STATE OF GEORGIA

CITY OF HAMPTON

RESOLUTION NO. 22-30

WHEREAS, the City of Hampton (hereinafter "City") is governed by the Mayor and Council; and

WHEREAS, the City of Hampton is a provider of electricity to its customers within its service area; and

WHEREAS, to determine the City's sustainability as an electric provider, the City engaged the services of Patterson & Dewar Engineers, Inc (P&D), a professional provider to evaluate by way of a "SWOT" analysis (Strengths, Weaknesses, Opportunities, Threats) the City's electrical utility; and

WHEREAS, it is in the City's best interest to continue the engagement of P&D for the City's long-range plan of electricity to its customers; and

WHEREAS, P&D's long-range plan for the City would include overall service quality, improvement of system efficiency, minimization of losses, construction projects, the improvement of system reliability, preparation for growth, and more; and

WHEREAS, P&D's long range plan project is estimated to cost the City $40,000.00 pursuant to the Statement of Work attached hereto at Exhibit "A" and incorporated by reference; and

NOW THEREFORE IT IS HEREBY RESOLVED that the City shall continue the engagement of Patterson and Dewar Engineers, Inc. to provide long range plan services to the City for an estimated cost of $40,000.00.

SO RESOLVED, this 13th day of September 2022.

CITY OF HAMPTON, GEORGIA:

ANN TARPLEY, Mayor

ATTEST:

RASHIDA FAIRLEY, City Clerk

APPROVED AS TO FORM:

L'ERIN BARNES WIGGINS, City Attorney

August 19th, 2022

Mr. Alex S. Cohilas, City Manager
City of Hampton
17 E. Main Street South
Hampton, GA 30228

patterson & dewar ENGINEERS

850 Center Way
Norcross, GA 30071

(770) 453-1410
pdengineers.com

Mr. Cohilas,

Patterson & Dewar Engineers, Inc. (P&D) is pleased to provide this Statement of Work (SOW) to the City of Hampton (COH) for the completion of a Long Range Plan (LRP) for the city's electric distribution system. The following pages detail the proposed SOW, including scope, schedule, and budget.

Having a thorough plan in place is key for any electric utility system. This LRP will help the COH to effectively schedule construction projects, improve system reliability and overall service quality, minimize losses and improve system efficiency. Operating without such a plan poses several long term hazards. Without thorough planning, a utility risks being underprepared for system growth. Additionally, a LRP will help prevent "over-building," giving the COH data on precise solutions that meet future needs without spending unnecessary funds.

For these projects, we have assembled a team with in-depth expertise in planning studies and electric distribution systems to execute this project. Our team is experienced in evaluating distribution systems, developing, and analyzing models, and providing clients with cost-effective recommendations.

Based on the assumptions contained within, we estimate that the budget for this project will be $40,000.

We look forward to exceeding your expectations with custom solutions to the challenges you face, the engineering expertise you need, the reliable service you deserve and the quality your citizens demand. If you have any questions about this proposal, feel free to contact me at any time, 770-354-0568 or jbush@pdengineers.com. Thank you for this opportunity.

Sincerely,
Patterson and Dewar Engineers, Inc.
JD Bush, PE
Chris Hammond, PE

STATEMENT OF WORK TO THE MASTER SERVICES AGREEMENT
BETWEEN CLIENT
AND PATTERSON & DEWAR ENGINEERS, INC. FOR
ELECTRIC SYSTEM LONG RANGE PLAN

City of Hampton, GA (COH) ("Client") and Patterson & Dewar Engineers, Inc. ("P&D"), collectively referred to as "Parties", enter into this Statement of Work ("SOW") on August 19, 2022. This SOW shall be governed by the Master Services Agreement dated July 25, 2022 ("Agreement") between Client and P&D. Unless otherwise defined in this SOW, capitalized terms shall have the same meaning established for such terms in the Agreement. P&D agrees to complete the following project in accordance with the Agreement and in accordance with the following terms:

I. Project Overview

P&D will perform a Long Range Plan to develop electric system load forecast, a new engineering model, grow the model based upon load projections, propose recommended construction projects to serve current and projected loads, and evaluate system contingency options. The study will include detailed budgetary information for the O&M expenses of the COH electric distribution system for the first 5 years of the study period. P&D will execute the tasks below to complete the Long Range Study.

- Task 1 – Kick-off Meeting
  - P&D will meet with COH to complete the following
    - Define methodology, scope of work, planning vision and project schedule
    - Discuss system reliability, capacities, loads and aging facilities
    - Identify loading and reliability problem areas
    - Discuss new potential loads for the system
    - Review existing design criteria established in prior planning studies and discuss any needed changes or modifications for inclusion in the proposed LRP
    - Discuss preparation of unit cost estimates for LRP projects
  - At least 1 week prior to the initial kick-off meeting, COH shall deliver the following system information to P&D:
    - Complete GIS export of the electric distribution system (if available)
    - Construction/equipment costs and economic parameters from the preceding 2 years (if available)
    - Annual Operating Reports for COH from the last 5 years, or other documentation presenting costs of the electric department
    - In cooperation with CGEMC, customer billing information for the 2022 summer peak demand month
    - In cooperation with CGEMC, peak demand information for both delivery points for the 2022 summer peak month
    - In cooperation with CGEMC, feeder peak currents for both delivery points for the 2022 summer peak month
    - (If possible) Historic peak demand data (10 preceding years)
    - (If possible) Historic kWh purchased (10 preceding years)
    - (If possible) Historic kWh sold (10 preceding years)
      - Broken down by consumer class if possible (residential, small commercial, large commercial, etc.)
    - (If possible) Historic number of consumers (10 preceding years)
      - Broken down by consumer class if possible (residential, small commercial, large commercial, etc.)
- Task 2 – System Load Projections
  - P&D will utilize data provided by COH for analysis and will begin developing initial forecast models. Initial projections based on historic trends will be developed.

- Known residential and commercial developments will be studied to estimate potential load impacts to the system and incorporated in the overall forecast.
- Projections will be provided to COH for approval.

- Task 3 – System Study Model Development, Growth, and Analysis
  - Following the kick-off meeting, P&D will allocate a base model of the COH system. This model will be based on the GIS export provided by COH, consumer billing information, and feeder load totals. P&D anticipates some GIS work being required to prepare an engineering model. Following the allocation, P&D will provide COH with data from the allocated model to verify the accuracy of the model.
  - P&D will utilize the base system model and grow it to projected long-term loading levels determined during Task 2. Using the grown models along with the COH design criteria and cost estimates, and input from the COH, P&D will identify potential projects and study solutions to serve future system loads. If multiple alternatives are identified, each will be studied for electrical viability and compared utilizing engineering economics. Once all model work is complete, P&D will prepare all documents needed for a review meeting with COH. Initial map development will also begin during this task.
  - Model analysis will be done to study contingency options on the COH system. The priority will be in determining what areas do and do not have contingency options in the event of the loss of key system equipment (such as the loss of delivery point). Based on this analysis, P&D will develop and compare alternatives to address any gaps found. P&D will develop a list of recommendations for improvements that would improve contingency options on the COH system.
  - Initial budgetary projections for construction costs and O&M expenses will be prepared as well.
- Task 4 – Review Meeting
  - P&D will meet with COH. At this meeting, the analysis performed will be discussed and alternatives will be reviewed with the intent of selecting the preferred long-term solution. Other documentation prepared will be reviewed and discussed. Timeline for preparing the LRP draft will be discussed.
- Task 5 – Finalize LRP & Maps
  - Following the Review Meeting, P&D will complete the remaining documentation and make any needed adjustments following the review meeting. Maps will be updated to include the final LRP recommendations. The draft of the LRP will then be sent to COH for review. After any adjustments, P&D will produce a final draft of the LRP that will be sent to COH for final review. If a meeting to discuss the final report is necessary, that request can be accommodated. Once COH accepts the LRP, the report will be finalized and stamped by a Professional Engineer licensed in the state of Georgia.
- Task 6 – Project Deliverables

Once the LRP report is finalized, P&D will deliver the following to COH:

- Four (4) bound System Study books to COH along with electronic versions included on storage drives.
- Bound books and electronic versions to include:
- Written Report specifying:
  - Engineer's Certification and Qualifications
  - System Study methodology, assumptions, and recommendations
  - Exhibits that detail costs for the LRP period
  - Detailed O&M and construction budgets for the first 5 years of the LRP period
- Printed copy of the LRP maps
- Project recommendations in electronic shapefile format (for importing into GIS system)
- Electronic copies will be provided as well.

II. Schedule

This project will be completed within 3 months after all system data outlined in Task 1 has been provided to P&D. If all system data is provided by September 1st, 2022, the final report will be provided to COH no later than December 1st, 2022.

If requests are made of P&D that go beyond the scope presented in this SOW, a modified schedule will be provided to COH if said requests will cause project delays.

III. Payment Terms

P&D shall submit monthly invoices to Client. Payment terms are specified in the Agreement. P&D shall provide estimated effort levels upon request. Expenses will be billed in accordance with the payment terms of the Agreement.

IV. Total Fees

Services under this Agreement will be provided on a time and expense basis not to exceed a maximum of Forty-Thousand Dollars ($40,000), based on the scope of services outlined in this SOW and the anticipated level of effort. Notwithstanding anything to the contrary herein, P&D will not be required to furnish services or incur expenses for work not included in this SOW without written authorization (including email confirmation) from the Client committing to additional funding.

This SOW may be executed in counterparts or duplicate originals and facsimile, electronic and digital copies, including properly executed PDF versions and all shall be regarded as an original instrument by the Parties.

IN WITNESS WHEREOF, the Parties have executed this SOW on the date specified above.

CITY OF HAMPTON, GEORGIA		**PATTERSON & DEWAR ENGINEERS, INC.**	
Signed	Ann N Tarpley	**Signed**	Anita Atkinson Digitally signed by Anita Atkinson DN: cn=Anita Atkinson, o=Patterson & Dewar Engineers, Inc., ou=VP, email=aatkinson@pdengineers.com, c=US Date: 2023.02.28 09:33:20 -05'00'
Name	Ann N. Tarpley	**Name**	Anita Atkinson
Title	Mayor	**Title**	VP, Engineering & Surveying
Date Signed	13 September 2022	**Date Signed**	02/28/2023