

BILAL LORHLAM

BUILDING ENERGY EFFICIENCY MODELER

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SUMMARY

Building energy modeler with 3+ years of experience developing whole-building energy models and technical-commercial analyses for 20+ million ft² of commercial and residential buildings. Expert in eQuest with hands-on experience in applying parametric HVAC modeling (VAV, VRF, chiller, cooling tower, AHU, PTAC) to evaluate building performance and identify energy-savings opportunities. Builds custom tools (VBA, Python, Excel) to automate modeling workflows, QA, and reporting, and has led and QA-reviewed the output of a 5-person modeling team. Seeking to bring this modeling depth and automation mindset to a dedicated Building Energy Efficiency Modeler role.

CORE MODELING SKILLS

- **Energy Modeling Software:** Expert in eQuest; Ekotrope
- **HVAC Systems Modeled:** VAV, VRF, chiller plants, cooling towers, AHUs, PTAC, RTU, heat pumps, hydronic systems
- **Compliance & Standards:** ASHRAE 90.1, HERS rating, GHG Protocol (Scope 1, 2 & 3 emissions)
- **Modeling QA & Workflow:** 10-person modeling team QA lead; parametric analysis; feasibility studies and field-verification of model assumptions
- **Automation for Modeling:** VBA and Python scripts to automate model inputs/outputs, batch runs, and client reporting; Advanced Excel and Power BI dashboards
- **MEP & Design Tools:** AutoCAD, LATS CAD, LATS HVAC

WORK EXPERIENCE

179D Project Lead | Concord Energy Strategies, LLC

March 2026 – Current

- Lead end-to-end delivery of 179D energy efficiency projects: project scoping, site walkthroughs, documentation review, energy-performance analysis, and final certification.
- Manage cross-functional technical teams and client stakeholders to ensure model accuracy, project quality, and on-time delivery.
- Coordinate collection and validation of building, energy, and equipment data feeding technical assessments and energy-performance models.
- Advise clients on opportunities to reduce energy consumption and improve building performance based on modeled results.

Air Solution B2B Sales Engineer | LG Electronics

December 2025 – March 2026

- Performed HVAC system sizing and selection for VRF, RTU, chillers, heat pumps, hydronic systems, and AHUs, translating load and performance requirements into equipment specifications.
- Provided technical consulting to HVAC distributors, MEP consultants, developers, architects, and other building-industry stakeholders.
- Analyzed technical specifications, equipment performance data, and pricing to support commercial decision-making.
- Used Salesforce and Power BI to manage client and opportunity data and support performance reporting.

Building Energy Efficiency Consultant & Quality Team Lead | Leyton

June 2023 – December 2025

- Developed technical-commercial proposals and whole-building energy models for 20+ million ft² of commercial and residential buildings using eQuest, Ekotrope, and REM/Rate.
- Applied parametric modeling to evaluate HVAC systems (VAV, VRF, chiller, cooling tower, AHU, PTAC) and optimize energy performance.
- Supervised and QA-reviewed the output of a 5-member energy modeling team, tracking performance and ensuring efficient, standards-compliant workflow.
- Ensured all HVAC studies and modeling deliverables provided to clients complied with applicable energy standards.

- Conducted feasibility studies, field inspections, and client presentations to validate design assumptions against modeled performance.

TECHNICAL PROJECTS & TOOLS

- Automated an eQuest-based modeling workflow (VBA/Python) to batch-generate and QA energy models, cutting turnaround time on repetitive modeling tasks.
- Built a custom Excel-based energy/HVAC modeling and calculation spreadsheet used for parametric performance analysis.
- Designed a contract and certification tracking system (Section 179D) to manage project pipeline, deliverable status, and compliance documentation.

EDUCATION

Bachelor of Science in General Engineering (3.72/4.0 GPA)

Sep 2019 – May 2023

University of Al Akhawayn in Ifrane

- ABET-Accredited Institution
- Specialization in Mechatronics

RESEARCH EXPERIENCE

Design of a Hydroponic System in Morocco

IEEE research paper: "Hydroponic System in a Controlled Atmosphere and Substrate" (2022) — China, Beijing

Thermal Insulation & Innovation

Conference talk and research: "Design of Bricks with Palm Fiber Additives" (2023) — Al Hoceima, Morocco

Design and Implementation of a Quadcopter

Springer research paper: "Design and Implementation of a Fire Detection Drone" (2025) — Ifrane, Morocco

ADDITIONAL INFORMATION

- **Languages:** English, French, Arabic
- **Other Software:** Basic Python for data analysis and workflow automation; Microsoft Project, Smartsheet, Trello