

1992 – 2009

**Professional Engineer,
Private Practice**

1998-2009

**Engineering,
Research, and
Communications**

US Fuel Cell Council
Technical Director, Desert
Research Institute fuel cell
programs, due diligence
investigations and
consulting on fuel cell
technologies

1992-2009

R. P. Wichert, P. Eng.

Heating, ventilation, and air
conditioning design; water
source heat pump system
design; plumbing design;
mechanical shop design;
cogeneration design;
custom process design.

1976 – 1997

**Sacramento Municipal
Utility District**

1992 – 1997

**Advanced & Renewable
Technology Program
Supervisor**

Advanced & Renewable
Technology Development
Program, 1993 budget of
\$10.6 Million.

1990 – 1992

**Generation Planning
Supervisor**

New generation system
planning. Acquisition of
~1000 MW of new
generation. Advanced
Technologies Program,
hydroelectric planning,
cogeneration planning, and
natural gas forecasts.

1987 – 1990

**Mechanical Systems
Manager, Plant
Performance Manager,
Technical Support
Superintendent**

Power plant management,
engineering, and technical
support. ASNT TC-1A
certification as a Level II
Test Engineer. Crane
Inspector.

1976 – 1987

Power Plant Engineer

Robert P. Wichert, P.Eng., LEED AP

6342 Parkcreek Circle
Citrus Heights, California 95621
916-966 9060 FAX 916-966 9068
wichert@fuelcells.com

Summary of qualifications

Registered Professional Engineer in California (M021652) and Oregon (74040PE).

Full member of ASME, IEEE, NFPA and SAE. LEED Accredited Professional.

Engineer with expertise in electric power systems in California, HVAC, materials and failure analysis, system testing, performance monitoring and testing, fluid flow, metrology, uncertainty analysis, CAD, project management, economic analysis, CPM, Unix/Linux, piping, turbines, pumps, motors, compressors, chemical engineering, fire protection engineering, and systems engineering.

Preparation of bid documents; issuance and responses to RFPs, RFQs, and RFIs; contract preparation and negotiation; contract management.

Former Master's Degree Candidate in Communication Studies with emphasis in Mass Communications, Inter-Cultural Communications and Issue Management.

Former California Div. of Industrial Safety Certified Crane Inspector

Former ASNT TC-1A certified Level 2 Test Engineer with experience in system and component testing of mechanical, electrical, fluid, and vehicle systems

Over fifteen years of commercial power plant experience: System design, operations, and maintenance. Start-Up Engineering. Plant Performance. Mechanical Systems Engineering.

Education

University of California, San Diego

University of California, Berkeley

California State University, Sacramento, B.S.M.E.

California State University, Sacramento, Communication Studies

Professional experience

US Fuel Cell Council Management – Technical Director. Responsible for Working Groups, Task Forces, Focus Groups, and regulatory affairs for fuel cell technologies.

California electric power utility experience (SMUD): fuel cells, solar and PV applications, wind applications, renewable energy sales, advanced energy efficiency, resource demonstrations, economic analyses, project management, national and international technical transfer, energy procurements, national and international transportation regulatory affairs (DOT, FAA, TSA, United Nations, ICAO).

IEC Technical Committee 105 – Fuel Cells.

ISO Technical Committee 197 – Hydrogen.

National Fire Protection Association (NFPA) Power Plant Fire Protection Committee.

NFPA 853 Fuel Cell Installation Standard – Responsible Task Group Leader.

ASME PTC-50 Chairman – Fuel Cell Performance.

Society of Automotive Engineers Fuel Cell Standards Committee.

Desert Research Institute Research Associate in advanced energy programs including fuel cell applications in new markets.

Over ten years of mechanical systems design experience: HVAC, water loop piping, plumbing design, cogeneration, geothermal ground source heat pumps, forced air systems.

Personally responsible for the first Customer-Choice All-Renewable Electrical Energy Option in California – **SMUD Greenergy®**.

Energy resource procurements: cogeneration, advanced, and renewable – clean resources.

Ideation and development of fuel cells for uninterruptible power supply use in utility service.

Affiliations and Awards

California Alliance for Distributed Energy Resources (CADER) – Board Member

Chairman of ASME PTC 50

NFPA Power Plant Fire Protection Committee

ISO TC 197 Tech. Advisor

IEC TC 105 Tech. Advisor and Convener

IEEE P1547 Author (former)

PVUSA Steering Committee (former)

CSUS Alumni Award

California Utility Research Council (former)

NFPA 853 Task Group Leader

Santa Clara Demonstration (SMUD)