



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

July 6, 2023

Ms. A. Shonta Dunston, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

Re: Docket No. E-34, Subs 54 and 55 – Application of Appalachian State University, d/b/a New River Light and Power Company for Adjustment of General Base Rates and Charges Applicable to Electric Service, and for an Accounting Order to Defer Certain Capital Costs and New Tax Expenses

Dear Ms. Dunston:

Attached for filing on behalf of the Public Staff in the above-referenced docket is the Settlement Testimony of Fenge Zhang, Public Utilities Regulatory Manager of the Accounting Division of the Public Staff – North Carolina Utilities Commission.

By copy of this letter, I am forwarding a copy to all parties of record by electronic delivery.

Sincerely,

Electronically submitted
/s/ Thomas Felling
Staff Attorney
thomas.felling@psncuc.nc.gov

Attachments

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CERTIFICATE OF SERVICE

I certify that a copy of this Testimony have been served on all parties of record or their attorneys, or both, in accordance with Commission Rule R1-39, by United States mail, first class or better; by hand delivery; or by means of facsimile or electronic delivery upon agreement of the receiving party.

This the 6th day of July, 2023.

Electronically submitted
/s/Thomas Felling
Staff Attorney

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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-34, SUB 54)

In the Matter of)
Application of Appalachian State)
University, d/b/a New River Light and)
Power Company for Adjustment of)
General Base Rates and Charges)
Applicable to Electric Service)

DOCKET NO. E-34, SUB 55)

In the Matter of)
Petition of Appalachian State University,)
d/b/a New River Light and Power)
Company for an Accounting Order to)
Defer Certain Capital Costs and New)
Tax Expenses)

SETTLEMENT TESTIMONY
OF FENGE ZHANG
PUBLIC STAFF –
NORTH CAROLINA
UTILITIES COMMISSION

July 6, 2023

1 **Q. Please state your name, business address, and present**
2 **position.**

3 A. My name is Fenge Zhang. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am the
5 Public Utilities Regulatory Manager with the Accounting Division of
6 the Public Staff – North Carolina Utilities Commission (Public Staff).

7 **Q. Please provide your qualifications and experience.**

8 A. My qualifications and experience are provided in Appendix A.

9 **Q. What is the purpose of your settlement testimony in this**
10 **proceeding?**

11 A. The purpose of my testimony is to support the Agreement and
12 Stipulation of Settlement dated July 5, 2023 (Stipulation), between
13 New River Light and Power Company (NRLP or the Company) and
14 the Public Staff (Stipulating Parties).

15 **Q. Please briefly describe the stipulation.**

16 A. The Stipulation sets forth agreement between the Stipulating Parties
17 in the following areas:

- 18 1. The weighted overall rate of return, including the capital
19 structure, debt cost rate, and cost of equity;
- 20 2. The overall recommended base revenue increase;
- 21 3. Campus Substation deferral;
- 22 4. Unrelated Business Income Tax (UBIT) deferral;

- 1 5. Rate case expense; and
- 2 6. Working together regarding the calculation of revenue
- 3 requirement in the next general rate case.

4 The details of the agreements in these areas are set forth in the body

5 of the Stipulation.

6 **Q. What benefits does the Stipulation provide for ratepayers?**

7 A. From the perspective of the Public Staff, the most important benefits

8 provided by the Stipulation are as follows:

- 9 a) A reduction in the \$4.672 million base non-fuel revenue
- 10 increase requested in the Company's April 10, 2023
- 11 supplemental filing, resulting from the adjustments
- 12 agreed to by the Stipulating Parties; and
- 13 b) The avoidance of protracted litigation between the
- 14 Stipulating Parties before the Commission and possibly
- 15 the appellate courts.

16 Based on these ratepayer benefits, as well as the other provisions of

17 the Stipulation, the Public Staff believes the Stipulation is in the

18 public interest and should be approved.

19 **Q. Have the Stipulating Parties agreed on the establishment and**

20 **amortization of deferrals for the Campus Substation and UBIT?**

21 A. Yes. As detailed in the Stipulation, the Stipulating Parties have

22 agreed to the establishment of regulatory assets for the old campus

1 substation, new campus substation, and UBIT. Additionally, as
2 detailed in the Stipulation, the Stipulating Parties have also agreed
3 to the regulatory liability treatment for over-amortizations regarding
4 these deferrals.

5 **Q. Would you briefly describe the Public Staff's presentation of the**
6 **revenue requirement aspects of the Stipulation?**

7 A. Yes. The attached Settlement Exhibit 1 sets forth the accounting and
8 ratemaking adjustments, and the resulting rate base, net operating
9 income, return, and rate increase, to which NRLP and the Public
10 Staff have agreed.

11 **Q. Does this conclude your settlement testimony?**

12 A. Yes.

QUALIFICATIONS AND EXPERIENCE

FENGE ZHANG

I graduated from North Carolina State University with a Bachelor of Science degree and a master's degree in accounting. I am a Certified Public Accountant. I am the Public Utility Regulatory Manager in the Accounting Division Public Staff of North Carolina Utilities Commission.

As a Public Utilities Regulatory Manager with the Accounting Division of the Public Staff, I am responsible for the performance, supervision, and management of the following activities: (1) the examination and analysis of testimony, exhibits, books and records, and other data presented by utilities and other parties under the jurisdiction of the Commission or involved in Commission proceedings; and (2) the preparation and presentation to the Commission of testimony, exhibits, and other documents in those proceedings.

I was first employed by the Public Staff in March 2012. Then in 2016, I began employment with the Commission until I returned to Public Staff employment in May 2022. Throughout this time, I have been involved in audit and review of various topics related to the regulated telephone, water, sewer, electric and natural gas industries, including the most recent general rate cases for Carolina Water Service, Inc. of North Carolina in 2022 and Aqua North Carolina, Inc. in 2022. I have also filed and assisted with the Demand Side Management

and Energy Efficiency riders, electric fuel rider cases, gas annual reviews, and lead lag studies. Most recently, I filed an affidavit on Duke Energy Progress, LLC's 2022 fuel proceeding in Docket No. E-2, Sub 1292.

NEW RIVER LIGHT AND POWER COMPANY
Docket Nos. E-34, Sub 54 and Sub 55
RECONCILIATION OF COMPANY &
PUBLIC STAFF PROPOSED GROSS REVENUE INCREASE
For the Test Year Ended December 31, 2021

Settlement Exhibit I
Schedule 1

Line No.	Description	Revenue Effect
1.	Company's proposed increase	\$ 4,671,936 [1]
2.	<u>Public Staff adjustments:</u> [2]	
3.	Impact of reducing rate of return from 7.007% to 6.165%	(315,145)
4.	Adjustment to Campus Substation deferral	(121,569)
5.	Remove UBIT deferral	(253,460)
6.	Removal of non-utility items	4,242
7.	Adjustment to materials and supplies inventory	(1,216)
8.	Adjustment to prepaid expenses	(1,244)
9.	Adjustment to reduce AFUDC	(1,434)
10.	Adjustment to working capital	(31,730)
11.	Adjustment to customer growth	(53,165)
12.	Adjustment to rate case expense	56,987
13.	Adjustment to regulatory fee	(2,039)
14.	Adjustment to depreciation expense	63,647
15.	Adjustment to UBIT expense	40,946
16.	Updates per Public Staff	231,244
17.	Rounding	0
18.	Total Public Staff adjustments (Sum of Lines 3-17)	(383,936)
19.	Public Staff recommended increase (L1 + L18)	\$ 4,288,000 [3]

[1] Per Company Exhibit REH-13.

[2] Calculated based on Settlement Exhibit I, Schedules 2, 3, 4 and back up schedules.

[3] Settlement Exh bit 1, Schedule 3, Line 9, Column (d).

NEW RIVER LIGHT AND POWER COMPANY
Docket Nos. E-34, Sub 54 and Sub 55
ORIGINAL COST RATE BASE
For the Test Year Ended December 31, 2021

Settlement Exhibit I
Schedule 2

Line No.	Description	Per Application [1] (a)	Public Staff Adjustments [2] (b)	After Public Staff Adjustments [3] (c)
1.	Electric plant in service	\$ 38,965,206	\$ 127,358	\$ 39,092,563
2.	Accumulated depreciation	<u>(17,721,551)</u>	<u>1,193,651</u>	<u>(16,527,900)</u>
3.	Net plant in service (L1 + L2)	21,243,655	1,321,009	22,564,664
4.	Investment in capital credits	6,990,422	(139,300)	6,851,122
5.	Regulatory assets and liabilities	1,118,903	(278,975)	839,928
6.	Materials and supplies	586,437	41,305	627,742
7.	Prepaid expenses	81,593	1,876	83,469
8.	Customer Deposits	(235,508)	6,403	(229,105)
9.	Cash working capital on purchasd power expense	613,977	(131,412)	482,565
10.	Cash working capital for other O&M expenses	<u>565,036</u>	<u>(343,677)</u>	<u>221,360</u>
11.	Total original cost rate base (Sum of Lines 3-10)	<u>\$ 30,964,515</u>	<u>\$ 477,228</u>	<u>\$ 31,441,744</u>

[1] Per Company Exhibit REH-13
[2] Settlement Exhibit I, Schedule 2-1.
[3] Column (a) plus Column (b).

NEW RIVER LIGHT AND POWER COMPANY
Docket Nos. E-34, Sub 54 and Sub 55
SUMMARY OF PUBLIC STAFF
RATE BASE ADJUSTMENTS
For the Test Year Ended December 31, 2021

Settlement Exhibit I
Schedule 2-1

Line No.	Description	Update to 31-Dec-22 Per Public Staff (a)	Adjust Old and New Campus Substation Deferrals (b)	Remove UBIT Deferral (c)	Include Materials and Supplies (d)	Adjust Prepaid Expenses (e)	Adjustment To Reduce AFUDC (f)	Adjustment to Accumulated Depreciation (g)	Working Capital (h)	Total Rate Base Adjustment [1] (i)
1.	Electric plant in service (net of cost-free capital)	\$ 147,496	\$ -				\$ (20,138)			\$ 127,358
2.	Accumulated depreciation	940,765						\$ 252,886		1,193,651
3.	Net plant in service (L1 + L2)	1,088,260	-	-	-	-	(20,138)	252,886	-	1,321,009
4.	Construction work in progress									-
5.	Investment in capital credits	(139,300)								(139,300)
6.	Regulatory assets and liabilities	249,720	(86,596)	(442,099)						(278,975)
7.	Materials and supplies	58,381			(17,077)					41,305
8.	Prepaid expenses	19,338				(17,462)				1,876
9.	Customer Deposits	6,403								6,403
10.	Accounts payable - plant in service									-
11.	Cash working capital on purchased power expense	137,244							(268,655)	(131,412)
12.	Cash working capital for other O&M expenses	(166,818)							(176,859)	(343,677)
13.	Total original cost rate base (Sum of Lines 3-12)	<u>\$ 1,253,228</u>	<u>\$ (86,596)</u>	<u>\$ (442,099)</u>	<u>\$ (17,077)</u>	<u>\$ (17,462)</u>	<u>\$ (20,138)</u>	<u>\$ 252,886</u>	<u>\$ (445,514)</u>	<u>\$ 477,228</u>
14.	Revenue requirement impact	<u>\$ 89,255</u>	<u>\$ (6,167)</u>	<u>\$ (31,486)</u>	<u>\$ (1,216)</u>	<u>\$ (1,244)</u>	<u>\$ (1,434)</u>	<u>\$ 18,011</u>	<u>\$ (31,730)</u>	<u>\$ 33,988</u>

[1] Per Settlement.

NEW RIVER LIGHT AND POWER COMPANY
Docket Nos. E-34, Sub 54 and Sub 55
NET OPERATING INCOME FOR RETURN
For the Test Year Ended December 31, 2021

Settlement Exhibit I
Schedule 3

Line No.	Description	Present Rates			After Public Staff Recommended Increase	
		Per Revised Application [1] (a)	Public Staff Adjustments [2] (b)	Per Public Staff [3] (c)	Rate Increase [4] (d)	After Rate Increase [5] (e)
1.	Electric operating revenues:					
2.	Electric sales revenues	\$ 18,596,795	\$ 1,068,839	\$ 19,665,634	4,288,000 4/	\$ 23,953,634
3.	Other electric revenue	52,251	(52,251)	-		-
4.	Miscellaneous service revenue	44,466	944	45,410		45,410
5.	Rent from electric property	27,492	358	27,850		27,850
6.	Jobbing and contracting	131,606	(131,806)	(200)		(200)
7.	Miscellaneous non-operating income	2	(2)	-		-
8.	Other interest income	1,480	(1,480)	-		-
9.	Total operating revenues (sum of Lines 2-8)	<u>18,854,092</u>	<u>884,601</u>	<u>19,738,694</u>	<u>4,288,000</u>	<u>24,026,694</u>
10.	Operating revenue deductions:					
11.	Operations and maintenance (O&M) expense:					
12.	Purchased power	14,940,108	658,197	15,598,305		15,598,305
13.	Distribution expenses	1,500,068	772,129	2,272,197		2,272,197
14.	Customer accounts expense	829,900	9,417	839,317		839,317
15.	Uncollectibles	51,506	(12,039)	39,467	11,878	51,345
16.	Administrative and general expense	<u>1,420,655</u>	<u>134,250</u>	<u>1,554,905</u>		<u>1,554,905</u>
17.	Total O&M expense (Sum of Lines 12-16)	18,742,237	1,561,954	20,304,191	11,878	20,316,069
18.	Depreciation expense	1,161,463	(48,792)	1,112,671		1,112,671
19.	Amortization of regulatory assets and liabilities	490,567	(335,970)	154,596		154,596
20.	Payroll taxes	-	-	-		-
21.	Regulatory fee	35,650	(9,166)	26,484	6,003	32,487
22.	(Gain)/Loss on sale of utility property	18,138	(28,134)	(9,996)		(9,996)
23.	Interest expense on customer deposits	13,066	1,074	14,141		14,141
24.	Jobbing and contracting expenses	198,200	(198,200)	-		-
25.	Rate case expense	83,333		83,333	56,987	140,320
26.	Unrelated Business Income Tax	373,280	40,946	414,226	(86,199)	328,027
27.	Inflation adjustment through July 31, 2023	240,411	(240,411)	-		-
28.	Total operating revenue deductions (Sum of Lines 17-24)	<u>21,356,344</u>	<u>743,302</u>	<u>22,099,646</u>	<u>(11,331)</u>	<u>22,088,315</u>
29.	Net operating income for a return (L9 - L25)	<u>\$ (2,502,252)</u>	<u>\$ 141,300</u>	<u>\$ (2,360,952)</u>	<u>\$ 4,299,331</u>	<u>\$ 1,938,379</u>

[1] Per Company revised EXH_REH-13.
[2] Settlement Exhibit I, Schedule 3-1, Column (k).
[3] Column (a) plus (b).
[4] Per Settlement.
[5] Column (c) plus (d).

NEW RIVER LIGHT AND POWER COMPANY
Docket Nos. E-34, Sub 54 and Sub 55
SUMMARY OF PUBLIC STAFF
NET OPERATING INCOME ADJUSTMENTS
For the Test Year Ended December 31, 2021

Settlement Exhibit I
 Schedule 3-1

Line No.	Description	Updates Per Public Staff (a)	Remove Non-Utility Items (b)	Remove UBIT Amortization (c)	Customer Growth, Usage, And Weather (d)	Test Year Inflation Adjustment (e)	Adjust Substation Amortization (f)	Adjust Uncoll. And Reg Fee (g)	Annualize Depreciation Expense (h)	Rate Case Expense Adjustment (i)	Interest Synchronization (j)	Total Public Staff Adjustments (k) [1]
1.	Electric operating revenues:											
2.	Electric sales revenues	\$ 695,418			\$ 373,421							\$ 1,068,839
3.	Temporary construction revenue	(52,251)										(52,251)
4.	Miscellaneous service revenue	944										944
5.	Ren from electric property	358										358
6.	Jobbing and contracting	94,795	(226,601)									(131,806)
7.	Miscellaneous non-operating income	1	(3)									(2)
8.	Other interest income	2,280	(3,760)									(1,480)
9.	Total operating revenues (sum of Lines 2-8)	<u>741,544</u>	<u>(230,364)</u>	<u>-</u>	<u>373,421</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>884,601</u>
10.	Operating revenue deductions:											
11.	Operations and maintenance (O&M) expense:											
12.	Purchased power	359,865			298,332							658,197
13.	Distribution expenses	751,539			20,590	-						772,129
14.	Customer accounts expense	9,417										9,417
15.	Uncollectibles	(13,080)			1,034			7				(12,039)
16.	Administrative and general expense	134,250										134,250
17.	Total O&M expense (Sum of Lines 12-16)	<u>1,241,991</u>	<u>-</u>	<u>-</u>	<u>319,956</u>	<u>-</u>	<u>-</u>	<u>7</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,561,954</u>
18.	Depreciation expense (Sum of Lines 12-16)	(94,238)							45,446			(48,792)
19.	Amortization of regulatory assets and liabilities	0		(221,049)			(114,922)					(335,970)
20.	Payroll taxes	-										-
21.	Regulatory fee	(7,649)			521			(2,038)				(9,166)
22.	Rate Case expense								56,750			
23.	(Gain)/Loss on sale of utility property	(28,134)										(28,134)
24.	Interest expense on customer deposits	1,074										1,074
25.	Jobbing and contracting expenses	27,939	(226,139)									(198,200)
26.	Inflation adjustment through July 31, 2023	(240,411)										(240,411)
27.	UBIT 2022 update	0										0
28.	Unrelated Business Income Tax reduction	(26,913)	(715)	37,408	8,960		19,448	344	(7,691)	(9,604)	19,709	40,946
29.	Total operating revenue deductions (Sum of Lines 17-28)	<u>873,661</u>	<u>(226,854)</u>	<u>(183,641)</u>	<u>329,437</u>	<u>-</u>	<u>(95,474)</u>	<u>(1,687)</u>	<u>37,755</u>	<u>47,146</u>	<u>19,709</u>	<u>743,302</u>
30.	Net operating income for a return (L9 - L29)	<u>\$ (132,117)</u>	<u>\$ (3,510)</u>	<u>\$ 183,641</u>	<u>\$ 43,984</u>	<u>\$ -</u>	<u>\$ 95,474</u>	<u>\$ 1,687</u>	<u>\$ (37,755)</u>	<u>\$ (47,146)</u>	<u>\$ (19,709)</u>	<u>\$ 141,300</u>
31.	Revenue requirement impact	<u>\$ 159,694</u>	<u>\$ 4,242</u>	<u>\$ (221,974)</u>	<u>\$ (53,165)</u>	<u>\$ -</u>	<u>\$ (115,402)</u>	<u>\$ (2,039)</u>	<u>\$ 45,636</u>	<u>\$ 56,987</u>	<u>\$ 23,823</u>	<u>\$ (170,794)</u>

[1] Per Settlement.

NEW RIVER LIGHT AND POWER COMPANY
Docket Nos. E-34, Sub 54 and Sub 55
RETURN ON ORIGINAL COST NET INVESTMENT
For the Test Year Ended December 31, 2021

Settlement Exhibit I
Schedule 4

Line No.	Description	Before Public Staff Proposed Increase				
		Capitalization Ratio (a)	Original Cost Rate Base (b)	Cost Rates (c)	Weighted Cost Rates (d)	Net Operating Income (e)
1.	Long-term debt	50.00% [1]	\$ 15,720,872 [3]	3.23% [1]	1.615% [4]	\$ 507,784 [6]
2.	Common equity	50.00% [1]	15,720,872 [3]	-18.25% [8]	-9.125% [4]	(2,868,736) [7]
3.	Total (L1 + L2)	<u>100.00%</u>	<u>\$ 31,441,744 [2]</u>		<u>-7.510%</u>	<u>\$ (2,360,952) [5]</u>

Line No.	Description	After Public Staff Proposed Increase				
		Capitalization Ratio (a)	Original Cost Rate Base (b)	Cost Rates (c)	Weighted Cost Rates (d)	Net Operating Income (e)
4.	Long-term debt	50.00% [1]	\$ 15,720,872 [9]	3.23% [1]	1.615% [4]	\$ 507,784 [6]
5.	Common equity	50.00% [1]	15,720,872 [9]	9.10% [1]	4.550% [4]	1,430,599 [6]
6.	Total (L4 + L5)	<u>100.00%</u>	<u>\$ 31,441,744 [2]</u>		<u>6.165%</u>	<u>\$ 1,938,383</u>

[1] Per Public Staff witness Hinton.

[2] Settlement Exhibit I, Schedule 2, Line 13, Column (c).

[3] Line 3, Column (b) x Column (a).

[4] Column (a) x Column (c).

[5] Settlement Exhibit I, Schedule 3, Line 26, Column (c).

[6] Column (b) x Column (c).

[7] Line 3 - Line 1.

[8] Column (e) divided by Column (b).

[9] Line 6, Column (b) x Column (a).