

2020 VALUE SUMMARY



The energy behind public power



POWER SUPPLY BENEFIT

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Power Supply	Additional SEPA Allocation	\$92,000	Additional 7,188kW of SEPA allocation as a result of SEPA contract terminations by customers in GA. Staff ensured timely responses from 17 Members to request and accept the additional allocations. Allocation effective Jan 2019.	GDS analysis. Total benefit is \$92,000 benefit per year.
Power Supply	Asset Sale Agreement	\$217,385,000	Asset Sale Savings under FR Rate is calculated by projecting costs under the AR Rate less the actual costs under the new FR rate (GDS Analysis July 2015).	Total projected AR Rate charges of \$862,168,000 less the total FR Rate charges of \$644,783,000. Total Savings = \$217,385,000
Power Supply	Hourly Trading Services	\$487,640	Staff outsourced NCPMA1's hourly energy trading/scheduling functions rather than adding staff. The resultant annual savings are based on these factors: internal staff cost = 5 FTEs @ \$140,000/FTE + 20% carrying charges on infrastructure cost of \$225,000; outsourced cost = \$257,360.	Total Benefit = Internal cost - Outsourced cost = ((5 FTEs x \$140,000/FTE) + (0.2 x \$225,000)) - \$257,360 = \$487,640
Power Supply	Market Transactions Checkout	\$79,714	Staff identified billing errors during checkout and reconciliation of market transactions for NCPMA1.	Total Benefit = Bill corrections identified and paid to NCPMA1 = \$79,714
Power Supply	REPS Compliance	\$2,201,864	Successfully lobbied NCUC to postpone swine requirement by one year, allowing the Power Agencies to avoid retiring REC's for 2020 compliance. Additionally, due to successful lobbying, the poultry requirement has been delayed several times, leaving the 2020 state-wide aggregate poultry requirement to be 700,000 MWh, less than what was originally stated in the statute.	2020 Benefit = Value of REC's that would have been retired in 2020 = swine REC's (in-state and out-of-state) + (poultry REC's (in-state and out-of-state) + unpurchased REC's) = \$1,479,506.36 + (\$424,638.90 + \$297,719.20) = \$2,201,864.44
Power Supply	REPS Compliance	\$603,521	Identified out of state sources for REC purchases to comply with the NC REPS law. These purchases are allowed by law and provided for significant savings to the Power Agencies	Total Benefit = NCEMPA general REC savings + NCPMA1 general REC savings + NCEMPA Poultry REC savings + NCPMA1 Poultry REC Savings = \$120,348.20 + \$85,571.50 + \$233,730.14 + \$163,87.41 = \$603,521.25
Power Supply	REPS Compliance	\$1,080,000	Ensured compliance on behalf of all 51 Power Agency members and 3 non-Power Agency members. Utilize Electricities staff to provide REPS compliance services to Power Agency cities instead of having each city perform the function on their own.	Total Benefit = 54 cities x 10% FTE x 2000 FTE hours x \$100/hour = \$1,080,000
Power Supply	Supplemental Capacity and Energy	\$23,630,963	Staff renegotiated NCPMA1's Interconnection Agreement (IA) with Duke to allow NCPMA1 to purchase supplemental capacity and energy from the market rather than from Duke. The savings result from the difference between 2020's actual supplemental and reserves power supply cost versus what would have been paid to Duke under the old IA.	Total Benefit = Duke cost - market cost = \$61,919,172 - \$38,288,210 = \$23,630,963
Power Supply	Surplus Sales Program	\$17,200,000	Staff negotiated changes in NCPMA1's Interconnection Agreement with Duke in order to sell NCPMA1's surplus electricity directly into the wholesale markets rather than to Duke at lower prices. The value of the surplus energy program represents the additional margins gained through these sales.	Total Benefit = Sales revenue - Sales cost; Sales revenue = Energy price x Sales volume = \$17.80/MWh x 2,413,698 MWh = \$42.9M; Sales cost = Energy cost x Sales volume = \$10.68/MWh x 2,413,698 MWh = \$25.7M; Total Benefit = \$42.9M - \$25.7M = \$17.2M
Power Supply	Transmission Peak Reduction	\$1,265,880	NCPMA1 dispatches Agency, city and customer owned generators at the time of Duke's transmission peak. The reduction in load provides a savings on NCPMA1's transmission bill. The estimated amount of DG operated during the Transmission peaks multiplied by the avoided transmission service rate for 2020 yields the total benefit.	Total Benefit = 132MW of DG * 7 months during 2020 * \$1.37/kW avoided cost of Transmission service expense = \$1,265,880

SERVICES BENEFIT

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Business Development Services	C&I Power Audits	\$70,000	Staff performed energy audits for NCEMPA & NCMPA1 C&I customers. 28 power audits were provided. If outsourced, energy audits cost \$2,500 each. REDUCED NUMBER BECAUSE OF COVID 19	Total Benefit = (Number of energy audits x Outside audit cost) = 28 x \$2,500 = \$70,000
Business Development Services	Key Accounts Events	\$41,000	Hosted Key Accounts events for NCMPA1 and NCEMPA members. 2 events were hosted in 2020	Total Benefit = Amount spent on events + Avoided member staff time for planning = \$20,000 + (\$10,500 x 2 events) = \$41,000
Business Development Services	Lighting Rebate Program	\$257,125	Provided lighting rebates to members and their customers. Total of 50 lighting projects were funded and \$257,125 rewarded in rebates.	Total Benefit = Total rebates provided = \$257,125
Business Development Services	Member/customer training	\$9,800	Staff provides training through webinars and workshops for technical and energy efficiency topics. The estimated difference between market price (or outsourced city cost) of this service and the cost charged to the cities by Staff is \$100/person. There were 98 attendees logged for 2 webinars in 2020.	Total Benefit = (Estimated savings for EC training/attendee) x Number of attendees = \$100/person x 98 attendees = \$9800
Business Development Services	Questline Newsletter	\$45,000	Provided bi-monthly newsletter for participant C&I customers	Total Benefit = price of contract = \$45,000
Compliance	NERC Compliance	\$322,504	Staff provides NERC/SERC reliability compliance services for 7 cities in NCEMPA, and 1 non Power Agency city. It is estimated that each city would require 1.98 FTE (a combination of their own employees and consultants) to maintain compliance in order to avoid potential penalties of up to \$1,000,000 per occurrence per day.	Total FTEs = (0.33 FTE/city) x (6 cities) = 1.98 FTEs. Assume 70% of FTEs are provided by city employees (1.39 FTE) at \$50/hour and 30% by consultants (0.59 FTE) at \$145/hour. Total Benefit = (1.39 FTE x \$50/hour x 2,080 hours/year) + (0.59 FTE x \$145/hour x 2,080 hours/year) = \$322,504
Corporate Learning & Development	Member Training	\$62,781.25	Curriculum review and redesign work for Safety & Training group, Key Accounts Training and Customer Service Training	Total Hours (12 Months): 1,435 Hrs. x \$43.75 (Industry average rate for curriculum design work). Total Benefit = \$62,781
Distribution Services	CADD Drawings	\$1,073	Staff pays for customized CADD drawings to support the Construction Manual. There is no additional cost to the members and the work product is shared among all members.	Total Benefit = Avoided cost of CADD drawings = \$1073
Distribution Services	Distribution Services	\$50,200	Staff provides distribution services to members. Some of these services include subscriptions to APPA's eReliability Tracker outage tracking system to members at no charge, system losses studies, reliability tracking and assistance, SDS online system, etc.	Total Benefit = (Number of Cities x Cost per Subscription) + (Number of Cities x Avoided Cost per SDS Account) + (Number of Cities x Avoided assistance time for reliability x Labor rate) = (27 x \$225) + (5 x \$3625) + (65 x 4 hr x \$100/hr) = \$50,200
Distribution Services	EIA Report Assistance	\$41,250	Staff coordinates data collection and city reports for filing with EIA for Non-PA Participants at no additional charge. It is estimated that a vendor would charge \$2,750/city/year.	Total Benefit = Number of cities x Savings/city = 15 x \$2,750 = \$41,250
Distribution Services	Electric System Construction Manual	\$90,000	Standardized Construction Practices allow for training programs to teach the same practices to all members. This shortens the learning curve, allows for better emergency response and assures acceptable practices are taught. Construction drawings developed and approved by Public Power employees allow for standardized training and construction practices. Staff provided manuals at no additional cost to members, where members would otherwise have to hire a consultant.	Total Benefit = Consultant cost per member x Number of members = \$1,000 x 90 = \$90,000

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Distribution Services	Joint Purchasing - Utility Poles	\$29,304	Staff coordinated the joint purchasing of utility poles, resulting in a 3% discount on \$976,783.70 of pole purchases.	Total Benefit = EC discount x Pole expenses = 3% x \$976,783.7 = \$29,303.51
Distribution Services	Performance Indicators	\$60,000	Staff researched and compiled a report of industry Performance Indicators and trends for the members, resulting in savings to the members due to avoided use of member staff resources.	Total Benefit = Avoided city effort x City rate x Number of cities = 8 hr x \$100/hr x 75 = \$60,000
Distribution Services	Pole Attachments	\$30,000	Staff has developed a template pole attachment agreement available for all members to use. It is estimated that a consultant would charge \$10,000 to develop an agreement from scratch.	Estimated Benefit = Avoided consultant cost x Number of cities = \$10,000 x 3 = \$30,000
Distribution Services	Reliable Public Power Provider (RP3)	\$14,400	Staff provides data needed for RP3 applications as well as assistance with completing the applications, resulting in a reduction in member staff time to complete the applications. There were 9 members that completed their RP3 applications in 2020	Total Benefit = Avoided assistance time x Labor rate x Number of members = 16 hr x \$100/hr x 9 = \$14400
Distribution Services	State Wide Service Contracts	\$40,000	Contracts are in place with vendors to provide technical assistance or services to members. The use of Staff to put together a service contract, bid and execute an agreement avoids paying a contractor or consultant.	Total Benefit = Avoided vendor cost/use x Number of uses = \$500 x 80 = \$40,000
Distribution Services	System Betterment Funding	\$255,000	The Power Agencies provided \$5,000 in funding to all 51 members to spend on a system betterment project.	Total Benefit = \$5,000 x 51 members used their funding = \$255,000
Distribution Services	Utility Director Meetings & Listserve	\$45,000	Staff provides peer networking for utility directors; asking and answering questions instead of paying consultants or contractors for assistance. It is estimated each member avoids at least \$500 per year in consulting costs.	Total Benefit = Avoided consulting cost x Number of members = \$500 x 90 = \$45,000
Economic Development	Advertising	\$2,448,000	Staff provides advertising services to all 51 members using "12 x" rates to get the best value. For the major magazines - Site Selection, Area Development, Business Facilities, Southern Business & Development and targeted market sectors publications, the average cost of an ad is \$6,000 with 2 ads provided per city per quarter	Total Benefit = Number of cities x (Cost per ad x Adds per year)= 51 x (\$6,000 x 8)= \$2,448,000
Economic Development	All America City(s)	\$12,000	Staff provides specific designs and layouts for an average of 3 booth exhibits/year.	Total Benefit = Booth development cost x Number of booths = \$4,000 x 3 = \$12,000
Economic Development	Business Recruitment	\$1,275,000	Staff used ESRI ArcGIS software to provide market analyses and up to 18 different reports for business recruitment process at no direct cost to members.	Total Benefit = Number of cities x Avoided cost per analysis = 51 x \$25,000 = \$1,275,000
Economic Development	Customized City Projects	\$90,000	Staff provides customized projects for members - i.e., website design, bill board design and collateral marketing (target sectors, demographics, pocket folders, etc.). It is estimated that each city would need to spend \$6,000/project to obtain such service from a third party.	Total Benefit = Number of cities x (Cost per project)= 15 x \$6,000 = \$90,000
Economic Development	Economic Development Staff	\$750,000	Staff includes a person with applicable skills to manage economic development activities for 30 members. Otherwise, each city would need at least 0.50 FTE at \$50,000/FTE to provide this service. (Note: Monroe and High Point have ED staff)	Total Benefit = Number of cities x (City FTE x Cost per FTE) = 30 x (0.5 x \$50,000)= \$750,000
Economic Development	Marketing	\$306,000	Staff provides cities with specific designs/layouts for marketing collateral to attract new businesses at an average cost of \$3,000 to \$10,000 depending on the collateral piece. If a third party were hired to provide this service, it is estimated that each piece would cost \$6,000 and it is assumed that each city would purchase one piece per year.	Total Benefit = Number of cities x (Cost per project) = 51 x \$6,000 = \$306,000

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Economic Development	Prospect / Client Leads	\$408,000	Staff pursues an average of over 200 inquiries/leads regarding new business opportunities in North Carolina each year. These come from trade shows, advertising, mission trips with Regional Partnerships, County EDCs and the Dept. of Commerce. Targeted listing includes company names, addresses, CEOs/owner/email/phone. It is assumed that members would otherwise purchase 1 list per quarter at \$2,000 each.	Total Benefit = Number of cities x Cost per quarterly listing x 4 quarters/year = 51 x \$2,000 x 4 = \$408,000
Economic Development	Retail / Commercial Development	\$4,335,000	Proposals were made by Staff to retail/commercial establishments for recruitment purposes. Without such support, each city would pay for consultant reports of around \$60,000 each and would need 0.50 FTE to manage the retail recruitment process.	Total Benefit = Number of cities x ((Consulting cost) + (City staff FTE x City staff cost))= 51 x ((\$60,000 + (.5 x \$50,000)))= \$4,335,000
Economic Development	Retail Strategies Program	\$120,000	Program to develop retail strategic plans for six (6) communities at a savings of \$20,000 for each community.	Total Benefit = Number of cities x savings per city = \$20,000 x 6 = \$120,000
Economic Development	Retail Strategies Program	\$75,000	Program to help with years 2nd and 3 of the retail recruitment program for six (6) communities at a savings of \$12,500 for each community.	Total Benefit = Number of cities x savings per city = \$12,500 x 6 = \$75,000
Economic Development	Retail Strategies Program	\$20,000	Retail Academy program provide assistance to communities with populations under 10,000. The assistance program helped four (4) communities at a savings of \$5,000 for each community.	Total Benefit = Number of cities x savings per city = \$5,000 x 4 = \$20,000
Economic Development	Site Assist Program	\$60,000	This program identifies new parcels of land for industrial parks	Total Benefit = Number of cities x savings per city = \$10,000 x 6 = \$60,000
Economic Development	Smart Communities Matching Grants	\$125,000	Staff assisted with providing \$5,000 matching grants for 25 cities.	Total Benefit = Number of grants x (Matching grant amount) = 25 x \$5,000 = \$125,000
Economic Development	Smart Sites / Shovel Ready Program	\$150,000	Shovel-ready suite qualification program designed to support economic development opportunities for the members.	Total Benefit = Number of cities x (cost) = 6 x \$25,000 = \$150,000
Economic Development	Strategic Economic Development Plans	\$344,000	Staff provides strategic economic development plans for the members at no additional charge versus each city paying an average cost of \$20,000/plan and implementation costs of 12 work days for each member @ \$1,200/work day.	Total Benefit = Number of cities x (Cost of plan + (Number of work days x Cost per work day)) = 10 x (\$20,000 + (12 x \$1,200)) = \$344,000
Economic Development	Territorial Assistance	\$153,000	Staff provides legal assistance and guidance for the members regarding territorial and customer choice issues. It is estimated that the number of questions answered per year is the equivalent of one per member and that the cost of such assistance by outside counsel is \$3,000 for each question.	Total Benefit = Number of cities x (Cost per city)= 51 x \$3,000 = \$153,000
Economic Development	Webinars	\$15,300	Staff provides webinars for the members on retail / commercial / industrial development including IECC / SEDC webinars.	Total Benefit = Number of cities x 1 webinar per city x cost per project = 51 x 1 x \$300 = \$15,300
HR	Salary Data	\$1,159,470	ElectriCities provides electric position salary data from various survey sources. Purchased surveys for 2020 included: APPA - \$2,700; EAPDIS - \$2,050; Willis Towers Watson - \$6,000; Economic Research Institute Salary Assessor - \$2,133	Total Benefit = (\$2,700 + \$2,050 + \$6,000 + \$2,133) = 12,883 x 90 Members = \$1,159,470

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Legal	Government Relations	\$54,057,317	The ElectricCities Government Relations staff protects the interests of all NC Public Power communities at the NC General Assembly including municipalities ability to grow their electric load and charge reasonable fees for use of their infrastructure. Staff also mitigates the harm of potentially costly mandates such as renewable energy and recent changes to how sales of electricity are taxed.	\$54,057,317.08 represents the total distribution amount public power cities and towns received from the NC Department of Revenue for the Electric Franchise/Natural Gas Excise tax for the 2015-2016 fiscal year that ended on June 30, 2016. Under tax reform legislation passed in the 2013 General Assembly, effective on July 1, 2014, the gross receipts franchise tax on sales of electricity and the reimbursement of a portion of that tax to cities was repealed. However, cities that were served by investor owned utilities were protected by a "hold harmless" provision in the law that provided that those cities would receive the same amount of money despite the repeal of the gross receipts franchise tax. Power Agency cities were initially left out of the "hold harmless" provision. Staff and our contract lobbyists successfully lobbied legislators and legislative staff on behalf of the Power Agency cities so that Power Agency cities are also protected by the "hold harmless" provision. Value held constant since 2015.
Member Communications	Bill Insert	\$400	Elizabeth City: Smart Meter AMI Bill Insert Artwork	Total Benefit = Estimated ElectricCities (2) staff (4/hrs @ \$100 = \$400) = \$400
Member Communications	City Rebrand	\$3,000	Kings Mountain: Rebrand support for Fire Department and Police Department	TOTAL = 396,600 Total Benefit = Estimated ElectricCities (3) staff (30/hrs @ \$100 = \$3,000) = \$3,000
Member Communications	Commercial & Industrial	\$329,000	Commercial and Industrial Customer Resources: webpage section developed; brochure developed; and video production. Resources created for member to better support their key account commercial and industrial customers.	Total Benefit = Estimated ElectricCities (1) staff website landing page and supporting pages (9/hrs @ \$100 = \$900) + video production (8/hrs @ \$100 = \$800) + copy-writing (8/hrs @ \$100 = \$800) + voiceover contractor (\$1,000) + Estimated ElectricCities (1) staff brochure and collateral design (12/hrs @ \$100 = \$1,200) = \$4,700 x 70 members = \$329,000
Member Communications	Conferences	\$2,646,000	Connections Summit: Developed materials for Scripts, Signage, PowerPoint templates, Digital Screens, Program, On-site Support, Badge Artwork, and more.	Total Benefit = Estimated ElectricCities (4) staff (378/hrs @ \$100 = \$37,800) x 70 members = \$2,646,000
Member Communications	Corporate Value Advertising	\$4,830,000	Corporate ads promoting the Value of Public Power: 6 themes designed for 2020; ads promoted in print, digital, and TV for UNC-TV, Our State Magazine, NC League, Business North Carolina, and North State Journal	Total Benefit = Ad concept development (6 at \$1,500 each = \$9,000) + Cost of ad placements (\$60,000) = \$69,000 x 70 members = \$4,830,000
Member Communications	Corporate Value Advertising	\$980,000	Business North Carolina Roundtable - Sponsorship and Advertising development	Total Benefit = Estimated ElectricCities (3) staff (15/hrs @ 100 = \$1500) + (Sponsorship cost = \$12,500) = \$14,000 x 70 members = \$980,000

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Member Communications	Corporate Value Advertising	\$714,000	Economic Development ad series for print and digital placement in industry magazines throughout the year bringing business into communities for all members	Total Benefit = Ad production and concept development Estimated ElectriCities (2) staff (5/hrs per month @ \$100 = \$500 x 12 = \$6000) + advertising management from contractor (\$1050 per quarter x 4 = \$4200) = \$10,200 x 70 members = \$714000
Member Communications	Corporate Value Advertising	\$1,246,000	North State Journal weekly articles production/writing	Total Benefit = Estimated at ElectriCities (1) staff (avg. 1/hr per week @ \$100/hr x 52 wks = \$5,200) + Cost of Copywriting by (1) Contractor (Average of \$150/wk. x 52 wks = \$7800) + (Cost of Ad Placements = \$4800) = \$17,800 x 70 members = \$1,246,000
Member Communications	Corporate Value Advertising (Economic Development)	\$630,000	Economic Development 2020 City feature calendar: annual project featuring 12 cities to promote economic development growth and city tourism	Total Benefit = Estimated ElectriCities (3) staff (120/hrs @ \$100 = \$12,000) + photography (\$20,000) + printing (\$20,500) = \$52,500 x 12 featured cities = \$630,000
Member Communications	Customized City Project	\$2,500	Customized City Project: Benson Welcome sign	Total Benefit = Estimated ElectriCities (2) staff (25 hrs @ \$100 = \$2,500) = \$2,500
Member Communications	Customized City Project	\$5,000	Ayden: Maps	Total Benefit = Estimated ElectriCities (2) staff (50 hrs @ \$100 = \$5,000) = \$5,000
Member Communications	Customized City Project	\$17,400	Louisburg: Quarterly 16-page ad spreads for Triangle Business Journal	Total Benefit = Estimated ElectriCities (2) staff (40/hrs @ \$100 = \$4,000) + copywriting (\$1,800) = \$5,800 per issue x 3 issues for 2020 = \$17,400
Member Communications	Customized City Project	\$3,500	Laurinburg: Mural	Total Benefit = Estimated ElectriCities (2) staff (35 hrs @ \$100 = \$3,500) = \$3,500
Member Communications	Economic Development	\$17,550	Developments Newsletter: quarterly publication with industry news promoting the value of public power and the economic development wins of our members	Total Benefit = Estimated ElectriCities (2) staff (15/hrs @ \$100 = \$1,500 per issue at 4 issues per year = \$6,000) + copywriting (\$600 each issue at 4 issues = \$2,400) + printing cost (\$3,750 ea. x 4 = \$15,000) = \$23,400 (less one copy due to COVID) = \$17,550
Member Communications	Economic Development	\$83,000	LinkedIn advertising: webpages and resource section developed; campaign design; and video production for Smart Sites, Shell Building, Workforce and Econ Dev team	Total Benefit = Estimated ElectriCities (1) staff website creation landing pages and supporting pages (42/hrs @ \$100 = \$4,200) + Estimated ElectriCities (1) staff video production [2 videos] and editing (16/hrs @ \$100 = \$1,600) + Estimated ElectriCities (1) staff ad campaign design (10/hrs @ \$100 = \$1,000) + Estimated ElectriCities (2) staff graphic design of supporting assets (15/hrs @ \$100 = \$1,500) = \$8,300 x 10 members = \$83,000

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Member Communications	Job Postings	\$1,500	Job postings on behalf of member communities to Corporate Website throughout the year; Updates to posts/statuses; Removing when filled; Communications to HR and member.	Total Benefit = Estimated ElectriCities (1) staff (15/hrs @ \$100) = \$1,500
Member Communications	Member Communication	\$72,800	Weekly Wire: weekly digital newsletter promoting ElectriCities services, industry news, member highlights and numerous resources available to members	Total Benefit = Estimated ElectriCities (3) staff (12/hrs @ \$100 = \$1,200 per issue) + copywriting (\$200 per issue) = \$1,400 x 52 issues= \$72,800
Member Communications	Member Communication	\$9,200	ElectriCities Safety and Training Standards and Operations Manual: Design and layout, conversion to digital format, webpage resource areas set up	Total Benefit = Estimated ElectriCities (2) staff (23/hrs @ \$100 = \$2,300) = \$2,300 x 4 members (H/C/P/L) = \$9,200
Member Communications	Member Communication	\$840,000	Social Media content: graphics, videos and messaging documents produced monthly	Total Benefit = Estimated ElectriCities (3) staff (10/hrs @ \$100 = \$1,000 month) x 12 months = \$12,000 x 70 members = 840,000
Member Communications	Mutual Aid Crew Swag	\$11,530	Mutual Aid Crew Swag: Kits consist of T-shirt, Embroidered Hat, and Stick-ers for each crew member who responded, and a Certificate in folio sent to Crew Leader suitable for framing. Two major storms in 2020, Hurricane Isaias and Delta. Both with unique logo marks developed and unique swag.	Total Benefit = Estimated ElectriCities (3) staff (30/hrs @ \$100 = \$3,000) + Isaias: (\$2,360.57) + Delta: (\$2,169.87) = \$11,530.44
Member Communications	Mutual Aid Crew Swag	\$2,029,000	Sponsorships for members throughout the year.	Total Benefit = "Keep Gastonia Beautiful" Sponsorship (\$2500) + NC Chamber Bronze Sponsor (\$1250 x 70 Members = \$87,500) + UNC-TV Underwriting (\$27,700 x 70 = \$1,939,000) = \$2,029,000
Member Communications	P4 Funds	\$34,477	P4 Funds: Designed for Power Agency members, the Public Power Pro-motional Program (P4) provides funds you can use to promote your utility and your community. The amount you receive depends on the number of customers your community serves: •Less than 5,000 customers = up to \$1,500 •5,000 to 10,000 customers = up to \$2,000 •More than 10,000 customers = up to \$2,500	Total Benefit = Estimated ElectriCities (2) staff (5/hrs @ \$100 = \$500) \$500 + NCMPA1 Member Funds Provided (8 members = \$11,778) + NCEMPA Member Funds Provided (12 members = \$22,199) = \$34,477
Member Communications	Public Power Week Campaign	\$711,000	Staff designed a Public Power Week themed campaign, and produced themed promotional products that could be ordered and paid for by members.	Estimated ElectriCities (3) staff graphic design and swag production (80/hrs @ \$100 = \$8,000) + Estimated ElectriCities (1) staff Press Release and Resolutions (3/hrs @ \$100 = \$300) + Estimated ElectriCities (1) staff website shopping page programmed (8/hrs @ \$100 = \$800) + Estimated ElectriC-ities (1) staff communications plan and social media collateral created (7/hrs @ \$100 = \$700) = \$9,800 x 70 members = \$686,000 + estimated city product orders of \$25,000 = \$711,000
Member Communications	Stock Bill Inserts	\$79,320	Seventeen bill inserts on public power-related topics were made available to all members free of charge.	Hamilton 1,500, Kings Mountain 7,000, Mon-roe 1,250, Shelby 20,100, Wilson 102,000, Laurinburg 900, Granite Falls 18,000, Wash-ington 4,000, Wilson 102,000, Granite Falls 9,000, Kings Mountain 2,000, Fremont 250, Shelby 2,300, Wilson 102,000, NRL&P 8,700, Rocky Mount 2,000, Shelby 13,600 Total Benefit = 396,600 bill inserts sent to members x \$0.20 per insert = \$79,320

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Member Communications	Toolkits	\$1,540,000	Photofy: Social Media platform access for members plus custom design work of graphics and assets	Total Benefit = Estimated ElectriCities (3) staff (40/hrs @ \$100 = \$4,000) + platform fee (\$18,000) = \$22,000 x 70 members = 1,540,000
Member Communications	Toolkits	\$119,000	Outage Communications: Toolkit and Web resource page	Total Benefit = Estimated ElectriCities (4) staff (17/hrs @ \$100 = \$1,700) = \$1,700 x 70 members = \$119,000
Member Communications	Toolkits	\$168,000	Hurricane Communications: Webinar powerpoint, presentation to members, Toolkit and Web resource page	Total Benefit = Estimated ElectriCities (4) staff (24/hrs @ \$100 = \$2,400) = \$2,400 x 70 members = \$168,000
Member Communications	Toolkits	\$35,000	Customized City Projects: Toolkit and Communications Guides	Total Benefit = Estimated ElectriCities (2) staff (5/hrs @ \$100 = \$500) = \$500 x 70 members = \$35,000
Member Communications	Toolkits	\$420,000	Crisis Communications Webinar: content creation, resource toolkit developed	Total Benefit = Estimated ElectriCities (5) staff (35/hrs @ \$100 = \$3,500) + outside contractors (\$5,000) = \$40,000 x 70 members = \$420,000
Member Communications	Value Study	\$3,000	Value Study: Design and layout, Ayden	Total Benefit = Estimated ElectriCities (3) staff (25/hrs @ \$100 = \$2,500) + printing costs (\$500)= \$3,000
Member Communications	Value Study	\$3,000	Value Study: Design and layout, Kinston	Total Benefit = Estimated ElectriCities (3) staff (25/hrs @ \$100 = \$2,500) + printing costs (\$500)= \$3,000
Member Communications	Value Study	\$3,000	Value Study: Design and layout, Tarboro	Total Benefit = Estimated ElectriCities (3) staff (25/hrs @ \$100 = \$2,500) + printing costs (\$500)= \$3,000
Member Communications	Value Study	\$3,000	Value Study: Design and layout, Gastonia	Total Benefit = Estimated ElectriCities (3) staff (25/hrs @ \$100 = \$2,500) + printing costs (\$500)= \$3,000
Member Communications	Videos (Energy Efficiency, Value of Public Power Other Topics)	\$560,000	Phil's 2 Minute Drills - Customer Service Training videos: webpage design, in-house video production editing and graphic design work	Total Benefit = Estimated ElectriCities (3) staff (10/hrs @ \$100 = \$1,000) x 8 episodes = \$8,000 x 70 members = \$560,000
Member Communications	Videos (Energy Efficiency, Value of Public Power Other Topics)	\$280,000	Virtual Energy Efficiency CheckUp: Webpage resource section, member toolkit design, marketing plan, graphic design, and promotional videos	Total Benefit = Estimated ElectriCities (3) staff (20/hrs @ \$100 = \$2,000) + voiceover contractor (\$1,000) + stock footage (\$1,000) = \$4,000 x 70 members = \$280,000
Member Communications	Web Resources	\$1,638,000	COVID-19 Resources: online web resource page, weekly Communications Task Force team calls, curated social media content (messages, graphics, and videos)	Total Benefit = Estimated ElectriCities (1) staff website updates (10/hrs @ \$100 = \$1,000) + Estimated ElectriCities (2) staff CTF call prep and execution (24/hours = \$2,400) + ElectriCities staff (5) preparing resources (200/hrs @ \$100 = \$20,000) = \$23,400 x 70 members = \$1,638,000
Member Communications	Website	\$7,000	Customized City Project: Website, Pineville	Total Benefit = Estimated ElectriCities (2) staff (20/hrs @ \$100 = \$2,000) + outside contractor (\$5000) = \$7,000

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Member Communications	Website	\$7,000	Customized City Project: Website, Elizabeth City	Total Benefit = Estimated ElectriCities (2) staff (20/hrs @ \$100 = \$2,000) + outside contractor (\$5000) = \$7,000
Member Communications	Website	\$7,000	Customized City Project: Website, Selma	Total Benefit = Estimated ElectriCities (2) staff (20/hrs @ \$100 = \$2,000) + outside contractor (\$5000) = \$7,000
Member Communications	Website	\$7,000	Customized City Project: Website, Laurinburg	Total Benefit = Estimated ElectriCities (2) staff (20/hrs @ \$100 = \$2,000) + outside contractor (\$5000) = \$7,000
Member Infrastructure Support	Customer Information System	\$5,800	Annual CIS software maintenance savings from consolidation of licensing	Total Benefit = (Savings of 4% x \$29000 per member license fee) x5 members) = \$5800
Member Infrastructure Support	Data Center	\$6,808	3Yr. Negotiated Cisco Smartnet coverage (vs. historically annual coverage) Savings of \$20,424 over 3 yrs. (i.e. 1 yr. was \$50,873.... 3yr contract is now \$44,065 per Yr. for 3 Yrs.)	Total Benefit = (\$50,873 - \$44,065) = \$6,808
Member Infrastructure Support	Hosted Customer Information/Billing and Financial Systems	\$143,000	Design and management of a high availability production environment for the hosted applications and a test environment. Services include network and system administration, database administration, security, data storage, web services, VPN connections and desktop/peripheral support.	Total Benefit = 1430 hours of services provided annually x Estimated average sr. system administrator contract rate of \$100/ hour = \$143,000
Member Infrastructure Support	Hosted Customer Information/Billing and Financial Systems	\$90,000	Staff provides Tier 1 and 2 application support for hosted NorthStar CIS members, being the first call for user CIS issues, responding to questions, investigating problems & working with the vendor to resolve the most complex application issues.	Total Benefit = 900 hours of services * \$100/ hour = \$90000
Member Infrastructure Support	Hosted Customer Information/Billing and Financial Systems	\$75,000	Staff recommends industry best practices and process improvements for back office operations e.g., CIS software utilization, customer service policies and procedures, third party software integration and workflow automation.	Total Benefit = 600 hours of services provided annually x Estimated average contract services rate of \$125/ hour = \$75000
Member Infrastructure Support	Hosted Customer Information/Billing and Financial Systems	\$75,000	Staff provides professional services including project management, vendor management, technical support, implementation assistance , QA testing, training and more for new system implementations, upgrades, enhancements, add on products and integration.	Total Benefit = 600 hours of services provided annually x Estimated average contract services rate of \$125/ hour = \$75000
Member Infrastructure Support	Hosted Customer Information/Billing and Financial Systems	\$48,000	Staff provide user training and education for Member Customer Service, Finance, IT and operations staff on CIS/Billing/Financial applications, offering new staff training, webinars, user group meetings and vendor conferences.	Total Benefit = 400 support hours provided annually x Estimated average contract services rate of \$120/ hour = \$48000
Member Infrastructure Support	Hosted Customer Information/Billing and Financial Systems	\$37,000	Staff provides report writing services, including requirements definition, development and quality assurance for adhoc and other custom reporting needs. Staff provides data and report writing services to assist with submission of EIA and Member Participation Reporting.	Total Benefit = 370 hours of services * \$100/ hour = \$37000
Member Infrastructure Support	Hosted Customer Information/Billing and Financial Systems	\$25,000	Staff provides utility software research and evaluation consultation, vetting product functionality, technical design and integration capabilities aiding members in product comparison and selection for those seeking to acquire CIS, Financial and other utility applications.	Total Benefit = 200 hours of services * \$125/ hour = \$25000
Member Infrastructure Support	Surplus Sales/SETH Support	\$1,167,360	Approximately 16 hours per month are required to support NCMPA1's energy trading system, or 16*12 months = 172 hours at an average rate of \$55/hr. If a third party were to use comparable energy trading software like IB WebTrader to provide power trading services, it would cost each city \$6,000/month or \$72,000/year.	Total Benefit = (((\$6,000/month - (16hours/ month x \$55/hr)) * (12 months) x 19 cities = \$1,167,360

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Residential Energy Services	Apogee's Weather Insights	\$44,500	By negotiating a statewide license agreement for this online energy auditing tool, Staff was able to provide the tool at an annual license cost of \$30,000 versus having each of 30 cities pay \$6,500 and avoid \$10,000 maintenance cost.	Total Benefit = (Number of cities x Cost/city) - Group cost-maintenance cost = (13 x \$6,500) - \$30,000 - \$10,000 = \$44,500
Residential Energy Services	Energy Audit App	\$44,000	Negotiated a license agreement for any/all members to use an energy audit app to conduct energy audits. Three members use the app and were able to avoid the development costs and EC's annual license fee. Future benefit calculations will not include development costs.	Total benefit = (development cost + annual EC license cost)-(annual license fee charged to member)*(number of members using app)=\$(30,000+\$18,000)-(\$2,000*2)=\$48,000-\$4,000=\$44,000
Residential Energy Services	Energy Forecast online Energy Audit/Information	\$109,000	Contract with vendor allows NC members to use the service under ElectriCities umbrella.	Total Benefit = (# of members using the service x \$7,500 cost if members had to purchase it separately) - (cost of ElectriCities contract) = \$157,500 - \$48,500 = \$109,000
Residential Energy Services	Energy Kits	\$29,310	Renegotiation of energy kit contract price reduced cost from \$19 to \$13 per kit	4885 kits distributed at \$6/kit savings = \$29,310
Residential Energy Services	Residential Energy Audits	\$52,500	Staff performed 405 energy audits for Power Agency Participants' residential customers in 2019. Market rate of an audit is \$375/audit. REDUCED DUE TO COVID	Total Benefit = Number of audits x Outside audit cost = 140 x \$375 = \$52,500
Safety & Training	Accident Investigations	\$16,000	If an independent consultant conducted an accident investigation, it would cost \$200 per hour for 80 hours. Staff investigates accidents at no additional charge.	Total Benefit = Cost of investigations (assuming one/year) = (80 hr x \$200/hr) = \$16,000
Safety & Training	Apprenticeship Training Program	\$781,200	Staff has a new Lineman Career Development Apprenticeship Program to provide city electric employees training at a cost of \$1,600 per student compared to the market price of \$14,000. Currently there are 252 students enrolled in the program and the program has 4 level and it usually takes 4 years to complete.	Total Benefit = Market price of program - EC cost of program = \$14,000 - \$1,600 = \$12,400/4 = \$3,100 x 252 = \$781,200
Safety & Training	Lineworker Audits	\$23,400	If an independent consultant were to conduct 39 field audits of member cities' line workers, it would cost \$150 for about 4 hours per audit. This service is provided at no extra charge to member cities.	Total Benefit = (Time per audit x Consultant rate) x Number of audits = (4 hr. x \$150/hr.) x 39 audits = \$23,400
Safety & Training	Meter Technician Career Development Program	\$29,790	If vendors maintained and administered the Meter Technician Career Development Program, the cost would be approximately \$150 per hour for a 40 hour week of instruction for a total of \$6000. Member cities instructors administer the entire program at a cost of \$1035. A savings of \$4,965.	Total Benefit = Savings per class x Number of classes= (\$6,000 - \$1035) x 6 = \$29,790
Safety & Training	OSHA 300 Logs	\$6,000	Staff tracks and compiles members' Annual OSHA 300 Logs at no additional charge to the members. If the members were to hire a consultant to perform this service, it would cost approximately \$150 per hour for a total of 40 hours.	Total Benefit = Consulting time x Consultant rate = 40 hr x \$150/hr = \$6,000
Safety & Training	OSHA Participation	\$175,000	Staff participates in OSHA committees as a voting member and keeps the members informed of changes in the workplace involving tools and protective equipment for lineworkers at no additional charge. If a consultant were to provide this service, it would cost approximately \$2,500 for each of the 70 members.	Total Benefit = Consulting cost x Number of cities= \$2,500 x 70 = \$175,000
Safety & Training	Safe Operating Practices	\$504,000	Safety and training services provided by Staff resulted in a Lost Work-day rate of 1.03% for member cities versus the APPA average of 4.75%. This represents 12 lost work day accidents at an average industry cost of \$42,000/accident.	Total Benefit = Lost work day accidents x Cost/accident = 12 x \$42,000 = \$504,000

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Safety & Training	Safety Awards	\$7,200	If a consultant were to provide "No Lost Work Day Safety Award" meeting presentations to electric workers and management, the average cost would be approximately \$150 per hour for 48 cities. Staff provides this service at no additional cost to the members.	Total Benefit = (Consulting time x Consultant rate) x Number of cities = (1 hr x \$150/hr) x 48 = \$7,200
Safety & Training	Safety Guidelines Manual	\$175,000	Staff has found it more cost-effective to monitor regulations affecting the electric industry and report to each of our members on an annual basis at no additional charge. If the members were to do this individually, the cost would be \$2,500 for each of the 70 members.	Total Benefit = Consulting cost x Number of cities = \$2,500 x 70 = \$175,000
Safety & Training	Safety Investigations	\$175,000	Staff has found it to be more cost-effective to monitor OSHA regulations and accident/near-miss investigations on behalf of our members and report to each of our members on an annual basis at no additional charge. If the members were to do this individually, the cost would be \$2,500 for each of the 70 members.	Total Benefit = Consulting cost x Number of cities = \$2,500 x 70 = \$175,000
Safety & Training	Safety Meetings	\$8,700	If a consultant were to provide instruction and/or material for members' safety meetings. They require approximately one hour each for 58 meetings @ \$150/hour. Staff conducts the meetings and at their work location at no additional cost to the members.	Total Benefit = (Time per meeting x Consultant rate) x Number of meetings = (1 hr x \$150/hr) x 58 = \$8,700
Safety & Training	Substation Career Development	\$25,000	If vendors administered the Substation Career Development apprenticeship program to 25 electric department employees, it would cost approximately \$2,400 each for a total of \$60,000. Member cities instructors administer the ElectriCities apprenticeship program at \$1,400 each for a total of \$35,000.	Total Benefit = Savings per student x Number of students = (\$2,400 - \$1,400) x 25 = \$25,000
Safety & Training	Underground Career Development	\$25,000	If vendors were used to administer the Underground Career Development apprenticeship program to 26 electric department students, the cost would be approximately \$2,400 each. Member cities instructors administer the ElectriCities apprenticeship program at a cost of \$1,400 each.	Total Benefit = Savings per student x Number of students = (\$2,400 - \$1,400) x 25 = \$25,000
Technology Services	Electric Utility Assessment	\$20,000	ElectriCities created and administered the 2018 Electric Utility Assessment. 40 member utilities participated in this assessment and received their results and benchmarks. 2020 benefit results from an additional 10 members who requested benchmarking data.	Total Benefit = Estimated market value x Number of cities assisted = \$2,000 x 10 = \$20,000
Technology Services	Emerging Technologies	\$29,000	ElectriCities assisted members with projects related to emerging technologies in 2019. This includes a smart thermostat pilot, drone services, data analytics, and more.	Total Benefit = (Avoided cost for free Smart Thermostat Pilot x Number of Members participating) + (Avoided cost of drone service x Number of Members participated) + (Avoided cost of data analytics x Number of Members participated) = (\$5,000 x 5) + (\$2,000 x 0) + (\$2,000 x 2) = \$29,000
Technology Services	Hometown Connections	\$5,645	Commissions earned from members purchasing products from Hometown Connections partners. The total commissions earned in 2020 were \$5,644.73	Total Benefit = Total 2020 commissions earned = \$5,644.73
Technology Services	Hosting Benefit	\$79,200	ElectriCities members receive discounted hosting for Nexgrid AMI projects and full deployments and CIS/ERP systems compared to market value.	Total Benefit = Estimated discount vs. market value x number of member systems hosted = \$300/month * 12 months * 22 members = \$79,200

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Technology Services	Retail Customer Survey	\$177,000	ElectriCities organized a Retail Customer survey for members in 2020. Members participated at no additional cost. ElectriCities also conducted onsite reviews of the survey, which are estimated to have cost \$5,000 each if done by the survey vendor.	Total Benefit = (Estimated Member Fee for Survey x 11 members) + (avoided cost of onsite review x number of members) = (\$12,000 x 11 members) + (\$5,000 x 9 members) = \$177,000
Technology Services	SECC Membership	\$215,000	Annual membership for all members with 15,000 or fewer customers. Members receive access to SECC research, educational tools, webinars, etc.	Total Benefit = (Avoided Membership Price x Members Covered) = (\$2,500 * 76 + \$5,000 * 5) = \$215,000
Technology Services	Smart Grid - Business Cases	\$12,000	ElectriCities assisted 6 members with the analysis of smart grid business cases, thereby avoiding consultant fees estimated to be \$2,000/member.	Total Benefit = Avoided consultant cost x Number of cities assisted = \$2,000 x 6 = \$12,000
Technology Services	Smart Grid - EC Discount	\$175,000	ElectriCities members receive 5% off Nexgrid products through ElectriCities MSA.	Total Benefit = Total spent on Nexgrid products in 2020 x 5% = \$175,000
Technology Services	Smart Grid - Member LM-Only Shared License	\$38,000	ElectriCities negotiated with Nexgrid to allow our Members to share a server if they are implementing load management only projects. This saves the Members on license costs.	Total Benefit = Avoided license costs x Number of Members on shared license = \$18,000 x 1 + \$5,000 x 4 = \$38,000
Technology Services	Smart Grid - Project Management and Coordination	\$128,000	ElectriCities has been involved in 16 smart grid projects amongst our members. ElectriCities being involved helps ensure expectations are met, issues are resolved, etc., reducing the risk associated with these projects for our members.	Total Benefit = Avoided member staff hours x Labor rate x Number of members with smart grid projects = 80 hr x \$100/hr x 16 = \$128,000
Technology Services	Smart Grid - RFP Benefits	\$80,000	Assisted members with the evaluation of Smart Grid options: Issued Smart Grid RFP, evaluated vendors, and provided assistance, guidance, and analyses to members. This benefits the 4 members who began new SG projects/pilots in 2020.	Total Benefit = (Avoided assistance time x Labor rate x Number of members assisted) = 200 hr x \$100/hr x 4 = \$80,000
Technology Services	Strategic Technology Roadmap	\$25,000	ElectriCities worked to create a Strategic Technology Roadmap in 2017 to guide technology solution offerings. Information in this roadmap can be applied to members looking to create a similar guiding document. In addition, a new data analytics project was completed in 2019, with recommendations on how to structure a program. This could benefit members looking at implementing data analytics within their organization.	Total Benefit = Market value of similar guiding documents = \$25,000
Technology Services	Utility Billing & Financials - EC Discount	\$53,889	ElectriCities members receive 15% off licensing costs for Tyler Technologies Incode solutions.	Total Benefit = Total spent on Tyler Technologies licensing costs (Lumberton and Lincolnton) x 15% = \$53,889
Technology Services	Utility Billing & Financials - Evaluation Process	\$60,000	ElectriCities organized various quotes, demos, provided analysis, reference checks, etc. on multiple utility billing and financial system solutions. This saved the members interested in upgrading their CIS or FINS a lot of time investigating solutions. 3 new members participated in this process in 2020.	Total Benefit = (Avoided assistance time x Labor rate x Number of members assisted) = 200 hr x \$100/hr x 3 = \$60,000
Technology Services	Utility Billing & Financials - PM and Coordination	\$64,000	ElectriCities has been involved in 8 Tyler Tech projects amongst our members. ElectriCities being involved helps ensure expectations are met, issues are resolved, etc., reducing the risk associated with these projects for our members.	Total Benefit = Avoided member staff hours x Labor rate x Number of members with projects = 80 hr x \$100/hr x 8 = \$64,000

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Utility Business Services	Connections Summit	\$133,000	Connections Summit provided training for members staff on a variety of subjects at a minimal cost. Sponsorships help defray the cost.	Total Benefit = (Individual APPA fee - Group fee) x Attendees + Sponsorship Revenues = (\$775 - \$375) x 107 attendees + \$90,200 = \$133,000
Utility Business Services	Customer Service Best Practices	\$54,000	Staff provides peer networking to improve members' policies, procedures and legal compliance and to reduce research and legal costs. Direct savings due to lower cost for developing and maintaining appropriate procedures is at least \$600 per member per year. INCREASED BENEFIT BECAUSE OF WORK WITH EO 124/142	Total Benefit = Avoided consulting cost x Number of members = \$600 x 90 = \$54,000
Utility Business Services	Customer Service Policy Guidelines Manual	\$12,000	Staff provides cities with a manual of suggested policies. This allows the members to avoid using member staff resources to develop their own policies, resulting in significant savings for the members.	Total Benefit = City labor reduction x City labor rate x Number of members = 10 hr x \$60/hr x 20 = \$12,000
Utility Business Services	Economic Benefit Study	\$21,000	Staff works with member utility to identify the economic benefit that ownership of their electric distribution system provides to the municipality	Total Benefit = (market cost of report - EC cost of report) x number of reports = (\$15,000 - \$8,000) x 3 = \$21,000
Utility Business Services	Legal Support	\$20,000	Staff provided assistance with members' questions about legal issues, resulting in savings versus using external legal counsel.	Total Benefit = Estimated legal consulting time x External legal rate x Members assisted = 2 hr x \$250/hr x 40 = \$20,000
Utility Business Services	Training Classes for Member Staff	\$6,800	Staff provides training through webinars and workshops for customer service, marketing and technical/regulatory compliance. The estimated difference between market price (or outsourced city cost) of this service and the cost charged to the cities by Staff is \$100/person. There were 768 attendees logged in 2020. MOVED TO VIRTUAL TRAINING	Total Benefit = (Estimated savings for EC training/attendee) x Number of attendees = \$100/person x 68 attendees = \$6800
Utility Services	Catawba Site Representation Services	\$74,654	Staff provides contract administration services to PMPA and NCEMC as they relate to their Catawba ownership interest. Staff bills PMPA and NCEMC for these services, reducing NCPMA1's cost of contract administration by sharing these services with the other Catawba Owners.	Total Benefit for 2020 = sum of PMPA + NCEMC invoices from NCPMA1 = \$74,654
Utility Services	Economic Development Rates / Retail Rate Assistance	\$92,500	As NCPMA1 Members receive inquiries regarding economic development opportunities, Staff collects customer data and works with the Participant to develop economic development rates to provide the prospective customer. Staff develops and performs rate analysis	Total Benefit = Number of studies x External study cost = 37 x \$2,500/study = \$92,500
Utility Services	Economic Development Rates/ Retail Rate Assistance	\$57,500	As NCEMPA Members receive inquiries regarding economic development opportunities, Staff collects customer data and works with the Participant to develop economic development rates to provide the prospective customer. Staff develops and performs rate anal	Total Benefit = Number of studies x External study cost = 23 x \$2,500/study = \$57,500
Utility Services	EIA Report Assistance	\$52,250	Staff assisted each NCPMA1 Participant with gathering data and filling out forms for the annual EIA report. Each city would otherwise need at least 0.05 FTE to gather and ensure accuracy of the data. This helps to avoid possible non-compliance penalties	Total Benefit = Number of cities x City FTE usage x City FTE cost = 19 x 0.05 x \$55,000 = \$52,250 or Total Benefit = Number of cities x Savings/city = 19 x \$2,750 = \$52,250
Utility Services	EIA Report Assistance	\$88,000	Staff coordinates data collection and city reports for filing with EIA for NCEMPA Members at no additional charge. It is estimated that a vendor would charge \$2,750/city/year.	Total Benefit = Number of cities x Savings/city = 32 x \$2,750 = \$88,000
Utility Services	Operational Expertise	\$114,400	Staff provided SCADA support, hosting services and project management to Ayden, Fremont, Tarboro, Clayton, Apex, Red Springs, Cornelius and Huntersville during 2020.	2020 Benefit = Number of Cities using SCADA services x City FTE usage x City FTE cost = 8 x 25% x \$57,200 = \$114,400.

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Utility Services	Operational Expertise	\$457,600	Staff provides NCEMPA Members with operations expertise and assistance in areas of common interest such as NERC compliance coordination, EPA related to generators, delivery point facilities and other operational issues with Duke. It is estimated that it would cost each city about 0.25 FTE in staff to provide equivalent services.	2020 Total Benefit = Number of cities x City FTE usage x City FTE cost = 32 x 25% x \$57,200 = \$457,600
Utility Services	Operational Expertise	\$271,700	Staff provides NCMPA1 Participants with operations expertise and assistance in areas of common interest such as compliance coordination, EPA related to generators, delivery point facilities and other operational issues with Duke. It is estimated that it would cost each city about 0.25 FTE in staff to provide equivalent services.	2020 Total Benefit = Number of cities x City FTE usage x City FTE cost = 19 x 25% x \$57,200 = \$271,700.
Utility Services	Retail Billing Program	\$420,000	Staff provides billing services for 311 of NCEMPA's retail customers in 24 cities, resulting in savings of \$17,500/city/year versus estimates of what the cities would have paid if such services were outsourced.	Total Benefit = Number of cities x Savings/city = 24 x \$17,500 = \$420,000
Utility Services	Retail Billing Services	\$262,500	Staff provides billing and data management services to NCMPA1 Participants whose billing systems and/or staff resources for certain types of retail C/I customers are limited. Without Staff support, each city would spend about \$17,500 per year on such serv	Total Benefit = Number of cities using EC service x External service cost = 15 cities x \$17,500/city = \$262,500
Utility Services	Retail Rate Studies	\$170,000	Staff develops and performs retail rate studies for NCMPA1 Participants, including identifying and recommending necessary and efficient changes in retail rate levels and billing structures. Without Staff assistance, each Participant that receives the ser	Total Benefit = Number of studies x External study cost = 17 x \$10,000/study = \$170,000
Utility Services	Retail Rate Studies	\$100,000	Staff develops and performs retail rate studies for NCEMPA Members, including identifying and recommending necessary and efficient changes in retail rate levels and billing structures. Without Staff assistance, each Participant that receives the service	Total Benefit = Number of studies x External study cost = 10 x \$10,000/study = \$100,000

FINANCE BENEFIT

Finance	Bond Refunding	\$325,058	In 2016, Staff refunded Series 2009 bonds for NCMPA1 and replaced them with lower cost bonds. This provides significant reductions in financing costs for the Agency every year through 2030.	Total Benefit = Reduced financing costs in 2020 = \$325,058
Finance	Bond Refunding/Defeasance	\$10,838,280	In 2019, Staff defeased and refunded portions of Series 2009A, 2009C, 2010A, 2010B, 2012B, 2012C, 2015A and 2015C bonds for NCMPA1 and replaced them with lower cost bonds. This provides significant reductions in financing costs for the Agency every year through 2032.	Total Benefit = reduced financing costs in 2020 = \$10,838,280
Finance	Bond Refunding/Restructuring	\$864,538	In 2015, Staff refunded and restructured various NCMPA1 bonds. This provides significant reductions in financing costs for the Agency from 2015 through 2019, but increasing costs in later years.	Total Benefit = Reduced financing costs in 2020 = \$864,538
Finance	Capital Additions	\$517,000	In 2009, Staff secured the ability to finance \$68,650,000 of capital additions for NCMPA1 using Build America Bonds instead of traditional financing. In 2014, \$3,125,000 of bonds were repurchased leaving \$65,525,000 outstanding. After the repurchase, this results in savings of \$517,000/year during the life of the bonds.	Total Benefit = \$517,000
Finance	Interest on Margin Account	\$11,307	In 2018, Staff worked with ADM to begin earning interest on the margin account for Surplus Sales	Total Benefit = Interest on margin account = \$11,307

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Finance	Investment Portfolios	\$20,703,357	In accordance with state law and bond resolutions, Staff prudently invests the Power Agencies' funds in safe, diversified instruments in a manner that emphasizes safety of principal and liquidity and maximizes return on investment. Permitted investments include U.S. Treasury notes and bonds, federal agency notes, obligations of the State of North Carolina, prime quality commercial paper, certificates of deposit, bankers' acceptances, repurchase agreements, money market funds and mortgage-backed securities guaranteed by federal agencies. Investment revenues are used to offset expenses and reduce wholesale electricity rates .	Total Benefit = Investment revenues = \$27,703,357

CONTRACT ADMINISTRATION

Contract Administration	Contract Administration - Billing reviews, Contract and Capital Addition approvals	\$32,296	As a result of the staff's review of Capital Additions, Third Party contracts, and O&M expenses, NCMPA1 challenged several items in 2020 resulting in savings of \$32,296. (Motor Pool Project, Medical facility HVAC, IT Badging)	Total Benefit = Savings to NCMPA1 in 2020 = \$32,296
Contract Administration	DOE Settlement - Spent Nuclear Fuel	\$1,922,498	The 14th Annual Submission to DOE for reimbursement was filed on January 31, 2020. This is a reimbursement of costs incurred as a result of the DOE not accepting spent nuclear fuel when required and Catawba having to make accommodations to store the fuel on site.	Total Benefit: Credit reimbursement from DOE received on the Operating Statement dated September 2020 for \$1,922,498
Contract Administration	FRPPA - CCR Insurance	\$36,137	Settlement and receipt of NCEMPA allocation of the Wholesale CCR L-Etoile Insurance proceeds. Received credit on the 11/4/20 FRPPA invoice.	Total Benefit = Credit amount on the invoice
Contract Administration	FRPPA Amendment - Coal Ash Settlement	\$4,865,499	The FRPPA Amendment - Coal Ash Settlement of 2017 with DEP allowed for NCEMPA to contract 18MW of DG at Greenville and receive power supply benefits each month when the units operate. The savings are passed to the Members on the Wholesale Power billing statement as a DG credit (Rider 6B). The 2020 savings is a summation of the DG credits provided to the Members.	Total Benefit = Sum of 12 months of DG Credits = \$4,865,499
Contract Administration	FRPPA FEDIT Settlement - 2018	\$5,209,241	Settlement of Federal Excess Accumulated Deferred Income Tax Liability for 2018. Credit received on 7/2/2020 FRPPA invoice	Total Benefit = Adjustment to 2018 FRPPA Capacity Formula Rate
Contract Administration	FRPPA FEDIT Settlement - 2019	\$4,830,767	Settlement of Federal Excess Accumulated Deferred Income Tax Liability for 2019. Credit received on 7/2/2020 FRPPA invoice	Total Benefit = Adjustment to 2019 FRPPA Capacity Formula Rate
Contract Administration	FRPPA settlement of challenge issues	\$1,127,251	Settlement of EPRI related fees to be removed from FRPPA capacity formula rates for 2016 and 2017. Credit received on 8/3/20 FRPPA invoice.	Total Benefit = \$1,127,251
Contract Administration	Leased Facilities Rate	\$27,734	Staff negotiated a reduction in NCMPA1's Leased Facilities Rate charged by Duke Energy from 0.93% to 0.90% effective June 2020.	Total Benefit = Original Leased Facilities Charge - New Lower Leased Facilities Charge. \$3,962/month * 7 months = \$27,734.
Contract Administration	Merger Agreement	\$4,688,010	The Merger Agreement of 2011 with DEP allowed for NCEMPA to construct 20MW of DG at Greenville and receive power supply benefits each month when the units operate. The savings are passed to the Members on the Wholesale Power billing statement as a DG Credit (Rider 6A). The 2020 savings is a summation of the DG credits provided to the Members.	Total Benefit = Sum of 12 months of DG Credits = \$4,688,010

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
Contract Administration	NEIL Insurance Distribution Credit	\$3,714,857	Staff reviews the insurance requirements and premiums for NCMPA1 as Owners of the Catawba Nuclear Station. Each year Nuclear Electric Insurance Limited (NEIL) calculates a potential credit distribution based on claims experience and investment performance. The credit's in 2020 are for NEIL Primary Property Insurance, NEIL Excess Property Insurance, Catawba NEIL extra expense replacement power and McGuire extra expense replacement power.	Total Benefit = Sum total of NEIL credits in 2020. NEIL Primary Property and Excess Property credit - \$2,065,591. Catawba and McGuire NEIL Extra Expense replacement power credit - \$1,649,266. Total NEIL insurance refunds = \$3,714,857.
Contract Administration	OATT Settlement issues in 2020	\$357,000	Staff challenged several items in the OATT formula rate true up from DEP. The main issues included: Interconnections, radials and GSUs not being removed from the template, moving CWIP items to Plant Held For Future Use, distribution assets included in transmission, EPRI included in transmission O&M, DEBS depreciation expense overstated in A&G and included in the Cash Working Capital calculation. Benefit for NCEMPA for these settlement issues is \$357,000.	Total Benefit: Dissallowed costs lowering overall transmission charges = \$357,000
Contract Administration	Power Supply Billing Review	\$115,000	Staff challenged several items in the OATT formula rate true up from DEC. The main challenge item were: radials, short term interest improperly included in the formula rate, distribution assets included in transmission, EPRI included in transmission O&M yielded a reduction in the annual transmission revenue requirements of \$2,968,877. NCMPA1's reduction is \$115,000.	Total Benefit: Dissallowed costs lowering overall transmission charges = \$115,000
Contract Administration	FRPPA settlement of challenge issues	\$301,382	Settlement of 2018 preliminary challenge items from the review of the formula rate true-up and credit received on 6/3/2020 FRPPA invoice	Total Benefit = \$301,382
Contract Administration	Full Requirements Power Purchase Agreement (FRPPA), Transmission Billing Statements	\$960,000	Staff continuously reviews all provisions of the FRPPA and Transmission invoices (e.g., billing, contract interpretation, cost allocations, etc.) as these contracts are implemented to ensure that NCEMPA's power supply costs are as low as possible. It is estimated that each member would require 0.3 FTE of internal staff or consultants to provide similar services.	Total Benefit = ((0.3 FTE x \$100,000/FTE) x 32 members) = \$960,000
Contract Administration	Operating and Fueling Agreement, Interconnection Agreement, and Transmission Billing Statements	\$950,000	Staff continuously reviews all provisions of the Operating and Fueling Agreement, the Interconnection Agreement, and Transmission invoices (e.g., billing, contract interpretation, cost allocations, etc.) as these contracts are implemented to ensure that NCMPA1's power supply costs are as low as possible. It is estimated that each member would require 0.5 FTE of internal staff or consultants to provide similar services.	Total Benefit = ((0.5 FTE x \$100,000/FTE) x 19 members) = \$950,000

LOAD AND DEMAND SIDE MANAGEMENT (DSM) BENEFIT

DSM	DSM/Load Management	\$84,000	Staff assisted Members in Hookerton, Hobgood, Laurinburg, Louisburg, Scotland Neck, and Southport with engineering and project support related to load management device installations.	2020 Benefit = Total hours spent supporting load management in these cities x average hourly rate of an engineering consultant = 700 hrs x \$120/hr = \$84,000
DSM	DSM/Load Management	\$729,300	Staff monitors system conditions, sends out load management notifications, and operates load management systems to obtain savings for the NCMPA1 and NCEMPA Members. It is estimated that it would cost each city about 0.25 FTE in staff to provide the equivalent services.	2020 Benefit = Number of Cities x City FTE usage x City FTE cost = 51 x 25% x \$57,200 = \$729,300

VALUE CATEGORY	VALUE AREA	2020 YEAR END BENEFITS	DETAILS	CALCULATIONS
DSM	DSM/Load Management	\$72,275,220	Staff monitors system conditions, sends out load management notifications, and operates load management systems to obtain savings for the NCEMPA Members.	Total Benefit: Jan - \$6,792,327; Feb - \$6,679,122; Mar - \$5,999,889; Apr - \$6,588,705; May - \$6,706,361; Jun - \$7,294,638; Jul - \$7,059,327; Aug - \$6,941,672; Sep - \$7,059,327; Oct - \$6,706,361; Nov - \$6,824,016; Dec - \$6,819,061 (Total of all 12 months \$81,828,729 Less Rider 6A (\$4,688,010) and 6B (\$4,865,499) credits) = \$72,275,220.
TOTAL:		\$494,449,222		