







## / Opportunities

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Charlotte Water / Architectural / Engineering Services

### Franklin Water Treatment Plant (WTP) Electrical Upgrades

Charlotte Water is requesting proposals from qualified companies interested in providing Professional Engineering Services for the Franklin WTP Electrical Upgrades Project. The delivery method for the Project will be Design-Bid-Build. The initial design contract is anticipated to include detailed design, permitting, and bid phase services. The design contract will be amended later to include construction administration services. Note that CLTWater will provide the selected firm a copy of the “Franklin WTP Electrical Upgrades Preliminary Engineering Report (PER)” (being written by Southeastern Consulting Engineers, Inc.), which will be the basis of detailed design. The PER is currently in development and will be provided before the Notice to Proceed for detailed design. The following is a general description of the work required in the Franklin WTP Electrical Upgrades project. This is not intended to be all-inclusive, nor is it guaranteed that all of the below tasks will be completed. A more defined Scope of Work will be developed during negotiations with the selected firm and completion of the “Franklin WTP Electrical Upgrades PER”.

- Detailed Design – The Engineer will provide the resources and expertise to complete the design of improvements to the existing electrical feed and standby power systems at the Franklin WTP. These upgrades will focus on providing a redundant and reliable electrical feed that meets regulatory requirements and operating goals of the plant. The Engineer will prepare detailed plans and specifications per CLTWater requirements for bidding and construction of the Project. The Engineer will support CLTWater during the bid phase/process.
  - Design of a centralized, masonry generator building with four generator bays and new switchgear. Three generators will be procured/installed in this project. Engineering disciplines involved include architectural, structural, building mechanical (HVAC and plumbing), process mechanical, electrical, instrumentation and controls (I&C), and civil. Surveying services and geotechnical investigation will be required.
  - Modernization of medium and low voltage switchgear, specifically at High Service Pumping Station #2 and Main Building.
  - Coordination with Duke Energy on any required modifications to the existing substation.
  - Rehabilitation of existing transfer switches and transformers at High Service Pumping Station #1, Raw Water Pumping Station #1, and Raw Water Pumping Station #2.
  - Implementation of upgraded instrumentation and controls.
  - Modifications to existing overhead power loop, focusing on redundancy and resiliency.
  - Conversion to main-tie-main configuration, where applicable.
  - As noted, CLTWater is completing a PER, which will be made available to the selected firm. The document will not be available to Proposers as a reference document since it is not complete.
- Permitting – The Engineer will provide the expertise and resources to determine the required permitting and work with CLTWater and the regulatory agencies to successfully obtain all required permits. Potential permits required include:
  - ACOE Section 404 Permit,
  - NCDEQ 401 Water Quality Certification,
  - NCDEQ Authorization to Construct,

## For Questions, Contact:

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