



# REQUEST FOR QUOTES

## UV & AHU Retrofit

### Abstract

The Molalla Aquatic District is seeking qualified vendors to supply quotes for a UV system and Retrofitting the AHU

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## INTRODUCTION

The Molalla Aquatic District is seeking quotes from qualified vendors, for the installation of a UV system and a Retrofit to our existing Air Handling Unit, for the Molalla Aquatic Center, to be delivered to the Molalla Aquatic District. The energy efficiency measures (EEMs) affect the natatorium of about 187,000 cubic feet. Using data from the last three years, the average annual energy use for the building was 41,785 therms and 399,580 kWh.

The Molalla Aquatic District has been approved by Energy Trust of Oregon to receive incentives for this project. Vendors must be prepared to meet the qualifications and requirements from Energy Trust of Oregon.

## SPECIFICATIONS

We are looking UV System and an Air Handler Unit (AHU) Retrofit A UV system when tied to a chemical controller can modulate UV dosage, saving electricity from a non-modulating unit. Additionally, by ultimately decreasing airborne chloramines, Molalla can reduce ventilation air to code standards, reducing fan power, and air conditioning by installing VFDs on two of the fan motors.

The Molalla Aquatic Center has a single, indoor multipurpose pool. The pool is treated with acid and sodium hypochlorite, along with CO<sub>2</sub>. The use of UV would increase the efficiency of our chemical usage. The Molalla Aquatic Center Board of Directors has determined that a Prominent UV system would be most compatible with our existing chemical controller.

Adding a UV system to supplement the chlorinated water treatment will reduce chloramines in the space and allow for reduced ventilation. The AHU supply and exhaust fans will be retrofitted with VFDs and set to operate at code minimums. The exhaust fan will track the supply fan speed to maintain negative pressurization in the space. This retrofit will ramp down the fan motors, decreasing electricity consumption while also decreasing the heating requirements for makeup air. Additionally, the UV system will be integrated with the chemical controller to switch between high "chlorine destruct" and low "sanitation" modes as allowed by water conditions. While the exact duration of each mode is highly dependent on bather load and cleanliness, the UV system is assumed to run in sanitation mode during occupied hours and re-enter chlorine destruct mode when the pool is occupied.

- 20 and 15 HP motor with VFD ramped down by 70% during occupied hours and 78% during unoccupied hours
- AHU supplying 14,025 CFM and recirculating 15,428 during occupied hours; supplying 12,467 CFM and recirculating 13,714 CFM during unoccupied hours

## DETAILS

UV system & AHU retrofit: Install UV system in conjunction with reduced chlorine system to allow for reduced ventilation. Install VFD on AHU supply & exhaust fans, ramped down by 70% during occupied hours and 78% during unoccupied hours. AHU to supply 14,025 cfm, recirculate 15,428 cfm during occupied hours; supply 12,467 cfm, recirculate 13,714 cfm during unoccupied hours.

Site visits by appointment are encouraged.

## SELECTION CRITERIA

The Molalla Aquatic District Board of Directors will choose the vendor they believe will best serve its purposes. Factors used in the selection process will include but are not limited to build quality, value, warranty, accessibility, references or past experience.

## DEADLINE

Please submit proposals either electronically or in writing to Molalla Aquatic District, Attn: Melissa Georgesen, PO Box 1308 Molalla, OR, 97038 or [Melissa@MolallaAquaticCenter.com](mailto:Melissa@MolallaAquaticCenter.com) by 5pm on March 31, 2021.

## QUESTIONS

Vendors are encouraged to forward any clarifying questions and/or ***schedule a site visit*** to:

Melissa Georgesen  
Director  
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Molalla, OR 97038

(541) 637-7740 cell / [Melissa@molallaaquaticcenter.com](mailto:Melissa@molallaaquaticcenter.com)