



Waldemar S. Nelson and Company, Incorporated
Engineers

Data Centers

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WALDEMAR S. NELSON and COMPANY, INC.

WALDEMAR S. NELSON AND COMPANY, INC. is a full-service engineering, project management, and architectural firm with offices in New Orleans, Louisiana, and Houston, Texas. NELSON has served industry and the public sector on a broad range of projects worldwide since 1945.

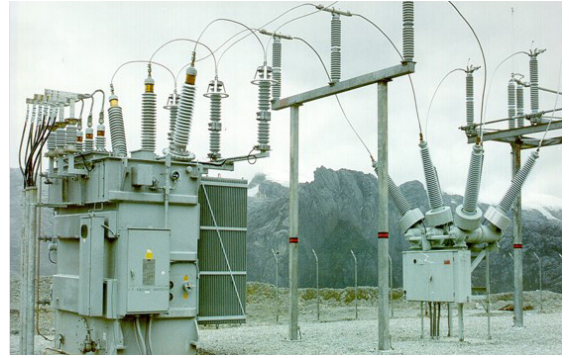
NELSON has extensive experience applicable to data centers and their requirements, as follows:

- NELSON has many years of experience in the design of very large HVAC systems for electrical equipment and computer rooms. Most of our deepwater facility projects included electrical buildings housing large VFDs which require very large air conditioning systems to dissipate the heat loads.
- NELSON has many years of experience in the design of large electrical distribution systems, many of which include power generation facilities interconnected with utility feeds for redundant power configurations.
- NELSON has many years of experience in the design of hardened industrial buildings, both offshore and onshore, designed for extreme wind loads, blast loads, fire exposure, etc.
- NELSON has many years of experience in designing computer/control buildings with raised floors and other unique wiring systems as required by the particular application.
- NELSON is licensed to perform engineering in more than 40 states, five Canadian jurisdictions, and two U.S. territories, and architecture in two states.
- NELSON is currently involved in the design of a power plant being constructed to supply power to a data center in Ohio. We are also actively involved with several equipment/construction firms in developing proposals for data center-related projects, such as power generation facilities and modularized cooling systems.



Areas of Expertise

- Co-generation
- Power Management System design experience including controlling power management between ASD systems mimicking synchronous generation, steam and gas turbine generation, electrical ties to other systems and ties to utilities. This will be critical for the hybrid systems described.
- Load Shed design experience
- Experience with solid state converter technology used on large Battery Energy Storage Systems (BESS) to convert DC from the batteries to the AC utilization voltage. We also published the attached award-winning paper. This can be critical to properly designing an electrical power system using conventional generation, utility ties and solid-state converters used with BESS.
- Field startup engineering assistance
- Factory Acceptance Testing (FAT) experience
- Transmission line and protective relay/coordination experience
- HDD installed transmission line and other conduit systems for improved reliability and increased Safety by Design. (see attached paper)
- Codes and standards development expertise and participation
- Load flow, short circuit, arc flash coordination electrical study expertise.

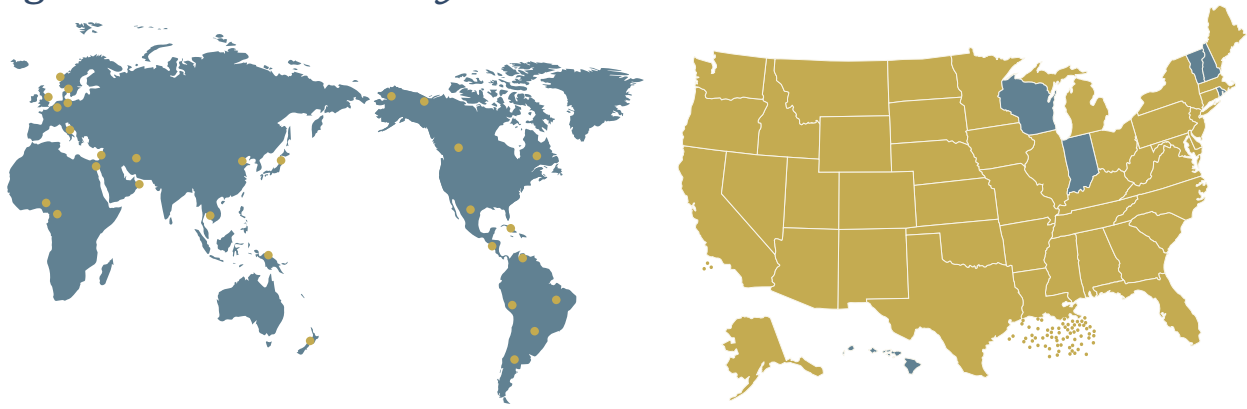


Additional Information (available on request)

1. "An Introduction to Horizontal Directional Drill Installation of High-Voltage Transmission Lines and other Duct Banks" by Arthur J. Smith III (Waldemar S. Nelson and Company, Inc.)
2. "A Safety Recap for Adjustable Speed Drives," by Arthur J. Smith, III (Waldemar S. Nelson and Company, Inc.) and Daniel R. Doan (DuPont Engineering)
3. "Successful Start-up and Operation of GE Frame 9E Gas Turbine Refrigerant Strings," (LNG-16) by Steven Judd (ExxonMobil Development Company), Roy Salisbury (Qatargas Operating Limited), Peter Rasmussen (ExxonMobil Upstream Research Company), Paolo Battagli (GE Oil and Gas), Darrell Mosier (RasGas Company Limited), Arthur Smith, III (Waldemar S. Nelson and Company, Inc.)

The LNG-16 paper describes some unique issues associated with solid state drives mimicking synchronous generators that would be applicable to the BESS systems creating power in parallel with rotating generators, other rotating equipment, utilities and other facilities.

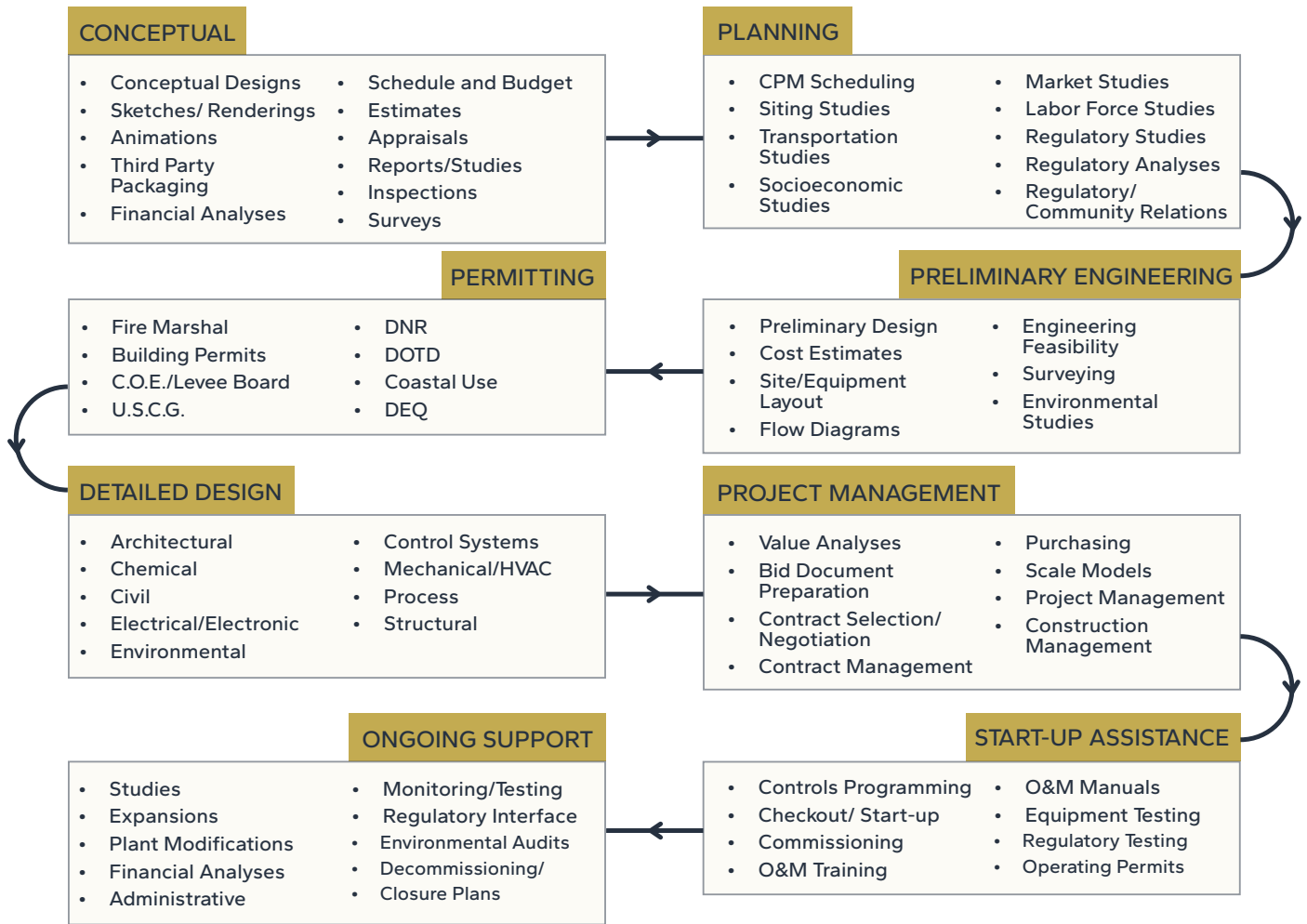
Serving our Clients Nationally and Worldwide since 1945



NELSON has provided professional services in more than 40 states and 60 countries.

All services are provided by locally registered engineers.

Our Process



2025 ENR Rankings

- #357 of Top 500 Design Firms**
- #134 of Top 225 International Design Firms**
- #49 of Top 50 in Oil and Gas**
- #16 of Top 25 in Refineries and Petrochemical Plants**
- #5 of Top 5 in Offshore and Underwater Facilities**
- #5 of Top 10 in Mining**



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