

Summary: Senior Mechanical Engineer with 25 years of increasingly responsible experience in cost effectively solving unique and complex engineering / production problems in industrial, commercial and utility environments. Worked on more than 115 mechanical, electrical, civil, industrial, and chemical engineering projects in 19 states and four countries with construction costs totaling over \$1,748,000,000. High level of expertise in: option development, power generation, energy usage & analysis, system planning, process control, financial analysis, engineering methods, computer simulation, static & dynamic modeling of processes, forecasting techniques, team leadership, and construction supervision.

Certifications:

Registered Professional Engineer – Florida
Certified Energy Manager – Worldwide

NCEES – National Record – USA
FBPE Continuing Education Provider – Florida

2008 – Present Owner of Green Energy Engineering, Inc.; St. Petersburg, FL

Incorporated Green Energy Engineering, Inc., to provide Green Energy Solutions that can reduce the amount and cost of purchased energy and carbon footprint by developing innovative projects using a working knowledge of money, energy, thermodynamics, fluid flow, process controls, boilers, cogeneration, and fuels.

2005 – 2008 Mustang Tampa, Inc.: / Pegasus TSI, Inc.; Tampa, FL

Managed project and / or system analysis of energy, power, steam, and boiler projects throughout the world, involving steam balance work, boiler controls, utility equipment optimization. Financial studies of client options, projects, or methods within projects for chemical, pulp and paper, oil refinery, natural gas, fertilizer, and power plants.

2001 – 2005 Engineering Matrix, Inc.; St. Petersburg, FL

Named Project Manager on \$6,000,000 chiller addition at the University of South Florida. Managed sub-consultants including architects; civil, structural, mechanical, electrical, and plumbing engineers. Performed and wrote investment-grade energy analysis reports based on computer models for third party performance contracting investment firms.

1994 – 2001 Owner of Energy Generation Solutions, Inc.; St. Petersburg, FL

Worked directly as Chief Engineer with clients and owners regarding the financial attractiveness and engineering feasibility of various energy savings options. Advised other engineers on possible solutions, methods, and resources for solving complicated engineering and system analysis problems.

1984 – 1994 Florida Power Corporation; St. Petersburg, FL

Project Engineer for alternative fuel project for phosphate company in central Florida. Load Management analysis supervisor who created field testing methods and computer analysis software for confirming the kilowatt and kilowatt-hour savings associated with the world's largest residential (500,000 homes) load management program. System Planning Senior Engineer, conducted a number of reliability and financial studies of power generating options using the TIGER reliability software, PRO-MOD production costing model, and PRO-SCREEN corporate financial model. Conducted studies including: new transmission line into central Florida from Georgia; new generating units at several plant locations; 40-year fuel studies; truck, pipeline, and barge delivery of fuel oil for several plant sites; and conversion of some units to burn natural gas. Project Engineer for 40 MW University of Florida cogeneration plant.

1979 – 1984 Procter & Gamble Company; Cincinnati, OH

Senior Process Control Engineer responsible for developing analog control schemes for various thermal equipment including boilers, steam turbines, gas turbines, chillers, compressed air systems, cooling towers, water treatment equipment, steam distribution systems, and plant utilities. Experienced with conventional power generation and cogeneration cycles while burning a variety of fuels including: natural gas, off-quality gas, chunk coal, pulverized coal, sawdust, industrial wood waste, #2 oil, and #6 oil. Developed control schemes for various firing methods include traveling grate, suspension, air atomization, steam atomization, fluidized bed, gasifier, and piled bed. Investigated feasibility of drying paper with combustion turbine exhaust. Project involved cutting-edge computer simulations using Cray Super computers at the Massachusetts Institute of Technology (MIT), and culminating in a \$150,000,000 project. Managed five other process control engineers and a \$3,000,000 budget during the engineering phase of a Mehoopany, PENN, paper plant energy project. This involved the application of a gas turbine to the hot air drying system and studies of the static and dynamic behavior of a 3,000-foot-long hot air duct coupled to six independently operating paper machines.

Education: BS Mechanical Engineering, University of South Florida 1978. Additional course work towards a Master's degree in Mechanical Engineering and Master's degree in Business Administration