John R. Galat
Professional Engineer
719 Cinnabar Hills
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EDUCATION:

BEE, Power, University of Akron, Akron, Ohio
Graduate Studies: Oregon State System of Higher Education, Business Administration, Accounting and Finance; CEIR, Computer Analysis, Load Flow, Short Circuit & System Stability Studies; IBM: Computer Programming, Machine and Assembly Language

REGISTRATION and AFFILIATIONS:

CA: Professional Engineer, #6397
AZ: Electrical Engineer, #7981
WA: Electrical, #9719
IL: Professional Engineer, #62-27488
UT: Professional Engineer, #3695
HI: Electrical, #2857
OH: Professional Engineer, #28920
OR: Electrical, #5320
IN: Professional Engineer, #14675

Visiting Lecturer: University of California at Berkeley, CA; Occidental College, Pasadena, CA.

Institute of Electrical and Electronics Engineers (IEEE) Member of Power Engineering Group.

Authored "Direct Competition Between Regulated Public Utilities," published in Utility Regulation during Inflation.

QUALIFICATIONS

Mr. Galat's forty-year career in power engineering has included system planning and design for generation, transmission and distribution projects in Africa, Asia, Europe and South America as well as the United States and Canada. In addition to managing design and studies for systems of varied sizes and voltage levels, Mr. Galat has complete design and specification experience in standby emergency and auxiliary power systems, uninterruptible power supply systems, relay coordination and protection schemes, grounding, power conditioning, and equipment monitoring and control systems. He began his career with Portland General Electric Company as a System Planning Engineer, prior to assuming duties as System Reliability Manager. His entire career has been dedicated to the planning and design of economic and reliable electrical systems throughout the world.

TYPICAL ASSIGNMENTS

Pakistan Water and Power Development Authority
Prepared "Electrical Systems Planning Guide" and organized a system planning department for WAPDA, the government-owned utility in Pakistan. The length of assignment in Pakistan was 2 years.

California Men's Colony Electrical Study, Department of Corrections, San Luis Obispo, CA
Performed an engineering evaluation of the 12.47 kV and 4.16 kV electrical distribution systems. Reviewed condition of electrical equipment to determine recommendations for repairs, upgrades and improvements. Provided a detailed report of the study findings with recommendations and estimates for the work. Work included a review of several and various pieces of electrical equipment, a review of underground and overhead cable systems, preparation of load-flow, short-circuit and relay coordination studies, preparation of as-built updates of the electrical single line drawings, preparation of cost comparisons for distribution design options, and negotiations with the local utility (PG&E) for the purchase of the utility's substation and/or provision for a new 115 kV service. A problem associated with starting the existing diesel engine generator was also investigated and steps were recommended to rectify the problem.

Portland General Electric Company, Portland, Oregon
Performed a study to determine the proposed arrangement of the 208Y/120 V network serving Portland to best accommodate projected load growth.

Public Service Commission of Utah
Expert witness testimony for Public Service Commission of Utah in conjunction with a $125,000,000 rate increase hearing. Involved detailed analysis of power sales contracts between Utah Power and Light Company, Arizona Public Service Company, and Idaho Power Company. Assignment lasted approximately 6 months and resulted in the Commission awarding substantially less than the amount requested.

Correctional Institute for Men, Electrical Upgrade: Dept. of General Services, OPDM, Chino, CA
Provided primary and secondary upgrade of electrical distribution systems at this 3,500 acre facility, which includes a 25 MW cogeneration plant, 11 miles of overhead pole lines, 10 miles of underground circuits and more than 100 transformers.
California Public Utilities Commission

Electric Deregulation
Member of the Market-Mechanics Committee of the Competitive Power-Markets Working Group which was established to define the future organization and operation of the electric utility industry in California to meet the California Public Utilities Commission (CPUC) mandate for wholesale power marketing in the near future and later retail power marketing. Also a participant in the Pool Operations Subcommittee, the

Transmission Pricing Allocation and Rights Subcommittee and the Financial Settlements Issue Subcommittee.

Portland General Electric Company, Portland, Oregon
Performed a study to determine the cost and schedule to rebuild the distribution system in the east side of Portland, Oregon and to change the primary voltage level from 4.16 kV to 12.47 kV. About 50 square miles of the city, with approximately 500 MW of load was addressed in the study.

California Polytechnic State University, San Luis Obispo, California
Performed a study of the transition of the campus' power supply to transmission level voltage metering. Reviewed current energy usage and developed a long-term loading profile to meet future campus growth. Evaluated substation design alternatives that ranged from purchasing the existing utility substation to installing a new customer-owned substation. Interfaced with the local utility on technical, energy usage and economic issues. Prepared an analysis, and provided a recommendation that will save the campus over $15 million in energy costs over a 15 year period.

Northern Canada Power Commission -Yukon Territory
Performed a valuation study and actively participated in the negotiations for the purchase of the power systems serving 21 communities in the Yukon Territory. The study included three hydroelectric generating facilities and 21 other generating plants, in addition to the transmission and distribution systems.

California Polytechnic State University, San Luis Obispo, California
Managed the electrical distribution system design and construction to convert the major part of the campus to a new 12.47 kV system. Computer controlled motor-operated sectionalizing switches were installed to provide a self-healing (in the event of a fault) system utilizing built-in redundancy.

More than 100 expert witness assignments. Provided testimony in depositions, court appearances, state electrical utility regulatory agencies and before the Federal Electrical Regulatory Commission (FERC).