#### La Crosse Center

#### **Energy Action**

#### 2018 Construction

• La Crosse Center planned with ISG Engineers for more energy efficient RTU (roof top units) in the planning of the expansion and addition of the facility.

## 2018-2019 JCI

- La Crosse Center and JCI planned in phase one the conversion of hundreds of light fixtures that were metal halides, mercury vapor, and incandescent bulbs to LED.
  - > Done for lowering heat levels.
  - Better customer satisfaction
  - > Lessen the labor load of replacement of dulling or burnt-out bulbs.
  - Lessen the cost of consistently ordering bulbs and fixtures.
- La Crosse Center and JCI planned the remodel of the HVAC system in Arena and VAV's in the southern part of the facility.
  - Allowed for better air flow quality.
  - Allowed for the addition of dual stage VFD (variable freq drives) this also works on extending the life of motors.
  - Allowed the La Crosse Center to lower our water temperature in our heating system and not work the boilers as hard.
  - > Also upgraded software to work the system and bring out programmed efficiencies.

## 2019-2021 JCI

- Second phase with Johnson Control was to place a solar field on the roof out South Ballroom
- With the solar project we also gained a new roof that allowed the lessen of maintenance and repair work.
- The solar field is a 100Kw field and assists in lowering our energy use on some of our major equipment.

## 2022-2023 Boilers

- Original bid was to replace just the 3 Kewaunee Boilers they are original manufactured date of 1977 and installed for the opening of the building in 1979. Their efficiency rate over the years has lessened to about 68%.
- Having our DeDietrich boiler, which was added in 1999 as the 2<sup>nd</sup> expansion, go down on us the need to look at the complete overhaul of the system at that time.
- With the cost of commodities decreasing, natural gas, we looked at going to a single source and saving on the operational cost:
  - ➢ #2 diesel − 2500 underground tank − fluctuating costs
  - Inspection and upkeep maintenance yearly costs
  - Reporting with the state yearly costs

- > Pushing boiler efficiency from 68% to over 95%.
- Adding softened water throughout the facility, part of the construction project, allowing in the extended life of equipment
- Redoing pumps and piping allowing for the facility to be in front of the maintenance of the skeleton of the facility. Also, allowing additional flexibility of programming and operational scheduling.

# Future:

- Looking into a re-heat or hot water capture to lessen the workload of the boilers to have to heat water from a very low temp.
- Finishing out the overall changing of the remaining light fixtures from incandescent to LED.
- Looking into rain run-off from the roof to capture and reuse as irrigation.
- Looking at re-roofing the south facility roofs to where we look at a higher r-factor value to build in energy efficiency and less need for controlling temperature in these larger spaced areas. Will also cut down on the monthly repair and upkeep costs.
- Adding a potential 200Kw solar field on the newer Riverside Ballroom & meeting room roofs.

\*\* Always looking at how we can benefit from our energy partners on a variety of other topics to reduce our energy consumption. Always looking to make the step forward. \*\*

# Meeting:

- Working with Focus on Energy
- Working with JCI
- Working with Trane
- Working with XCEL