

CHILLER REPLACEMENT

Capital Investment Opportunity



OVERVIEW

Replacing an existing chiller with a higher efficiency unit can result in significant energy and demand savings. This means the chillers will require much less energy to provide the same amount of cooling to the building end uses. Newer chillers are often equipped with variable speed compressors, oil-free magnetic bearings, and refrigerants capable of absorbing large amounts of heat.

CONSIDERATIONS

- Oil-free technology greatly reduces operations and maintenance needs.
- For facilities with variable loads, efficient chiller staging strategies should be considered during plant design and equipment selection.
- Water-cooled plants typically operate at a much higher efficiency (lower kW/ton) compared to air-cooled plants.
- Create savings on the energy and demand portions of the end user's utility bill (depending on utility provider and associated electricity rate).

KEY PERFORMANCE INDICATORS (KPIs)

- **3-7 point energy use intensity (EUI) reduction potential**
- **Up to 25% sitewide electrical savings**
- **Expected service life of up to 25 years**