

FEBRUARY 2021



## From Experience

### Minimizing Utility Costs

An effective utility cost management program includes three elements:

- **Billing** - it is necessary to understand how each utility provider bills for its service, especially how and when peak charges and surcharges apply.
- **Load Management** - managing when the utility is used by:
  - Using utilities during less expensive "off-peak" billing periods.
  - "Storing" energy instead of using oversized equipment to accommodate short surges in utility use.
- **Conservation** - minimizing utility use.

A thorough utility cost audit takes all three into account to arrive at economically sound decisions - whether, for example, to pay a sewer surcharge or invest in better waste minimization or treatment. Such an audit considers the following:

#### **Billing Rates/Schedules**

- Billing accuracy
- Surcharge rates and penalties
- Fee structure

#### **Load Management**

- Performing discretionary activities during off-peak hours
- Storing energy
  - Capacitors
  - Water towers
  - Ice builders
  - Hot-water generation/storage
  - Compressed-air storage tanks
- Standby generators
- Filter back-flushes
- CIP/cleaning/maintenance during off-peak times

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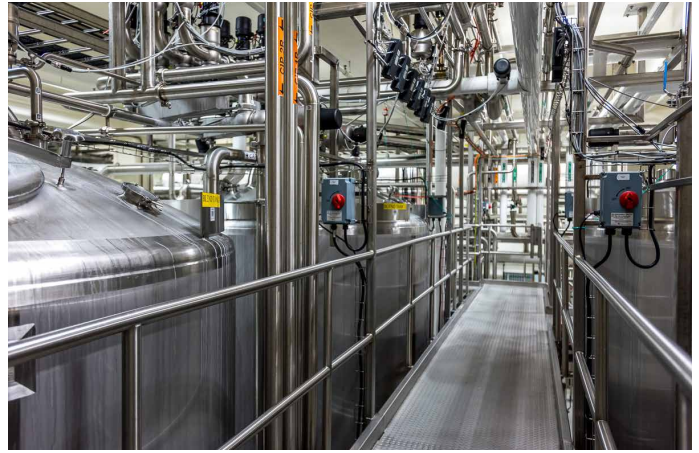
#### **EXPERIENCE IN BRIEF**

##### **"3% RULES"**

- 3% of utility bills contain errors
- 3% of a boiler's energy can be saved by using an economizer
- 3% of an air compressor's hp can be saved for each 6 psi drop in operating pressure
- 3-5% of compressed-air usage comes from leaks

## Conservation

- Air-compressor discharge pressure
- Preventing water, steam or compressed-air leaks
- High-efficiency motors
- Variable-speed drives
- Lighting efficiency (watts/ft<sup>2</sup>)
- Technology efficiencies
  - Pump impeller sizing
  - Piping pressure drops
  - Agitator configuration
- Once-through cooling water reuse
- Condensate returns
- Boiler economies



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## CONTINUING EDUCATION

Hixson associates regularly participate in continuing professional education events across the country. To learn more about the events listed below, e-mail Hixson at: [info@hixson-inc.com](mailto:info@hixson-inc.com).

- IDFA Dairy Forum - Virtual event held January 25 - 28, 2021.
- Coming in April! "HVAC Options for a Post-Pandemic Plant." A Hixson podcast in association with Food Engineering magazine. Watch for details in our next issue or [the Hixson blog!](#)
- Check out the archive! "Beyond COVID-19: The Future of Food Plants," a Hixson **Food Plant of the Future** webinar. Click to view [here](#).

### FREE WEBINAR SERIES!

Go to [www.hixson-inc.com/insights/foodplant-of-the-future](http://www.hixson-inc.com/insights/foodplant-of-the-future) to register or access archives of Hixson's webinars.



## CONTACT US

Direct any comments or questions to:

**Warren Green, P.E., Vice President  
Process Engineering Manager**

[wgreen@hixson-inc.com](mailto:wgreen@hixson-inc.com)

Phone: 513.241.1230

Fax: 513.241.1287

[www.hixson-inc.com](http://www.hixson-inc.com)