GARY D. TASSAINER, P.E.

PRINCIPAL/ELECTRICAL ENGINEER

EDUCATION

B.S., Electrical Engineering, Utah State University
Additional Studies, University of Utah

AFFILIATIONS

Institute of Electrical and Electronic Engineers, IEEE

REGISTRATION

Licensed Professional Engineer, Utah, Idaho, Arizona, California, New Mexico, Washington, Oregon

EXPERIENCE

1982 - Present	TASCO ENGINEERING, INC. Salt Lake City, Utah
1981 - 1985	MAYOR, PAYSON CITY Payson, Utah

REFERENCES

Dan Keefe	Keefe, King, & Bowman, PS 509-624-8988
John Harrington	Holland & Heart 801-595-7800
Margot Steadman	Attorney at Law 505-896-8734
Chris Hilen	Davis Wright Tremaine, LLP 415-276-1317

WORK EXPERIENCE

Summary:

Over thirty years experience in Engineering and Management. Engineering experience in the utility industry, communication and control industry, culinary water and wastewater treatment industry, construction, and the general industrial sector. Valuable experience in preparing evaluations of the feasibility of generation and co-generation projects. Engineering projects in substation design, transmission design, underground and overhead distribution system design, and general system analysis, i.e., power factor, load factor, and voltage correction. Served four years as Mayor of Payson, Utah and served on the Electrical Municipal Utility Boards of UMPA, ICPA, and UAMPS. Industrial and utility projects have included lighting, control, security systems, electrolytic process design, and underground distribution and transmission projects. Work in the communication and control industry has included telecommunication system design and analysis and Supervisory Control and Data Acquisition (SCADA) control systems.

Consultant/Forensic Expert:

280CCC: Mr. Tassainer was contacted by the 280CCC group in the Bay area in California. The group was formed from concerned citizens regarding Pacific Gas and Electric (PG&E) upgrading and installing high voltage power lines through residential areas. Of concern to the residents is the impact that the lines will have, including the possible long-term health affects from electromagnetic fields (EMF). Mr. Tassainer looked at possible routings, including overhead versus underground, as well as line configurations to determine which would have the least possible health affects to people living in the residential areas. Mr. Tassainer will serve as a lead witness for the 280CCC group concerning the routing for the lines and possible health consequences.

Philips & Lyon, P.L.C.: Suite was brought against the power company for a fatality resulting from an accident between an automobile and a high voltage switchgear. Mr. Tassainer was selected to perform expert investigation and witness regarding the pad mounted capacitor, high voltage switchgear, underground high voltage cable, methods of installation, equipment used, and rules and codes regarding the incident.

Keefe, King, & Bowman, P.S.: Suite was brought against the power company and sign company for injury sustained while changing a billboard sign. As a result of the contact, the plaintiff lost both arms, severe injury to his right leg, and partial quadriplegia from the contact and fall. Mr. Tassainer was selected as the lead witness and testified of NESC Code violations, alternative construction techniques at the same or reduced costs. Plaintiff was awarded $17.5M.

Sandy City, Utah: Sandy City has an ordinance that all new electrical lines shall be installed underground. Utah Power and Light Company (UP&L) a division of PacifiCorp refused to adhere to this ordinance. An ensuing disagreement of costs and substation placement led the Mayor and City Council to seek the services of an outside consultant to negotiate a resolution. UP&L estimated the underground cost of the particular section of transmission line to be in excess of Sixteen Million Dollars ($16,000,000). Our research on EMF Forces, property values and other alternatives on behalf of the City led to a negotiated settlement for a Sandy City contribution of Four Hundred Twenty Thousand Dollars ($420,000) on a partial project of $2.2 Million. The total project may be completed at a future date for the total cost of less than Six Million Dollars ($6,000,000). Our research of new techniques of underground cable installation and the latest technology in underground cable led to project savings.

Norton/Tesuque Transmission Line (Margot Steadman), Albuquerque, NM: The Public Service Company of New Mexico(PNM) was proposing a 138kV Transmission Line across a pristine area of New Mexico just north of Albuquerque. Two of the residents that purchased large acreage for the views sued to have the line installed underground or re-routed. Mr. Tassainer was selected as a consultant to the residents working with Margot Steadman, Attorney at Law in an effort to resolve the conflict. Recently PNM abandoned the project in favor of an alternative solution that was presented by Mr. Tassainer.

Ray, Quinney & Nebeker, Attorneys at Law, Salt Lake City, UT : Suit against Geneva Steel in a possibility of fraudulent claim against insurance company. Geneva Steel claims of extended damages to plant due to loss of commercial power from weather related cause. Selected as team leader and derived actual chain of events from frequency and load charts to determine cause and responsibility. Suit settled for less than one-sixth of claimed damages

Camas, WA: As an alternative to a 138kV overhead transmission line, the City of Camas hired Mr. Tassainer to evaluate other delivery systems and paths, including underground installation. After all factors were considered, Mr. Tassainer recommended that the City utilize underground transmission as the best alternative. The system was constructed using 1.5 miles of underground transmission line.

Highland City, UT: Utah Power and Light (UP&L), a division of PacifiCorp, has plans to install an overhead 138kV power system near an affluent residential district. A citizen group living in Highland City contracted Mr. Tassainer to evaluate and recommend alternative services, including underground installation. An alternative route was suggested as well as an underground solution.

Salt Lake County, UT: Salt Lake County has an ordinance requiring that electrical transmission lines be installed underground. Recently, Utah Power and Light (UP&L), a division of PacifiCorp, presented costs to do several underground transmission line projects. Salt Lake County utilized the services of Mr. Tassainer to review the costs and philosophy of the projects.

Engineering Manager:

Communications Systems: Serve as project manager on various communications/IT projects. These projects include both the design and installation of outside plant, including fiber systems. They also include central office engineering and design.

Design of Transmission/Distribution Lines (Underground and Overhead): Design of a Transmission Substation (230kV) addition for Arizona Public Service Company, design of a 138kV underground for Sandy City, Utah, the U.S. Army Corp of Engineers, design of Distribution Substations (69kV) for Salt River Project, Phoenix, Arizona; design of Distribution Substations and Transmission Lines for the City of St. George, Utah. Electrical design of Springville, St. George, and Payson City, Utah generation facilities. Conducted power factor studies for Payson City, and St. George, Utah which included a complete mapping of the City's power grid, selection of location and size for capacitor banks for power factor and voltage correction.

Energy Management Systems: Performed analysis on load following, as well as analyses of exporting excess power generation, for Payson City, Springville City, and Town of Hildale in Utah. Analysis included all sources of power, including small hydro and Western Area Power Administration (WAPA), into and out of the cities. Performed design and analysis of power generation versus PacifiCorp power allotment for the Town of Eagle Mountain, Utah. Performed analysis on 40 MW of generation for the City of Gallup, New Mexico.

SCADA Control System Design for Electric Utilities: Program Manager for supervised control and data acquisition (SCADA) control system design, including the SCADA system for the electrical systems for the Town of Eagle Mountain, City of Payson, and City of Springville in Utah. System design utilized Advanced Control Systems hardware, software, and database.

Design of Water and Wastewater Treatment Facilities and Control Systems: Led electrical design team on the design and primary electrical service, power distribution and electrical interface to all control and instrumentation equipment at numerous facilities including Joint Powers Water Board in Sweetwater county, Wyoming; Sandy, Utah; Saratoga Springs, Utah; Camas, Utah; Grants, New Mexico; Grantsville, Utah; Tooele, Utah; and Eagle Mountain, Utah. Supervised integration of system specific equipment power and controlled interface, SCADA systems for automated operation. System design utilized the latest hardware, software, and database techniques.

Design of Generation Facilities Plant Electrical and Control Systems: Two hydro-power plant designs; the design of a natural gas engine powered generation projects: Springville, St. George, Payson, and Hildale Generation Facilities. Design of the controlled power distribution system and general plant lighting systems for Mother Earth Industries geothermal power generation, including SCADA system. Participated in feasibility studies for Midwest Oil Refinery, Zion Securities, Intermountain Health Care, Iowa Beef, and Northern Arizona University for self generation or co-generation facilities.

Project Manager: on a $20.2 million generation and transmission project in Hildale, Utah; $5.4 million generation project in St. George, Utah; $7.3 million in Springville, Utah; $4.6 million in Payson, Utah; and $13.2 million in Lehi, Utah.

Electrical Utility Feasibility Studies: for City of Gallup, New Mexico; The Town of Eagle Mountain, Utah; Sandy City, Utah; Brady, Texas; St. Helens, Oregon; Coastal Oil and Gas, Denver, Colorado; Hildale, Utah; the Paiute Indian Tribe; Grants, New Mexico; Espanola, New Mexico; and Miami, Arizona.