

**SENECA LIGHT & WATER
SENECA, SOUTH CAROLINA**

**CONSULTING ENGINEERING SERVICES
FOR THE DESIGN AND CONSTRUCTION OF A NEW
SUBSTATION**



**Request for Proposal
Substation No. 3
Engineering Design and Construction Services**

AUGUST 2023

TABLE OF CONTENTS

1. RFP General Information	1
2. Scope of Work	2
3. Submittal Requirements	6
4. RFP Evaluation Criteria and Process	7
5. Certificate of Insurance	8
6. Required Contract Provisions for Federal Awards	8

1. RFP General Information

- 1.1. This Request for Proposal (RFP) is to solicit proposals from professional engineering firms licensed in the State of South Carolina to provide professional services related to the design and construction services of a new 12/16/20 MVA electric substation for the Seneca Light and Water (Seneca) electric distribution system that meets current National Electrical Safety Code (NESC) and accepted electric utility standards.

Responses to this RFP will be used to determine the qualifications of various firms to provide the services requested. SENECA will select the firm that, in Seneca's opinion, is judged to be the most qualified and advantageous to Seneca. Seneca is seeking engineering firms which demonstrate engineering expertise described within this RFP. It is anticipated that a non-exclusive agreement for professional services will be negotiated and executed between Seneca and the selected firm.

- 1.2. This RFP contains, in general terms, the overall objectives of Seneca in obtaining the services of a qualified engineering firm. While an attempt has been made to describe the general expectations of Seneca and the anticipated work to be performed, Seneca and the chosen firm will further define a more specific scope of work and fee schedule as part of a negotiation process.
- 1.3. Each firm providing a submittal is responsible for obtaining information on the conditions and restrictions involved in meeting the obligations and providing the services as set forth in this RFP.
- 1.4. Questions regarding the scope of services for this RFP shall be submitted to the Director of Utilities, Robert Faires, at the address or email below. The deadline for submitting questions regarding this RFP is by close of business on Wednesday, September 20, 2023. All responses to questions, including any significant changes and/or modifications, will be emailed to all bidders by 4:00 PM, Thursday, September 21, 2023.

Robert Faires
Director of Utilities
Seneca Light and Water
P.O. Box 4773 (250 E. N. 2nd Street)
Seneca, SC 29679
Phone: 864-885-2716
Email: rfaires@Seneca.sc.us

- 1.5. RFP responses must be submitted by mail, email, or be delivered in person at the address listed below no later than **4:00 P.M. on Thursday, September 28, 2023**. Late submittals will not be accepted for consideration. The firm's response must be submitted as detailed in Section 3 below. If printed documents are submitted, two (2) copies of the response should be submitted. Firms responding will be responsible for any costs associated with or incurred in preparing or responding to this RFP. All submitted responses will be retained as property of Seneca and will not be returned.

**Seneca Light and Water
P.O. Box 4773 (250 E. N. 2nd Street)
Seneca, SC 29679
Attention:
Robert Faires
Director of Utilities**

- 1.6. All printed responses and supporting materials should be enclosed in a sealed envelope and properly marked with the RFP name and the name and address of the responding firm on the front of the envelope. Emailed documents must include the RFP name in the subject line and also be marked with RFP name and name and address of responding firm on cover sheet.

2. Scope of Work

- 2.1. This RFP is for the design of a new 100/12.5 kV substation located in the west section of Seneca's electrical system. In general, the qualifying firm shall be capable of providing expertise in the areas:
- Substation Siting including property and easement procurement
 - Transmission Line Design
 - Substation Design
 - Distribution System Design
 - Load Flow Analysis
 - Short Circuit Coordination Analysis
 - Relay Settings
 - Contract Negotiation
 - Project and Construction Management

2.2. The new station will be served from a 100 kV transmission line owned by Duke Energy. The design of the transmission line between the Duke Energy connection and the substation is included in the scope of work. The firm shall work with Seneca to obtain the appropriate property acquisitions and/or easements needed for the transmission line tap.

2.3. Initially, the substation shall include a single incoming 100 kV line connected to the nearby Duke transmission line, one Seneca owned 100/12.5 kV, 12/16/20 MVA power transformer, and one 100 kV circuit switcher, five 12.5 kV feeder bays with reclosers and voltage regulators. The substation equipment and protective relaying shall be similar to the equipment currently used by Seneca in its two other substations.

The station shall be designed for possible future expansion of the 100 kV equipment and second 100 kV line extension, a second 12/16/20 MVA transformer, and 3 additional feeder bays. The feeder bays shall be designed such that a future tie breaker can be installed between sets of four feeder bays.

2.4. The new station 12.5 kV bus shall be a main-transfer design with a combination of overhead and underground duct bank feeder getaways. The exact dimensions of the property are yet to be determined.

2.5. The new station shall generally consist of the following components:

- 100 kV GOAB Switch(es)
- 100 kV Circuit Switcher
- 100 kV/12.5 kV Transformer
- Oil Containment System
- Six-bay (one bay for future expansion) 12.5 kV Feeder Structure
- Five (5) 15 kV Reclosers with Single Phase Tripping Capability
- Fifteen (15) 15 kV, 250 KVA Voltage Regulators with SEL Controls
- Provisions for installation of required Duke Energy metering equipment
- Provisions for future second 100 kV transmission line, power transformer and 12.5 kV distribution structure expansion to 8 feeder bays.
- Control House with relay control panels, SCADA system, substation batteries and other related equipment, similar in design to the control houses used in the two other Seneca-owned substations.

2.6. Protection and control schemes shall be similar to those used in Seneca Delivery No. 2.

2.7. The selected firm shall be capable of obtaining all necessary permitting required for the construction of the station.

2.8. The expected scope of work will include, but not be limited to:

- Meeting with Duke Energy to determine transmission line routing and interconnection requirements.
- Aiding in selection and purchase of substation site.
- Development of Substation Design Criteria
- Preparation of direct-stroke lightning calculations, short circuit calculations, grounding design including step and touch potential calculations, relay setting, bus design calculations, and battery sizing calculations.
- Preparation of engineer-sealed construction drawings including:
 - Site plan and layout drawings with room for future expansion.
 - Substation plan, elevation drawings, and bill of materials in sufficient detail for bidding by Substation Packagers.
 - Foundation plan and details
 - Grounding plan and details
 - Conduit and Cable plan and schedule
 - Control House Layout
 - Relay Panel Layouts and Wiring Diagrams
 - AC Panelboard System (including transfer switch)
 - DC Panelboard System (including batteries and charger)
 - Substation One-Line/Relay Functional Diagram
 - Substation AC Elementary
 - Protection and Control AC and DC Elementaries
 - Interconnection Diagrams
- Aid in obtaining all required permits for project.
- Preparation of power transformer bid specifications and bid documents including determining the cost of no-load and full-load losses and performing cost of losses evaluation. Receive and evaluate bids, prepare purchase recommendations, and conform contract documentation for approved bidder.
- Preparation of Overhead Structures and Equipment bid specifications, material lists, bid documents. Receive and evaluate bids, prepare purchase recommendations, and conform contract documentation for approved bidder.

- Preparation of Control House bid specifications, material lists, and bid documents. Receive and evaluate bids, prepare purchase recommendations, and conform contract documentation for approved bidder.
- Preparation of Relay Panel bid specifications, material lists, bid documents. Receive and evaluate bids, prepare purchase recommendations, and conform contract documentation for approved bidder.
- Preparation of Construction Specifications and bid documents. Host a Pre-Bid on site meeting. Receive and evaluate bids, prepare purchase recommendations, and conform contract documentation for approved bidder.
- Reviewing and approving of all vendor shop drawings.
- Preparation and installation of protection and control (relay) settings for the substation including interfaces with Duke Energy and the SENECA distribution system.
- Providing Construction Inspection Services including:
 - Pre-Construction Meetings
 - Regularly scheduled Progress meetings
 - Maintaining Project Schedule
 - Respond to RFI and Answer Construction Questions
 - Review and approve Change Order Requests
 - Review and approve Pay Requests
 - Construction inspection
 - Supervision of Relay Testing
 - Substation Commissioning
 - Preparation of As-Built/Record Drawings

3. Submittal Requirements

- 3.1. Interested firms shall submit two (2) hard copies of their proposal or a single pdf file and clearly identify the proposal as **Substation No. 3 Design, Major Equipment Purchase, and Construction/Commissioning Services**.
- 3.2. The submittal shall consist of a proposal sheet (must be on top), a cover letter and a detailed section as described below. The submittal shall not be more than twenty (20) pages (single-sided). Please number all pages. Longer submissions may be removed from consideration. The proposal sheet, cover sheet, and tabs will not be counted in the total page count.
- 3.3. **Proposal Sheet**

The proposal sheet must be placed on the top/front of the submittal and shall list the name of the firm, the date the firm can engage in work, and the not to exceed fee for the work described in this RFP.
- 3.4. **Cover Letter**

The cover letter shall identify the contact person for the RFP, including telephone number, email, and postal address. The letter shall also describe the firm's design philosophy and process. The cover letter shall be limited to one page.
- 3.5. **Tab One:** Proposed team and current workload. Please provide the information requested in the following order:
 - Identify the legal entity that would enter into the contract with Seneca. Include the location of the company headquarters, local office location, type of business (sole proprietorship, partnership, corporation, etc.), state of incorporation or organization, and federal employer identification number.
 - Include all current licenses and certificates that enables the consultant to work in the State of South Carolina and Oconee County.
 - Provide an organizational chart identifying members of the prospective design team, including sub-consultants who would be assigned to the project. The chart should clearly delineate roles and responsibilities of the various team members. Please indicate the geographical location of all team members.
 - For proposed sub-consultants, please provide the name of each firm, the office location, contact name and telephone number, and the services to be provided.

- Provide overall references for the key members of your team, including complete contact information and a brief description of previous experience on similar projects.
- 3.6. **Tab Two:** Experience with the Seneca Light and Water Electrical System. Please provide the information requested in the following order:
- List any work performed in the past five (5) years by your firm or related firms for projects on the Seneca electrical system. List the date services were performed; name, address, and the telephone number of the individual representative of the owner having knowledge of the firm's work.
- 3.7. **Tab Three:** Experience on Similar Projects. Please provide the information requested in the following order:
- List similar projects/contracts currently being performed or performed in the last five (5) years by your firm or related firms that were similar in size or type to the services requested in this RFP. List the date services were performed; name, address, and the telephone number of the individual representative of the owner having knowledge of the firm's work.
 - Provide examples of the typical drawings that would be part of the substation design.

4. RFP Evaluation Criteria and Process

- 4.1. The Selection Committee will evaluate the proposals submitted. Listed below are some of the criteria that will be used the evaluation:
- Experience of professional personnel
 - Demonstrated ability to meet time and budget requirements
 - Demonstrated experience with similar projects involving the public sector (local governments) of similar size and organization
 - Location/Availability of firm and personnel
 - Recent, current, and projected work load of firm
- 4.2. The RFP evaluation will be conducted by Seneca staff. Once evaluated, Seneca will enter into negotiations with the selected firm for a definitive Scope of Work and agreement to design and construct the new substation.

5. Certificate of Insurance

- 5.1. The firm hired to provide the services referenced in this RFP will be required to provide proof of insurance, including professional liability, workers' compensation, employer's liability, general liability and auto liability prior to entering into a contract.

6. Required Contract Provisions for Federal Awards

This section includes required provisions under Appendix II to Part 200-Contract Provisions for Non-Federal Entity Contracts Under Federal Awards.

6.1. **CLEAN AIR ACT**

The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 *et seq.* The contractor agrees to report each violation to the Client and understands and agrees that the Client will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal assistance provided by FEMA.

6.2. **FEDERAL WATER POLLUTION ACT**

The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 *et seq.*

The contractor agrees to report each violation to the Client and understands and agrees that the Client will, in turn, report each violation as required to assure notification to Seattle Office of Emergency Management, Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal assistance provided by FEMA.

6.3. **DEBARMENT AND SUSPENSION**

This contract is a covered transaction for purposes of 2 C.F.R. Part 180 and 2 C.F.R. Part 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified

(defined at 2 C.F.R. § 180.935). The contractor must comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into. This certification is a material representation of fact relied upon by the Client. If it is later determined that the contractor did not comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, in addition to remedies available to the Client, the federal government may pursue available remedies, including but not limited to suspension and/or debarment.

The bidder or proposer agrees to comply with the requirements of 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.”

6.4. BYRD ANTI-LOBBYING AMENDMENT

Contractors who apply or bid for an award of more than \$100,000 shall file the required certification. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency.

6.5. PROCUREMENT OF RECOVERED MATERIALS

In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

Competitively within a timeframe providing for compliance with the contract performance schedule;

Meeting contract performance requirements; or

At a reasonable price.

Information about this requirement, along with the list of EPA-designated items, is available at EPA’s Comprehensive Procurement Guidelines webpage: <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

6.6. PROHIBITION ON CONTRACTING FOR COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES

a. *Definitions.* As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause—

b. *Prohibitions.*

(1) Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug. 13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

(2) Unless an exception in paragraph (c) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

(i) Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(ii) Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(iii) Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or

(iv) Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

c. *Exceptions.*

(1) This clause does not prohibit contractors from providing—

(i) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) By necessary implication and regulation, the prohibitions also do not apply to:

(i) Covered telecommunications equipment or services that:

i. Are *not used* as a substantial or essential component of any system; *and*

ii. Are *not used* as critical technology of any system.

(ii) Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

d. *Reporting requirement.*

(1) In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (d)(2) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

e. *Subcontracts.* The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments.

6.7. DOMESTIC PREFERENCES FOR PROCUREMENTS

As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

For purposes of this clause:

Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

6.8. ACCESS TO RECORDS

The Contractor agrees to provide the Client, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

In compliance with section 1225 of the Disaster Recovery Reform Act of 2018, the Client and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

6.9. DHS SEAL, LOGO, AND FLAGS

The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval. The contractor shall include this provision in any subcontracts.

6.10. COMPLIANCE WITH FEDERAL LAW, REGULATIONS, AND EXECUTIVE ORDERS

This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The contractor will comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.

6.11. NO OBLIGATION BY FEDERAL GOVERNMENT

The federal government is not a party to this contract and is not subject to any obligations or liabilities to the non-federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

6.12. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS

The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's actions pertaining to this contract.

6.13. AFFIRMATIVE SOCIOECONOMIC STEPS

If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

6.14. LICENSE AND DELIVERY OF WORKS SUBJECT TO COPYRIGHT AND DATA RIGHTS

The Contractor grants to the Client, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Contractor will identify such data and grant to the Client or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Contractor will deliver to the Client data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the Client.

END OF REQUEST FOR PROPOSAL