Pumping System Optimization

HOSTED BY OREGON TRAIL ELECTRIC CO-OP

March 8, 2018

Oregon Trail Electric Co-op
2408 Cove Ave
La Grande, OR 97850

Registration Fee: $139

0.7 Continuing Education Units through Washington State University may be made available for this training

Class size is limited to 25 attendees

Key Learning Objectives

- Identify benefits of optimization and assessment
- Determine optimization and assessment objectives
- Identify data necessary for assessment and what to measure
- Analyze data collection
- Develop and implement recommendations
- Monitor the results of the improvements

Who Should Attend

- Irrigation operators and pump system managers
- Operation supervisors and managers
- Industrial maintenance personnel
- Energy efficiency organizations
- Utility staff

Agenda

7:30 Registration (breakfast provided)
8:00 Morning Session
  - Introductions
  - Benefits of assessment
  - Case study: excessive maintenance costs
  - Exercise: calculate pumping system energy costs
  - Assessment objectives
  - Case study: bypass flow control
  - Pumping system fundamentals
11:30 Lunch (provided)
12:30 Afternoon Session
  - Varying flow rates in pumping systems
  - Exercise: reading the pump and system curves
  - Analysis tools for pumping systems
  - Integrated process controls
2:00 Break
2:15 Afternoon Session Continued
  - Improving performance of pumping systems
  - Case study: reducing system head
  - Screening pumping systems for optimization
  - Exercise: screening pumping systems
  - Additional resources for conducting energy assessments
4:15 Summary and Evaluation
4:30 Adjourn

Attendees are asked to bring a basic calculator
Course Description

Did you know that the average pumping system efficiency is 40% or less? When pumping systems are not optimized for best efficiency, they will drain your company’s profitably with higher energy and maintenance costs, shorter mean time between repairs, more CO2 emissions and a less reliable system overall. The typical medium-sized plant spends over $1.4 million a year on energy to run their pumping systems. Better system design and optimized pumping systems may result in savings that will average $350K per year on energy alone. For irrigation users, the class can show how to lower header pressures without throttle valves and explore ways to modify pumps by trimming the impeller. The course will address how variable speed drives can save additional power by slowing down the pump speed, which will save energy and reduce cost in the process. With the system running more efficiently, maintenance and operating costs will go down and the mean time between repairs will improve.

Instructor

Dominik Fry

Dominik Fry has nearly a decade of experience in the energy industry and has worked on some of nation’s largest energy projects. He helped develop guidelines and standards for first horizontal wells drilled in the area which became in dominate in the industry. His innovative approach to problem solving has led to numerous solutions and cost savings for several large customers including ConocoPhillips and Shell Oil Company. Fry has a Mechanical Engineering degree from Montana State University and a PE license in Mechanical Engineering from the State of Colorado.

Hosting Sponsor

Oregon Trail Electric Co-op

Co-Sponsors

- Benton PUD
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- Columbia Basin Electric
- Columbia Rural Electric
- Franklin PUD
- Northwest Food Processors Association
- Oregon Depart. Of Energy
- Pacific Power (WA)
- Umatilla Electric Cooperative

How to Register

Deadline is February 22, 2018

Register Online:
www.regonline.com/191neea-industrialtraining

Or phone or mail the registration form on the next page to:

Phone: 888-720-6823
Email: industrial-training@industrial.neea.org

NEEA Industrial Training c/o Ecova
100 SW Market St, Suite 200
Portland, OR  97201

Please make checks payable to NEEA Industrial Training c/o Ecova #2300

Questions

Visit http://neea.org/get-involved/calendar or contact the training center at 888.720.6823 or industrial-training@industrial.neea.org

This training is provided through the US Department of Energy. For more information, please visit: http://pumps.org

The Northwest Regional Industrial Training project is coordinated and funded by the Northwest Energy Efficiency Alliance (NEEA), a private non-profit organization funded by Northwest utilities, the Energy Trust of Oregon, and Bonneville Power Administration. NEEA and its stakeholders subsidize up to 85% of the cost to attendees, which means the cost listed on the front of this brochure is significantly less than the average price in the marketplace. NEEA works in collaboration with its stakeholders and strategic market partners to accelerate the sustained market adoption of energy-efficient products, technologies, and practices. NEEA’s market transformation efforts address energy efficiency in homes, businesses, and industry.

Training Registration Form on Page 3
Register Online

www.regonline.com/191neea-industrialtraining

Registration by Mail

Please register me for the Pumping System Optimization training on March 8, 2018:

________________________________________________________________  __________________________________
First Name  Last Name  Title    Phone
________________________________________________________________  ______________________________
Company Name  Electric Provider  Email
________________________________________________________________
Address          Please indicate special diet needs
________________________________________________________________
City   State   Zip

Payment Options

Please mail this registration form with a check to the address on NEEA Industrial Training c/o Ecova, 100 SW Market St, Suite 200, Portland OR 97201

If you have a discount code, purchase order number and/or would like an invoice, please indicate so below.
Discount Code: _____________  Purchase Order: ___________________   Invoice Request:____________

Cancellation Policy: Full refund of registration fee if attendance is cancelled by deadline date; half refund