF Backup Power Systems Project