

## Industrial Refrigeration Best Practices Training

Sept. 17, 2025

8 a.m. to 4 p.m.

Idaho Power Corporate Headquarters or WebEx

1221 W. Idaho St. Boise, ID 83702

**Class is free for Idaho Power customers.**

This is a one-day course focused on industrial refrigeration systems — specifically compressors, condensers, and evaporators. Attendees will learn how refrigeration systems use energy, and what adjustments can be made to improve efficiency. Lunch, parking, and course material will be provided free of charge.

### Key Learning Objectives

- Compressors
  - Review the role of compressors, and the impact of lift and part load operations
  - Evaluate compressor operation and identify potential energy savings
- Condensers
  - Review the role of condensers, and their impact on compressor power
  - Identify the benefits of wet condensing, fan VFDs, water treatment, and regular inspections
- Evaporators
  - Review the role of evaporators, and their impact on system performance
  - Identify the causes of poorly performing evaporators
  - Recognize defrost adjustment strategies to improve cooling and reduce energy use

### Who should attend?

- Refrigeration/Maintenance Technicians
- Plant Operators/Managers/Engineers
- Process/System Engineers
- Energy Managers
- Production Supervisors & Managers

### Tentative Schedule

<b>8 a.m.</b>	Introduction/Objectives Opportunity Idea Page Plant Energy Basics Fundamentals of Refrigeration Sketch Refrigeration System Compressor Basics Compressor Lift and Activity Compressor Part Load Compressor Maintenance Opportunity	<b>12:30 p.m.</b>	Condenser Basics and Review Condenser Maintenance Activity Condenser Capacity Control and Activity Compressor/Condenser Energy Balance
		<b>2 p.m.</b>	Evaporator Basics and Review Identify and Troubleshoot Poor Performance Evaporator Valve Failure Activity Troubleshoot Evaporator Examples
<b>Lunch</b>		<b>4 p.m.</b>	Questions and Adjourn

**Instructor**

**Ryan Orozco**, a Senior Engineer at Cascade Energy, has 16 years of experience helping industrial facilities reduce energy use through low cost and capital solutions. He has 10 years of experience optimizing the energy use of industrial refrigeration systems at refrigerated warehouses and food processing facilities. He specializes in running management programs for multi-site corporations that achieve savings through training, on-site tune-ups, and real-time performance tracking. Ryan's refrigeration training draws on Cascade Energy's Industrial Refrigeration Best Practices Guide which is used as a key resource for the RETA Certified Refrigeration Energy Specialist course.

**Background**

- Registered Professional Engineer, Oregon
- BS, Mechanical Engineering, University of Portland, Portland, OR, 2007
- MS, Mechanical Engineering, University of Utah, Salt Lake City, UT, 2009

**Registration**

Deadline for registration is Wednesday, September 10th.

To register for either the in-person or virtual offering, enter your information [here](#).

**Questions?**

Visit [idahopower.com/training](http://idahopower.com/training) or contact us at [training@idahopower.com](mailto:training@idahopower.com).