



City of Ketchum  
City Hall

June 1, 2020

Mayor Bradshaw and City Councilors  
City of Ketchum  
Ketchum, ID 83340

Mayor Bradshaw and City Councilors:

**Recommendation to approve Purchase Order 20476  
For A New Boiler**

**Recommendation and Summary**

Staff is seeking council direction on the replacement of the boiler at the water department building. The Council may adopt either of the following motions:

A: "I move to direct staff to pursue installation of an electrically powered boiler and approve Purchase Order 20476 in an amount not to exceed \$7,805.93 and authorize the Mayor to sign the PO and also initiate other related work for a total project cost not to exceed \$10,306."

or

B: "I move to direct staff to pursue installation of natural gas powered boiler and approve Purchase Order 20476 in an amount not to exceed \$8,238.04 and authorize the Mayor to sign the PO."

The reasons for the recommendation are as follows:

- The existing natural gas boiler at the Water Department has reached the end of its useful life and needs to be replaced.
- The Ketchum Sustainability Action Plan 2020 includes a long-term energy target of decarbonizing all city facilities by 2030.

**Introduction and History**

The City of Ketchum Water Department building has historically obtained its heat and hot water from a natural gas-powered boiler. While the boiler has met the end of its useful life, the radiant heat system that was installed during the building's construction remains functional. Given the City's Ketchum Sustainability Action Plan 2020 long-term energy target of de-carbonizing all city facilities by 2030, and the anticipated life span of the boiler, staff is seeking Council direction on whether to replace the current boiler with an electric- or natural gas-powered boiler.

**Analysis**

The City of Ketchum has obtained quotes for both electric- and natural gas-powered boilers. An electric boiler, and related fittings, has been quoted at approximately \$7,806 plus and additional estimated \$2,500 in electrical connections and upgrades to accommodate the new electrical load. The City has also received a quote for a high-efficiency natural gas boiler for approximately \$8,238. Recently, the Water Department has incurred a natural gas bill of approximately \$1,250 each fiscal year. Several contractors engaged by the City have estimated the annual operating cost of the electric boiler to be approximately double that of the natural gas version resulting in an estimated \$1,250 in additional annual operations for the electric version.

### Sustainability Impact

The electric boiler would align with the city's adopted long-term energy target of de-carbonizing all city facilities by 2030.

### Financial Impact

The capital and operating costs of either system would be funded by revenues received from rate-payers. To the extent an electric boiler is preferred, the rate-payers would incur greater costs.

### Attachments

- Lowest gas and electric boiler bids

# Sawtooth Plumbing & Heating, Inc.

1730 Lear Lane, Unit D  
 Hailey, ID 83333  
 208-788-7920, Fax 208-788-4117  
 ted.sawtoothplumbing@gmail.com

## Estimate

Date	Est #
5/22/2020	17734

Public Works License # 005465-C-4

**City of Ketchum**  
**PO Box 2315**  
**Ketchum, ID 83340**  
**Attn: Kelen**

Job:	110 River Ranch Rd. Unit B Ketchum			
Project	Water Dept, 110 River Ranch Rd. Unit B			
Qty	Item	Description	Cost	Total
		May 22, 2020		
		Estimate to remove the old boiler and eliminate the potable connection. Install a new electric boiler with an Axiom Auto Fill.		
10	Bid	Labor Hours	95.00	950.00
10	Bid	Labor Hours	75.00	750.00
1	Bid	Thermolec B-35U 35KW 119,420 BTU electric boiler	3,554.78	3,554.78
2	Bid	1" Webstone IPS union x SWT x hose	70.902	141.80
2	Bid	1" Webstone ISO with rotating flange	47.2524	94.50
2	Bid	1" CxC spring check valve	35.4276	70.86
2	Bid	1-1/4" x 1-1/4" x 1" copper tee	20.3456	40.69
2	Bid	1-1/4" x 1" copper reducer coupling	7.4448	14.89
1	Bid	1-1/4" SWT air separator	325.026	325.03
20	Bid	1" type L copper pipe	4.4176	88.35
20	Bid	3" PVC pipe	2.64	52.80
4	Bid	3" PVC 90	5.2624	21.05
4	Bid	3" PVC 45	4.7168	18.87
1	Bid	Axiom mini digital 6 gallon auto fill	723.3408	723.34
1	Bid	72" braided flex	24.6224	24.62
8	Bid	1" copper 90	6.0896	48.72
2	Bid	1" copper tee	13.6576	27.32
2	Bid	Watts 1/2" boiler drain	21.9296	43.86
6	Bid	1-1/4" copper 90	9.0288	54.17
1	Bid	24" gas flex	46.1136	46.11
20	Bid	1-1/4" type L copper pipe	6.0016	120.03
4	Bid	1-3/8" cushion clamp	5.8432	23.37
4	Bid	1-1/8" cushion clamp	4.9808	19.92
15	RHOMAR RH...	RHOMAR RHOGARD 50% Per GALLON	23.39	350.85
1	Bid	Misc Supplies	200.00	200.00
		Notes: Electrical work to be done by other.		

**Total** **\$7,805.93**

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## Estimate

Date	Est #
2/17/2020	16843

Public Works License # 005465-C-4

**City of Ketchum**  
**PO Box 2315**  
**Ketchum, ID 83340**  
**Attn: Kelen**

Job:	110 River Ranch Rd. Unit B Ketchum			
Project	Water Dept, 110 River Ranch Rd. Unit B			
Qty	Item	Description	Cost	Total
		February 14, 2020 Estimate to remove the old boiler and eliminate the potable connection. Install a new Lochinvar boiler with an Axiom Auto Fill.		
10	Bid	Labor Hours	95.00	950.00
10	Bid	Labor Hours	75.00	750.00
1	Bid	Lochinvar KHB110 N floor mount boiler	3,986.892	3,986.89
2	Bid	1" Webstone IPS union x SWT x hose	70.902	141.80
2	Bid	1" Webstone ISO with rotating flange	47.2524	94.50
2	Bid	1" CxC spring check valve	35.4276	70.86
2	Bid	1-1/4" x 1-1/4" x 1" copper tee	20.3456	40.69
2	Bid	1-1/4" x 1" copper reducer coupling	7.4448	14.89
1	Bid	1-1/4" SWT air separator	325.026	325.03
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<b>Total</b>			<b>\$8,238.04</b>	