

**City of Missoula, Montana  
New Business Item**

**Item:** **Wastewater Phase 2 Solar Array**

**Council Meeting Date:** December 10, 2025

**Sponsor(s):** **Andy Schultz**

**Department or Function:** **Public Works & Mobility- Utility Operations & Maintenance**

**Prepared by:** Logan McInnis

**Ward(s) Affected:**

- |                                 |  |
|---------------------------------|--|
| <input type="checkbox"/> Ward 1 | <input type="checkbox"/> Ward 4            |
| <input type="checkbox"/> Ward 2 | <input type="checkbox"/> Ward 5            |
| <input type="checkbox"/> Ward 3 | <input checked="" type="checkbox"/> Ward 6 |
|                                 | <input type="checkbox"/> N/A               |

**Action Required:**

Approve Amendment No. 3 to the Master Energy Performance Contract with McKinstry Essention, LLC to design and construct the Wastewater Phase 2 Solar Array at a cost not to exceed \$786,995

**Recommended Motion(s):**

I move the City Council:

Authorize the Mayor to sign Amendment No. 3 to the Master Energy Performance Contract with McKinstry Essention, LLC to design and construct the Wastewater Phase 2 Solar Array at a cost not to exceed \$786,995.

**Background and Alternatives Explored:**

Missoula's Wastewater Resource Recovery Facility (RRF) is served by 2 large electrical feeds. In 2023, the City installed a 575 kilowatt (kw) "behind the meter" solar array which produces approximately 25% of the annual power need for the largest electric feed that serves the wastewater aeration system. A second smaller electric meter serves the headworks building and associated pumping stations and its annual power consumption is approximately 50% of the power consumed by the larger electric feed. It wasn't possible to include the 2nd electrical feed in the design of the solar array previously installed, so the City intends to install a Phase 2 "behind the meter" solar array on the 2nd electrical feed. "Behind the meter" arrays are allowed to be larger than the 50 kilowatt (KW) maximum output allowed for "net metered" solar arrays (i.e. arrays which can run power backward through the meter and effectively use the grid as a battery at times that the array is producing more power than can be consumed onsite). "Behind the meter" arrays cannot run the meter backward, so they are typically sized to meet the minimum electrical load.

The City contracted McKinstry through its existing Energy Performance Contract to complete an Investment Grade Audit (IGA) for a proposed Phase 2 Solar Array to be installed on the 2nd electrical feed to the RRF. The IGA identified a solar array size (275 KW) that would match the minimum electrical demands on the 2nd electrical feed and developed a financial proforma that showed that the system would pay for itself in electrical savings over a 20-year period. With a modified amortization schedule that delays principal payments, the schedule shows that the power savings in each year of the 20-year financing term fully offset the debt service cost. The remaining 10-year anticipated life of the array after it is paid off will result in significant lifetime

cost savings. The solar array will generate over 350,000 kilowatt-hours (kwh) of electricity in year 1, projected to decline 0.5% per year over its 30-year life span. The year 1 electrical savings is over \$31,000. The IGA projects a 4% annual increase in electric rates, based on recent past utility rate increases in Montana.

The timing of this project is critical in order to beat a deadline for the expiring 30% Investment Tax Credit, while also qualifying for a Safe Harbor provision from upcoming Foreign Entities of Concern (FEOC) requirements that go into effect on 1/1/2026. These deadlines require that contracts are signed for the full scope of work and that a minimum of 5% of project cost is expended by the end of 2025. Upon receipt of a contract, McKinstry will place orders for the inverters for the project, at a cost of at least 5% of the total project cost.

**Financial Implications:**

The City's Finance Department is working on a financing plan for this project. McKinstry has reached out to local lenders to identify the likely interest rate, which has been factored into the IGA. The debt service cost of the system is projected to be 100% covered by savings on the annual electrical bills for this meter over the anticipated 20-year financing term. The array will result in significant cost savings over years 20 through 30 of the projected lifespan.

**Links to external websites:**

n/a