

Christopher Cox, PE

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Summary

Skilled energy engineer with 10+ years of experience evaluating energy conservation measures in commercial, residential, and data center environments. Skilled in building energy simulations, custom measure analysis, measure savings verification, and technical writing.

Experience

LEAD TECHNICAL ENGINEER | NEXANT | 2018 - PRESENT

- In charge of quality, consistency, and timeliness of work product delivered by engineering team.
- Generate detailed savings and verification reports as part of the Rocky Mountain Power's wattsmart custom program. A majority this work involves large data centers > 1 MW of IT load.
- Lead reviewer for Dominion Energy's ThermWise Business Custom Program.
- Evaluate new and existing measures for the ThermWise Weatherization, Appliance, Builder, and Business program as part of the annual tariff filing.
- Conduct residential dual fuel air-source heat pump feasibility study for Rocky Mountain Power. The study compared the life cycle cost, annual energy cost, pricing, and site and source energy impact of dual fuel systems as compared to traditional HVAC configurations.
- Assist Utah's Department of Facility and Construction Management in documenting the effectiveness of the High Performance Building Standard. Co-presented on findings at the 2018 NASFA National Conference "**High-Performance Buildings, Bridging the Gap Between Construction & Operations**".

PROJECT ENGINEER | NEXANT | 2016 - 2018

- Perform ASHRAE Level I and II energy audits of commercial facilities.
- Generate detailed savings and verification reports as part of the Rocky Mountain Power's wattsmart custom program. This work was divided between HVAC recommissioning projects and newly constructed commercial buildings.
- Generate building energy models for utility incentive program development, measure analysis, and green building certifications. Highlights include:
 - Overstock Corporate Campus
 - Thanksgiving Station Office Building 4 – Certified LEED Silver
 - Canyon Center Apartments – Energy Star, Statement of Energy Design Intent (SEDI)
 - 360 State Street Inc. – Energy Conscious Blueprint
 - JM Wright Technical High School - Energy Conscious Blueprint

ENGINEER | NEXANT | 2011 - 2015

- Generate building energy models for utility incentive program development, measure analysis, and green building certifications. Highlights include:
 - Marriott Honors Community – Certified LEED Gold
 - Thanksgiving Park Phase 3, 4, 5, & 6 – All Certified LEED Silver
 - Thanksgiving Park Phase 5 - Certified LEED Silver
 - Neumont College of Computer Science
 - Petzl North American Headquarters
 - Wasatch Manor VRF, which required measure verification and model calibration
- Building simulation QA for Energy Trust of Oregon's New Building Program.
- Perform lighting audits for commercial and industrial sites located in Utah and Wyoming.

ENGINEERING INTERN | NEXANT | 2007 - 2011

- Measure field verification for Rocky Mountain Power's FinAnswer and Self-Direct programs.
- Measure field verification for the ThermWise Business and Weatherization Programs.
- Utility incentive program application processing and quality assurance.

Skills & Abilities

FACILITY ENERGY AUDITS

- Utility bill analysis and benchmarking
- Evaluate building shell inadequacies through visual inspection, plan review, and IR imaging
- Perform lighting audits
- Evaluate plug loads
- Evaluate age, condition, and operation of HVAC and domestic hot water systems
- Evaluate HVAC equipment programming (scheduling, setbacks, reset strategies, economizers, etc.)
- Evaluate heating and chilled water plant operation (scheduling, reset strategies, staging, variable vs constant flow, condensing water operation, etc.)
- As needed install power, flow, or gas metering devices to determine system performance
- Produce technical reports detailing current facility operation and recommendations to improve energy performance and operations

BUILDING ENERGY SIMULATIONS

- Experienced in the following building energy modeling software:
 - eQuest
 - Trace Trane 700
 - Energy Plus – Openstudio Interface
 - REM/Rate
 - Energy Gauge
- Experienced in using energy models for the purpose of:
 - Design assistance
 - Green Building certification
 - Utility incentive programs
- Have produced building energy models for:
 - Commercial buildings (office, education, hospitals, retail, etc.)
 - Data centers
 - Conditioned warehouse
 - Multifamily high rise
 - Multifamily residential
 - Single family residential

Education & Affiliations

B.S. MECHANICAL ENGINEERING | AUGUST 2011 |

- University of Utah - Salt Lake City, Utah

INTERNATIONAL BUILDING PERFORMANCE SIMULATION ASSOCIATION (IBPSA)

- Founding Utah chapter member

AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR-CONDITIONING ENGINEERS (ASHRAE)