



**Southern Company Engineering Opportunities**  
**SWE full-time, co-op, and intern positions**

We are recruiting co-op, entry level and experienced engineers for career opportunities which includes Alabama, Georgia, and Illinois.

**JOB REQUIREMENTS:**

- Bachelor’s degree in Engineering in indicated discipline from an ABET accredited university
- Minimum GPA of 3.0 preferred (for student opportunities)
- Must be authorized to work in the US
- May be required to work extended work hours to aid in storm and/or outage restoration efforts
- Some roles require participation in the on-call trouble supervision rotation and must be available after business hours for local, out-of-town, and out-of-state trouble and storm restoration.

**KNOWLEDGE, SKILLS & ABILITIES:**

- Proven leadership skills
- Good oral/written communication skills and ability to work effectively with varied individuals (craft personnel, support staff, supervisory staff, and management) is a must
- Strong organizational, administrative, time management, project management, facilitation and analytical skills are must
- Knowledge and experience with personal computers and the ability to learn numerous software applications quickly
- Self-motivation and demonstrated initiative is crucial for this position
- Ability to interface with customers, vendors and contractors while representing the best interests of Southern Company

[Click Here to Apply](#)

**WE ARE RECRUITING CANDIDATES FOR THE FOLLOWING AREAS & LOCATIONS:**

<b>Business Group</b>	<b>Full-Time</b>	<b>Intern or Co-op</b>
<b>Generation Total (page 2)</b>	<b>2</b>	<b>2</b>
<i>Southern Nuclear</i>	2	2
<b>Power Delivery Total (page 3)</b>	<b>12</b>	<b>6</b>
<i>Alabama Power</i>	2	-
<i>Georgia Power</i>	10	6
<b>Southern Company Gas Total (page 4)</b>	<b>1</b>	<b>1</b>
<b>Southern Company Services Total (page 5)</b>	<b>8</b>	-
<i>Delivery</i>	2	-
<i>Technical and Project Solutions</i>	6	-
<b>Total</b>	<b>23</b>	<b>9</b>

## GENERATION

### Southern Nuclear

#### Engineering Intern/Co-op (2+ positions available)

Engineers within Southern Nuclear oversee the operations and maintenance of our nuclear plants including construction, design, plant performance monitoring, safety, reliability, troubleshooting, and project planning. They are part of the team ensuring current and newer nuclear technologies continue to be a source for clean, safe and reliable electricity. Design Engineers are responsible for the development, review and implementation of design modifications for Southern Nuclear.

#### Digital I&C Engineer - Plant Vogtle Units 3&4 (2 positions available)

Southern Nuclear Operating Company's Plant Vogtle 3&4 Site Engineering organization is seeking a high performing Digital I&C Engineer with an analytical mindset and strong technical and leadership skills to support commissioning and operation of the next generation nuclear power station. This position will be located at Southern Nuclear Company's Plant Vogtle in Waynesboro, Georgia

#### **Job Summary**

This position is assigned to the Construction Engineering organization in the I&C engineering group and is also supports Startup Engineering organization at the Vogtle 3&4 site. This position will provide technical leadership, guidance, and monitoring of the Vogtle 3&4 instrumentation and controls systems, as well as develop and support software and hardware changes to the station's digital control systems following turnover to operations from the constructor. The I&C Engineer will also be tasked with establishing processes necessary to ensure safe and reliable operation of the new units following construction. Upon successful completion of Engineering Systems training as well as obtaining Design Qualification, a Design Qualification Bonus (DQB) will be available to the Design Engineer.

#### **Job responsibilities**

- Obtain Design qualifications and support development and implementation of I&C design changes for Vogtle 3&4 and designs interfacing with the operating units Vogtle 1&2
- Provide technical support on processes, testing strategies, troubleshooting, functional checkout, and tuning/maintaining the I&C systems.
- Support development, implementation, and maintenance of programs, processes, and procedures as they relate to digital I&C systems
- Participate in industry groups (EPRI, IEEE, NEI, etc.) supporting digital I&C systems.

#### **Job Requirements**

- Bachelor of Science degree in Engineering from an ABET accredited college or university or a PE (Professional Engineer) license is required (Engineering Technology will not be accepted).
- Electrical Engineering or Computer Engineering degree strongly preferred
- EIT/FE or Professional Engineer Registration is desired
- Common Design Process knowledge highly desired
- Commercial nuclear power plant experience in I&C design, modifications, and/or systems engineering is desired
- Knowledge and understanding commercial nuclear power plant regulations, codes, and standards is desired
- 3 years engineering experience in I&C or equivalent design is desired.
- 3 years nuclear power plant related engineering experience is preferred
- Previous design change experience is desired

## POWER DELIVERY

### **Intern/Co-op**

Transmission Intern/Co-op (3 positions in GA)- Install, test, maintain, and troubleshoot relay protection schemes. Most of their time is spent in the field making sure the Transmission system performs as it is designed. This includes maintaining existing systems and leading construction projects to modernize protection schemes and substation equipment. They are also first responders to system abnormalities and play a key role in coordinating outage response.

Distribution Intern/Co-ops (3 positions in GA)- Design, estimate, and construct electrical distribution systems to meet the electricity demands of new and existing customers. Responsibilities include producing accurate estimates and construction drawings, managing all aspects of projects, identifying system improvement projects, assist in distribution system planning for growth and reliability, handling customer inquiries, other. Storm restoration duties are also required.

### **Transmission & Distribution Engineer**

Protection & Control Field Service Engineer (1 position in AL, 7 positions in GA)

Protection & Control Field Service Engineers are responsible for the installation, testing, maintenance, and troubleshooting of relay protection schemes. Most of their time is spent in the field making sure the Transmission system performs as it is designed. This includes maintaining existing systems and leading construction projects to modernize protection schemes and substation equipment. They are also first responders to system abnormalities and play a key role in coordinating outage response.

Distribution Engineers (1 position in AL, 3 positions in GA)

With customers at the center of everything they do distribution engineers plan, build, design, operate and maintain electrical systems that connect homes and businesses to the power grid. Their goals include providing reliable electricity in the most cost-effective way. Distribution Engineers are responsible for the design and management of area construction activities for capital and O&M projects. Responsibilities include developing and implementing distribution plans; identification, analysis, and resolution of problems in the Distribution design area; preparing cost estimates, correspondence, documentation, calculations, and sketches. Storm restoration duties are also required.

# positions available:

## SOUTHERN COMPANY GAS

### Design Engineers and Construction Operations

Interns are paired with engineering in the following areas and are offer meaningful projects to complete during their work term.

Design Engineers are responsible for assisting in the planning, design and development of technical standards for gas distribution infrastructure projects.

- BA/BS in Engineering (Mechanical or Civil)
- GIS – basic proficiency

Construction Inspector are responsible for ensuring our pipeline assets are constructed in a safe, quality, compliant and efficient manner.

- BA/BS Degree in Engineering (Mechanical or Civil) or Construction Management
- Valid Driver's License

Project Engineers are responsible for overseeing and supporting the construction of natural gas transmission and distribution facilities.

- BA/BS in Engineering (Mechanical or Civil)
- Project Management and GIS proficiency
- Engineer in Training (EIT) or Project Management Professional (PMP) preferred

## SOUTHERN COMPANY SERVICES

### Delivery

#### Transmission Planning Engineer (2 positions available)

This position will be responsible for coordinating and performing transmission planning studies on the Southern Company Bulk Power System either in support of Alabama Power and Mississippi Power local area planning OR under the provisions of the Open Access Transmission Tariff (OATT). Performing these transmission studies involves developing power-flow models of the transmission system, evaluating constraints using a variety of software tools, and developing proposed solutions with a study team. The engineers will work directly with operating company transmission, project management, and operations organizations to develop and gain consensus for cost-effective transmission solutions that meet NERC/SERC reliability requirements, state and federal regulations, operational flexibility needs, and Southern Company transmission planning criteria. These positions are part of a high performing team involved in addressing key issues affecting Southern Company's future and that of the electric utility industry.

#### **Job Responsibilities**

- Perform computer-modeled, power-flow studies for the bulk transmission system.
- Develop, coordinate, and outline innovative and cost-effective solutions to transmission system problems identified in analysis.
- Coordinate with multiple groups within SCS and the Operating Companies.
- Understand problems, solutions (including alternatives), and provide informative reports and presentations for various levels of corporate management related to any required system improvements
- Present study results to internal study teams and external customers.
- Some overnight travel may be required (< 20%).

#### **Job Requirements**

- Bachelor's degree from ABET-accredited institution in an engineering discipline is required (Electrical Engineering preferred).
- General Transmission Planning or Operations knowledge and related experience is a plus.
- Experience with substation design, transmission line design, protection and control applications, and transmission operations is a plus.
- Experience with transmission project estimating and scheduling is a plus.
- Prior exposure to PSS/E, MUST or TARA software and/or computer modeling of electrical power systems is desirable, but not required.
- Ability to identify process improvements strongly preferred.
- Working knowledge of programming languages (such as Python, C#, and Visual Basic.net) and/or visualization tools (e.g. PowerBI) is a plus.

## Technical and Project Solutions

### Control Design Engineer/Designer (1 position in GA)

This position is focused on the design of protection and control systems for Southern Company's transmission and distribution substations. The engineer/designer will provide engineering drawings, specifications, and material requirements for capital improvement projects with emphasis on safety, quality, schedule and costs.

### **Job Responsibilities**

- Make Safety our number one priority using a Safety First mentality and leading by example.
- Ability to design & understand protective relay & control schemes utilizing microprocessor-based relay systems in both new and existing substation projects
- Produce quality detailed design packages needed to construct new or modify existing controls schemes at substations.
- Ability to efficiently utilize CAD systems to provide engineering documents
- Ability to develop effective plans, establish goals, and monitor progress toward task completion
- Knowledge and technical understanding of operational purpose and application of substation equipment
- Majority of Protection & Control work is in an office environment with some day/overnight travel for site visits, meetings, conferences and training required with a priority emphasis on safety
- Provide Engineering support for the construction & commissioning of designs to the Transmission and Protection & Control Field Services group.
- Position will support Southern Company storm restoration efforts

### **Job Requirements**

#### *Education*

- BS Degree in Engineering or Engineering Technology (Electrical or Mechatronics preferred)

#### *Experience*

- Experience working with an electric power delivery control schemes is a plus.
- Substation protective relay testing experience along with control scheme testing and commissioning experience a strong plus
- Experience in transmission &/or distribution substation operations, power delivery, test engineering, and/or substation control design engineering a plus
- Experience working with document management & estimating systems is desirable
- AutoCAD Electrical experience is a plus

#### *Knowledge, Skills and Abilities*

- Must demonstrate excellent communication skills (oral & written) and the ability to communicate technical issues simply.
- Must be a self-starter and exhibit strong problem-solving skills.
- Strong computer skills including Microsoft Office applications (Word, Excel, etc.)
- Must work well in a team environment and be able to develop and build relationships at all levels.
- Must possess effective time management and organizational skills sufficient to manage multiple projects with various priorities and competing deadlines.
- Must demonstrate a customer focus with a willingness to meet the needs of our customers and solicit feedback.
- Knowledge of substation protection & control scheme operation is a plus.
- Experience providing solutions & value to customers

## Protection & Control Design Engineer/Designer (1 position in GA)

The Protection and Controls Design Engineer/Designer position is focused on the design of protection and control systems for Southern Company's transmission and distribution substations. The engineer will provide engineering drawings, specifications, and material requirements for capital improvement projects with emphasis on safety, quality, schedule, and costs.

### **Job Responsibilities**

- Ability to design protective relay & control schemes utilizing microprocessor based relay systems in both green and brown field projects
- Provide quality detailed design packages & engineering field support for construction and commissioning personnel
- Ability to efficiently utilize CAD systems to provide engineering documents
- Ability to develop effective plans, establish goals, and monitor progress toward task completion
- Knowledge and technical understanding of operational purpose and application of substation equipment
- Majority of Protection & Control work is in an office environment with some day/overnight travel for site visits, meetings, conferences and training required with a priority emphasis on safety
- Position will support Southern Company storm restoration efforts

### **Job Requirements**

#### *Education*

- BS Engineering Degree OR Engineering Technology degree (Electrical preferred)
- Electrical engineering courses that will be helpful in this position will include Power System Analysis, Circuits, Protective Relaying, Control Systems, Electric Machine Theory, and Symmetrical Components

#### *Experience*

- Substation protective relay testing experience along with control scheme testing and commissioning experience a strong plus
- Experience in transmission &/or distribution substation operations, power delivery, test engineering, and/or substation control design engineering a plus
- Experience working with document management & estimating systems is desirable
- AutoCAD experience is preferred

#### *Knowledge, Skills and Abilities*

- Understanding of substation protection & control scheme operation is preferred
- Strong computer, time management & excellent communication skills (oral & written) is required
- Knowledge of basic electrical power system theory is required

#### *Opportunities*

- Learn how a power system/utility operates and how substations are designed and built
- The ability to attend a variety of classes to aid in professional development. Many of these classes are designed for new designers to help them improve their skills and knowledge to be successful
- Work for a large electric utility that offers many opportunities for advancement

#### *Challenges*

- Working with technologies that range from the older electromechanical relays to modern microprocessor relays
- Supporting operations and construction functions to ensure a reliable, safe and secure power system
- Developing protection schemes that support the operation of an efficient & dependable power system
- Handling multiple projects simultaneously, setting priorities, and using effective time management and organizational skills to achieve project team goals

### Protection & Control Applications Engineer (3 positions in GA)

This position will perform protective relay calculations and coordination studies for Southern Company's transmission and distribution systems. This engineer will also perform engineering design and technical services for the specification, application and analysis of protective relaying, control and automation systems. The incumbent will provide technical expertise and support for design, construction, planning, marketing and customers regarding protection and control of Southern Company's transmission and distribution facilities.

#### **Job Responsibilities**

- Design protective relay & control schemes and develop protective relay settings to protect and monitor the performance of electric power system facilities (transmission lines, distribution lines, and substation equipment).
- Provide power system and protection engineering consulting services and technical assistance to other functional areas.
- Investigate root cause of abnormal power system operations.
- Review transmission system operations with emphasis on microprocessor relay event analysis.
- Majority of Protection & Control work is in an office environment with some travel for site visits, meetings, conferences and training required.

#### *Opportunities provided by this position:*

- Learning how a power system/utility operates and how substations are designed and built.
- Attending a variety of classes to aid in professional development. Many of these classes are designed for new engineers to help them improve their skills and knowledge to be successful.
- Working for a large electric utility that offers many opportunities for advancement.

#### *Selected candidate will have the chance to:*

- Work with technologies that range from the older electromechanical relays to modern microprocessor relays.
- Support operations and design functions to maintain a reliable, safe and secure power system.
- Develop protection schemes and providing relay settings for protecting the power system from short circuits and other abnormal conditions that might cause damage or interfere with the effective operation of the system.
- Handle multiple projects simultaneously, requiring the ability to set priorities and use effective time management and organizational skills.

#### **Job Requirements**

##### *Education:*

- Bachelor's degree in Engineering or Engineering Technology is strongly preferred
  - BS in Electrical Engineering is highly preferred
- Professional Engineer (P.E.) License or Engineer-in-Training Certificate or ability to obtain in 12 months is highly desirable

##### *Experience:*

- Experience performing protective relay calculations and coordination studies is a plus
- Experience working with CAPE (Computer Aided Protection Engineering), ASPEN, EDSA, ETAP or other related power system simulation software programs is a plus
- Substation protective relay testing experience along with control scheme testing and commissioning experience is a plus
- Experience in transmission &/or distribution substation operations, power delivery, field services engineering, and/or substation control design engineering is a plus
- For less experienced engineers, electrical engineering courses that will be helpful in this position will include Power System Analysis, Protective Relaying, Control Systems, Electric Machine Theory, and Symmetrical Components

##### *Knowledge, Skills, & Abilities:*

- Knowledge of electrical and power system theory
- Understanding of substation protection & operation control schemes



- Strong computer, data analysis, time management & excellent communication skills (oral, presentation & written)

### Transmission Line Designer/Engineer (2+ positions available)

This position will be responsible for applying Southern Company's engineering processes, design criteria, and software applications in the design and construction of high-voltage transmission lines (HVTL). The successful candidates, under direct supervision, will follow prescribed procedures to support estimate preparation, develop design options, and prepare construction specifications. The successful Transmission Line Contract Engineer candidates will provide guidance, oversight, and quality assurance reviews for Southern Company-approved contractors as they develop design solutions, cost estimates, and prepare construction packages for outsourced line design jobs. These positions may be filled at a grade level commensurate with the successful candidate's experience.

### **Job Responsibilities**

#### Line Design Engineer/Designer and Line Contract Engineer

- Create a safe work environment through total personal commitment to putting Safety First
- Become knowledgeable of the process used at Southern Company in the planning, design, operation, construction, and maintenance of high voltage transmission lines (HVTL)
- Become knowledgeable of the functions and activities of the various internal departments that are involved in the design, construction, and maintenance of HVTL
- Become knowledgeable of the transmission line design practices and work processes
- Become proficient in the use of all software applications used in the design of HVTL
- Be knowledgeable of the rules governing FERC property accounting
- Support the development of design standards and criteria for use on the Southern Company transmission system
- Support construction and maintenance teams during day-to-day operations as well as in emergency restoration of failed equipment
- Serve as a damage assessment team member after major storms after receiving the company-provided training. This will require overnight travel within the Southern Company system.

#### Line Design Engineer/Designer

- Design high voltage transmission lines using PLS-CADD
- Estimate and order material for transmission projects (*Forest Park Location*)
- Transmit construction packages and supporting specifications

#### Line Contract Engineer

- Provide guidance, oversight, and technical assistance/expertise on design/standards/tools to external engineering firms.
- Provide Quality Assurance reviews on PLS-CADD line model and job construction package and assist in material ordering.
- Participate in regular line design and construction schedule review meetings.
- Provide evaluations / feedback on engineering firms performance.

### **Job Requirements**

#### *Education*

- The following education levels are preferred, but not required, for this position:
  - BS degree or higher in Engineering (Civil, Electrical or Mechanical preferred)
  - A two-year degree, or higher, from a technical school or university with 2+ years of experience with Transmission Line Design
  - 5+ years of experience as a designer with no degree
- A Professional Engineer (PE) license is a plus

#### *Experience*

- Previous Transmission Line Design experience is preferred
- Maintenance, construction, or project management experience in the utility industry

#### *Knowledge, Skills & Abilities*

- Knowledge of overall transmission line design, construction, and maintenance practices, with specific expertise in line design and construction materials preferred
- Technical aptitude to solve civil, electrical, and mechanical engineering problems related to HVTL design and construction
- Technical ability to read, interpret, and apply design criteria and government regulations to HVTL design and construction. Knowledge of the National Electric Safety Code preferred.
- Computer skills to be proficient with standard office software applications and to adapt quickly to HVTL application software. Previous experience with PLS-CADD is a plus
- Interpersonal skills sufficient to build working relationships with peers, internal customers, and the general public
- Time management skills sufficient to manage multiple projects with various priorities and competing deadlines
- Written and verbal communication skills sufficient to satisfactorily complete project documentation and to function effectively in a team environment

**Southern Company** (NYSE: SO) is America's premier energy company, with **46,000 megawatts** of generating capacity and 1,500 billion cubic feet of combined natural gas consumption and throughput volume serving **9 million customers through its subsidiaries**. The company provides clean, safe, reliable and affordable energy through **electric operating companies in four states, natural gas distribution companies in seven states, a competitive generation company serving wholesale customers across America and a nationally recognized provider of customized energy solutions, as well as fiber optics and wireless communications**. Southern Company brands are known for excellent customer service, high reliability and affordable prices that are below the national average. Through an industry-leading commitment to innovation, Southern Company and its subsidiaries are inventing America's energy future by developing the full portfolio of energy resources, including carbon-free nuclear, 21st century coal, natural gas, renewables and energy efficiency, and creating new products and services for the benefit of customers. Southern Company has been named by the U.S. Department of Defense and G.I. Jobs magazine as a top military employer, recognized among the Top 50 Companies for Diversity by DiversityInc, listed by Black Enterprise magazine as one of the 40 Best Companies for Diversity and designated a Top Employer for Hispanics by Hispanic Network. The company has earned a National Award of Nuclear Science and History from the National Atomic Museum Foundation for its leadership and commitment to nuclear development and is continually ranked among the top energy companies in Fortune's annual *World's Most Admired Electric and Gas Utility* rankings. Visit our website at southerncompany.com

**Southern Company is an Equal Opportunity Employer (EOE) of minorities, women, individuals with disabilities, veterans and strongly supports diversity in the workplace.**