

MARCO A. BURGOS, P.E., BCxP, LEED® AP
Energy Engineer, Commissioning Agent, LEED Consultant

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SUMMARY

The assets I bring to the team are knowledge of mechanical engineering, fluency in Spanish and English, and a proven ability to develop, manage and adhere to project budgets and timelines. Projects include industrial, government, healthcare, sports and entertainment, multi-family, hospitality and educational facilities. Experienced in design and permitting, energy audits, LEED commissioning and LEED certification, fiscal management of resources and LCC analysis. As a licensed Professional Engineer, Certified Energy Manager, and lighting professional, I am able to provide peer-level design reviews and effectively work with design teams.

EXPERTISE

- Building Energy Modeling.
 - LEED certification - Energy and Atmosphere.
 - Loads calculation and Analysis.
 - Florida Energy Code Compliance.
- Computational Fluids Dynamics Modeling.
- Building Commissioning.
- Comprehensive Energy Audits.
- Energy Efficiency Retrofits.
 - Energy Cost Reduction Master Plans.
 - Feasibility Analysis & Implementation.
- Energy Efficiency Measurement & Verification.
- HVAC Systems Remote Monitoring.
 - Real time analysis of trending data to troubleshoot mechanical issues.
 - Quantitative analysis of energy consumption at system and component level.
 - Provide Prescriptive Recommendations.
- Renewable Energy Systems Design and Implementation.
 - Tri-generation /Combined Heat & Power.
 - Solar Thermal.
 - Photo Voltaic.

EXPERIENCE

1/2015-Present

Independent Consultant, Miami, Florida

Energy Engineer, Energy Modeling, LEED Consultant, Commissioning Authority.

1/2012 - 1/2015

Sequil Systems Inc., Delray, Florida

LEED Consultant/Energy Engineer

Conducted building energy analysis, cross-referencing mechanical systems, building envelope thermal performance, and dynamic thermal simulation to LEED energy performance criteria.

Report to client the determined fitness of a design, compared to the client's stated performance targets and identify improvements and steps required to achieve project targets.

LEED Commissioning Authority

- Prepared Owner Project Requirements Document.
- Collaborated with Engineering Team to prepare Basis Of Design.
- Prepared Commissioning Plans.
- Conducted Mechanical Construction Documents and Submittals Review.
- Prepared and Performed HVAC and Lighting Systems Functionality Performance Tests.
- Prepared Systems manuals and other deliverables related to the Commissioning Process.

Energy Simulation Modeler

- Prepared Whole Building Simulation Models for LEED NC, CS and LEED EBOM certification utilizing Trace700, Revit MEP software.
- Completed LEED online templates related to Energy & Atmosphere Credits.

Boland-Trane, Gaithersburg, Maryland

Energy Engineer, Commissioning Authority, LEED Consultant

- Conducted energy audits of large commercial and industrial buildings. Identified and implemented energy and water conservation measures, including:
 - Lighting retrofits
 - HVAC & R optimization strategies
 - Building automation
 - Irrigation control
 - Co/trigeneration
 - Solar-thermal and Photovoltaic.
- Designed and implemented comprehensive energy solutions and long-term energy master plans.
- Conducted presentations of Energy Conservation Measures proposals to decision makers.
- Prepared Building Energy Models for LEED and/or EAct Tax Deduction assessment.
- Managed the Commissioning Process for new and existing buildings.

5/2010 -1/2012

Victory Energy Solutions, New Britain, Connecticut

Energy Engineer, Commercial Division

- Successfully launched the commercial division for this start-up business.

- Conducted energy audits and designed energy retrofits surpassing LEED standards.
- Prepared building energy models for LEED and/or 179D tax deduction assessment.
- Prepared economic analysis to determine project feasibility.
- Developed customer, suppliers and subcontractor relationships.
- Served as Owner's Representative for developments seeking LEED certification.
- Managed the installation of the Energy Conservation Measures prescribe.

2005-2009

Burmon Investments, Inc. Miami Beach, Florida

Project Manager, LEED AP, LEED Administrator, Commercial Real Estate Development.

- Managed the design and permitting of a 39,000ft². Medical Facility in Miami Beach.
- Managed design team to produce a LEED - GOLD design.
- Developed Owner's Design and Performance Requirements/Basis of Design document.
- Selected the Sustainable Energy Systems included in the design.
- Presented the project before the various permitting boards within the city, county and state.
- Obtained approval for the first Robotic Parking System in Miami Beach.

EDUCATION

1982-Northwestern University Evanston, Illinois.

Bachelor of Science in Mechanical Engineering.

1983 General Electric (Steam Turbine Technology Program) Schenectady, NY

1983 Westinghouse Electric (Steam Generator Technology Program) Pittsburgh, PA

1984 Westinghouse Electric (Main Reactor Coolant Pump Maintenance) Pittsburgh, PA

2009 Trane Co. Air Conditioning System Fundamentals Clinic, Boston, MA

2011 University of Wisconsin - Commissioning Process Provider

2014 University of Wisconsin - Direct Digital Controls Architecture and Commissioning.

2018 University of Wisconsin – Test & Balance

CERTIFICATIONS

- State of Florida - Professional Engineer - Mechanical Engineering
- LEED Accredited Professional
- Certified Energy Manager
- Building Commissioning Professional (ASHRAE)

APPLICABLE KNOWLEDGE

- Trace 700 (Energy Modeling Software)
- eQuest (Energy modeling software)
- Energy Gage Summit (Energy modeling software)
- Revit MEP and Revit Architecture.
- Bilingual in Spanish and English.

OTHER APPLICATIONS

Excel, Outlook, Microsoft Publisher, Power Point, Project Manager Adobe Photoshop,

PROFESSIONAL AFFILIATIONS

- American Society of Mechanical Engineers.
- United States Green Building Counsel.
- ASHRAE
- Building Commissioning Association.

INTERESTS

Cycling, Swimming, Scuba diving, Boating, Boat building