

2021 VALUE SUMMARY




ELECTRICITIES
of NORTH CAROLINA, INC.

The energy behind public power

POWER SUPPLY BENEFIT

VALUE CATEGORY	VALUE AREA	2021 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	\$193,795,000	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 \$863,970,000 less the total FR Rate charges of \$670,175,000. Total Savings = \$193,795,000
Power Supply	Disallowed Capital Addition Project	\$1,687,500	Duke Energy Corporate Employees were relocated to the Catawba site. \$4.5M in capital renovations were performed on building 7765. Staff met with Duke Energy over several weeks during 2021. These costs were not charged to the Catawba Owners.	Total Benefit: \$4.5M * 37.5% ownership share = \$1,687,500
Power Supply	Hourly Trading Services	\$440,000	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 = \$305,000.	Total Benefit = Internal cost - Outsourced cost = ((5 FTEs x \$140,000/FTE) + (0.2 x \$225,000)) - \$257,360 = \$440,000
Power Supply	Market Transactions Checkout	\$102,750	Staff identified billing errors during checkout and reconciliation of market transactions for NCPMA1.	Total Benefit = Bill corrections identified and paid to NCPMA1 = \$102,750
Power Supply	Nuclear Fleet cost Arbitration with DEC	\$2,179,265	Settlement Agreement and OFA amendment as a result of a negotiated settlement with DEC for the nuclear fleet cost allocation to the Catawba Nuclear Plant. Arbitration proceedings started in 2019 and completed in August 2021. Credits received on the Operating Statements for Jun - Dec.	Total Benefit: Sum of all nuclear cost allocation credits on Operating Statements = \$2,179,265
Power Supply	QF Sellers Costs	\$167,000	Monthly PURPA QF Sellers cost	Total Benefit = \$566 per month x 25 contracts x 12 mo/yr = \$167,000
Power Supply	REPS Compliance	\$3,320,113	Lobbied NCUC to postpone swine requirement by one year, allowing the Power Agencies to avoid retiring RECs for 2021 compliance. Additionally, due to lobbying, the poultry requirement has been delayed several times, leaving the 2021 state-wide aggregate poultry requirement to possibly be 400,000 MWh, less than what was originally stated in the statute. No decision has been submitted at this point but we see no reason for it to not be accepted.	2021 Benefit = Value of RECs that would have been retired in 2021 = swine RECs (in-state and out-of-state) + (poultry RECs (in-state and out-of-state) + unpurchased RECs) = \$1,153,014.66 + (\$1,273,916.64 + \$893,181.76) = \$3,320,113.06
Power Supply	REPS Compliance	\$693,042	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 = \$108,549 + \$73,305.40 + \$300,510.18 + \$210,677.69 = \$693,042.09
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	\$14,201,854	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 2021'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 = \$57,566,425 - \$43,364,571 = \$14,201,854

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Power Supply	Surplus Sales Program	\$46,500,000	Staff negotiated changes in NCMPA1's Interconnection Agreement with Duke in order to sell NCMPA1'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 = \$34.62/MWh x 2,098,274 MWh = \$72.6M; Sales cost = Energy cost x Sales volume = \$12.46/MWh x 2,098,274 MWh = \$26.1M; Total Benefit = \$72.6M - \$26.1M = \$46.5M
Power Supply	Transmission Peak Reduction	\$1,827,000	NCMPA1 dispatches Agency, city and customer owned generators at the time of Duke's transmission peak. The reduction in load provides a savings on NCMPA1's transmission bill. The estimated amount of DG operated during the Transmission peaks multiplied by the avoided transmission service rate for 2021 yields the total benefit.	Total Benefit = 140MW of DG * 9 months during 2021 * \$1.45/kW avoided cost of Transmission service expense = \$1,827,000

SERVICES BENEFIT

Business Development Services	C&I Power Audits	\$87,500	Staff performed energy audits for NCEMPA & NCMPA1 C&I customers. 35 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) = 35 x \$2,500 = \$87,500
Business Development Services	Key Accounts Events	\$66,000	Hosted Key Accounts events for NCMPA1 and NCEMPA members. 7 events were hosted in 2021.	Total Benefit = Amount spent on events + Avoided member staff time for planning = \$20,000 (fall) + \$10,000 (summer) + (\$10,500 x 2 fall events) + (\$3,000 x 5 summer events) = \$66,000
Business Development Services	Lighting Rebate Program	\$156,146	Provided lighting rebates to members and their customers. Total of 40 lighting projects were funded and \$156,146 rewarded in rebates.	Total Benefit = Total rebates provided = \$156,146
Business Development Services	Member/customer training	\$2,700	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 27 attendees logged for 1 webinars in 2021.	Total Benefit = (Estimated savings for EC training/attendee) x Number of attendees = \$100/person x 27 attendees = \$2700
Business Development Services	Power Quality & Infrared Scanning Audits	\$8,000	Staff performed 1 Power Quality Audit and 0 Infrared Scanning Audit REDUCED NUMBER DUE TO COVID 19.	Total Benefit = (0 Infrared Study at an outside cost of \$2,000 + 1 Power Quality Study at an outside cost of \$8,000) = \$8000
Business Development Services	Questline Newsletter	\$48,000	Provided bi-monthly newsletter for participant C&I customers.	Total Benefit = price of contract = \$48,000
Compliance	Load Forecasting	\$45,000	Staff developed an application used in the long term load forecasting process. The vendor charges \$35,000 for the use of the application and \$10,000 per year maintenance fee.	Benefit = (Avoided application cost + yearly maintenance fee) = (\$35,000 + \$10,000) = \$45,000
Compliance	NERC Compliance	\$322,504	Staff provides NERC/SERC reliability compliance services for 5 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	\$42,000	Curriculum review and redesign work for Safety & Training group, Key Accounts Training and Customer Service Training.	Total Hours (6 Months): 960 Hrs. x \$43.75 (Industry average rate for curriculum design work). Total Benefit = \$42,000

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Corporate Value Advertising	Ads	\$4,830,000	Corporate ads promoting the Value of Public Power: 6 themes designed for 2021; 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
Corporate Value Advertising	Ads	\$980,000	Business North Carolina Roundtable - Sponsorship and Advertising development	Total Benefit = Estimated ElectriCities (3) staff (15/hrs @ 100 = \$1500) + (Sponsorship cost = \$12,500) = \$14,000 x 70 members = \$980,000
Corporate Value Advertising	Ads	\$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 = \$714,000
Corporate Value Advertising	Economic Development	\$834,000	Economic Development 2021 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 (\$37,500) = \$69,500 x 12 featured cities = \$834,000
Distribution Services	CADD Drawings	\$4,745	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 = \$4,745
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	\$52,250	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 = 19 x \$2,750 = \$52,250
Distribution Services	Electric System Construction Manual	\$108,000	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. The Operations Standards Team (OST) also developed and maintains the Utility Director Best Practices Manual and System Losses Best Practices Manual.	Total Benefit = Consultant cost per member x Number of members = \$1,200 x 90 = \$108,000
Distribution Services	Joint Purchasing - Utility Poles	\$44,206	Staff coordinated the joint purchasing of utility poles, resulting in a 3% discount on \$1,473,529 of pole purchases.	Total Benefit = EC discount x Pole expenses = 3% x \$1,473,529 = \$44,206
Distribution Services	Performance Indicators	\$52,800	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 66 = \$52,800
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. Staff worked to limit new pole attachment bill in State Government would do to municipalities.	Estimated Benefit = Avoided consultant cost x Number of cities = \$10,000 x 3 = \$30,000

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Distribution Services	Reliable Public Power Provider (RP3)	\$17,600	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 11 members that completed their RP3 applications in 2021.	Total Benefit = Avoided assistance time x Labor rate x Number of members = 16 hr x \$100/hr x 11 = \$17,600
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	\$250,000	The Power Agencies provided \$5,000 in funding to 50 of the 51 power agency members to spend on a system betterment project.	Total Benefit = \$5,000 x 50 members used their funding = \$250,000
Distribution Services	Utility Director Meetings & Listserv	\$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	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
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

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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	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
Legal	Government Relations	\$54,057,317	The ElectriCities 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 Inserts	\$102,270	<p>Twenty-one bill inserts on public power-related topics were made available to all members free of charge.</p> <hr/> <p>Albemarle: 200 Ayden: 1,700 Concord: 2,400 Elizabeth City: 2,000 Granite Falls: 24,000 Hamilton: 1,400 Rocky Mount: 750 Shelby: 43,900 Wilson: 435,000</p> <hr/> <p>TOTAL = 511,350</p>	Total Benefit = 511,350 bill inserts sent to members x \$0.20 per insert = \$102,270

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Member Communications	Commercial & Industrial	\$329,000	Marine and Aerospace 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 ElectriCities (1) staff website landing page and supporting pages (9/hrs @ \$100 = \$900) + video production (8/hrs @ \$100 = \$800) + copywriting (8/hrs @ \$100 = \$800) + voiceover contractor (\$1,000) + Estimated ElectriCities (1) staff brochure and collateral design (12/hrs @ \$100 = \$1,200) = \$4,700 x 70 members = \$329,000
Member Communications	Conferences	\$2,646,000	Annual Conference: Developed materials for Scripts, Signage, PowerPoint templates, Digital Screens, Program, On-site Support, Badge Artwork, and more.	Total Benefit = Estimated ElectriCities (4) staff (378/hrs @ \$100 = \$37,800) x 70 members = \$2,646,000
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 ElectriCities (4) staff (378/hrs @ \$100 = \$37,800) x 70 members = \$2,646,000
Member Communications	Customized City Project	\$5,000	Customized City Project: Tarboro brochure, billboard, and social content	Total Benefit = Estimated ElectriCities (2) staff (100 hrs @ \$100 = \$5,000) = \$5,000
Member Communications	Customized City Project	\$7,000	Customized City Project: Landis Website	Total Benefit = Estimated ElectriCities (2) staff (20/hrs @ \$100 = \$2,000) + outside contractor (\$5000) = \$7,000
Member Communications	Customized City Project	\$5,800	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 1 issue for 2021 = \$5,800
Member Communications	Customized City Project	\$5,000	Louisburg: Logo Refresh	Total Benefit = Estimated ElectriCities (2) staff (25/hrs @ \$100 = \$5,000) = \$5,000
Member Communications	Customized City Project	\$20,000	Customized City Project: Farmville Website	Vendor cost: \$20,000
Member Communications	Customized City Project	\$20,000	Customized City Project: Ayden Website	Vendor cost: \$20,000
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	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 Project	\$2,500	Laurinburg EV Wrap Design	Total Benefit = Estimated ElectriCities (2) staff (25 hrs @ \$100 = \$2,500) = \$2,500

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Member Communications	Member Project	\$5,000	New River Light and Power	Total Benefit = Estimated Electricities (2) staff (50 hrs @ \$100 = \$5,000) = \$5,000
Member Communications	Mutual Aid Crew Swag	\$3,000	Mutual Aid Crew Swag: Kits consist of T-shirt, Embroidered Hat, and Stickers for each crew member who responded, and a Certificate in folio sent to Crew Leader suitable for framing. One major storm, Hurricane Ida. Both with unique logo marks developed and unique swag.	Total Benefit = Estimated Electricities (3) staff (30/hrs @ \$100) = \$3,000
Member Communications	P4 Funds	\$31,315	P4 Funds: Designed for Power Agency members, the Public Power Promotional 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: <ul style="list-style-type: none"> • 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 (9 members = \$12,262) + NCEMPA Member Funds Provided (10 members = \$18,553) = \$31,315
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 releases and resolutions (3/hrs @ \$100 = \$300) + estimated Electricities (1) staff website shopping page programmed (8/hrs @ \$100 = \$800) + estimated Electricities (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	Social Media	\$420,000	Social Media content: graphics, videos and messaging documents produced monthly	Total Benefit = Estimated Electricities (3) staff (10/hrs @ \$100 = \$1,000 month) x 6 months = \$6,000 x 70 members = 420,000
Member Communications	Sponsorships	\$2,025,600	Sponsorships for members throughout the year.	Sponsorships for members throughout the year.
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	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, Shelby	Total Benefit = Estimated Electricities (3) staff (25/hrs @ \$100 = \$2,500) + printing costs (\$500)= \$3,000

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Member Communications	Videos (Energy Efficiency, Value of Public Power Other Topics)	\$280,000	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 4 episodes = \$4,000 x 70 members = \$280,000
Member Communications	VOPP Pilot	\$137,500	Digital ads for three pilot cities, legislator ads, and pilot city toolkits	Total Benefit = Estimated ElectriCities (4) staff (125/hrs @ \$100 = \$12,500) + digital ad buy/vendor costs (\$125,000) = \$137,500
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 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 = \$5,800
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 = \$90,000
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 = \$75,000
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 = \$75,000
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 = \$48,000
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 = \$37,000
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 = \$25,000
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	2021 YEAR END BENEFITS	DETAILS	CALCULATIONS
Renewable Services	Resource Mix Program	\$102,000	Provided detailed information on energy resource mix and CO2 output for all Power Agency members. It is estimated that this would have cost each member \$2,000 to calculate on their own or engage with a consultant to complete.	Total Benefit = (Estimated cost to perform analysis x 51 members) = (\$2,000*51) = \$102,000
Renewable Services	Solar Interconnection Assistance	\$102,000	Provided support to members who receive requests to interconnection from customers or vendors. Help guide members through the process, or help them adopt our template interconnection standards. Estimate that on average we save each Power Agency member 40 hours/year.	Total Benefit = (Estimated savings using EC assistance and templates x # of Members) = (20 hours x \$100/hr x 51 members) = \$102,000
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 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	\$55,500	Staff performed 148 energy audits for Power Agency Participants' residential customers in 2021. Market rate of an audit is \$375/audit. REDUCED DUE TO COVID.	Total Benefit = Number of audits x Outside audit cost = 148 x \$375 = \$55,500
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	\$66,000	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 110 audits = \$66,000
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 Workday 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	2021 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	\$72,000	ElectriCities administered the 2021 Electric Utility Assessment. 36 member utilities participated in this assessment and received their results and benchmarks.	Total Benefit = Estimated market value x Number of cities assisted = \$2,000 x 36 = \$72,000
Technology Services	Emerging Technologies	\$51,402	ElectriCities assisted members with projects related to emerging technologies in 2021. 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 3) + (\$2,000 x 0) + (\$36,402) = \$51,402
Technology Services	Hometown Connections	\$5,545	Commissions earned from members purchasing products from Hometown Connections partners. The total commissions earned in 2021 were \$5,545.	Total Benefit = Total 2021 commissions earned = \$5,545
Technology Services	Retail Customer Survey	\$160,000	ElectriCities organized a Retail Customer survey for members in 2021. 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 10 members) + (\$5,000 x 8 members) = \$160,000
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	\$6,000	ElectriCities assisted 3 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 3 = \$6,000

VALUE CATEGORY	VALUE AREA	2021 YEAR END BENEFITS	DETAILS	CALCULATIONS
Technology Services	Smart Grid - EC Discount	\$165,000	ElectriCities members receive 5% off Nexgrid products through ElectriCities MSA. Members also receive a \$0.50/device/year discount on support services.	Total Benefit = Total spent on Nexgrid products in 2021 x 5% + support savings = \$137,000 + \$28,000 = \$165,000
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	\$40,000	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 2 members who began new SG projects/pilots in 2021.	Total Benefit = (Avoided assistance time x Labor rate x Number of members assisted) = 200 hr x \$100/hr x 2 = \$40,000
Technology Services	Utility Billing & Financials - EC Discount	\$16,089	ElectriCities members receive 15% off licensing costs for Tyler Technologies Incode solutions.	Total Benefit = Total spent on Tyler Technologies licensing costs (Red Springs and Selma) x 15% = \$16,089
Technology Services	Utility Billing & Financials - Evaluation Process	\$40,000	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. 2 new members participated in this process in 2021.	Total Benefit = (Avoided assistance time x Labor rate x Number of members assisted) = 200 hr x \$100/hr x 2 = \$40,000
Technology Services	Utility Billing & Financials - PM and Coordination	\$40,000	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 5 = \$40,000
Utility Business Services	Billing System Audits	\$45,000	Staff performs an audit of a municipal's billing system to identify potential errors and make recommendations to improve accuracy and/or processes. This also helps prior to billing system or AMI deployments to ensure bad data is not carried into a new system.	Total Benefit = (Benefit of Audit - Cost of Audit) x number of audits = (\$25,000 - \$10,000) x 3 = \$45,000
Utility Business Services	Connections Summit	\$21,450	Connections Summit provided training for members staff on a variety of subjects at a minimal cost. Sponsorships help defray the cost. The 2021 conference was held as a virtual event due to COVID. Revenue from attendance and sponsors covered the cost and brought in \$21,450	Total Benefit = total revenue for 2021 = \$21,450
Utility Business Services	Economic Benefit Study	\$14,000	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 2 = \$14,000
Utility Business Services	ElectriCities Annual Meeting	\$163,250	The annual meeting hosted by Staff provides training, peer networking, legislative clout and opportunities to discuss utility business in an efficient manner. The registration fees are typically about \$100/person less than the industry standard (e.g., APPA). The number of applicable attendees in 2021 was 134.	Total Benefit = (Individual APPA fee - Group fee) x Attendees + Sponsorship Revenues = (\$775 - \$675) x 134 attendees + \$149,850 = \$163,250
Utility Business Services	Load Management Analysis/Distributed Generation Review	\$12,000	Staff performed load management analysis/distributed generation review for NCEMPA member and/or their retail customer. This includes analysis of retail/wholesale cost savings associated with the project and calculations of realized savings to existing customers.	Total Benefit = number of analyses x \$750 per analysis = 16 x \$750 = \$12,000
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 68 attendees logged in 2021. MOVED TO VIRTUAL TRAINING.	Total Benefit = (Estimated savings for EC training/attendee) x Number of attendees = \$100/person x 68 attendees = \$6800

VALUE CATEGORY	VALUE AREA	2021 YEAR END BENEFITS	DETAILS	CALCULATIONS
Utility Services	Catawba Site Representation Services	\$76,676	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 NCMPA1's cost of contract administration by sharing these services with the other Catawba Owners.	Total Benefit for 2021 = sum of PMPA + NCEMC invoices from NCMPA1 = \$76,676
Utility Services	Economic Development Rates / Retail Rate Assistance	\$87,500	As NCMPA1 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 = 35 x \$2,500/study = \$87,500
Utility Services	Economic Development Rates/ Retail Rate Assistance	\$90,000	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 analysis.	Total Benefit = Number of studies x External study cost = 36 x \$2,500/study = \$45,000
Utility Services	EIA Report Assistance	\$52,250	Staff assisted each NCMPA1 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	\$117,800	Staff provided SCADA support, hosting services and project management to Ayden, Fremont, Tarboro, Clayton, Apex, Pineville, Cornelius and Huntersville during 2021.	2021 Benefit = Number of Cities using SCADA services x City FTE usage x City FTE cost = 8 x 25% x \$58,900 = \$117,800.
Utility Services	Operational Expertise	\$471,200	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.	2021 Total Benefit = Number of cities x City FTE usage x City FTE cost = 32 x 25% x \$58,900 = \$471,200
Utility Services	Operational Expertise	\$14,200	Staff provides project management and system planning services for City of Kinston under utility services contract. The contract rate is \$80/hour. The estimated rate for a professional engineering firm to perform the same service is \$140/hour.	2021 Total Benefit = (Estimated Professional Engineering Firm Hourly Rate - ElectricCities Contracted Services Hourly Rate FTE usage) x total hours utilized = City Savings benefit = (\$140/hour - \$80/hour) x 236 = \$14,200
Utility Services	Operational Expertise	\$279,775	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.	2021 Total Benefit = Number of cities x City FTE usage x City FTE cost = 19 x 25% x \$58,900 = \$279,775
Utility Services	Retail Billing Program	\$437,500	Staff provides billing services for 302 of NCEMPA's retail customers in 25 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 = 25 x \$17,500 = \$437,500
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 services.	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	\$180,000	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 service would need to hire outside consultants	Total Benefit = Number of studies x External study cost = 18 x \$10,000/study = \$180,000

VALUE CATEGORY	VALUE AREA	2021 YEAR END BENEFITS	DETAILS	CALCULATIONS
Utility Services	Retail Rate Studies	\$60,000	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 = 6 x \$10,000/study = \$60,000

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 2021 = \$325,058
Finance	Bond Refunding/Defeasance	\$10,834,782	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 2021 = \$10,834,782
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	\$1,030	In 2018, Staff worked with ADM to begin earning interest on the margin account for Surplus Sales.	Total Benefit = Interest on margin account = estimate \$1,030
Finance	Investment Portfolios	\$20,840,416	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 = estimate \$20,840,416

CONTRACT ADMINISTRATION BENEFIT

Contract Administration	DOE Settlement - Spent Nuclear Fuel	\$1,884,560	The 15th Annual Submission to DOE for reimbursement was filed on January 31, 2021. 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 2021 for \$1,884,560
Contract Administration	Full Requirements Power Purchase Agreement (FRPPA) Amendment - Coal Ash Settlement	\$5,076,506	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 2021 savings is a summation of the DG credits provided to the Members.	Total Benefit = Sum of 12 months of DG Credits = \$5,076,506
Contract Administration	FRPPA - CCR Insurance	\$8,334	Settlement and receipt of NCEMPA allocation of the Wholesale CCR Insurance proceeds. Received credit on the 8/3/21 FRPPA invoice.	Total Benefit = \$8,334 Credit amount on the invoice
Contract Administration	FRPPA - CCR Insurance	\$6,004,021	Settlement and receipt of NCEMPA allocation of the Wholesale CCR Insurance proceeds from four carriers. Received credit on the 11/2/21 FRPPA invoice.	Total Benefit = \$6,004,021 Credit amount on the invoice

VALUE CATEGORY	VALUE AREA	2021 YEAR END BENEFITS	DETAILS	CALCULATIONS
Contract Administration	FRPPA DEP/NCUC Settlement	\$32,278,350	Cost savings resulting from the settlement agreement between DEP and the NCUC. This is the disallowance of CCR costs along with the resolution of the Asheville plant retirement issue. Credits provided on the FRPPA invoices July - December	Total Benefit: Sum of settlement credits provided on July - December FRPPA invoices
Contract Administration	FRPPA settlement of challenge issues	\$555,539	Settlement of 2018 and 2019 preliminary challenge items from the review of the formula rate true-up and credit received on 4/3/2021 FRPPA invoice	Total Benefit = \$555,539 Credit on invoice
Contract Administration	FRPPA settlement of challenge issues	\$136,133	Settlement of prior year storm cost true up for 2018, 2019, and 2020. Credit received on 10/4/2021 FRPPA invoice.	Total Benefit = \$136,133 Credit amount on the invoice
Contract Administration	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	Merger Agreement	\$4,059,581	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 2021 savings is a summation of the DG credits provided to the Members.	Total Benefit = Sum of 12 months of DG Credits = \$4,059,581
Contract Administration	NEIL Insurance Distribution Credit	\$2,094,631	Staff reviews the insurance requirements and premiums for NCEMPA1 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 2021 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 2021. NEIL Primary Property and Excess Property credit - \$1,158,008. Catawba and McGuire NEIL Extra Expense replacement power credit - \$936,623. Total NEIL insurance refunds = \$2,094,631.
Contract Administration	OATT Settlement issues in 2021	\$300,000	Staff challenged several items in the OATT formula rate true up from DEP. Benefit for NCEMPA for these settlement issues is \$300,000.	Total Benefit: Disallowed costs lowering overall transmission charges = \$300,000
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 NCEMPA1'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
Contract Administration	Power Supply Billing Review	\$150,000	Staff challenged several items in the OATT formula rate true up from DEC. NCEMPA1's reduction is \$150,000.	Total Benefit: Disallowed costs lowering overall transmission charges = \$150,000

LOAD AND DEMAND SIDE MANAGEMENT (DSM) BENEFIT

VALUE CATEGORY	VALUE AREA	2021 YEAR END BENEFITS	DETAILS	CALCULATIONS
DSM	DSM/Load Management	\$84,000	Staff assisted Members in Fremont, Hobgood, Laurinburg, Louisburg, Scotland Neck, and Southport with engineering and project support related to load management device installations.	2021 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	\$71,476,653	Staff monitors system conditions, sends out load management notifications, and operates load management systems to obtain savings for the NCEMPA Members.	Total Benefit: Jan - \$7,018,738 Feb - \$6,905,533 Mar - \$6,792,327 Apr - \$6,588,705 May - \$6,585,905 Jun - \$7,173,933 Jul - \$6,938,722 Aug - \$7,173,933 Sep - \$6,115,484 Oct - \$6,739,200 Nov - \$6,791,940 Dec - \$5,788,320 (Total of all 12 months \$80,612,740 Less Rider 6A (\$4,059,581) and 6B (\$5,076,506) credits) = \$71,476,653
DSM	DSM/Load Management	\$750,975	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.	2021 Benefit = Number of Cities x City FTE usage x City FTE cost = 51 x 25% x \$58,900 = \$750,975

TOTAL: \$519,228,493