Job Title	Senior Electrical Engineer	Date	6/27/2024			
Department	Engineering	Manages Employees	□ Yes			
			⊠ No			
Reports To	Engineering Manager	FLSA Status (to be completed by HR)	<ul><li>☑ Exempt</li><li>☐ Non-Exempt</li></ul>			
Revision	Α					

### **Summary (Main Purpose)**

Under the direction of the Engineering Manager, the Senior Electrical Engineer oversees and leads the design of electrical control systems for safe, effective, and efficient operation of States Mfg. products and processes while meeting and exceeding company quality and production standards and customer documentation and delivery requirements.

#### Job Duties and Responsibilities (Essential Functions)

- Ideal candidate will have 10+ years overseeing, leading and designing electrical product control
  systems for LV and MV switchgear assemblies, developing and implementing engineering standards,
  complying with applicable codes and customer specifications within a project management structure to
  ensure workflow remains within schedule and budget requirements.
- Review and interpret customer specifications and sales agreements and provide direction to other engineers and designers.
- Ability to design and lead designs using AutoCAD Electrical tools and libraries.
- Improve the design process using standardized practices, tools and systems, improve the quality and productivity of the design and support process while reducing schedule and budget.
- Evaluate and select electrical/electronic components for control systems, switchgear, panelboards, control panels.
- Provide technical troubleshooting support for customers and field service personnel.
- Participate in cross-functional teams to address and resolve manufacturing, design and quality problems, and pursue continuous improvement of design and manufacturing and installation processes and methods.
- Provide training, author documentation, procedures and work instructions to mentor and grow the technical competencies of engineering teams.
- Support new product development initiatives by remaining up to date with new industry products, technologies and trends.
- Preserve and grow strong relationships with States Mfg suppliers, manufacturers and vendors.
- Provide onsite commercial and technical field support with up to 10% local regional daytrips to customers and suppliers, including a small number of occasional domestic trips.
- Follow all housekeeping procedures and rules, comply with all quality and safety regulations.
- Able to stand or sit for extended periods of time, and safely lift 40 lbs.

Required Skills and Experience (Minimum requirements in terms of educational background, work experience, licenses/certifications or other knowledge, skills, and abilities).

- Design and lead the design of multi-phase and DC switchgear, switchboards, panelboards in accordance with customer's functional requirements for LV and MV equipment.
- Support product assembly, manufacturing and testing.

- Provide project coordination and management for customer orders.
- Develop product/project quotes.
- Establish and maintain internal, customer, and supplier relationships.
- Proficient with Microsoft Office products, including Outlook, Excel, Word, PowerPoint.
- Proficient with AutoCAD Electrical.
- Proficient with electrical test equipment related to LV and MV products.

## Additional Skills and Experience (Preferred or helpful)

- BS in relevant engineering discipline.
- 10+ years of engineering and technical leadership experience.
- Proven ability in electrical power engineering discipline.
- Demonstrated ability to understand and have competencies across electrical, mechanical and software design and commissioning functions.
- Must be self-motivated, have good interpersonal skills, capable of analyzing and solving complex problems through collaboration, innovative thought and experience.
- Understands, or experience with SolidWorks PDM design tools, or equivalent, mechanical design environment.
- Commercial and design experience related to renewables, emerging energy markets, data centers battery systems, stored energy and charging stations a plus.

This description covers the primary purpose and principal duties of the job. It is not designed to be a complete list of all the duties and responsibilities required of this position. Duties, responsibilities, and activities may change at any time with or without notice.

# **Demands and Conditions Analysis: Senior Electrical Engineer**

## **Working Conditions**

The **essential functions** of this job involve the following working conditions. (Place an "**x**" in the appropriate box.)

C = Continuously 75%-100% of time
F = Frequently 50%-74% of time
O = Occasionally 10%-49% of time
R = Rarely 1%-9% of time
N = Never 0% of time

	С	F	0	R	N		С	F	0	R	N
Environmental						Physical Factors					
Works alone		Х				Sitting		Χ			
Works with others	Х					Standing		Х			
Customer contact		Х				Walking		Х			
Shift Work					Х	Bending/stooping		Х			
Extended Day			Х			Squatting/Kneeling		Х			
Keeping work pace/deadlines	Х					Crouching/Crawling			Х		
Performing repetitive tasks	Х					Twisting at waist		Х			
Noise (decibels) 91				Χ		Reaching above shoulders			Χ		
Vibration				Х		Reaching below knees				Х	
Abrupt temperature changes				Х		Lift/carry up to 40 lbs.		Х			
Heat (above 85 F)			Х			Push/pull to 100 (force)			Х		
Cold (below 65 F)				Х		Climbing ladders			Х		
Wetness				Χ		Climbing stairs			Χ		
Dampness				Χ		Sweeping/mopping				Χ	
Dryness				Х		Operating foot controls					Х
Odors & dusts				Χ		Manual Tasks					
Work with solvents					Х	Grasping with one hand	Х				
Work acids, bases					Х	Grasping with both hands	Х				
Work with oils					Х	Manipulating with one hand	Х				
Work with toxins					Х	Manipulating with two hands		Х			
Poor ventilation					Х	Handwritten communication		Х			
Fumes					Х	Using keyboard	Х				
Mechanical hazards			Х			Using hand tools		Х			
Electrical hazards			Х			Twisting/wringing			Х		
Sensory Tasks						Scrubbing/washing/				Х	
						polishing					
Seeing close (reading)	Х					Scraping				Χ	
Seeing far (observation)			Х			Equipment Operation					
Peripheral vision			Х			Driving car / light truck					Χ
Seeing colors			Χ			Driving heavy truck / van					Χ
Verbal communication	Х					Operating forklifts, stackers					Χ
Hearing speech		Х				Operating hoist equipment			Х		
Hearing mechanical sounds			Х			Operating shop machinery			Х		
Sensing odors					Χ	Operating power tools	Χ				
Sensing by touch					Х	Operating torch					Х