

**MITCHELL J. ANDERSON,
C.E.M.
SENIOR PROJECT DEVELOPER**

PROFESSIONAL EXPERIENCE:

- ◆ **2005– Present: Senior Project Developer,
NO RESCO, Rancho Cucamonga, CA**
- ◆ **2001– 2005: Project Manager,
Chevron Energy Solutions
Los Angeles, CA**
- ◆ **2000– 2001: Project Developer,
Planergy International, Inc.**
- ◆ **1998– 2000: Project Manager,
Planergy International, Inc.,**
- ◆ **1992– 1998: Energy Engineer,
Planergy International, Inc.**
- ◆ **1990– 1992: Field Engineer,
Planergy International, Inc.,**

**LICENSES, CERTIFICATIONS,
AND AFFILIATIONS:**

- ◆ **Certified Energy Manager**
- ◆ **Member, National Environmental
Balancing Bureau**

EDUCATION:

- ◆ **B.S., Mechanical Engineering,
University of California, Irvine**

Mr. Anderson holds a B.S. degree in Engineering Operations and serves as NO RESCO's Senior Project Developer. His background includes both project development and project management assignments with particular emphasis on the application of cogeneration, combined heat and power, Web-based utility curtailment and demand response programs, SCADA systems, energy engineering and auditing, and building automation systems.

Before joining NO RESCO, Mr. Anderson was a Senior Project Manager for Chevron Energy Solutions where he was responsible for the delivery of major energy conservation and infrastructure improvement projects. His duties with Chevron required a significant understanding of the application and design of energy conservation measures, utility rebate programs, project development, project subcontracting, and project budget control.

Prior to working with Chevron, Mr. Anderson held Project Management, Project Development, Energy Engineering and Field Engineering positions with Planergy International. In his capacity at Planergy, Mr. Anderson worked with commercial, industrial, K-12 and secondary education, municipalities, and both state and federal government customers.

Mr. Anderson is the founding and former president of the Kansas City chapter of the Association of Energy Engineers. He is a member of the National Environmental Balancing Bureau and a Certified Energy Manager.

KEVIN W.C. AU, P.E. PROJECT DEVELOPER

LICENSES, CERTIFICATIONS, & AFFILIATIONS:

- ◆ **Registered Professional Engineer: Hawaii**
- ◆ **Certified Six-Sigma Green-Belt, Honolulu, Hawaii**
- ◆ **Total Quality Management (TQM), Honolulu, Hawaii**
- ◆ **Energy Auditor Training Class, Honolulu, Hawaii**

EDUCATION:

- ◆ **B.S. Mechanical Engineering, University of Hawaii**

Kevin Au, P.E., is a Senior Project Developer with NORESKO. Mr. Au is responsible for project team management and coordination during the development of energy savings performance contracts (ESPC) projects. His previous experience includes:

- At Honeywell International Automation & Control Systems, Honolulu, Hawaii, where he worked as a Performance Contracting Engineer for the Hawaii District and most recently for the Federal Government Team, his duties involved the development of energy efficient technical solutions in mechanical, plumbing and lighting systems to existing buildings. Specifically, his responsibilities included field surveying, energy measurements, data collection using data loggers, energy analysis and modeling, utility billing analysis, hiring personnel, and managing design consultant efforts, and coordination of all solutions to be offered. He also served as the Project Manager for the most recent task order with Hickam Air Force Base, and was responsible for the successful implementation and execution of this project.
- For the United States Navy - Public Works Center, Pearl Harbor, Hawaii, his primary responsibilities revolved around preparation of design and construction documents for mechanical systems such as, air conditioning, ventilation, plumbing, fire protection, utilities and other mechanical systems. His additional duties included management of projects in both the design and construction phases with emphasis on time and cost parameters.
- At M&E Pacific, Inc., Honolulu, Hawaii, he was responsible for the management of various capital improvement projects at the Honolulu International Airport. His duties included planning project scope, management of design, and coordination of various projects at the Honolulu airport.
- Mechanical Engineers of Hawaii Corporation, Honolulu, Hawaii, he worked as a designer of mechanical systems for existing, new building and facility construction. These systems included air conditioning, industrial ventilation, fire protection, plumbing, water heating, and energy auditing.

Before joining NORESKO, Mr. Au worked as a performance contracting engineer for an automation and control systems company in Honolulu.

WADE M. CARLETON
VICE PRESIDENT,
CONSTRUCTION &
ENGINEERING

PROFESSIONAL EXPERIENCE:

- ◆ 1998– Present, Vice President Construction & Engineering, NORESKO, Westborough, MA.
- ◆ 1996–1998, Regional Director, NORESKO, Rochester, NY
- ◆ 1995– 1996, Manager of Construction and Engineering, NORESKO, Rochester, NY
- ◆ 1994– 1995, Senior Project Manager, NORESKO, Framingham, MA
- ◆ 1990– 1994, Project Manager, KENETECH Energy Management, Inc., Burlington, MA
- ◆ 1986– 1990, Sr. Project Engineer/Project Manager, Engineered Systems, Inc., Hampton, NH

EDUCATION:

- ◆ BS, Mechanical Engineering Technology (BSMET), University of Maine, Orono, 1985
- ◆ AS, Mechanical Engineering Technology (ASMET), University of Maine, Orono, 1983

Mr. Carleton has 17 years of experience as project manager for more than \$100 million of energy savings performance-based projects. A NORESKO team member since 1994, Mr. Carleton is responsible for a large number of successful projects.

Mr. Carleton reviews technical and contractual issues and oversees project management, scheduling, construction progress, project start-up, and financial planning. He has worked closely with consulting engineers to develop suitable energy conservation projects for customers and utility companies.

Mr. Carleton's experience includes:

Project Manager in charge, John O. Pastore Center, Cranston RI—\$27.5 million new central plant project including the following technologies: 8 megawatts of gas turbine generation, two HRSGs, 4 megawatts of steam turbines, 200,000 lb/hr boiler capacity at 400 psig low NO_x, air permitting, and complete high voltage electrical switchgear and interconnects.

Project Manager in charge, University of Massachusetts Medical Center, Worcester, MA—\$23 million central plant and cogeneration plant project including the following technologies: new boiler plant addition, two 1,100 psig boilers at 110,000 lb/hr each, low NO_x, 5 megawatt back pressure steam turbine, 5,000 ton steam driven chiller, and complete high voltage electrical switchgear substation and interconnects.

Mr. Carleton was responsible for the Rochester office operations and the implementation of a 10 MW demand-side management program for Rochester Gas and Electric. He led a team of sales engineers, engineers, and project managers through project identification, development, design and construction. Contracts completed under this program included University of Rochester, Bausch & Lomb, and Strong Memorial Hospital.

RANDALL R. CLARK VICE PRESIDENT AND GENERAL MANAGER

PROFESSIONAL EXPERIENCE:

- ◆ **2006–Present: Vice President and General Manager, NORESCO, Richmond, VA**
- ◆ **2005– 2006: Vice President, NORESCO, Richmond, VA**
- ◆ **2001– 2005: Director, Business Development, NORESCO, Pittsburgh, PA**
- ◆ **2000– 2001: Regional Manager, NORESCO, Pittsburgh, PA**
- ◆ **1998– 2000: Project Developer, NORESCO, Pittsburgh, PA**
- ◆ **1997– 1998: Project Manager, ERI Services, Pittsburgh, PA**
- ◆ **1997–1997: Sales Engineer, ERI Services, Pittsburgh, PA**
- ◆ **1994– 1997: Sales Manager, Alon Surface Technologies, Pittsburgh, PA**
- ◆ **1992– 1994: Project/Sales Engineer, EURENCO, Pittsburgh,**

LICENSES, CERTIFICATIONS, AND AFFILIATIONS:

- ◆ **EPA GreenLights Surveyor Ally**

EDUCATION:

- ◆ **BS, Mechanical Engineering, Pennsylvania State University, 1991**
- ◆ **MBA, Joseph Katz Graduate School of Business, University of Pittsburgh, 1999**

As General Manager, Mr. Clark has complete operational responsibility for NORESCO's Performance Contracting efforts across the United States, covering more than 80 individuals in seven offices. As Vice President, he is directly responsible for managing the business development activities for NORESCO's performance contracting business. Mr. Clark's primary concern is the refinement of the overall financial product, overseeing the development of the financial package for each facility. He is also closely involved with a project's construction and engineering to ensure its overall quality and integrity.

Mr. Clark has 11 years of experience in the energy services industry and has been part of the NORESCO team for nine years. Prior to Mr. Clark's appointment as Vice President, he managed all functions associated with performance contracting in NORESCO's Pittsburgh Office. His responsibilities included project development, engineering, project management, and measurement and verification.

He has been responsible for several projects including: Duquesne University, Pittsburgh Public Schools, Allegheny County, Westmoreland County, Fairfax County, Fairfax County Public Schools, Pittsford Central School District, East Irondequoit Central School District, Gannon University, Pfeiffer University, SCI Camp Hill, Bayer AG Corporation, and numerous other PA, NY, VA, OH and NJ customers.

Before joining NORESCO, Mr. Clark was employed by a company that produced high temperature corrosion-resistant coatings for the sulfuric acid, refining, steel, chemical/petrochemical, and cement industries. In this capacity he evaluated service environments to select the most beneficial coating chemistry to prevent the corrosion mechanisms present. In addition, he was responsible for the procurement of raw materials and management of sub-contractors in order to provide a turnkey product to the customer.

Mr. Clark also brings two years of experience as a sales/project engineer working for an energy efficiency consulting firm. While there, he specialized in the delivery of energy audits as part of the Department of Energy's Technical Assistance Program.

**RICHARD P. ELLIS,
P.E., C.E.M.
DIRECTOR OF WESTERN
REGION OPERATIONS**

PROFESSIONAL EXPERIENCE:

- ◆ **2005–Present: Director of Western Region Operations, NORESKO**
- ◆ **2004–2005: Director of Construction Services, NORESKO**
- ◆ **2001–2004: Vice President, Engineering and Construction, American Energy**
- ◆ **1996–2001: Director of Project Management, Semptra Energy Solutions, Western Region**
- ◆ **1973–1996: Project Manager, Bechtel Corporation, Norwalk, CA**

**LICENSES, CERTIFICATIONS,
AND AFFILIATIONS:**

- ◆ **Professional Engineer, Mechanical, State of California**
- ◆ **Certified Energy Manager, Association of Energy Engineers**
- ◆ **General Contractor–“A” License, State of California (RME for NORESKO)**
- ◆ **General Contractor–State of Arizona (QP for NORESKO)**

EDUCATION:

- ◆ **BS Aerospace Engineering, Northrop Institute of Technology**
- ◆ **MS Engineering, California State University, Long Beach**
- ◆ **MBA, Pepperdine University**

Mr. Ellis has direct experience and completed projects in the State of California for Riverside Community College District, Newport Mesa Unified School District, Montebello Unified School District, Santa Ana Unified School District, Redondo Unified School District, Rocklin Unified School District and Sherman Indian School.

As the Director of NORESKO's Western Region, Mr. Ellis is responsible for the sales, development, and implementation of all projects. He is directly responsible for the quality of the work and customer satisfaction. Mr. Ellis has a staff of highly trained engineers and construction managers who report to him and are assigned to specific NORESKO projects.

Before joining NORESKO, Mr. Ellis was Vice President of Engineering and Construction for American Energy. While at American Energy Mr. Ellis was responsible for the design and installation of a 4.2 MW cogeneration plant, which was installed in PG&E territory. He served as the client project manager. Additionally, Mr. Ellis managed the lighting retrofit projects with American Energy's warehouse distribution and office building clients and performed a variety of energy audits.

Prior to that Mr. Ellis was the Western Region Director of Project Management for Semptra Energy. During his years at Semptra Mr. Ellis managed the engineering and construction of energy retrofit projects that included large scale lighting retrofit projects at schools and government facilities, central plant retrofits, roof top package unit retrofits, boiler retrofits, and other energy conservation retrofit projects including the evaluation of on-site generation. The clients for these projects included hospitals, K- 12 education, manufacturing plants, correctional institutions, military bases, and office buildings.

Before joining Semptra, Mr. Ellis was a Project Manager with the Bechtel Corporation. During his many years with Bechtel, Mr. Ellis worked as a Plant Design Engineer, Engineering Supervisor, Project Engineer, and Project Manager. As a Project Engineer he was responsible for quality, budget, and schedule of the project's multi-discipline engineering team. He coordinated with the client to establish the scope of work, schedule, and budgets. As a Project Manager, Mr. Ellis was responsible for each project's overall schedule and cost performance, selection of contractors, and construction management. He was directly responsible to the client for project quality and execution.

JAY JOHNSON SENIOR ACCOUNT EXECUTIVE

PROFESSIONAL EXPERIENCE:

- ◆ 2006 – Present: Senior Account Executive, NORESKO
- ◆ 2002 – 2006: Business Development Manager, APS Energy Services, Phoenix, AZ
- ◆ 1999 – 2002: Area Manager, CMS Viron Energy Services
- ◆ 1978 – 1999: Sales Director, Manager, Sales, Honeywell International

LICENSES, CERTIFICATIONS, AND AFFILIATIONS:

- ◆ Certified Energy Commodity Purchasing Agent
- ◆ Member, Nevada Renewable Energy Task Force
- ◆ Member, Rebuild America
- ◆ Member, Energy Services Coalition

EDUCATION:

- ◆ BS Marketing, Arizona State University (1977)

As Senior Account Executive for NORESKO, Mr. Johnson's primary responsibility is to help clients implement energy efficiency and modernization programs. He has extensive experience identifying the customer's technical, legal, administrative, and financial objectives. He leads teams tasked with developing customized solutions that meet or exceed mutually agreed objectives. He coordinates activities between the NORESKO team members, the multiple levels of decision makers in the customer's organization, and any third parties involved in the development of a comprehensive solution.

Mr. Johnson has worked on projects that included combined heat and power, biomass heating plants, fire and security systems, medical equipment, lighting upgrades, automatic controls, boiler replacements, chiller plant replacements, district heating and cooling, water conservation, renewable energy, and many other facility modifications.

Mr. Johnson has worked on many projects in the State of Nevada, including:

- Northern Nevada Correctional Center, Carson City
- Western Nevada Community College, Carson City
- Pershing County School District, Lovelock
- White Pine County School District, Ely
- City of Carson City, State of Nevada Capitol Complex, Carson City
- Department of Health and Human Services, Las Vegas
- University Medical Center, Las Vegas

Mr. Johnson has more than 30 years of experience in energy conservation/efficiency programs and in the HVAC industry, and 22 years of experience in energy services performance contracting with a strong emphasis on energy-related equipment modernization.

SCOTT JUDSON MANAGER PERFORMANCE ENGINEERING

PROFESSIONAL EXPERIENCE:

- ◆ 2003 – Present: Manager, Performance Engineering, NORESKO
- ◆ 2000 – 2003: Manager, Measurement and Verification, NORESKO
- ◆ 1998 – 2000: Project Manager, Duke Solutions, Boston, MA
- ◆ 1997 – 1998: Senior Engineer, ERI Services, Boston, MA
- ◆ 1992 – 1997: Project Manager, Savage Engineering, Bloomfield, CT
- ◆ 1989 – 1992: Energy Engineer, Puget Energy Services, Inc., Ashland, MA
- ◆ 1988 – 1989: Project Engineer, Applied Resources Group, Brookline, MA

LICENSES, CERTIFICATIONS, AND AFFILIATIONS:

- ◆ Registered Professional Engineer Connecticut
- ◆ Certified Measurement & Verification Professional

EDUCATION:

- ◆ B.S., Mechanical Engineering, Rensselaer Polytechnic Institute

Mr. Judson oversees NORESKO's measurement and verification (M&V) activities, including development of detailed M&V plans, performance verification during construction, and ongoing M&V activities. He has developed measurement and verification plans for more than 40 energy performance contracting (ESPC) projects, and is responsible for more than \$50 million in annual savings guarantees. Mr. Judson is NORESKO's technical liaison to the Federal ESPC Steering Committees Quality Assurance and Improvement Working Group. His experience includes:

- Developing M&V methodologies for renewable energy projects. Oversaw post-installation and annual performance verification activities for more than 800 kW of photovoltaic arrays and more than 4 MW of wind turbine generators.
- Developing detailed M&V plans incorporating continuous monitoring of HVAC and dehumidification systems serving environmental chambers at an industrial facility.
- Developing of the detailed measurement and verification plan for a 40 MW cogeneration system providing electricity and steam to a military base.
- Developing standardized, statistically valid sampling methodologies for lighting fixture wattage and operating hour measurements, sanitary water fixture flow rates, and motor load measurements.

Prior to joining NORESKO, Mr. Judson provided measurement and verification and energy efficiency consulting services to utility, industrial, and commercial clients, including

- Impact evaluations for New England Electric's DSM programs targeting energy efficient motors and process cooling systems, including short-term metering, whole building electric load analysis, and on-site inspections
- Feasibility studies for comprehensive sub-metering of electricity, steam, chilled water, and natural gas for universities and medical schools. Benefits analyzed included better allocation of utility costs, and improved utility system planning.

M&V plans for projects implemented under PacifiCorp's Industrial FinAnswer Program, including refrigeration controls, lumber kiln variable speed fan controls, and air compressor controls.

JOSEPH L. LANGER PROJECT MANAGER

EDUCATION

- ◆ B.S.O.E., with a Specialization in Management, Wayland Baptist University
- ◆ Grounding and Electrical Protection Training
- ◆ Steam Trap Examiner Level I Training

Joseph L. Langer is a Project Manager with NORESO. Mr. Langer has been working in the operations and maintenance field since 1982. He has negotiated and executed various subcontracts, and worked side-by-side with local and national subcontractors in developing scopes of work, best maintenance practices, and detailed preventative maintenance plans for specific project sites. His recent experience includes:

- For Marine Corps Base Hawaii, Kaneohe Bay, Hawaii, he supervises subcontractors in their maintenance and repair of all equipment associated with hot water decentralization for the Base including, three large source heat pumps, five small source heat pumps, eight hot water tanks, two Burnham 40-hp boilers, three Raypak boilers, several hot water mixing valves, and other various equipment.
- For Hawaii Health Systems Corporation (HHSC), he supervises the subcontractors in the maintenance and repairs of the ESPC projects for Kona Community Hospital, Hilo Medical Center, Kauai Veterans Medical Center, and Maluhia Hospital. These projects include energy conservation measures (ECMs) such as cogeneration, chiller plant retrofits, lighting retrofits, water conservation, and energy management systems.
- He assists the measurement and verification (M&V) group in ensuring cost savings are consistently met at all Hawaii sites through onsite validations and reports all findings.
- Prior to joining NORESO, Mr. Langer spent 23 years of service in the U.S. Navy working as a shipboard engineer specializing in the operation and maintenance of gas turbine main propulsion engines, gas turbine and diesel electrical power plants, waste heat boilers, air plants, chillers and the operation and maintenance of all shipboard support systems.
- At San Diego State University, Mr. Sclafani completed his Master's thesis on the subject of combined cooling heat and power system selection methodology for variable and non-coincident loading.

JAY McCARROLL MANAGER, PROJECT DEVELOPMENT

PROFESSIONAL EXPERIENCE:

- ◆ 2006 – Present, Manger-Project Development, NORESO, Cary, NC
- ◆ 1999 – 2006, Manager, APS Energy Services
- ◆ 1997 – 1999, Sr. Program Developer, Arizona Public Service
- ◆ 1991 – 1997, Demand Side Planner, Arizona Public Service
- ◆ 1986 – 1991, System Resource Planner, Arizona Public Service

LICENSES, CERTIFICATIONS, AND AFFILIATIONS:

- ◆ Illuminating Engineering Society (IES)
- ◆ National Association of Building Owners and Managers (BOMA)
- ◆ Arizona Small Business Association (ASBA)
- ◆ WPMA, Western Petroleum Marketers Association (WPMA)

EDUCATION:

- ◆ BS, Electrical Engineering, Purdue University (1986)

Mr. McCarroll has more than 20 years experience in the energy industry. He has sold and managed the implementation of energy audits, feasibility studies, and implementation agreements on many facilities including schools, hospitals, colleges, government buildings, and industrial facilities.

As Manager of Project Development, Mr. McCarroll is responsible for the analysis and development of the financial proposal consisting of energy-efficient products and services that include investment grade energy auditing and analyses, equipment specification, financial analysis, contract administration and securing third-party financing.

During his career, Mr. McCarroll managed a project development department that delivered more than \$150 million in performance contracts to clients in Arizona, California, and Nevada during a five-year period.

He has extensive experience in all aspects of load shape analysis, marketing, business development, operations and applied economics. His responsibilities also included developing, analyzing and evaluating marketing/DSM programs for commercial & residential markets.

BOB RADOMSKI **WEST COAST** **GROUP DIRECTOR**

PROFESSIONAL EXPERIENCE:

- ◆ **2006 – Present, West Coast Group Director, NORESKO**
- ◆ **2000 – 2006, Managing Director, Energy Services, APS Energy Services, Phoenix, AZ**
- ◆ **1997 – 2000, National Accounts Director and Alliance Director, PG&E Energy Services**
- ◆ **1984 – 1997, Director, Wholesale Marketing, Project Manager, Major Accounts Director, Sierra Pacific Power Company**
- ◆ **1979 – 1984, Accounting Manager, Crude Oil Supply, Plateau Inc., Albuquerque, NM**

LICENSES, CERTIFICATIONS, & AFFILIATIONS:

- ◆ **Certified Management Accountant**

EDUCATION:

- ◆ **MBA, University of New Mexico**
- ◆ **BA in Accounting, University of New Mexico**

Mr. Radomski has a working knowledge in all aspects of the energy business including commodity, value-added services, project management, and financing of projects. This knowledge was gained through more than 20 years in the energy industry where he was also responsible for commodity and value-added services for national accounts. Additional responsibilities included developing and setting program strategy, overall program management and reporting, direct project delivery, and purchasing and installation.

Mr. Radomski also had the opportunity to participate in the creation of an energy services company, e-three, and perform various tasks associated with the delivery of energy projects. These projects included the University of Nevada-Reno, the Post Office in Washoe County, Altras Transmission Line, and Tuscaroa Natural Gas Pipeline. Participating in the buying and selling of physical power products, negotiating long term power contracts, transmission and interconnection agreements provided Mr. Radomski with the skills necessary to negotiate and deliver shaped energy products to clients.

ANTHONY SCLAFANI ENERGY ENGINEER

PROFESSIONAL EXPERIENCE:

- ◆ **May 2007 – Present: Energy Engineer, NORESO, Irvine, CA**
- ◆ **July 2006 – 2007: Energy Engineer, Pacific Region CHP Application Center, San Diego, CA**
- ◆ **January 2006 – 2007: Graduate Research Assistant/Energy Engineer, Industrial Assessment Center, San Diego, CA**
- ◆ **October 2004 – June 2005: Undergraduate Research Assistant, Sierra Nevada College, Incline Village, NV**

LICENSES, CERTIFICATIONS, & AFFILIATIONS:

- ◆ **PE Candidate: Passed NCEES Fundamentals of Engineering Exam, 2005**

EDUCATION:

- ◆ **M.S. Mechanical Engineering, San Diego State University**
- ◆ **B.S. Mechanical Engineering, Milwaukee School of Engineering**

Mr. Sclafani is responsible for providing technical assistance for all aspects of NORESO energy projects, including financial analysis, and cost estimating. He performs energy audits of facilities, identification of energy conservation opportunities, and calculation of energy savings using various methods and tools. In addition to these responsibilities, Mr. Sclafani manages consultants and subcontractors, as well as assisting in the preparation of sales proposals and presentations.

Mr. Sclafani has extensive experience performing feasibility studies for industrial, commercial, housing, and educational facilities & authoring recommendation reports. As a graduate research assistant at the Industrial Assessment Center (IAC), he participated in Department of Energy-sponsored on-site energy assessments, collaborated on assessment reports, and represented the IAC at public conferences.

As a research assistant at Sierra Nevada College, Mr. Sclafani selected, optimized, and implemented a cogeneration system for the Department of Energy-sponsored Intelligent Workplace at Carnegie Mellon University.

At San Diego State University, Mr. Sclafani completed his Master's thesis on the subject of combined cooling heat and power system selection methodology for variable and non-coincident loading.

WILLIAM J. TRAVERS

SENIOR PROJECT DEVELOPER

PROFESSIONAL EXPERIENCE:

- ◆ 2006 – Present: Senior Project Developer, NORESKO, Phoenix, AZ
- ◆ 2003 – 2006, Project Development Manager, APS Energy Services, Phoenix, AZ
- ◆ 2001 – 2003, Senior Project Manager, Clark Engineers, Phoenix, AZ
- ◆ 1997 – 2001, Project Developer, Enron Energy Services, Phoenix, AZ
- ◆ 1992 – 1997, Senior Energy Engineer, The Bentley Company, San Ramon, CA
- ◆ 1990 – 1992, Electrical Engineer, ABB Impell Corporation, San Ramon, CA

LICENSES, CERTIFICATIONS, AND AFFILIATIONS:

- ◆ Professional Electrical Engineer – Arizona, California
- ◆ Leadership in Energy and Environmental Design Accredited Professional (LEED AP), U.S. Green Building Council
- ◆ Certified Measurement and Verification Professional (CMVP), Association of Energy Engineers
- ◆ Lighting Certified (LC), National Council on Qualifications for the Lighting Professions
- ◆ Illuminating Engineering Society of North America (IESNA), Arizona Chapter – Past Vice President, Board of Managers and Coordinator of Education Classes

EDUCATION

- ◆ BS, Electrical Engineering, Arizona State University, 1989

Mr. Travers is responsible for the development of energy conservation and renewable energy projects. His responsibilities include technical analysis, conceptual design, permitting, and contract negotiation for a variety of projects including: HVAC/central plant upgrades, controls, electrical/lighting upgrades, renewable energy systems, water system modifications, landscaping, trash compaction, utility rate analysis and modifications, and general capital projects/tenant improvements. Mr. Travers has developed over \$100M of energy conservation and renewable energy projects over the past ten years, including \$20M of projects in Nevada during the past three years. Highlights of this experience include:

- Development of a 1 MW biomass cogeneration plant at a Nevada correctional facility.
- Project development for comprehensive energy and water conservation programs at Nevada K-12 school districts, community colleges and correctional facilities.
- Project management for comprehensive energy conservation and renewable energy (solar, waste-to-energy) projects for municipalities in Arizona, California and Nevada.
- Securing of federal grants, utility rebates and other incentives totaling more than \$1 million.

Mr. Travers has developed energy projects both nationally and internationally. This has included the development and application of energy efficient technologies for projects in Malaysia, Thailand and Jamaica. Additional project work has included electrical design and preparation of drawings, specifications, and detailed budget packages for a variety of projects. Additional relevant project experience includes:

- Department of Energy SuperESPC Program, Western Region
- University of California/California State University System (multiple campuses)
- California Energy Commission - Bright Schools Partnership and Institutional Conservation Programs
- Department of Energy SAVEnergy Audit Program
- PG&E Consultant Matrix: Analysis, Design and Implementation Assistance for Energy Conservation Projects.

CHARLES E. WHEELER, P.E. DIRECTOR, ENERGY ENGINEERING

PROFESSIONAL EXPERIENCE:

- ◆ **1998–Present: Director, Energy Engineering, NORESCO**
- ◆ **1990–1998: Principal Engineer, All Energy Marketing Co. (NEES), Waltham, MA & New England Electric System (NEES), Westborough, MA**
- ◆ **1983–1990: Mechanical Engineer (Facilities), GTE, Needham, MA**
- ◆ **1981–1983: Mechanical Engineer, Stone & Webster, Boston, MA**

LICENSES, CERTIFICATIONS, AND AFFILIATIONS:

- ◆ **Registered Mechanical Engineer, Commonwealth of Massachusetts and State of New Hampshire**
- ◆ **Professional Member, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)**
- ◆ **Member, Association of Facilities Engineers (AFE)**

EDUCATION:

- ◆ **BS, Mechanical Engineering, Wentworth Institute of Technology, 1981**
- ◆ **Certificate, Facilities Management, Northeastern University, 1988**

Mr. Wheeler has 20 years of experience providing project management, engineering analysis, and design services for energy and utility projects. He has a particular expertise in the design and construction of HVAC systems.

Mr. Wheeler is responsible for the development and delivery of energy-related services to customers. These services include design and build of HVAC systems, end use energy analysis, energy audits and studies, sub metering analysis and project management services involving HVAC and industrial mechanical processes.

Mr. Wheeler was the project manager for a \$13 million energy services project for the University of Massachusetts, Boston, which involved the installation of a new 70,000 MBH central boiler plant to serve the entire 1.7 million-square-foot campus. The project also included the upgrade of the facilities lighting, chilled water, and HVAC controls. The project will yield savings of approximately \$2 million.

Mr. Wheeler was the design engineer and project manager for a \$1.4 million energy conservation project for Cape Cod Community College in Barnstable, MA. The project included the installation of a 200 kW fuel cell, conversion of electric heat to a gas fired hydronic system, variable speed drives and an EMS.

Mr. Wheeler developed, designed, and managed the installation of a free cooling cycle for the 40-story high-rise office building at 60 State Street in Boston, MA. The project included the installation of a 1,000-ton plate and frame heat exchanger cross-connected to the chilled and condenser water piping. The project enabled the customer to shut off a 1,000-ton chiller and save considerable energy and demand.

Mr. Wheeler also designed and was the project manager on two large-scale projects involving the decentralization of heating systems for the Boston Housing Authority. Together these projects involve heating renovations to systems in more than 50 buildings with a project cost of \$15 million.

Prior to joining NORESCO, Mr. Wheeler was lead technical engineer for a \$100 million-a-year commercial and industrial energy conservation program at New England Electric System. He was responsible for engineering approval of subsidies to customers involving energy projects of up to \$4 million.

ROBERT YUNGK PROJECT MANAGER

Licenses, Certifications, & Affiliations:

- **U.S. Army Corps of Engineers,
Construction Quality Management
for Contractors**
- **Member: American Society of
Heating, Refrigeration, and Air
Conditioning Engineers
(ASHRAE)**

- Robert Yungk is a Project Manager with NORESO. Mr. Yungk has over 10 years of experience in mechanical construction and project management. He is responsible for the development of energy savings performance contract (ESPC) proposals, collects project development data, prepares response to comments for the Government, prepares project financials, project scheduling and tracking, performs project quality control, and provides project support as required. His recent experience includes:
- For Kona Community Hospital and Hilo Medical Center, he is responsible for all construction and operations activities at both of these NORESO project sites.
- Mr. Yungk's project management responsibilities have included the implementation of over \$9 million in construction of mechanical projects, ranging from air conditioning, plumbing, building management control systems, ventilation, and fire sprinkler systems. These projects included, working with the City and County of Honolulu, State of Hawaii, U.S. Army Corps of Engineers, U.S. Navy, Federal Bureau of Investigation, and private sector entities.
- Mr. Yungk has provided expertise in mechanical construction for large facility chiller plants, cooling tower systems, variable speed pumping systems, variable speed air handling systems, hot water systems, steam-generating boiler systems, energy management controls systems, and cogeneration plants.