



# MEMORANDUM

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**To:** Mayor and City Councilors

**From:** Rich Olson, City Manager

**Date:** April 9, 2015

**Re:** Consideration – Authorization to Contract with Booth and Associates to perform full cost of service electric rate study

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***BACKGROUND:***

For many months, the City Council has been preparing for the complicated process of selling the City's electric generating assets to Duke Energy Progress (DEP). With the signing into law of the NCEMPA Asset Sale bill, Senate Bill 305, by Governor McCrory last week, the 32 NCEMPA member cities are moving quickly to complete all required documentation in connection with the sale.

I believe that a key component of this transaction is for the City Council to design an electric rate structure that will assure that the Electric Department's operating expenses and future capital needs are provided for, in addition to determining how much of the anticipated decrease can be passed along to our customers in the form of rate relief. In that regard, I have requested a proposal from Booth and Associates to perform a full Cost-of-Service study in anticipation of the sale of our generating assets to DEP.

***ANALYSIS:***

My recommendation for the City Council to use Booth & Associates as a single-source for this study is based on the City's previous experience with the firm and the quality of the work they provided. In September 2010, the City entered into an engineering and consulting service contract with Booth and Associates, Inc. to perform an electric rate evaluation. That agreement called for Booth and Associates to perform the following tasks:

- Develop a financial model to be used in forecasting revenue and power costs
- Perform a rate comparison with Dominion Power Company
- Provide rate development and design work

Since Booth & Associates has already performed an electric rate evaluation for the City, much of the information needed for the new study is already available in their data system.

Included, herewith, is a proposal letter staff received on April 6, 2015 from Booth & Associates. This proposal provides information on two types of studies: a full Cost-of-Service Study and an Accounting Study.

The estimate for preparation of the full Cost-of-Service Study is \$27,500 and includes both an Accounting Study and a Rate Design Study. (The estimate to prepare the accounting study is \$14,000 and would simply redesign the City's rates without a full cost of service review.) It is my recommendation that the City Council commission a full Cost-of-Service Study due to the dramatic changes that we expect in our cost of purchased power once the sale of our assets to DEP is complete.

The results of the full Cost-of-Service Study will:

- Determine rates of return for each of the City's major rate classes under the current rate structure;
- Separate demand-related, energy-related and consumer-related costs for each major rate class; and
- Calculate, for each major rate class, the revenue increase (or decrease) necessary for the class to earn the average Rate of Return determined in the Accounting Study.

(The proposal also provides for a presentation to the City Council at the conclusion of their work.)

Although the proposal states that a typical full Cost-of-Service Study takes at least four months to complete, I have requested that the study be performed on an expedited basis to allow the City Council to make the rate adjustments identified by July 1, 2015

***FINANCIAL:***

This matter was discussed by the Finance Committee during their meeting of April 9, 2015. Upon motion made by Mayor Peel, seconded by Councilman Donnelly, the consideration was unanimously recommended for approval by the full City Council during the meeting of April 13, 2015.

***STAFF RECOMMENDATION:***

By motion, authorize City Manager Rich Olson to enter into an agreement with Booth and Associates to perform a full Cost-of-Service Study in an amount not to exceed \$27,500.

RCO/vdw

# Booth & Associates, LLC

CONSULTING ENGINEERS

engineering for the future since 1960

April 1, 2015

Mr. Richard C. Olson  
City Manager  
City of Elizabeth City  
P. O. Box 347  
Elizabeth City, NC 27907-0347

RECEIVED

APR 06 2015

Dear Mr. Olson:

Steve Miller from our office informed me that you had called and asked for a proposal from Booth & Associates, LLC to do full Cost-of-Service Study for the City of Elizabeth City. Based on the conservation the timing of the Cost-of-Service Study is related to the selling of the power agencies assets to Duke Energy and the expected lowering of the City's purchased power related costs.

Attached you will find a Scope of Work for a full Cost-of-Service Study. As you will see in reviewing it, the Cost-of-Service Study really includes three Studies. The three are an Accounting Study, a Cost-of-Service Study, and a Rate Design Study. Descriptions of what each encompasses are included in the attached Scope of Work. Our best estimate for preparation of the full Cost-of-Service Study is \$27,500. This price includes the estimated professional time required and out-of-pocket expenses, including two trips to the City's office; one to meet with you and your staff to review the results and the second to present the results to the City Council. It is Booth's policy to bill for actual hours worked on your project. Therefore, in the event the work takes fewer hours than anticipated the actual cost to the City would be less than the not-to-exceed price stated above. However, if we find through the course of the project that additional trips are necessary to make the most efficient use of our time, we will get written approval from City prior to making additional trips.

I have also attached for your review a copy of the Cost-of-Service Study Data Request and resumes of the personnel in the Financial Services Division of Booth & Associates that would be involved in the project. We realize that the Data Request is asking for a great deal of information and in detail that may or may not be available. The more detail the City is able to provide related to costs and the breakdown of electric utility plant, the more accurate the results of the Cost-of-Service Study will be.

Steve had also mentioned that you are also interested in a relatively short turnaround time, which may not be possible if a full Cost-of-Service Study is done. A typical full Cost-of-Service Study takes at least four (4) months to complete, considering the time it takes the City's staff to gather the data and for the Study to be completed after the data is received. As an alternative, Booth & Associates could design new rates for the City based upon an overall revenue target. In order to accomplish this, we would need a download from the City's billing system that would give us each consumer's billing determinants, applicable rate schedule, and revenue billed for each

Mr. Richard C. Olson  
April 1, 2015  
Page 2 of 2

month of the year that was selected as the Test Year. Once this data was received, we would reprice Test Year billing determinants to verify that consumer counts, kWh sales and revenues match the test year billing reports. This is a critical check to ensure that the rates eventually approved will collect the anticipated revenues. After the billing determinants, consumer counts, and revenues are verified, we would weather normalize the kWh sales, make adjustments for customer's that changed rate classes during the year, make an end-of-year adjustment to reflect the projected annual sales of the customers connected to the system at the end of the Test Year, and then redesign rates to recover an agreed upon target revenue requirement based upon the City's forecasted expenses and purchased power costs. While redesigning the City's rates may collect the targeted revenue requirement, it will not correct any current cross subsidies between rate classes. Our best estimate for redesigning the City's rates without a full Cost-of-Service Study is \$14,000. Again this price includes the estimated professional time required and out-of-pocket expenses, including two trips to the City's office; one to meet with staff to review the results and the second to present the results to the City Council. As in the above price, if we find through the course of the project that additional trips are necessary to make the most efficient use of our time, we will get written approval from the City prior to making additional trips.

Again we appreciate the opportunity of working with you and your staff through this process. If you have any questions or if anything needs clarification, please feel free to contact me at (919) 851-8770 extension 222.

Sincerely,



Terry A. Berge  
Vice President, Strategic and Financial Services

Attachment A – Scope of Work  
Attachment B – Cost-of-Service Study Data Request  
Attachment C – Resumes of Key Personnel

## The Accounting Study

### Objective:

The Accounting Study is the foundation of the rate evaluation process. A cost-of-service allocation process cannot take place until the utilities' costs are identified. The Accounting Study entails a review of the City's books and records and a determination of known and measurable changes that will affect the City's financial results of operations during the period in which the rates will be in effect. Booth identifies the non-recurring and rapidly fluctuating revenues and expenses. Booth prepares adjustments to normalize and/or annualize the known and measurable changes identified. After all the costs have been identified, Booth prepares a pro forma income statement and makes a revenue requirement recommendation to the City based upon the City's established financial and equity goals.

### Scope of Work:

The Accounting Study is the cornerstone of any successful Cost-of-Service and/or Rate Design effort. Costs cannot be properly allocated unless we know what they are. Likewise, rates cannot be properly designed unless we know the required level of revenues and billing determinants.

While the Accounting Study uses the most recent 12 months of accounting data available, it must be recognized that ratemaking is not necessarily prospective, or forward-looking, in nature. To design rates based solely on historical revenues, expenses, plant, and kWhs -- no matter how current -- is to guarantee that the City will not have an opportunity to generate the revenues necessary to maintain the City's financial integrity.

Using the most recent twelve-month period, or Test Year, as a starting point, the Accounting Study makes adjustments to revenues, expenses, plant, kWh sales, kWh purchases, and consumers. These adjustments are necessary to develop the best possible picture of the City's operations during the first 12 months in which the new rates will be in effect.

Booth will use the City's accounting records as the basic source of data in the preparation of the Accounting Study. Prior to the start of the Study, Booth will forward the City a data request outlining the information Booth will require of the City to complete the Accounting Study. Booth will accept any of the information from the data request in either hard copy, diskette format, or if electronically transmitting the data is more economical; Booth will work with the City in making the necessary arrangements.

Once Booth receives the data, numerous adjustments are then made to the City's Test Year accounting data. These adjustments will be of two general types: 1) accounting adjustments and 2) pro forma adjustments.

Accounting adjustments are required to "normalize" the Test Year operating data so that revenues and expenses would be representative of a normal or typical year's operation. In an attempt to normalize the Test Year, Booth will eliminate any out-of-period adjustments to revenues and expenses that occurred before the Test Year, but are actually recorded on the City's books during the Test Year. At this time, Booth will also eliminate expenses and revenues of a non-recurring nature from the Test Year.

In addition, Booth will make a weather normalization adjustment after comparing the Test Year heating degree-days and cooling degree-days with annual degree-days averaged over the past fifteen (15) years. Adjustments will be made to the City's Test Year kWh Sales, Revenues, and Purchased Power Expense to normalize the effects of any unusual summer or winter weather. Booth will also make adjustments to transform the City's Test Year data to an end-of-period level. This process begins with the repricing of the City's Test Year billing determinants. From the City's billing system, we receive a download of each consumer's billing determinants, applicable rate schedule and revenues billed for each month of the test year for all rates. By repricing these billing determinants and verifying consumer counts, kWh sales and revenues match the test year billing reports is a critical check to ensure that the rates eventually approved will collect the anticipated revenues.

Booth will then calculate pro forma adjustments to reflect expected or known changes after the end of the Test Year. These adjustments are necessary to forecast the level of revenues and expenses expected to prevail in the City's immediate operating future.

Once the accounting and pro forma adjustments have been made, Booth will develop a pro forma test year income statement illustrating the Rate of Return and margins the City could expect if their current rates remained in effect over the next twelve months. After the completion of the pro forma income statement, Booth will make a revenue requirement recommendation to the City based upon the City's long-term Rate of Return and equity level objectives.

**Timing:**

Booth will strive to have a pro forma income statement and a revenue requirement recommendation prepared for the City's review within 45 working days of receiving the information requested in the data request.

## Cost-of-Service Study

### Objective:

The purpose of the Cost-of-Service Study is to identify the costs associated with providing electric service to each of the City's individual rate classes. The total costs assigned in the Cost-of-Service Study are the City's pro-forma Test Year operating expenses and fixed capital costs associated with utility plant in service. The results of the Cost-of-Service Study performed for the City will:

- Determine rates of return for each of the City's major rate classes under the current rate structure;
- Separate demand-related, energy-related, and consumer-related costs for each major rate class; and
- Calculate, for each major rate class, the revenue increase, or decrease, necessary for the class to earn the average Rate of Return determined in the Accounting Study.

### Scope of Work:

The Cost-of-Service Study allocation process is conducted based on the results of the Accounting Study and attempts to assign costs to individual rate classes based upon cost-causing relationships. Upon receiving the responses from the City for the cost-of-service portion of the data request, Booth can begin the Cost-of-Service portion of the Study. The initial step of any Cost-of-Service Study performed by Booth is the functionalization of both operating and capital costs. Under this process, the City's costs will be separated into five distinct functions. These functions are:

Purchased Power	Transmission
Distribution	Customer Service
Administrative and General	

Upon completion of the functionalization, Booth will classify the costs as demand, energy, or customer related. The cost relationships may be defined as follows:

*Demand* – Costs that vary with the kilowatt demand imposed on the City's system are classified as demand-related. These costs include the investment and associated expenses in transmission plant and a portion of the distribution facilities.

*Energy* – Costs that vary with the number of kilowatt hours consumed are classified as energy-related. These costs include fuel adjustment charges and the energy component of Purchased Power Expense.

*Consumer* – Costs that are primarily a function of the number of consumers are classified as consumer-related. Consumer-related are costs are related to providing service to a single consumer and are not dependent on the size of the load or the number of kilowatt-hours delivered. Consumer-related costs include the General Plant, Services, Meters, and such expenses as Consumer Accounting Expense and Customer Service and Informational Expense.

After completing the classification of the City's costs, Booth will allocate the costs to the various customer classes, based on derived allocation factors. Booth will develop the allocation factors for each cost function using cost causation relationships. As deemed appropriate, certain costs will be allocated directly to a given rate class, such as Lighting Plant, which is directly assignable to the Lighting rate class. The majority of an electric utility's costs are joint costs and are allocated by allocation factors developed from fundamental cost-causing relationships. Using the combination of allocation factors and the direct assignment of the various costs, the cost to serve each of the City's rate classes is determined.

In allocating demand related costs to the appropriate rate classes, Booth will develop three demand allocation factors: 1) Coincident Demand factors; 2) Class Diversified Demand factors; and 3) Noncoincident Demand factors. Coincident demand allocation factors will be developed using the City's measured system peak demand, measured or calculated consumer billing demands, system coincident factors for each rate class, and load research data. Booth will develop class diversified demand factors by using load research data that relates coincident demand to class diversified demand. The non-coincident class demand factor for each rate class will be determined using load research data, along with actual metered demands. Booth feels that the most critical portion of any Cost-of-Service Study is the development of the demand factors and will use load regression models from local investor-owned utilities to assist in the development of these factors.

Booth will develop energy allocation factors from the Test Year sales data provided by the City for each of its rate classes. In arriving at the total pro forma Test Year sales for each classification, actual Test Year kWh sales will be adjusted for pro forma sales increases and changes resulting from the weather normalization adjustment. Consumer allocation factors will be developed from the end of test year number of consumers receiving service in each classification. Revenue allocation factors will be developed from the City's pro forma operating revenues, as calculated in the Accounting Study.

The Cost-of-Service Study performed for the City will rely on Booth's in-house computer systems and models. The Study will be conducted using the generally accepted cost allocation principals in NARUC's Cost Allocation Manual and will be tailored to the City's unique, current, and projected load profiles and customer classes.

After both the costs of providing service and the corresponding Rate Base for each of the City's major rate classes have been identified and allocated, they will be related to pro forma Test Year Operating Revenues. Booth will then determine the Rate of Return on Rate Base for each rate class. Based on the Cost-of-Service Study results, Booth will make recommendations in the Rate Design Study to improve the City's overall earnings' position and move toward equalizing the individual class rates of return.

**Timing:**

Assuming Booth has received the City's data request responses, Booth will strive to have the Cost-of-Service Study results available for review within 20 working days after the completion of the Accounting Study and an appropriate revenue requirement has been determined.



## Rate Design Study

### Objective:

The purpose of the Cost-of-Service Study is to develop the overall cost of providing electric service to each of the City's major rate classes. From this cost allocation process, Booth will use Rate of Return on Rate Base as a measure in determining equitable sharing between rate classes under the City's current rates. Traditionally, the primary objective of the ratemaking process has been to establish rates that reflected the City's Cost-of-Service Study. Competition in the electric utility business has added a new dimension to the pricing process, which means that City must now consider a much broader range of issues in the development of their pricing policies. While it is important not to lose sight of these issues in performing the Rate Design portion of the Study, Booth feels rates must also meet the following objectives:

- The rate design should yield the desired total revenue requirement under a fair rate of return standard without promoting an undesirable expansion of the rate base.
- Rates should be designed to track costs, as much as possible, and discourage the wasteful use of electricity while at the same time promoting all uses that are economically justified.
- The burden of collecting the revenue requirement must be distributed fairly and without arbitrariness, capriciousness, and inequities among the rate classes to avoid undue discrimination.
- To the extent possible, rates should be designed to eliminate subsidies between rate classes along with subsidies within the individual classes.

Another consideration in the designing of rates is that current inequities between rate classes have typically developed over a long period. Booth therefore believes that the results of a Cost-of-Service Study should only be used as a guide to reduce the current inequities among rate classes and should not necessarily strive to eliminate them in one rate change.

### Scope of Work:

Before proceeding with the development of any new rate design, Booth strongly believes it is important to meet with representatives from the City to discuss any concerns and/or issues they would like addressed with regard to rates. After meeting with the City's staff, Booth will begin designing new rates, while keeping in mind the concerns of the staff, along with the following objectives:

- Rates must maintain a level of stability and predictability;
- Rates must track costs, as much as practical; and
- Rates must be easy to understand to avoid future controversies.

After Booth has designed proposed rates for the City, Booth will run bill comparisons of the proposed rates versus the City's current rates at various consumption levels. Upon the City's request, Booth will also provide an analysis of the proposed rates versus alternative fuels, such as natural gas.

Booth will then present the proposed rates to the staff of the City for their comments, questions, and/or concerns. After making any revisions resulting from this discussion, Booth will develop final rate schedules and present the newly proposed rates to the City Council for their approval.

After the Council's approval, Booth will prepare a final report detailing the Accounting, Cost-of-Service, and Rate Design Studies.

**Timing:**

Within a week after the completion of the Cost-of-Service Study, Booth will arrange to meet with the appropriate staff of the City to discuss in detail any rate design concerns and/or objectives they may have. Booth will then try to have preliminary rates, for the City's review, within 15 working days of this meeting. Once the Council has approved the final rates, the rate schedules will be completed within approximately 10 working days. The final report should then be completed and forwarded to the City within 20 working days of the Council's approval.

**City of Elizabeth City**  
**Accounting/Cost-of-Service/Rate Design Data Request**  
**Test Year: Twelve Months Ending June 30, 2014**

**A. GENERAL**

1. Please provide a brief narrative of any rate design issues the City of Elizabeth City would like addressed in any new rate design proposals (i.e., separation of the General Service class into Residential and Small Commercial, etc.).
2. Please provide a copy of the City's currently effective rate schedules, service rules and regulations, and the fuel adjustment and/or power cost adjustment clause (PCA).
3. Please provide a copy of the Statement of Operations, Balance Sheet and Cash Flow Statement for each month of the Test Year and the previous year.
4. Please provide a copy of the most recent audit report prepared by your CPA firm.
5. Please provide a copy of the City of Elizabeth City's FY 2014-15 budget.
6. Please provide an electronic copy of the City of Elizabeth City's most recent financial forecast.
7. Please provide a copy of the City of Elizabeth City's current chart of accounts, including account number and account title.
8. Please provide a copy of the City of Elizabeth City's most recent PCA model.

**B. REVENUE, COST OF PURCHASED POWER & OTHER REVENUE RELATED EXPENSES**

9. For each month of the Test Year, please provide the revenue dollars, the number of consumers billed, the kW billed, and the kWhs billed for each rate schedule, excluding Lighting. (For Security and Street Lighting, see question 11. **For rate classes with kWh and/or kW blocks, kWh and kW sales should be subtotaled for each kWh and kW block of each rate schedule, by month. For Time-of-Day accounts please provide On-peak and Off-peak kWhs and kW. For accounts which are hand-billed, please provide billing information by account by month for each account.**)
10. Please specify the number of three-phase consumers in each rate schedule.
11. For each month during the Test Year, please provide the kWhs used, revenues and the number, size, and type of Security and Street Lights.

City of Elizabeth City Data Request  
April 1, 2015  
Page 2 of 7

12. Please provide the Power cost Adjustment Revenues by rate schedule for each month during the Test Year.
13. Please provide copies of the City's power bills (NCEMPA, SEPA, etc.) for each month of the test year and a reconciliation of the purchased power cost indicated on the purchased power bills and the purchased power expense reported on the Statement of Operations.
14. Please provide the calculation of the Fuel or Power Cost Adjustment billed for each month during the Test Year.
15. Please provide a monthly breakdown of load management credits given, by type of credit, during the Test Year. If possible, please provide the monthly breakdown by rate class.
16. Please provide the number and type of load management switches the City had on its system for each month of the Test Year.
17. In what account is Pole Attachment Revenue recorded and how much was recorded in the Test Year? Is the City of Elizabeth City anticipating any increases or decreases in Pole Attachment Revenue in the next year?
18. Please provide a detail of other items included in Other Operating Revenues. Is the City of Elizabeth City anticipating any increases or decreases in these items in the next year?
19. Please provide a breakdown of the items included in the Unreserved or Contingency account(s).
20. What was the total gross receipts tax charged to expense during the Test Year?
21. What is the City of Elizabeth City's current uncollectible rate as a percentage of revenue?

### C. REVENUE REQUIREMENTS

22. For the Test Year, please provide a monthly breakdown of the revenue and expense amounts included on the Statement of Operations, by account number and sub-account. (Please include sub-totals, which tie to each Statement of Operations line item).

City of Elizabeth City Data Request  
April 1, 2015  
Page 3 of 7

23. For the twelve-month period immediately preceding the Test Year, please provide a monthly breakdown of the revenue and expense amounts included on the Statement of Operations, by account and sub-account. (Please include sub-totals, which tie to each Statement of Operations line item).
24. Please provide a trial balance by account number with ending balances at the end of the Test Year.
25. What were NCEMPA dues that were paid and expensed during the Test Year? What are the current fees being paid now? Also, include a copy of the most recent NCEMPA billing of fees.
26. Did the City experience an unusual increase in expenses, due to storm damage, during the Test Year? If so, how much of the total was charged to expense and to what accounts? Does the City have any outstanding claims with FEMA for storm damage that occurred in the past two years? If so, please provide the details of the outstanding claims and expected resolution.
27. Has the City experienced any changes in operations that would have served to either increase or decrease revenues or expenses? For example, increasing disconnect fees, reconnect fees, or sending out more overdue notices will increase revenues and expenses, respectively. Please describe these events or factors, and to the extent possible, indicate when they will occur, what accounts will be affected, and what the dollar impact will be.

#### **D. PAYROLL AND BENEFITS**

28. For the Test Year, please provide a distribution analysis of total wages (including accrued vacation, sick leave, and holidays) by account number by month for each month of the Test Year. In addition, please provide the percentage clearing by account for any clearing account to which payroll is cleared. (For example, if payroll is cleared to account 184 or account 163, please provide your best estimate of how this account will be cleared.)
29. Were there any wage increases during the Test Year? If so, when did they go into effect, and what was the percentage increase?
30. Were there any additions or reductions in the number of employees during the Test Year? If so, what were their positions, annual salaries, benefits (such as insurance, pension, etc.), and when were they added or removed from the payroll? What account

City of Elizabeth City Data Request  
April 1, 2015  
Page 4 of 7

or accounts were charged with the salary of the employee, and what percentage was charged to each account?

31. Does the City anticipate any wage increases in the near future? If so, what will be the percentage increase, who will it affect, and when will it become effective?
32. Were any bonuses paid during the Test Year? If so, how much and what account(s) were they charged to? Are any bonuses anticipated for the twelve months immediately following the Test Year?
33. Are there any plans to increase or decrease the number of employees during the next 12 months? If so, what are the positions, annual salaries, benefits (such as insurance, pension, etc.), and when will they be added or removed from the payroll? What account or accounts will be charged with the salary of the employee, and what percentage will be charged to each account?
34. Please provide the payroll tax distribution by account for the test year.
35. Please provide the dollar amount of any salaries paid during the Test Year, which were in excess of the 2014 FICA tax limit of \$117,000.
36. Provide the City's FUTA and SUTA tax rates for the Test Year and for the next twelve months, if available.
37. Please provide an analysis of Employee Pensions and Benefits expense (account 926) for each month of the Test Year. If possible, please show the types of benefits (Life, Medical, Disability, Retirement, Dental, etc.) separately. If available, indicate the accounts to which 926 benefits are cleared and the percentage of 926 benefits cleared to each account. (If any amounts shown are reimbursed by the employees, please indicate them as such.)
38. Are any known increases in employee benefits scheduled during the next twelve months? If so, when will they become effective and how much of an increase (\$ or %)?
39. Please provide a copy of the most current premium statement for the insurance programs from NRECA and a copy of the Contribution Statement for the Retirement and Security Program.
40. Does the City have a 401k Plan for employees? If so, please provide the employer's contributions to this plan for the test year and the account number charged. Are these contributions expected to increase in the next year? If so, when will they become effective and how much of an increase (\$ or %)?

City of Elizabeth City Data Request

April 1, 2015

Page 5 of 7

41. Please provide a distribution by account of Workers' Compensation benefits. If portions of the benefits are cleared from account 925, please indicate the accounts to which workers' compensation is cleared and the percentage cleared to each account.
42. Please provide the Workers' Compensation rate for the test year and, if available, the expected rate for the year following the test year.
43. Please provide the number of full- and part-time employees on the payroll at the end of the Test Year.

#### **E. PLANT AND DEPRECIATION**

44. Please provide a breakdown of the Total Electric Utility Plant and Accumulated Depreciation by Plant Account as reported on the Balance Sheet at the end of the Test Year. (Please note that we are requesting the balances in the following detail for Distribution Plant: 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, and 373 and for General Plant: 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, and 399. Also, provide titles or descriptions for all subaccounts.)
45. If there is a balance in the Construction Work in Process account at the end of the Test Year, please provide the approximate dates the plant will be placed in service and the amount to be distributed to the individual plant accounts.
46. If there is a balance in the Retirement Work in Process account at the end of the Test Year, please provide the amount to be distributed to the individual accumulated depreciation accounts.
47. Please provide Depreciation Rates by Plant Account. Indicate what plant accounts, if any, are fully depreciated. Please indicate if any of the depreciation rates have recently been or plan to be revised. If so, please provide the revised rate(s), if known.
48. What is the current monthly amount of depreciation on Transportation Equipment and Power Operated Equipment? What was the total Test Year depreciation on Transportation Equipment and Power Operated Equipment?
49. For the test year, please provide the details of the accounts (amount or percent) charged with the Clearing of Transportation and Power Operated Equipment Depreciation.
50. What was the total amount of property taxes paid during the tax year and the taxable basis of the property during the Test Year? What percentage of original cost is the appraisal value for property tax purposes? If property taxes are spread to various

accounts through a Clearing Account, please provide the detail of the accounts charged and the amount charged to each account during the test year.

51. Please provide the total property insurance for the test year by account number. Please provide the detail of any anticipated increase in property insurance-amount and effective date. If property insurance is spread to various accounts through a Clearing Account, please provide the detail of the accounts charged and the amount charged to each account during the test year.

#### **F. LONG TERM DEBT AND OTHER**

52. Please provide a breakdown of total Long Term Debt, by loan, and indicate the interest rate for each loan (fixed and variable) as of the end of the Test Year.
53. Please indicate if any of the loans are up for review. If so, please provide the revised interest rate, if known. If the loan is at a variable rate, please indicate your best estimate of the interest rate to be charged for each loan.
54. Is the City anticipating any additional loans subsequent to the Test Year? If so, please provide an estimate of when you expect to make the loan, the amount, and the anticipated interest.
55. Please provide a reconciliation or analysis of the items in the Deferred **Debit** account shown on the Balance Sheet as of the end of the Test Year. For any items being amortized, please provide the total test year amortization, the current monthly amortization and the account being charged with the amortization.
56. Please provide a reconciliation or analysis of the items in the Deferred **Credit** account shown on the Balance Sheet as of the end of the Test Year. For any items being amortized, please provide the total test year amortization, the current monthly amortization and the account being charged with the amortization.

#### **G. COST OF SERVICE ALLOCATION**

57. Please provide an estimate of the number of poles, which are solely dedicated for security lights and the dollar amount of any net pole plant investment associated with Security Lighting, but not already included in the Installations on Customers' Premises account 371.
58. Please provide the current installed cost of service-related facilities to serve a typical single-phase and three-phase consumer in each rate class. (Installed meter, service, and transformer costs should be shown separately.)



City of Elizabeth City Data Request

April 1, 2015

Page 7 of 7

#### H. MINIMUM SIZE STUDY

59. With respect to distribution poles (**please provide primary and secondary separately**), what is the minimum pole height currently being installed and the average historical installed book cost for that size?
60. Please provide the total number of poles included in Account 364.
61. With respect to overhead conductors (**please provide primary and secondary separately**), what is the minimum size currently being installed and the average historical installed book cost on a per foot or circuit mile basis?
62. Please provide the total number of feet or circuit miles of overhead primary and secondary conductors included in Account 365.
63. With respect to underground conductors (**please provide primary and secondary separately**), what is the minimum size currently being installed and the average historical installed book cost on a per foot or circuit mile basis?
64. If available, please provide the total number of feet or circuit miles of underground primary and secondary conductors included in Account 367.
65. What is the minimum size transformer currently being installed?
66. If available, please provide the average historical installed book cost for this minimum size transformer. If the City has recently upgraded the minimum transformer size, for example: before 1995, 3 kVA was the minimum, now 15 kVA is the minimum, provide the average installed book cost for each.
67. Please provide the total number of transformers included in Account 368.

**TERRY A. BERGE**

5811 Glenwood Ave.  
Raleigh, North Carolina 27612

Telephone: (919) 851-8770  
E-mail: BergeTA@Booth-Assoc.com

**SUMMARY OF QUALIFICATIONS**

**Qualified by over 37 years of progressive rate, financial planning, customer service, marketing, and operations experience in the utility industry, including starting and managing a financial and utility service consulting firm.**

**Areas of Expertise:**

- Project Management
- Utility Operations
- Extensive Supervisory Experience
- Financial Analysis
- Customer Service
- Financial & Strategic Planning
- Cost-of-Service Studies
- Marketing
- Business Development

**PROFESSIONAL EXPERIENCE**

**BOOTH & ASSOCIATES, LLC** Raleigh, North Carolina 2013 - Present

**Vice President, Financial & Strategic Services** (October 2013 – present)

- Manage the rate and financial consulting services of the firm.
- Testified before the Maryland Public Service Commission in annual fuel hearing.
- Responsible for the development and updating of the Company's financial models.
- Responsible for maintaining relationships between the client and the Company.

**BELLWETHER MANAGEMENT SOLUTIONS, Cornelius, North Carolina** 1998 - 2013

**Co-owner** (May 2004 – October 2013)

**President** (1998 – May 2004)

- Responsible for growing the Company from a single employee operation in 1998 to a Company that has 35-plus employees with plans for future expansion.
- Developed and continue to manage the rate and financial consulting services of the firm.
- Managed and testified in an electric rate case before the Virginia State Corporation Commission.
- Developed and managed additional electric utility services such as manual meter reading, pole line inspection and treatment, automated meter reading conversions, and pole attachment audits.
- Coordinate strategic alliances or sharing of resources between cooperatives.

**NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION, Raleigh, North Carolina** 1994 - 1997

**Director, Consulting Services** (1997 – 1998)

**Manager, Customer Rates** (1995 – 1997)

- Develop consulting services for our member cooperatives.
- Manage the rate consulting services provided by the firm to our members.
- Assist members in the development of rate proposals for prospective loads.
- Assist members in the development of marketing programs and special rate incentives.

**CURRIN AND ASSOCIATES, INC., Cary, North Carolina** 1989 - 1994

**Vice President, Rate and Regulatory Services** (1992 - 1994)

**Senior Utility Analyst** (1989 - 1992)

- Managed and was responsible for the day-to-day operations and profitability of the firm.
- Managed and performed numerous electric and gas cost-of-service/rate design studies.
- Responsible for wholesale and retail electric rate design, including many innovative rates. Several, of which, were successful in attracting industrial loads to our client's service territories.

**CURRIN AND ASSOCIATES, INC. (continued)**

- Testified before the Florida Public Service Commission on natural gas cost-of-service study.
- Prepared and presented Load Management and Marketing Plan for natural gas utility.
- Prepared Cogeneration Feasibility Study for large industrial client.
- Developed numerous marketing programs for individual clients.

**WISCONSIN POWER AND LIGHT COMPANY, Madison, Wisconsin**

1977 - 1989

**Consumer Service Supervisor (1988 - 1989)**

- Directed all consumer service, marketing, wholesale and community relations programs in largest district.
- Supervised the District's Consumer Service and Appliance Repair Departments.

**Rate Engineer II (1986 - 1988)**

- Performed electric and natural gas marginal and embedded cost-of-service studies.
- Designed both wholesale and retail electric rates.
- Testified before the Illinois Commerce Commission and the Public Service Commission of Wisconsin.

**Rate Engineer III (1983 - 1986)**

- Performed electric, gas and water cost-of-service and rate design studies.
- Developed and responsible for interpretations of electric, gas and water extension rules.

**Industrial Service Representative (1980 - 1983)**

- Worked with industrial customers on how to use the company's products more efficiently.
- Kept industrial customers informed on future rate projections, any legislative or commission action which may impact them, and any new technologies that may aid their plant in operating more efficiently.

**Commercial Service Representative (1979 - 1980)**

- Answered commercial customers concerns about their energy costs and suggested ways to improve their operation or building to use energy more efficiently.
- Coordinated electric, gas and water services for new construction.

**Residential Service Representative (1977 - 1979)**

- Provided energy audits for residential customers.
- Coordinated electric, gas and water services for new construction.

**EDUCATION**

University of North Carolina - Chapel Hill - Master of Business Administration - 1996  
 University of Wisconsin - Bachelor of Science Degree in Construction Management and Design - 1977  
 Milwaukee School of Engineering - Associate Degree in Electrical Power Engineering Technology - 1984

**COMPUTER RELATED SKILLS**

- Microsoft Excel
- Microsoft Word
- Microsoft Access
- Microsoft Power Point

**REFERENCES**

Available upon request.

## JUDY D. BEACHAM, CPA

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### Work Experience

2013 – Present Booth & Associates, LLC Raleigh, NC

**Senior Financial Analyst**

- Prepare Cost-of-Service studies for electric cooperatives
- Consultant to electric, gas, water and paging utility companies
- Conduct audits of companies' financial records, prepared accounting adjustments and recommendations for revenue requirements

2000 – 2013 Bellwether Management Solutions Raleigh, NC

**Co-Owner**

**Senior Financial Consultant**

- Prepare Cost-of-Service studies for electric cooperatives
- Consultant to electric, gas, water and paging utility companies
- Conduct audits of companies' financial records, prepared accounting adjustments and recommendations for revenue requirements

1997 – 1999 SAS Institute Inc. Cary, NC

**Contracts Financial Analyst**

- Provide financial analysis of strategic licensing arrangements
- Assist in negotiations of long-range strategic relationships with high profile customers

1995 – 1997 Raleigh, N.C.

**Business Consultant – North Carolina Electric Membership Corporation**

- Prepared Cost of Service studies for electric cooperatives in North Carolina

1992 – 1995 Capital Data Systems, Inc. Cary, NC

**Project Team Leader, Paging Billing System**

- Managed a team of software engineers responsible for ongoing software development and enhancements to a paging bill system
- Designed detailed program specifications for software customizations and enhancements
- Preparation of cost estimates for customizations; tracking budget vs. actual cost and providing an analysis of variances

## **JUDY D. BEACHAM, CPA (continued)**

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1980 – 1992                      Currin and Associates, Inc.                      Cary, NC

### **Senior Financial Analyst**

- Consultant to electric, gas, water and paging utility companies
- Conducted audits of companies' financial records, prepared accounting adjustments and recommendations for revenue requirements
- Prepared and presented accounting testimony before the appropriate government regulatory agencies

1978 – 1980                      Carolina Power and Light Co.                      Raleigh, NC

### **Senior Financial Analyst**

- Assisted in preparation of accounting testimony on behalf of CP&L for various regulatory agencies on a wide variety of financial issues
- Was a member of a software development team responsible for the design and development of a Depreciation and Deferred Tax Accounting software module

1975 – 1978                      North Carolina Utilities Commission                      Raleigh, NC

### **Utility Analyst**

- Responsible for auditing rate request filed by electric utilities with the North Carolina Utilities Commission
- Prepared accounting testimony which was presented before the North Carolina Utilities Commission

## **Education**

1971 – 1975                      University of North Carolina                      Chapel Hill, NC  
**BSBA with emphasis in Accounting**

## **Professional Memberships**

**North Carolina Association of Certified Public Accountants**                      Raleigh, NC  
Member since May 1975 upon passing the North Carolina Certified Public Accounting Exam

**American Institute of Certified Public Accountants**  
Member since May 1975

## STEPHANIE M. BEAUREGARD

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### Work Experience

- 2013 – Present Booth & Associates, LLC Raleigh, NC  
**Utility Financial Analyst**
- Prepare Cost-of-Service Studies for electric cooperatives and municipalities
  - Prepare revenue and cost projections for utility companies
  - Develop new rates and run impact analysis
  - Develop and/or modify financial computer models
- 2001 – 2013 Bellwether Management Solutions Raleigh, NC  
**Utility Financial Analyst**
- Prepared Cost-of-Service studies for electric cooperatives
  - Prepared power cost adjustment models for electric utilities
  - Developed new rates and run impact analysis
  - Developed and/or modified financial computer models
- 1994 – 2001 Booth & Associates, Inc. Raleigh, NC  
**Utility Financial Analyst**
- Prepared Cost-of-Service studies for electric cooperatives and municipalities
  - Developed and/or modified financial computer models
  - Investigated industry benchmarks and prepared comparative analyses
- 1993 – 1994 Cary, NC  
**Construction Coordinator**
- Maintained databases for schedules, materials, and pricing
  - Created and maintained spreadsheets to track budget variances
- 1990 – 1993 NASA / Allied Signal Greenbelt, MD.  
**Data/Math Analyst**
- Analyzed and processed telemetry data for multiple scientific satellites
  - Investigated anomalies encountered during statistical analysis of telemetry data
  - Utilized CA Universe DBMS to write query programs for data retrievals
  - Coordinated software testing and verified the functionality of software upgrades

### Education

1987 – 1990 Towson State University Towson, MD  
**BS Mathematics**

## STEVEN A. MILLER

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### Work Experience

2001 to Present                      Booth & Associates, LLC                      Raleigh, NC  
**Financial Consultant**

- Provide financial consulting services to clients and assist with administrative functions
- Maintain client relations which enhance the company's professional image and ability to generate consulting business
- Create, modify, and use computer models for financial and statistical evaluations. The primary goal is to help clients achieve optimal performance and efficiency.
- Provide project management in areas of budget and strategic planning, cost accounting evaluations, forecasts, cost-of-service studies, utility rates development, financial performance analysis, feasibility studies, and computer systems development
- Supervise and coordinate work with financial technicians or employees from other departments providing similar support
- Develop and use a variety of financial computer models for forecasting and analysis
- Develop and use an array of statistical and graphic analyses
- Prepare professional quality report output
- Standardize models for maximum usefulness among multiple clients with similar needs
- Assist with the preparation of professional quality multi-media presentations
- Utilize the Internet and direct modem connections to exchange information with clients and download utility industry information
- Development of utility pricing strategies and rates
- Preparation of budgets and strategic financial plans
- Development of cost-of-service studies

1999 to 2001                      Merisel, Inc.                      El Segundo, CA / Cary, NC  
**Sales Analyst**

Major Accomplishments: Developed an Account Review Dash Board database using MS Access which produces a report that shows the major components of a customer's profitability. Developed an Executive Sales Summary, a widely used report, that has become the main, high level report for sales management, the report shows sales and margin with quarterly, monthly, weekly, & previous day trending broken out by company segmentation.

Other Duties: Develop and publish regular reports as required by the Sales Organization, using data from many resources. Provide analysis, including price modeling, compensation, and operating expenses/annual plan in an SAP environment.

**STEVEN A. MILLER (continued)**

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1996 to 1999

Ingram-Micro, Inc.

Santa Ana, CA

**Sales Analyst**

Major Accomplishments: Developed a Daily Margin Review database using MS Access which produces 18 daily reports - posted to company's Intranet Site - showing Margin Impact in a number of different ways - from the impact of an invoice to the impact of sales negotiations. Developed a server-based Automated Report Generator using MS Access for 40 users. The reporting tool produces 50 different reports ranging from Sales by Vendor, Product, or Category to Credits by Reason, on over 1,000 of company's largest customers.

Other Duties: Develop and publish regular reports as required by the Sales Organization, using data from many resources. Provide analysis, including price modeling, compensation, and operating expenses/annual plan. Vendor program management, built relationships with vendors; assisted customers with vendor application processes; provided customer application tracking, daily reporting on metrics, developed. Maintained Vendor Authorization Intranet site.

Awards: Sales Operations Excellence Award, 1998; Most Valuable Player, Reporting & Analysis Pricing Team, 1998

1991 to 1995

Ledyard Company

Santa Cruz, CA

**Purchasing Analyst**

Developed programs to streamline inventory; Developed reports with IT department; Developed policies and procedures to reduce Special Order Inventory; Identified and eliminated non-turning items; Expedited distressed inventory returns to vendors; Monitored items for inventory trends; Followed department buying strategy; Created and followed-up on purchase orders; Reviewed and updated pricing on equipment, supplies, and produce; Updated data bases; Reconciled missed freight billing errors; Coordinated interstate shipping; Created and procured office forms, Procured copier supplies, Provided communication support to vendors and other departments.

1986 to 2000

California Air National Guard, 216th EIS

Hayward ANG, CA

**Tech Sergeant / Grade E6**

Accomplishments: Identified wasteful procedures and developed computerized inventory tracking of time-sensitive chemical warfare and other deployment gear.

Duties: Order, maintain, and update Unit Mobility equipment as specified by U.S. Air Force and Air National Guard regulations;

Provide classroom and hands-on training to entire unit in Chemical Warfare Defense. Distribute mobility training equipment.

Awards: Honor Graduate from Air Force Tech. School, (California Commendation Medal) Accomplishments during "Team Spirit '90" joint military exercise in Korea, (California Commendation Medal); Unit Airman of the Year nominee, 1994

**Education**

BA Mathematics

San Jose State University

San Jose, CA