

# ENERGY SAVINGS REPORT

## Capital Projects Improve Energy Efficiency and Future Capacity



### Project Overview



TOP LEFT: Recirculating pump VFDs. TOP RIGHT: Membrane skid. BOTTOM LEFT: One of the two installed turbo compressors. BOTTOM RIGHT: Incentive giant check ceremony image provided by the Sunnyside Sun.

The Port recently increased the capacity of their industrial wastewater treatment plant, investing in an energy-efficient design to lower operating costs.

#### Upgraded Turbocompressors

This project consisted of replacing five positive displacement lobe blowers with two more efficient Sulzer HST 350 hp turbocompressor blowers. And with the addition of variable frequency drives (VFDs) on the turbocompressors even greater efficiency was achieved.

#### Efficient Filtration Design

The Port was presented with several design options and ultimately invested in a system that enables the pumps to meet flow requirements with less energy than alternative designs. In addition, VFDs increase the efficiency of the pumps during operation, maximizing system energy savings.

### Annual Results



**+2,200,000 kWh**  
First Year Savings



**+\$110,000**  
Avoided Cost



**+1,000 tons CO<sub>2</sub>**  
Scope 2 Emission Reduction

What ideas do you have to save energy?

Travis Jansen, Port of Sunnyside, 509.839.3187  
Chad Smith, Benton REA, 509.781.6727  
Austin Rogers, ESI Partner, 458.212.3740

