Request for Qualifications
Professional Engineering Consulting Services

Solar Photovoltaic and Battery Energy Storage Systems for Cape Fear Public Utility Authority Facilities

Cape Fear Public Utility Authority
Wilmington, North Carolina
June 23, 2026

General Information

Cape Fear Public Utility Authority (CFPUA) requests statements of qualifications (SOQ) from consulting engineering firms for the design and contract administration services for a project to install solar photovoltaic (PV) and battery energy storage systems (BESS) at select CFPUA facilities located at Groundwater Way, Wilmington NC.

This project will be designed to qualify for the federal Investment Tax Credit (ITC), Clean Energy (Section 48E) **elective pay** mechanism under Section 6417 of the Internal Revenue Code, as enacted by the Inflation Reduction Act of 2022. The project will not seek qualifications for the Energy Community bonus credit. Services shall provide a firm schedule to ensure energy systems are constructed and **placed in service by December 31, 2027**, to qualify for the ITC. The consulting engineering firm will evaluate and incorporate applicable design, place-in-service deadlines, procurement, equipment selection, documentation, permitting, construction, commissioning, and project close-out considerations necessary to qualify for the ITC/elective pay mechanism and will communicate and address any known components during design and construction that may impact eligibility.

The project will consist of evaluating and designing solar PV and battery system sizing and additional on-site opportunities for clean energy infrastructure, developing contract drawings and technical specifications, obtaining necessary permits and encroachments (if necessary), assisting in the bidding process, providing construction administration and observation-based services, and providing services for ITC / elective pay application processes during and after design and construction activities. CFPUA will own the energy property for federal tax purposes, and no contractor, consultant, or third party may claim or represent that they are eligible for any federal tax credits associated with this project.

Submission of a Statement of Qualification (SOQ)

Consulting engineering firms are invited to submit a Statement of Qualification to CFPUA to be received no later than Thursday, July 23, 2026, at 2:00PM. Submittals received after this deadline will not be considered.

CFPUA will address questions regarding the RFQ until July 14, 2026, at 2:00PM. Questions submitted after this time will not be addressed. Questions concerning this advertisement should be directed to Ben Guerrieri, Procurement Manager, Cape Fear Public Utility Authority, at bids@cfpua.org.

SOQ's shall be limited to 25-pages or less, excluding cover page, table of contents, tabs, resumes and appendices.

Firms shall submit their statement of qualifications for consideration in .pdf format to bids@cfpua.org. Maximum file size for .pdf submission is 25MB. A reply will be sent to the email address submitting the statement of qualifications to confirm receipt. It is the submitting firm's responsibility to confirm that CFPUA has received a statement of qualifications via email. If email reply is not received from bids@cfpua.org, please call 910-332-6472 or 910-332-6651 before deadline for submission.

Submitted information shall comply with N.C.G.S. 143-64.31 through 64.34 (aka Mini Brooks Act).

All SOQ's will be evaluated by a CFPUA selection team.

One firm will be selected from this request for qualifications.

Project Description

CFPUA is interested in pursuing the design of a ground-mounted solar photovoltaic system at the Groundwater Way location in Wilmington, North Carolina, coupled with battery storage with a three (3) day capacity and inverters to transition DC to AC power. The following facilities and anticipated size are prioritized for a solar-PV and battery energy storage system, as outlined in Exhibit A:

- Collections Administrative Building, 140.4 kW DC, with 3-day capacity BESS
- Collections Garage, 13.72 kW DC, with 3-day capacity BESS
- Raw Water Well A, 87.75 kW DC, with 3-day capacity BESS

All facilities shall qualify for the federal Investment Tax Credit (ITC), Clean Energy (Section 48E) **elective pay** mechanism under Section 6417 of the Internal Revenue Code. Selected firm is anticipated to assist with application of ITC / Clean Energy credits or provide consultants to fulfill these requirements.

Please note that all facilities are currently fitted with an on-site diesel generator for standby power services and shall be designed to accommodate the current standby power generation source. The Collections Administration Facility is sub-metered downstream of the Richardson Water Treatment Plant and does not have a dedicated utility meter. The facility is also connected to the Water Treatment Plant's standby generator and shall be designed to prevent impacts or disruptions to grid-power or standby power services to the Water Treatment Plant during solar and battery operations dedicated solely for the Collections Administration Facility. Due to absence of a dedicated utility meter, there is

limited information on the Collection Administration Facility's energy demand and historical usage from the sub-meter. The current sub-meter for the facility is a Honeywell E-Mon Class 2000 Meter.

Based on the facility utility bills, Well A's annual electrical energy consumption in 2025 was 146,510 kWh with a peak energy demand of 12.2 kW, and the Collections Garage annual electrical consumption in 2025 was 21,529 kWh with peak energy demand of 1.63 kW. Using the sub-meter, the Collection Administration Building's approximate annual electrical energy usage is 420,000 kWh per year, with a peak energy demand of 97.0 kW.

There is approximately 3 acres of available land for ground-mounted solar panels. All ground-mounted systems must be installed using earth anchors or ground screws rather than concrete piers to reduce stormwater impacts and prevent soil erosion.

Description of Services

The scope of services is expected to include the services described below. No guarantee is expressed or implied by CFPUA that all services will be performed or that the selected consultant will perform all services associated with the project. CFPUA may terminate work or pursue other consultant selections at any phase of the project.

The project will generally consist of installing ground-mounted solar PV and battery energy storage systems (BESS), to include, but not limited to:

- Design the project to maximize eligibility for Section 48E ITC/Elective Pay
- Evaluation of solar PV and battery system sizing and additional on-site opportunities for clean energy infrastructure
- Evaluation of the solar array and battery placement and structures to satisfy the needs of each facility.
- Advising CFPUA of any ITC/Elective Pay eligibility risks associated with proposed equipment, procurement methods, project delivery methods, or construction approaches that become known during the design process.
- Islanding and generator coordination design
- Compliance with NEC, NC Building Codes, NC Fire Code
- All permitting and utility coordination, to include interconnection support with Duke Energy Progress (DEP)
- Developing contract drawings and technical specifications
- Coordinating survey work (if necessary)
- Assisting in the bidding process
- Providing construction administration and observation-based services
- Providing ITC / Elective Pay support documentation
- Providing ITC / Elective Pay application assistance

Schedule

The CFPUA selection team will place strong emphasis on a firm's ability to meet the schedule of deliverables outlined below. The selected consultant will be expected to complete final plans and specifications in accordance with the project schedule shown below, or sooner. CFPUA will provide comments on all design submittals generally within 2 weeks from the date received.

• Submit SOQ	No later than 2:00PM Thursday, July 23, 2026
• CFPUA Selects Firm(s)	7 days
• Complete scope and contract	30 days
• 60% design documents	60 days
• 90% design documents	45 days
• Final contract documents and permits	30 days
• Construction substantial completion deadline	December 31, 2027

The goal is to have design plans and specifications ready to be advertised for bid within **6 months** of notice to proceed.

Consultant Selection

CFPUA will follow a qualifications-based selection process. Consultants must demonstrate their level of competence and qualification, and each sub-consultant's level of competence and qualification, with respect to the listed evaluation factors for the needed services.

SOQ's will be evaluated based on the following four (4) considerations and the level of importance for each consideration. The SOQ shall be formatted consistent with the evaluation consideration. Criteria shown under each of the four (4) considerations are to be addressed in the SOQ. Consultants may provide additional information as necessary.

1. Project Understanding & Approach (30%)
    a. Understanding of project drivers and scope of work to be performed.
    b. Approach to keep the project on schedule and achieve construction by the December 31, 2026 deadline.
    c. Description of the design team's quality control program.
    d. Approach to ensure qualification and successful application for ITC / Elective Pay Credits.
    e. Approach to ensure all installations and operations meet all local, state, and federal safety and interconnection requirements.
    f. Identify potential hurdles with Duke Energy Progress (DEP) interconnection requirements and suggestions to reduce project schedule delay as a result.
    g. Identify optimal locations for solar array and battery storage facilities for the designated locations listed in Exhibit A.
2. Relevant Firm Experience (35%)

a. Provide 3 – 5 comparable projects of similar size and scope completed by firm or currently in progress. At least two (2) of the comparable projects listed shall be completed and operating. Experience within the Wilmington area or with local partners and resources strongly preferred.
b. Provide design and/or installation projects completed that qualified for the ITC, Clean Energy Section 48E and the firm's role in the ITC / Elective Pay application or qualification process.
c. Experience designing systems >500 kw of solar only, or >100 kw with > 50 kWh of storage. Designing large projects in the Wilmington area strongly preferred.
d. Provide the initial dates for schedules start and finish and the actual start and finish dates, along with explanation of potential schedule shifts.
e. Experience designing ground mounted systems serving municipalities.
f. Experience and understanding of hybrid systems, microgrid installation, battery energy storage systems (BESS), and utility interconnections.

3. Overall Staff Experience Proposed for this Project (25%)
    a. Project Manager to lead the design aspect of the project
    b. Individual team members for each discipline and relevant experience
4. Firm Licensures and Regulatory Compliance (10%)
    a. Describe credentials that firm and/or personnel hold relevant to solar photovoltaic or energy storage system design, including but not limited to NABCEP PV Design Specialist, Installation Professional, Energy Storage Installation Professional
    b. Describe firm's familiarity with National Electrical Code (NEC) including articles 609, 705, 706, and North Carolina State Building Codes, and applicable utility interconnection requirements.
    c. Describe firm's familiarity with local, state, and federal permitting and interconnection requirements needed for projects of similar scope and size.

A more detailed scope of work and fee schedule will be negotiated with the best qualified firm, and a fair and reasonable fee shall be established. If negotiations are not successful with any selected firm, CFPUA will terminate negotiations with that firm and initiate negotiations with the next best qualified firm.

Insurance Requirements

The following criteria will be deemed necessary for selection:

- The firm must meet the following insurance requirements. Workers Compensation may be waived if firm has no employees.
- General Liability $1,000,000 per occurrence/$2,000,000 aggregate. Authority must be additional insured and endorsement required.
- Workers Compensation $500,000/$500,000/$500,000. Waiver of Subrogation against the Authority and endorsement required.

- Auto Liability Insurance $1,000,000 per occurrence combined single limits applicable to claims due to bodily injury and/or property damage. Authority must be additional insured and endorsement required.
- Professional Liability not less than $2,000,000 per loss.

Any firm wishing to be considered must be properly registered with the Office of the Secretary of State.

Notification

The selected firms will be notified by telephone and/or email.

CFPUA reserves the right to reject any and all Proposals.

CFPUA will address questions regarding the RFQ until Tuesday, July 14, 2026, at 2:00PM. Questions submitted after this time will not be addressed. Any questions concerning this advertisement should be directed to Ben Guerrieri, Procurement Manager, Cape Fear Public Utility Authority, at **bids@cfpua.org** by Tuesday, July 14, 2026, at 2:00PM.

RFQ Exhibits:

Exhibit A: Eligible locations for solar PV and BESS with ground-mount location identified

End

Exhibit A: Eligible locations for solar PV and BESS with ground-mount location identified

Based on the facility utility bills, Well A's annual electrical energy consumption in 2025 was 146,510 kWh with a peak energy demand of 12.2 kW, and the Collections Garage annual electrical consumption in 2025 was 21,529 kWh with peak energy demand of 1.63 kW. Using the sub-meter, the Collection Administration Building's approximate annual electrical energy usage is 420,000 kWh per year, with a peak energy demand of 97.0 kW.