

MATTHEW HAWKINS

Livermore, CA | Phone: (925) 784-7422 | Email: Hawkins.mattd@gmail.com

LinkedIn: [linkedin.com/in/matthew-hawkins-professional-engineer/](https://www.linkedin.com/in/matthew-hawkins-professional-engineer/)

GitHub: <https://github.com/matthew-david-hawkins>

PROFESSIONAL SUMMARY

Professional Mechanical Engineer specializing in Energy Systems.

I draw from my broad experience gained from over 10 years working in the energy industry, most recently as Director of Asset Management at Ormat Technologies, and previously as Senior Day Ahead Analyst at PG&E, and Senior Consultant at AVEVA (formerly Schneider Electric). I also bring a modern toolkit of software development, data science, and business technology skills to my work.

2022 – Present | Director, Asset Management -- Ormat Technologies
2020 – 2022 | Senior Day Ahead Analyst -- Pacific Gas & Electric Company
2018 – 2022 | Senior Consultant -- AVEVA (formerly Schneider Electric)
2017 – 2018 | Consultant II -- Schneider Electric
2015 – 2017 | Consultant I -- Schneider Electric
2015 – 2015 | Contract Consultant -- Schneider Electric
2014 – 2015 | Intern -- Schnieder Electric

LICENSES

Professional Mechanical Engineer License – Thermal and Fluid Systems: CA License #M39464

AREAS OF EXPERTISE

Energy Systems
USA Energy Markets
Energy Planning and Strategy

Operations Research
Asset Management
Data Analytics

Battery Energy Storage Systems
Power Generation
Mechanical Engineering

EDUCATION

B.S. Mechanical Engineering
University of California San Diego
September 2010 – June 2014

Negotiation Mastery Certificate
Harvard Business School Online
November 2024 – January 2025

DevOps Certificate
University of Chicago
April 2022 – June 2022

Credential of Readiness
Harvard Business School Online
November 2020 - March 2021

Private Pilot Flight School
Coast Flight Training, San Diego, CA
March 2019 – August 2020
Certificate Number 4297280

Data Science & Visualization Bootcamp Certificate
University of California San Diego Extension
July 2019 – January 2020

WORK HISTORY

Director, Asset Management

Ormat Technologies, Inc – Full-time

November 2022 – present

Reno, NV (Remote)

- Formulated short and long-term strategic operating plans for CAISO, ERCOT, and PJM, which include implementing/managing daily market strategies, anticipating structural market changes, and planning for multiple contingencies
- Evaluated all operational, regulatory, and financial constraints for each battery project while complying with company-defined risk parameters and ISO/RTO regulatory rules
- Identified revenue enhancement opportunities, addressed performance-related BESS root causes, and proposed solutions to optimize risk-weighted market return across all assets
- Actively managed/monitored key operational variables such as performance, availability, lost opportunity cost, and market-specific technical data to identify long-term improvement opportunities and respond quickly to operational and market disruptions
- Built and managed a team of Asset Managers who operate multiple BESS sites across all market regions. The team is responsible for optimizing revenue from operating assets while overseeing their commercial, financial, and operational aspects.

Senior Day Ahead Analyst

Pacific Gas & Electric Company – Full-time

November 2020 – November 2022

San Francisco, CA (Remote)

- Implemented the bidding strategies of roughly 300 different generating resources, including wind, solar, battery storage, hydro, natural gas, geothermal, biomass, and nuclear power plants in the CAISO markets
- Optimized hydroelectric power generation from cascading watersheds.
- Developed a private Python package used by PG&E's personnel to analyze market and operational data of PG&E's power generation assets.

Senior Consultant – Operator Training Simulators

AVEVA – Full-time

July 2018 – February 2020

Carlsbad, CA

- A key accomplishment was to serve as Lead Engineer for a two-year project that integrated a virtual copy of the Distributed Control System and Turbine Control System of Georgia Power's Plant Bowen with a dynamic model of the power plant systems to create an operator training simulator.
- Implemented designs for customized computing architectures for operator training simulators.
- Worked closely with expert control room operators to validate the operator training simulator responses during plant start-up, shutdown, and trip scenarios.
- Wrote comprehensive system documentation and user guides for simulator systems.
- Used plant piping and instrumentation diagrams, electrical one-line diagrams, manufacturer design data, and plant historical data to develop mathematical models of power generation processes and equipment, including turbines, generators, boilers, furnaces, plant electrical systems, and control systems
- Worked with clients to develop functional requirements, design documents, and test plans

- Designed and deployed a server-client computing system, local area network, and backup system for internal applications using VMware ESXi, VMware VCenter, and Windows OS

Consultant II – Operator Training Simulators

Schneider Electric – Full-time

August 2017 – June 2018

Carlsbad, CA

- In 2017, I hit a personal milestone by delivering my first project as a lead engineer. This project's purpose was to validate the turbine control system to be deployed at the U.S.'s largest coal power plant. I led a small team of engineers to integrate the turbine control system with a mathematical model of the plant turbine and to test the control system. This methodology exposed flaws in the control system, which were addressed before commissioning.

Consultant I – Operator Training Simulators

Schneider Electric – Full-time

August 2015 – August 2017

Carlsbad, CA

- In 2016 I distinguished myself by serving as a junior engineer from design to commissioning on an operator training simulator for Xcel Energy's Harrington Generating Station.
- Applied knowledge of the control hardware, control methods, and software employed in the power industry to test, troubleshoot, and modify these control systems for use in simulators.
- Conducted acceptance testing for operator training simulators including XCEL Energy Harrington Generating Station and PREPA Costa Sur power plant.

Contract Engineer – Operator Training Simulators

Schneider Electric – Full-time

Jan 2015 – August 2015

Carlsbad, CA

- Worked closely with experienced power plant operators and controls engineers to test and improve the dynamic responses of training simulators.

Engineering Intern – Operator Training Simulators

Schneider Electric – Full-time

July 2014 – Jan 2015

Carlsbad, CA

- Assisted more experienced engineers with analysis of plant historical data, plant design data, and control systems.