OFFICIAL STATEMENT

NEW ISSUES	**Electric Ratings:**	**S&P:**	**"AA-"**
Book-Entry-Only		**Moody's:**	**"Aa2"**
	Water Ratings:	**S&P:**	**"AAA"**
		Moody's:	**"Aa1"**

(See "MISCELLANEOUS: Ratings" herein)

In the opinion of Bond Counsel, based on existing law and assuming compliance with certain tax covenants of the Knoxville Utilities Board ("KUB"), interest on the Bonds (i) will be excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) is not an item of tax preference for purposes of the federal alternative minimum tax, except as described under the heading "LEGAL MATTERS-Tax Matters" herein. For an explanation of certain tax consequences under federal law which may result from the ownership of the Bonds, see the discussion under the heading "LEGAL MATTERS - Tax Matters" herein. Under existing law, the Bonds and the income therefrom will be exempt from all state, county and municipal taxation in the State of Tennessee, except certain Tennessee franchise and excise taxes. (See "LEGAL MATTERS - Tax Matters" herein).

$110,995,000
CITY OF KNOXVILLE, TENNESSEE
$91,000,000 Electric System Revenue Bonds, Series QQ-2024
$19,995,000 Water System Revenue Bonds, Series OO-2024

Dated: August 29, 2024 Due: As shown herein

The $91,000,000 Electric System Revenue Bonds, Series QQ-2024 ("Electric Bonds" or "Series QQ-2024 Bonds") and the $19,995,000 Water System Revenue Bonds, Series OO-2024 ("Water Bonds" or "Series OO-2024 Bonds"), collectively, referred to as the "Bonds" are issuable in book-entry-only form. The Bonds will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository of the Bonds. So long as Cede & Co. is the registered owner of the Bonds, as the nominee for DTC, principal and interest with respect to the Bonds shall be payable to Cede & Co., as nominee for DTC, which will, in turn, remit such principal and interest to the DTC participants for subsequent disbursements to the Beneficial Owners of the Bonds. Individual purchases of the Bonds will be made in book-entry-only form only, in denominations of $5,000 or integral multiples thereof and will bear interest at the annual rates as shown on the inside cover. Interest on the Electric Bonds will be payable semi-annually on January 1 and July 1 each year, commencing January 1, 2025. Interest on the Water Bonds will be payable semi-annually on March 1 and September 1 each year, commencing March 1, 2025. Beneficial Owners of the Bonds will not receive physical delivery of Bond certificates. (See "The Bonds" - Book-Entry-Only System herein.)

The Bonds are being issued to provide funds to pay the costs of extensions and improvements to the Electric System and the Water System, as described herein, and to pay the cost of issuing the Bonds as more fully described in a subsequent part of this *Official Statement*.

The Bonds will be issued pursuant to and secured by bond resolutions of the City of Knoxville ("City") and will be payable solely from the net revenues of the Electric System and the Water System, respectively, of the City, which are operated by the Knoxville Utilities Board ("KUB"). The Bonds do not constitute a debt of the City within the meaning of any constitutional, City Charter or statutory limitation, and neither the faith and credit of the State of Tennessee nor the faith and credit of the City or any other political subdivision are pledged to the payment of the principal of or premium or interest on the Bonds.

A portion of the Bonds are subject to optional redemption prior to maturity as described herein.

Bonds are offered when, as and if issued by the City subject to the approval of the legality thereof by Bass, Berry & Sims PLC, Knoxville, Tennessee, Bond Counsel, whose opinions will be delivered with the Bonds. Certain legal matters will be passed upon for Knoxville Utilities Board by Hodges, Doughty & Carson, PLLC, Knoxville, Tennessee, General Counsel to the Knoxville Utilities Board. It is expected the Bonds will be available for delivery in book-entry-only form, through the facilities of The Depository Trust Company, New York, New York on or about August 29, 2024.

Cumberland Securities Company, Inc.
Municipal Advisor

July 23, 2024

ELECTRIC SYSTEM REVENUE BONDS
SERIES QQ-2024

Maturity (July 1)	Amount	Interest Rate	Yield		CUSIP**	Maturity (July 1)	Amount	Interest Rate	Yield		CUSIP**
2026	$1,475,000	5.00%	2.82%		4997463J2	2037	$2,560,000	5.00%	3.11%	c	4997463V5
2027	1,550,000	5.00	2.77		4997463K9	2038	2,690,000	5.00	3.18	c	4997463W3
2028	1,630,000	5.00	2.77		4997463L7	2039	2,830,000	5.00	3.26	c	4997463X1
2029	1,715,000	5.00	2.77		4997463M5	2040	2,975,000	5.00	3.34	c	4997463Y9
2030	1,805,000	5.00	2.77		4997463N3	2041	3,125,000	5.00	3.43	c	4997463Z6
2031	1,895,000	5.00	2.80		4997463P8	2042	3,285,000	5.00	3.49	c	4997464A0
2032	1,990,000	5.00	2.80	c	4997463Q6	2043	3,455,000	5.00	3.55	c	4997464B8
2033	2,095,000	5.00	2.84	c	4997463R4	2044	3,610,000	4.00	4.01		4997464C6
2034	2,200,000	5.00	2.89	c	4997463S2	2045	3,760,000	4.00	4.03		4997464D4
2035	2,315,000	5.00	2.98	c	4997463T0	2046	3,915,000	4.125	4.03	c	4997464E2
2036	2,435,000	5.00	3.03	c	4997463U7						

$17,345,000 4.00% Term Bond Due July 1, 2050 @ 4.10% 4997464J1
$20,345,000 4.00% Term Bond Due July 1, 2054 @ 4.11% 4997464N2

c = Yield to call on July 1, 2031

WATER SYSTEM REVENUE BONDS
SERIES OO-2024

Maturity (March 1)	Amount	Interest Rate	Yield		CUSIP**	Maturity (March 1)	Amount	Interest Rate	Yield		CUSIP**
2026	$330,000	5.00%	2.82%		4998186B3	2038	$595,000	5.00%	3.18%	c	4998186P2
2027	350,000	5.00	2.77		4998186C1	2039	625,000	5.00	3.26	c	4998186Q0
2028	365,000	5.00	2.77		4998186D9	2040	655,000	5.00	3.34	c	4998186R8
2029	385,000	5.00	2.77		4998186E7	2041	690,000	5.00	3.43	c	4998186S6
2030	400,000	5.00	2.77		4998186F4	2042	725,000	5.00	3.49	c	4998186T4
2031	420,000	5.00	2.80		4998186G2	2043	760,000	4.00	3.98	c	4998186U1
2032	445,000	5.00	2.80	c	4998186H0	2044	790,000	4.00	4.01		4998186V9
2033	465,000	5.00	2.84	c	4998186J6	2045	820,000	4.00	4.03		4998186W7
2034	490,000	5.00	2.89	c	4998186K3	2046	855,000	4.125	4.03	c	4998186X5
2035	515,000	5.00	2.98	c	4998186L1	2047	890,000	4.125	4.09	c	4998186Y3
2036	540,000	5.00	3.03	c	4998186M9	2048	925,000	4.125	4.125		4998186Z0
2037	565,000	5.00	3.11	c	4998186N7						

$6,395,000 4.00% Term Bond Due March 1, 2054 @ 4.11% 4998187F3

c = Yield to call on March 1, 2031

** Copyright, American Bankers Association (the "ABA"). CUSIP data herein are provided by CUSIP Global Services, which is managed on behalf of the ABA by S&P Global Market Intelligence, a division of S&P Global Inc. The CUSIP numbers listed above are being provided solely for the convenience of Bondholders only at the time of issuance of the Bonds and the Municipality makes no representation with respect to such numbers nor undertakes any responsibility for their accuracy now or at any time in the future. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the Bonds.

This *Official Statement* speaks only as of its date, and the information contained herein is subject to change.

This *Official Statement* may contain forecasts, projections, and estimates that are based on current expectations but are not intended as representations of fact or guarantees of results. If and when included in this *Official Statement*, the words "expects," "forecasts," "projects," "intends," "anticipates," "estimates," and analogous expressions are intended to identify forward-looking statements as defined in the Securities Act of 1933, as amended, and any such statements inherently are subject to a variety of risks and uncertainties, which could cause actual results to differ materially from those contemplated in such forward-looking statements. These forward-looking statements speak only as of the date of this *Official Statement*. The Issuer disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in the Issuer's expectations with regard thereto or any change in events, conditions, or circumstances on which any such statement is based.

This *Official Statement* and the Appendices hereto contain brief descriptions of, among other matters, KUB, the Bonds, the Resolution, the Disclosure Certificate (as defined herein), and the security and sources of payment for the Bonds. Such descriptions and information do not purport to be comprehensive or definitive. The summaries of various constitutional provisions and statutes, the Resolution, the Disclosure Certificate, and other documents are intended as summaries only and are qualified in their entirety by reference to such documents and laws, and references herein to the Bonds are qualified in their entirety to the forms thereof included in the Resolution.

The Bonds have not been registered under the Securities Act of 1933, and the Resolution has not been qualified under the Trust Indenture Act of 1939, in reliance on exemptions contained in such Acts. This *Official Statement* does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation, or sale.

No dealer, broker, salesman, or other person has been authorized by the Issuer or the Underwriter to give any information or to make any representations other than those contained in this *Official Statement*, and, if given or made, such other information or representations should not be relied upon as having been authorized by the Issuer or the Underwriter. Except where otherwise indicated, all information contained in this *Official Statement* has been provided by KUB. The information set forth herein has been obtained by KUB from sources which are believed to be reliable but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation of the Underwriter. The information contained herein is subject to change without notice, and neither the delivery of this *Official Statement* nor any sale made hereunder shall under any circumstances create an implication that there has been no change in the affairs of the Issuer, or the other matters described herein since the date hereof or the earlier dates set forth herein as of which certain information contained herein is given.

CITY OF KNOXVILLE, TENNESSEE
KNOXVILLE UTILITIES BOARD

COMMISSIONERS

Adrienne Simpson-Brown, Chair
Ron Feinbaum, Vice Chair
Claudia Caballero
Cynthia Gibson
Kathy Hamilton
Celeste Herbert
Dr. Craig Pickett, Jr.

OFFICERS

Gabriel J. Bolas II, President and Chief Executive Officer
Mark A. Walker, Senior Vice President and Chief Financial Officer
Susan F. Edwards, Senior Vice President and Chief Administrative Officer
John W. Williams III, Senior Vice President and Chief Infrastructure and Compliance Officer
Jamie Davis, Senior Vice President Fiber and Chief Technology Officer
Tiffany Martin, Senior Vice President and Chief Customer Officer
John Gresham, Senior Vice President and Chief Engineering and Operations Officer

GENERAL COUNSEL

Hodges, Doughty & Carson, PLLC
Knoxville, Tennessee

UNDERWRITERS

Electric
Series QQ-2024
J.P. Morgan Securities LLC
New York, New York

Water
Series OO-2024
J.P. Morgan Securities LLC
New York, New York

MUNICIPAL ADVISOR

Cumberland Securities Company, Inc.
Knoxville, Tennessee

BOND COUNSEL

Bass, Berry & Sims PLC
Knoxville, Tennessee

INDEPENDENT ACCOUNTANTS

Coulter & Justus, P.C.
Knoxville, Tennessee

REGISTRATION AND PAYING AGENT

Regions Bank
Nashville, Tennessee

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SUMMARY STATEMENT

The information set forth below is provided as a summary for convenient reference only; the information is not and does not purport to be complete and is qualified in its entirety by the information and financial statements appearing elsewhere in this *Preliminary Official Statement*. No person is authorized to distribute or rely upon all or any part of the information in this "Summary Statement" without the balance of this *Preliminary Official Statement*, including, all exhibits and appendices hereto.

The Bonds..........................City of Knoxville, Tennessee (the "City") $91,000,000 Electric System Revenue Bonds, Series QQ-2024 ("Electric Bonds" or "Series QQ-2024 Bonds") and the $19,995,000 Water System Revenue Bonds, Series OO-2024 ("Water Bonds" or "Series OO-2024 Bonds"), dated August 29, 2024. The Electric Bonds and the Water Bonds will be collectively referred to as the "Bonds".

Purpose ....The Bonds are being issued to provide funds to pay the costs of extensions and improvements to the Electric System and the Water System (collectively, the "Systems"), as described herein, and to pay the cost of issuing the Bonds.

Security ....The Bonds will be issued pursuant to and secured by bond resolutions of the City and will be payable solely from the net revenues of the Systems, respectively, as further described herein.

Redemption........................The Electric Bonds maturing on and after July 1, 2032 will be subject to redemption prior to maturity at the option of the Board on or after July 1, 2031 at the redemption price of par plus accrued interest as provided herein. The Water Bonds maturing on and after March 1, 2032 will be subject to redemption prior to maturity at the option of the Board on or after March 1, 2031 at the redemption price of par plus accrued interest as provided herein.

Rates ....Rates and fees for services provided by the Systems are established by the Board of Commissioners of the Knoxville Utilities Board (the "Board"). The Electric System and the Water System are not otherwise subject to rate regulation, and KUB is not aware of any pending legislation which would make its rates and fees subject to regulation.

Rate Covenants..................The bond resolutions require the Board to fix rates as to each System to provide revenues sufficient to pay related expenses and obligations and to meet a 1.20 debt service coverage ratio, all as more fully hereinafter described.

Additional Electric
Revenue Bonds...............The City, acting by and through KUB may issue additional bonds, notes or other obligations pursuant to the Electric Bond Resolution provided that all payments required to be made to the Electric Debt Service Fund and into any reserve fund which may be required under resolutions authorizing parity indebtedness are current as of the date of issuance of the additional bonds, notes or other obligations, on a parity and equality of lien with the outstanding parity indebtedness under the Electric Bond Resolution, with respect to the lien and claim of such additional bonds, notes or other obligations to the net revenues of the Electric System and the money on deposit in the Electric Debt Service Fund (i) for the purpose of refunding any outstanding parity indebtedness, subordinate bonds, notes, loan agreements or other obligations, provided that after the issuance of such additional parity indebtedness, the Aggregate Debt Service (as defined in the Electric Bond Resolution) on all outstanding parity indebtedness, including the additional parity indebtedness to be issued, in any fiscal year shall not increase by more than ten percent (10%) after the issuance of such additional parity indebtedness; (ii) for the purpose of financing the completion or equipping of improvements to the Electric System for which outstanding parity indebtedness have previously been issued but only to the extent necessary to complete such improvements in the manner contemplated at the time of the issuance of the outstanding parity indebtedness that financed such improvements; and (iii) for the purposes of refunding any outstanding parity indebtedness or any prior lien bonds, subordinated bonds, notes or other obligations or extending, improving or replacing the Electric System or for any other lawful purpose under applicable law, if one of the following conditions shall have been met: (A) the Net Revenues (as defined in the Electric Bond Resolution) for any twelve-month period selected by the Board ending within the twelve months prior to the date of the issuance of the additional parity indebtedness must have been equal to at least 120% of the Maximum Annual Aggregate Debt Service (as defined in the Electric Bond Resolution) on outstanding parity indebtedness plus the Debt Service on the additional parity indebtedness

proposed to be issued or (B) the estimated Net Revenues of the Electric System for each of the three fiscal years next succeeding the issuance of the additional parity indebtedness, must be equal at least to 120% of Maximum Annual Aggregate Debt Service, any other outstanding parity indebtedness and all outstanding prior lien bonds plus the Debt Service on the additional parity indebtedness proposed to be issued; provided, however, that if the additional parity indebtedness is to be issued for the acquisition or construction of any extension, improvement or replacement to the Electric System, then the estimate of Net Revenues may be for the three fiscal years ensuing after the time that such improvement, extension or replacement is expected to be placed in service.

Additional Water Revenue Bonds............... The City, acting by and through KUB, or KUB may issue additional bonds, notes or other obligations pursuant to the Water Bond Resolution (as defined herein), provided that all payments required to be made to the Water Debt Service Fund and into any reserve fund which may be required under resolutions authorizing parity indebtedness are current as of the date of issuance of the additional bonds, notes or other obligations, on a parity and equality of lien with the outstanding parity indebtedness with respect to the lien and claim of such additional bonds, notes or other obligations to the net revenues of the Water System and the money on deposit in the Water Debt Service Fund for the purpose of (i) refunding any outstanding parity indebtedness, subordinate bonds, notes, loan agreements or other obligations, provided that after the issuance of such additional parity indebtedness, the Aggregate Debt Service (as defined in the Water Bond Resolution) on all outstanding parity indebtedness, including the additional parity indebtedness to be issued, in any fiscal year shall not increase by more than ten percent (10%) after the issuance of such additional parity indebtedness; (ii) for the purpose of financing the completion or equipping of improvements to the Water System for which outstanding parity indebtedness have previously been issued but only to the extent necessary to complete such improvements in the manner contemplated at the time of the issuance of the outstanding parity indebtedness that financed such improvements; and (iii) for the purposes of refunding any outstanding parity indebtedness or any prior lien bonds, subordinated bonds, notes or other obligations or extending, improving or replacing the Water System or for any other lawful purpose under applicable law, if one of the following conditions shall have been met: (A) the Net Revenues (as defined in the Water Bond Resolution) for any twelve-month period selected by the Board ending within the twelve months prior to the date of the issuance of the additional parity indebtedness must have been equal to at least 120% of the Maximum Annual Aggregate Debt Service (as defined in the Water Bond Resolution) on outstanding parity indebtedness plus the Debt Service on the additional parity indebtedness proposed to be issued or (B) the estimated Net Revenues of the Water System for each of the three fiscal years next succeeding the issuance of the additional parity indebtedness, must be equal at least to 120% of Maximum Annual Aggregate Debt Service, any other outstanding parity indebtedness and all outstanding prior lien bonds plus the Debt Service on the additional parity indebtedness proposed to be issued; provided, however, that if the additional parity indebtedness is to be issued for the acquisition or construction of any extension, improvement or replacement to the Water System, then the estimate of Net Revenues may be for the three fiscal years ensuing after the time that such improvement, extension or replacement is expected to be placed in service.

Combined Operation of Any System Permitted in the Future.................... To the extent permitted by law, the Board may combine any or all the City's utility systems into a single unified operation (the "Combined System") and commingle the revenues of the System in the Combined System without keeping separate accounts of the funds of each of such System, provided payments from the funds of the Combined System are required to be made into the respective Debt Service Funds from time to time in amounts sufficient to pay the principal of and interest as such principal and interest becomes due. Bonds and notes ("Parity Bonds") payable from revenues of the Combined System may be issued on a parity with outstanding bonds secured by a System's revenues provided at the time of the issuance of any such Parity Bonds, among other things, the net earnings of the Combined System after making provision for the payment of periodic installments of principal and interest on any bonds having a superior lien on a system or the revenues of any such system, for a period of twelve consecutive months (the "Twelve-Month Period") out of the fifteen months immediately preceding the issuance of such Parity Bonds shall be equal to at least 1.2 times the highest combined principal and interest requirement for any period of twelve consecutive months beginning on July 1 of any succeeding calendar year on all bonds outstanding and to be then issued directly payable from the revenues of the Combined System.

If within twelve months prior to the issuance of the Parity Bonds, the Board shall have put into effect a revised schedule of rates for the Combined System or any part thereof, then the net earnings of the Combined System for the Twelve-Month Period, as certified by independent consultants, that would have resulted from such revised rates had they been in effect for the Twelve-Month Period, may be used in lieu of the actual net earnings for such Twelve-Month Period.

Tax Matters........................In the opinion of Bond Counsel, based on existing law and assuming compliance with certain tax covenants by KUB, interest on the Bonds (i) is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) is not an item of tax preference for purposes of the federal alternative minimum tax, except as described under the heading "LEGAL MATTERS-Tax Matters" herein. For an explanation of certain tax consequences under federal law which may result from the ownership of the Bonds, see the discussion under the heading "LEGAL MATTERS – Tax Matters" herein. Under existing law, the Bonds and the income therefrom will be exempt from all state, county and municipal taxation in the State of Tennessee, except Tennessee franchise and excise taxes. (See "LEGAL MATTERS -Tax Matters" herein.)

Registration and
Paying Agent ....Regions Bank, Nashville, Tennessee.

Bond Counsel ....Bass, Berry & Sims PLC, Knoxville, Tennessee.

Municipal Advisor.............Cumberland Securities Company, Inc.

General...............................The Bonds will be issued pursuant to Chapter 34, Title 7, and Chapter 21, Title 9, *Tennessee Code Annotated*, as amended (the "Act"). See the sections entitled SECURITIES OFFERED, herein. The Bonds will be issued with CUSIP numbers through the facilities of The Depository Trust Company, New York, New York.

Disclosure ....In accordance with Rule 15c2-12 promulgated under the Securities Exchange Act of 1934 as amended, the City, acting by and through KUB, will provide the Municipal Securities Rulemaking Board ("MSRB") through the operation of the Electronic Municipal Market Access system ("EMMA") and the State Information Depository ("SID") established in Tennessee, if any, annual financial statements and other pertinent credit information, including the Comprehensive Annual Financial Reports of KUB for the Systems. For additional information, see the section entitled "MISCELLANEOUS - Continuing Disclosure" for additional information.

Other Information..............The information in the *Official Statement* is deemed "final" within the meaning of Rule 15c2-12 promulgated under the Securities Exchange Act of 1934 as of the date which appears on the cover hereof. For more information concerning the City and the Board or the *Preliminary Official Statement*, Cumberland Securities Company, Inc., Knoxville, Tennessee, Telephone: (865) 988-2663.

ELECTRIC DIVISION
For the Years Ended June 30

	2019	2020	2021**	2022***	2023
Operating Revenues	$558,369,583	$547,686,983	$553,897,585	$606,335,419	$660,231,612
Operating Expenses*	(479,218,014)	(463,108,450)	(451,148,965)	(504,767,353)	(561,730,147)
Net Income Before Depreciation & Taxes	$79,151,569	$84,578,533	$102,5748,620	$101,568,066	$98,501,465
Other Revenue	2,666,532	1,579,182	236,934	716,419	4,879,006
FICA Tax Expense	(2,251,026)	(2,265,718)	(2,256,238)	(2,502,307)	(2,742,935)
Income Available for Debt Service	$79,567,075	$83,891,997	$100,729,316	$99,782,178	$100,637,536
Debt Service on Senior Bonds	$23,535,838	$25,456,523	$26,715,582	$24,583,195	$24,786,078
Bond Coverage	3.38x	3.30x	3.77x	4.06x	4.06x

Source: The above amounts have been derived from the Annual Audited Financial Statements for the Knoxville Utilities Board and Electric Divisions and should be read in conjunction therewith.
* Excluding Provision for Depreciation and Taxes.
** Restated per GASB 87. For more information, see the notes to the Financial Statements included herein.
*** Restated per GASB 96. For more information, see the notes to the Financial Statements included herein.

WATER DIVISION
For the Years Ended June 30

	2019	2020	2021**	2022***	2023
Operating Revenues	$58,073,479	$62,473,524	$61799,439	$64,558,346	$68,702,749
Operating Expenses*	(27,921,639)	(26,876,266)	(26,475,168)	(27,887,150)	(34,464,952
Net Income Before Depreciation & Taxes	$30,151,840	$35,597,258	$35,324,271	$36,671,196	$34,237,797
Other Revenue	885,864	841,842	143,931	179,724	1,361,782
FICA Tax Expense	(906,770)	(948,179)	(965,973)	(1,061,454)	(1,071,217)
Income Available for Debt Service	$30,130,934	$35,490,921	$34,502,229	$35,789,466	$34,528,362
Debt Service on Senior Bonds	$13,024,114	$14,023,460	$14,836,825	$13,889,992	$13,878,353
Bond Coverage	2.31x	2.53x	2.33x	2.58x	2.49x

Source: The above amounts have been derived from the Annual Audited Financial Statements for the Knoxville Utilities Board and Water Divisions and should be read in conjunction therewith.
* Excluding Provision for Depreciation and Taxes.
** Restated per GASB 87. For more information, see the notes to the Financial Statements included herein.
*** Restated per GASB 96. For more information, see the notes to the Financial Statements included herein.

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$110,995,000
CITY OF KNOXVILLE, TENNESSEE

$91,000,000 Electric System Revenue Bonds, Series QQ-2024
$19,995,000 Water System Revenue Bonds, Series OO-2024

SECURITIES OFFERED

AUTHORITY AND PURPOSE

This *Official Statement*, which includes the cover page and "Summary Statement" hereof and the appendices hereto, is furnished in connection with the offering by the City of Knoxville, Tennessee (the "City") of its $91,000,000 Electric System Revenue Bonds, Series QQ-2024 ("Electric Bonds" or "Electric Series QQ-2024 Bonds"), and the $19,995,000 Water System Revenue Bonds, Series OO-2024 ("Water Bonds" or "Series OO-2024 Bonds"). The Electric Bonds and the Water Bonds will be collectively referred to as the "Bonds".

The Electric Bonds are being issued pursuant to Chapter 34, Title 7, and Chapter 21, Title 9, *Tennessee Code Annotated*, as amended (the "Act"), the Charter of the City (the "City Charter"), other applicable statutes, and pursuant to Resolution No. 1644 adopted by the City on January 4, 1949 as amended and supplemented by Resolution No. 2171 adopted February 22, 1955; Resolution No. 3491 adopted by the City on February 21, 1967; Resolution R-317-90 adopted by the City on October 30, 1990; Resolution No. R-422-98 adopted by the City on October 20, 1998; Resolution No. R-149-01 adopted by the City on March 20, 2001; Resolution No. R-332-2010 adopted by the City on November 2, 2010; and Resolution No. R-230-2018 adopted by the City on June 20, 2018 and as supplemented by Resolution No. R-154-2024 adopted by the City on June 11, 2024 and as otherwise supplemental prior to the date hereof (collectively, the "Electric Bond Resolutions"). All Electric System Revenue Bonds issued pursuant to such Electric Bond Resolutions are hereinafter referred to as the "Electric System Bonds."

The Water Bonds are being issued pursuant to the Act, the City Charter, other applicable statutes, and pursuant to Resolution No. 2075 duly adopted by the City Council of the City on April 20, 1954, as amended and supplemented by Resolution No. 3633 duly adopted by the City on March 19, 1968; Resolution No. R-26-88 duly adopted by the City on February 9, 1988; Resolution No. R-8-98 duly adopted by the City on January 27, 1998; Resolution No. R-151-01 duly adopted by the City on March 20, 2001; and Resolution No. R-228-2018 adopted by the City on June 20, 2018 and as supplemented by Resolution No. R-155-2024 adopted by the City on June 11, 2024 and as otherwise supplemental prior to the date hereof (collectively, the "Water Bond Resolutions"). All Water System Revenue Bonds issued pursuant to such Water Bond Resolutions are hereinafter referred to as the "Water System Bonds."

In 1939 the City Charter was amended to create the Knoxville Electric Power and Water Board which name was changed in 1947 to the Knoxville Utilities Board ("KUB"). KUB provides electric, fiber, gas, water and wastewater utility services through separate City owned electric, fiber, gas, water, and wastewater systems (collectively, the "Systems"), and is governed by a seven-member Board of Commissioners (the "Board").

The Bonds are being issued to provide funds to pay the costs of extensions and improvements to the Electric System and the Water System (collectively, the "Systems"), as described herein and incident to the issuance and sale of the Bonds.

DESCRIPTION OF THE BONDS

General Terms

The Bonds will be initially dated August 29, 2024 and will be issued in book-entry-only form, without coupons, in denominations of $5,000 each and integral multiples thereof.

The Electric Bonds will bear interest from their dated date at the rate or rates per annum set forth on the inside cover page hereof, such interest (computed on the basis of a 360-day year of twelve 30-day months) being payable semi-annually on the first days of January and July of each year, commencing on January 1, 2025.

The Water Bonds will bear interest from their dated date at the rate or rates per annum set forth on the inside cover page hereof, such interest (computed on the basis of a 360-day year of twelve 30-day months) being payable semi-annually on the first days of March and September of each year, commencing on March 1, 2025.

The Bonds will be initially registered only in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Bonds. Regions Bank, Nashville, Tennessee (the "Registration Agent") will make all interest payments with respect to the Bonds on each interest payment date directly to Cede & Co., as nominee of DTC, the registered owner as shown on the Bond registration records maintained by the Registration Agent as of the close of business on the fifteenth day of the month next preceding the interest payment date (the "Regular Record Date") by check or draft mailed to such owner at its address shown on said Bond registration records, without, except for final payment, the presentation or surrender of such registered Bonds, and all such payments shall discharge the obligations of KUB in respect of such Bonds to the extent of the payments so made. Payment of principal of the Bonds shall be made upon presentation and surrender of such Bonds to the Registration Agent as the same shall become due and payable.

Any interest on any Bond which is payable but is not punctually paid or duly provided for on any interest payment date (hereinafter "Defaulted Interest") shall forthwith cease to be payable to the registered owner on the relevant Regular Record Date; and, in lieu thereof, such Defaulted Interest shall be paid by KUB to the persons in whose names the Bonds are registered at the close of business on a date (the "Special Record Date") for the payment of such Defaulted Interest, which shall be fixed in the following manner: KUB shall notify the Registration Agent in writing of the amount of Defaulted Interest proposed to be paid on each Bond and the date of the proposed payment, and at the same time KUB shall deposit with the Registration Agent an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Registration Agent for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the persons entitled to such Defaulted Interest. Thereupon, not less than ten (10) days after the receipt by the Registration Agent of the notice of the proposed payment, the Registration Agent shall fix a Special Record Date for the payment of such Defaulted Interest which date shall be not more than fifteen (15) nor less than ten (10) days prior to the date of the proposed payment to the registered owners. The Registration Agent shall promptly notify KUB of such Special Record Date and, in the name and at the expense of KUB, not less than ten (10) days prior to such Special Record Date, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first class postage prepaid, to each registered owner at the address thereof as it appears in the Bond registration records maintained by the Registration Agent as of the date of such notice. Nothing contained in the Electric Bond Resolutions or the Water Bond Resolutions (collectively, the "Resolutions") or in the Bonds shall impair any statutory or other rights in law or in equity of any registered owner arising as a result of the failure of KUB to punctually pay or duly provide for the payment of principal of, premium, if any, and interest on the Bonds when due.

So long as Cede & Co. is the Registered Owner of the Bonds, as nominee of DTC, references herein to the Bondholders, Holders or Registered Owners of the Bonds shall mean Cede & Co. and shall not mean the Beneficial Owners of the Bonds. See "The Book-Entry-Only System."

Optional Redemption

The Electric Bonds maturing on and after July 1, 2032 will be subject to redemption prior to maturity at the option of the Board on or after July 1, 2031 at the redemption price of par plus accrued interest as provided herein. The Water Bonds maturing on and after March 1, 2032 will be subject to redemption prior to maturity at the option of the Board on or after March 1, 2031 at the redemption price of par plus accrued interest as provided herein.

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Mandatory Redemption Of The Bonds

Electric Bonds. Subject to the credit hereinafter provided, the City, acting by and through KUB, shall redeem Electric Bonds maturing July 1, 2050 and July 1, 2054 on the redemption dates set forth on the following table, in aggregate principal amounts equal to the respective dollar amounts set forth below opposite the respective redemption dates at a price of par plus accrued interest thereon to the date of redemption. DTC, as securities depository for the Electric Bonds or such Person as shall then be serving as the securities depository for the Bonds, shall determine the interest of each Participant in the Electric Bonds to be redeemed using its procedures generally in use at that time. If DTC, or another securities depository is no longer serving as securities depository for the Electric Bonds, the Electric Bonds to be redeemed within a maturity shall be selected by the Registration Agent by lot or such other random manner as the Registration Agent in its discretion shall select. The dates of redemption and principal amount of Electric Bonds to be redeemed on said dates are as follows:

Final Maturity	Redemption Date	Principal Amount of Electric Bonds Redeemed
July 1, 2050	July 1, 2047	$4,080,000
	July 1, 2048	4,245,000
	July 1, 2049	4,420,000
	July 1, 2050*	4,600,000
July 1, 2054	July 1, 2051	$4,785,000
	July 1, 2052	4,980,000
	July 1, 2053	5,185,000
	July 1, 2054*	5,395,000

*Final Maturity of Electric Bonds

Water Bonds. Subject to the credit hereinafter provided, the City, acting by and through KUB, shall redeem Water Bonds maturing March 1, 2054 on the redemption dates set forth on the following table, in aggregate principal amounts equal to the respective dollar amounts set forth below opposite the respective redemption dates at a price of par plus accrued interest thereon to the date of redemption. DTC, as securities depository for the Water Bonds or such Person as shall then be serving as the securities depository for the Bonds, shall determine the interest of each Participant in the Water Bonds to be redeemed using its procedures generally in use at that time. If DTC, or another securities depository is no longer serving as securities depository for the Water Bonds, the Water Bonds to be redeemed within a maturity shall be selected by the Registration Agent by lot or such other random manner as the Registration Agent in its discretion shall select. The dates of redemption and principal amount of Water Bonds to be redeemed on said dates are as follows:

Final Maturity	Redemption Date	Principal Amount of Water Bonds Redeemed
March 1, 2054	March 1, 2049	$ 965,000
	March 1, 2050	1,005,000
	March 1, 2051	1,040,000
	March 1, 2052	1,085,000
	March 1, 2053	1,125,000
	March 1, 2054*	1,175,000

*Final Maturity of Water Bonds

At its option, to be exercised on or before the forty-fifth (45th) day next preceding any such redemption date, the City, acting by and through KUB, may (i) deliver to the Registration Agent for cancellation Bonds of the applicable series to be redeemed, in any aggregate principal amount desired, and/or (ii) receive a credit in respect of its redemption obligation under this mandatory redemption provision for any Bonds of the maturity to be redeemed which prior to said date have been purchased or redeemed (otherwise than through the operation of this mandatory sinking fund redemption provision) and canceled by the Registration Agent and not theretofore applied as a credit against any redemption obligation under this mandatory sinking fund provision. Each Bond so delivered or previously purchased or redeemed shall be credited by the Registration Agent at 100% of the principal amount thereof on the obligation of KUB on such payment date and any excess shall be credited on future redemption obligations in chronological order, and the principal amount of Bonds to be redeemed by operation of this mandatory sinking fund provision shall be accordingly reduced.

Selection Of Bonds For Redemption And Notice Of Redemption

If less than all the Bonds of a series shall be called for redemption, the maturities to be redeemed shall be designated by the Board, in its discretion. If less than all the principal amount of the Bonds of a maturity shall be called for redemption, the interests within the maturity to be redeemed shall be selected as follows:

(i) if the Bonds are being held under a Book-Entry-Only System by DTC, or a successor Depository, the amount of the interest of each DTC Participant in the Bonds to be redeemed shall be determined by DTC, or such successor Depository, by lot or such other manner as DTC, or such successor Depository, shall determine; or

(ii) if the Bonds are not being held under a Book-Entry-Only System by DTC, or a successor Depository, the Bonds within the maturity to be redeemed shall be selected by the Registration Agent by lot or such other random manner as the Registration Agent in its discretion shall determine.

Notice of call for redemption, whether optional or mandatory, shall be given by the Registration Agent not less than twenty (20) nor more than sixty (60) days prior to the date fixed for redemption by sending an appropriate notice to the registered owners of the Bonds to be redeemed by first-class mail, postage prepaid, at the addresses shown on the Bond registration records of the Registration Agent as of the date of the notice; but neither failure to mail such notice nor any defect in any such notice so mailed shall affect the sufficiency of the proceedings for the redemption of any of the Bonds for which proper notice was given. The notice may state that it is conditioned upon the deposit of moneys in an amount equal to the amount necessary to effect the redemption with the Registration Agent no later than the redemption date ("Conditional Redemption"). As long as DTC, or a successor Depository, is the registered owner of the Bonds, all redemption notices shall be mailed by the Registration Agent to DTC, or such successor Depository, as the registered owner of the Bonds, as and when above provided, and neither the District nor the Registration Agent shall be responsible for mailing notices of redemption to DTC Participants or Beneficial Owners. Failure of DTC, or any successor Depository, to provide notice to any DTC Participant will not affect the validity of such redemption. From and after any redemption date, all Bonds called for redemption shall cease to bear interest if funds are available at the office of the Registration Agent for the payment thereof and if notice has been duly provided as set forth in the Resolution. In the case of a Conditional Redemption, the failure of the Board to make funds available in part or in whole on or before the redemption date shall not constitute an event of default, and the Registration Agent shall give immediate notice to the Depository or the affected Bondholders that the redemption did not occur and that the Bonds called for redemption and not so paid remain outstanding.

ESTIMATED SOURCES AND USES OF FUNDS

The tables on the following pages set forth the estimated sources and uses of funds in connection with the issuance of the Bonds.

The Electric Bonds

Sources:	
Principal amount of the Electric Bonds	$91,000,000.00
Net Reoffering Premium	$ 3,778,025.90
Total Sources	$94,778,025.90
Uses:	
Underwriter's Discount	$ 561,775.03
Cost of Issuance	$ 260,120.000

Deposit to the Project Fund	$93,956,130.87
Total Uses:	$94,778,025.90

The Water Bonds

Sources:	
Principal amount of the Water Bonds	$19,995,000.00
Net Premium	$ 754,809.55
Total Sources	$20,749,809.55
Uses:	
Underwriter's Discount	$ 97,076.60
Cost of Issuance	$ 128,095.000
Deposit to the Project Fund	$20,524,637.95
Total Uses:	$20,749,809.55

PAYMENT OF BONDS

The Bonds will bear interest from their date or from the most recent interest payment date to which interest has been paid or duly provided for, on the dates provided herein, such interest being computed upon the basis of a 360-day year of twelve 30-day months. Interest on each Bond shall be paid by check or draft of the Registration Agent to the person in whose name such Bond is registered at the close of business on the 15th day of the month next preceding the interest payment date. The principal of and premium, if any, on the Bonds shall be payable in lawful money of the United States of America at the designated trust office of the Registration Agent.

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SECURITY FOR THE BONDS

SECURITY FOR THE ELECTRIC SYSTEM REVENUE BONDS, SERIES QQ-2024

Pledge Under the Bond Resolutions.

The Electric Bonds constitute and, when issued, will be part of an issue of bonds known as "Electric System Revenue Bonds" under the Electric Bond Resolutions. All Electric Bonds are limited obligations of the City payable solely and ratably from the net revenues of the Electric System and are on a parity and equality of lien with the City's outstanding: (i) Electric System Revenue Refunding Bonds, Series EE-2015, dated May 1, 2015, (ii) Electric System Revenue Bonds, Series GG-2016, dated August 5, 2016, (iii) Electric System Revenue Refunding Bonds, Series HH-2017, dated April 7, 2017, (iv) Electric System Revenue Bonds, Series II-2017, dated September 15, 2017, (v) Electric System Revenue Bonds, Series JJ-2018, dated September 14, 2018, (vi) Electric System Revenue Refunding Bonds, Series KK-2020, dated May 22, 2020, (vii) Electric System Revenue Refunding Bonds, Series LL-2021, dated April 19, 2021, (viii) Electric System Revenue Bonds, Series MM-2022, dated April 29, 2022, (ix) Electric System Revenue Refunding Bonds, Series NN-2022, dated May 13, 2022, (x) Electric System Revenue Bonds, Series OO-2022, dated December 16, 2022, and (xi) Electric System Revenue Bonds, Series PP-2023, dated December 8, 2023 (collectively, the "Outstanding Electric System Bonds") issued pursuant to the Electric Bond Resolutions in addition to the Electric Bonds. The Electric Bonds, the Outstanding Electric Bonds and any future parity bonds are sometimes hereinafter referred to as the "Electric System Bonds".

Neither the Electric Bonds nor any of the Outstanding Electric System Bonds are general obligations of the City, and no owner thereof shall have the right to compel the City to exercise its taxing power to pay principal of or premium or interest on the Electric Bonds or any other Outstanding Electric System Bonds of the City.

Rate Covenant

The Electric Bond Resolutions provide that the Board will fix rates and collect charges for electric energy and the services, facilities and commodities furnished by the Electric System to provide revenues sufficient to pay expenses and obligations related to the Electric System and to meet a 1.20 debt service coverage ratio. See APPENDIX E "Summary of Certain Provisions of the Electric Bond Resolutions – Rate Covenant" for additional information.

Additional Electric Bonds

The City and the Board have covenanted in the Electric Bond Resolutions that no indebtedness will be incurred payable from the revenues of the Electric System having priority over the Electric System Bonds, including the Electric Bonds.

The City, acting by and through KUB, or KUB may issue additional bonds, notes or other obligations pursuant to the Electric Bond Resolutions provided that all payments required to be made to the Electric Debt Service Fund and into any reserve fund which may be required under resolutions authorizing parity indebtedness are current as of the date of issuance of the additional bonds, notes or other obligations, on a parity and equality of lien with the outstanding parity indebtedness under the Electric Bond Resolution with respect to the lien and claim of such additional bonds, notes or other obligations to the net revenues of the Electric System and the money on deposit in the Electric Debt Service Fund (i) for the purpose of refunding any outstanding parity indebtedness, subordinate bonds, notes, loan agreements or other obligations, provided that after the issuance of such additional parity indebtedness, the Aggregate Debt Service (as defined in the Electric Bond Resolutions) on all outstanding parity indebtedness, including the additional parity indebtedness to be issued, in any fiscal year shall not increase by more than ten percent (10%) after the issuance of such additional parity indebtedness; (ii) for the purpose of financing the completion or equipping of improvements to the Electric System for which outstanding parity indebtedness have previously been issued but only to the extent necessary to complete such improvements in the manner contemplated at the time of the issuance of the outstanding parity indebtedness that financed such improvements; and (iii) for the purposes of refunding any outstanding parity indebtedness or any prior lien bonds, subordinated bonds, notes or other obligations or extending, improving or replacing the Electric System or for any other lawful purpose under applicable law, if one of the following conditions shall have been met: (A) the Net Revenues (as defined in the Electric Resolution) for any twelve-month period selected by the Board ending within the twelve months prior to the date of the issuance of the additional parity indebtedness must have been equal to at least 120% of the Maximum Annual Aggregate Debt Service (as defined in the Electric Resolution) on outstanding parity indebtedness plus the Debt Service on the additional parity indebtedness proposed to be issued or (B) the estimated Net Revenues of the Electric System for each of the three fiscal years next succeeding the issuance of the additional parity indebtedness, must be equal at least to 120% of Maximum Annual Aggregate Debt Service, any other outstanding parity indebtedness and all outstanding prior lien bonds plus the Debt Service on the additional parity indebtedness proposed to be issued; provided, however, that if the additional parity indebtedness is to be issued for the acquisition or construction of any extension, improvement or replacement to the Electric System, then the estimate of Net Revenues may be for the three fiscal years ensuing after the time that such improvement, extension or replacement is expected to be placed in service. **See APPENDIX E "Summary of Certain Provisions of the Electric Bond Resolutions – Additional Indebtedness" for additional information.**

SECURITY FOR THE WATER SYSTEM REVENUE BONDS, SERIES OO-2024

Pledge Under the Water Bond Resolutions

The Water Bonds constitute and, when issued, will be part of an issue known as "Water System Revenue Bonds" under the Water Bond Resolutions. All Water Bonds are limited obligations of the City payable solely and ratably from the net revenues of the Water System of the City and are on a parity and equality of lien with the City's outstanding: (i) Water System Revenue Refunding Bonds, Series BB-2015, dated May 1, 2015; (ii) Water System Revenue Bonds, Series CC-2015, dated May 20, 2015, to the extent not refunded with the Water Series MM-2022 Bonds; (iii) Water System Revenue Bonds, Series DD-2016, dated August 5, 2016; (iv) Water System Revenue Refunding Bonds, Series EE-2016, dated August 5, 2016; (v) Water System Revenue Refunding Bonds, Series FF-2017, dated April 7, 2017; (vi) Water System Revenue Bonds, Series GG-2017, dated September 15, 2017; (vii) Water System Revenue Bonds, Series HH-2018, dated September 14, 2018; (viii) Water System Revenue Bonds, Series II-2019, dated August 20, 2019; (ix) Water System Revenue Refunding Bonds, Series JJ-2020, dated May 22, 2020; (x) Water System Revenue Bonds, Series KK-2020, dated October 30, 2020, (xi) Water System Revenue Refunding Bonds, Series LL-2021, dated April 19, 2021, (xii) Water System Revenue Refunding Bonds, Series MM-2022, dated May 13, 2022 and (xiii) Water System Revenue Bonds, Series NN-2023, dated December 8, 2023 (collectively, the "Outstanding Water System Bonds"). The Water Bonds, the Outstanding Water System Bonds and any future parity Water Bonds are sometimes hereinafter referred to as the "Water System Bonds".

Neither the Water Bonds nor any of the Outstanding Water System Bonds are general obligations of the City, and no owner thereof shall have the right to compel the City to exercise its taxing power to pay principal of or premium or interest on the Water Bonds or any Outstanding Water System Bonds of the City.

Rate Covenant

The Water Bond Resolutions provide that the Board will fix rates and collect charges for water and the services, facilities and commodities furnished by the Water System to provide revenues sufficient to pay expenses and obligations related to the Water System and to meet a 1.20 debt service coverage ratio. See APPENDIX F "Summary of Certain Provisions of the Water Bond Resolutions – Rate Covenant" for additional information.

Additional Water Bonds

The City, acting through the Board, has covenanted in the Water Bond Resolutions that it will incur no indebtedness payable from the revenues of the Water System having priority over the Water System Bonds, including the Water Bonds.

The City, acting by and through KUB, or KUB may issue additional Water Bonds, notes or other obligations pursuant to the Water Bond Resolutions, provided that all payments required to be made to the Water Debt Service Fund and into any reserve fund which may be required under resolutions authorizing parity indebtedness are current as of the date of issuance of the additional Water Bonds, notes or other obligations, on a parity and equality of lien with the outstanding parity indebtedness with respect to the lien and claim of such additional Water Bonds, notes or other obligations to the net revenues of the Water System and the money on deposit in the Water Debt Service Fund for the purpose of (i) refunding any outstanding parity indebtedness, subordinate Water Bonds, notes, loan agreements or other obligations, provided that after the issuance of such additional parity indebtedness, the Aggregate Debt Service (as defined in the Water Bond Resolutions) on all outstanding parity indebtedness, including the additional parity indebtedness to be issued, in any fiscal year shall not increase by more than ten percent (10%) after the issuance of such additional parity indebtedness; (ii) for the purpose of financing the completion or equipping of improvements to the Water System for which outstanding parity indebtedness have previously been issued but only to the extent necessary to complete such improvements in the manner contemplated at the time of the issuance of the outstanding parity indebtedness that financed such improvements; and (iii) for the purposes of refunding any outstanding parity indebtedness or any prior lien Water Bonds, subordinated Water Bonds, notes or other obligations or extending, improving or replacing the Water System or for any other lawful purpose under applicable law, if one of the following conditions shall have been met: (A) the Net Revenues (as defined in the Water Bond Resolutions) for any twelve-month period selected by the Board ending within the twelve months prior to the date of the issuance of the additional parity indebtedness must have been equal to at least 120% of the Maximum Annual Aggregate Debt Service (as defined in the Water Bond Resolutions) on outstanding parity indebtedness plus the Debt Service on the additional parity indebtedness proposed to be issued or (B) the estimated Net Revenues of the Water System for each of the three fiscal years next succeeding the issuance of the additional parity indebtedness, must be equal at least to 120% of Maximum Annual Aggregate Debt Service, any other outstanding parity indebtedness and all outstanding prior lien Water Bonds plus the Debt Service on the additional parity indebtedness proposed to be issued; provided, however, that if the additional parity indebtedness is to be issued for the acquisition or construction of any extension, improvement or replacement to the Water System, then the estimate of Net Revenues may be for the three fiscal years ensuing after the time that such improvement, extension or replacement is expected to be placed in service. **See APPENDIX F "Summary of Certain Provisions of the Water Bond Resolution – Additional Indebtedness" for additional information.**

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BASIC DOCUMENTATION

BOOK-ENTRY-ONLY SYSTEM

The Bonds, when issued, will be registered in the name of Cede & Co., DTC's partnership nominee. When the Bonds are issued, ownership interests will be available to purchasers only through a book-entry-only system maintained by DTC (the **"Book-Entry-Only System"**). One or more fully-registered bond certificates will be issued for each maturity, in the entire aggregate principal amount of the Bonds and will be deposited with DTC.

DTC and its Participants. DTC is a limited-purpose trust company organized under the New York Bank Law, a **"banking organization"** within the meaning of the New York Banking Law, a member of the Federal Reserve System, a **"clearing corporation"** within the meaning of the New York Uniform Commercial Code, and a **"clearing agency"** registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for securities that its participants (the **"Direct Participants"**) deposit with DTC. DTC also facilitates the settlement among Direct Participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry-only changes in DTC Participants' accounts, thereby eliminating the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (**"DTCC"**). DTCC, in turn, is owned by a number of its Direct Participants and Members of the National Securities Clearing Corporation, Government Securities Clearing Corporation, MBS Clearing Corporation, and Emerging Markets Clearing Corporation, (the **"NSCC"**, **"GSCC"**, **"MBSCC"**, and **"EMCC"**, also subsidiaries of DTCC), as well as by the New York Stock Exchange, Inc. (the **"NYSE"**), the American Stock Exchange LLC and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others, such as both U.S. and non-U.S. securities brokers and dealers, banks and trust companies that clear through or maintain a custodial relationship with a Direct DTC Participant, either directly or indirectly (the **"Indirect Participants"** and, together with the Direct Participants, the **"Participants"**). The rules applicable to DTC and its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchase of Ownership Interests. Purchases of the Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond (a **"Beneficial Owner"**) is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial owners will not receive written confirmation from DTC of their purchase, but Beneficial Owners are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through whom such Beneficial Owners entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except as specifically provided in the Bonds in the event that use of the Book-Entry-Only System is discontinued.

Payments of Principal and Interest. Principal and interest payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts, upon DTC's receipt of funds and corresponding detail information from the Registration Agent on the payable date in accordance with their respective holdings shown on DTC's records, unless DTC has reason to believe it will not receive payment on such date. Payments by Direct and Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with municipal securities held for the accounts of customers in bearer form or registered in **"street name"**, and will be the responsibility of such Participant and not of DTC, the City or the Registration Agent subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, principal, tender price and interest payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Registration Agent, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

Notices. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the bond documents. Beneficial Owners of the Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners, or in the alternative, Beneficial Owners may wish to provide their names and addresses to the Registration Agent and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC's procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the City as soon as practicable after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

NONE OF THE CITY, KUB, THE MUNICIPAL ADVISOR, THE UNDERWRITER OR THE REGISTRATION AGENT WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO SUCH PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES WITH RESPECT TO THE PAYMENT TO, OR THE PROVIDING OF NOTICE FOR, SUCH PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES.

Transfers of Bonds. To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of the Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

None of the City, KUB, the Municipal Advisor, the Registration Agent or the Underwriter will have any responsibility or obligation, legal or otherwise, to any party other than to the registered owners of any Bond on the registration books of the Registration Agent.

NO ASSURANCE REGARDING DTC PRACTICES

The foregoing information in this section concerning DTC and DTC's Book-Entry-Only System has been obtained from sources that the City acting by and through KUB, believes to be reliable, but the City, KUB, the Registration Agent and the Underwriter do not take any responsibility for the accuracy thereof.

So long as Cede & Co. is the registered owner of the Bonds as nominee of DTC, references herein to the holders or registered owners of the Bonds will mean Cede & Co. and will not mean the Beneficial Owners of the Bonds.

None of the City, KUB, the Registration Agent, the Municipal Advisor or the Underwriter will have any responsibility or obligation to the Participants, DTC or the persons for whom they act with respect to (i) the accuracy of any records maintained by DTC or by any Direct or Indirect Participant of DTC, (ii) payments or the providing of notice to Direct Participants, the Indirect Participants or the Beneficial Owners or (iii) any other action taken by DTC or its partnership nominee as owner of the Bonds.

For more information on the duties of the Registration Agent, please refer to the Resolution.

DEBT LIMITATIONS

Pursuant to Title 7, Chapter 34, Tennessee Code Annotated, as amended, there is no limit on the amount of bonds that may be issued when the City uses the statutory authority granted therein to issue bonds.

DISPOSITION OF BOND PROCEEDS

Electric Bonds

The proceeds of the sale of the Electric Bonds shall be used to pay the costs of the construction of improvements to and extensions to the Electric System, cost related to the issuance and sale of the Electric Bonds, including necessary legal, accounting and fiscal expenses, printing, engraving, advertising and similar expenses, administrative and clerical costs, rating agency fees, Registration Agent Fees and other necessary miscellaneous expenses incurred in connection with the issuance and sale of the Electric Bonds;

Water Bonds

The proceeds of the sale of the Water Bonds shall be used to pay the costs of the construction of improvements to and extensions to the Water System, cost related to the issuance and sale of the Water Bonds, including necessary legal, accounting and fiscal expenses, printing, engraving, advertising and similar expenses, administrative and clerical costs, rating agency fees, Registration Agent Fees and other necessary miscellaneous expenses incurred in connection with the issuance and sale of the Water Bonds; and

DISCHARGE AND SATISFACTION OF BONDS

The respective series of Bonds may be discharged and deemed paid as described in Appendix E and Appendix F which are "Summaries of Resolutions".

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LEGAL MATTERS

LITIGATION

There are no suits pending or, to KUB's knowledge, threatened challenging the legality or validity of the Bonds or the right of KUB to sell or issue the Bonds, or that will have an adverse impact on KUB's ability to pay debt service on the Bonds.

TAX MATTERS

Federal

General. Bass, Berry & Sims PLC, Knoxville, Tennessee, is Bond Counsel for the Bonds. Their opinion under existing law, relying on certain statements by KUB and assuming compliance by KUB with certain covenants, is that interest on the Bonds:

- is excluded from a bondholder's federal gross income pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and
- is not a preference item for a bondholder under the federal alternative minimum tax; however, such interest is taken into account in determining the annual adjusted financial statement income of applicable corporations (as defined in Section 59(k) of the Code) for the purpose of computing the alternative minimum tax imposed on corporations for tax years beginning after December 31, 2022.

The Code imposes requirements on the Bonds that KUB must continue to meet after the Bonds are issued. These requirements generally involve the way that Bond proceeds must be invested and ultimately used. If KUB does not meet these requirements, it is possible that a bondholder may have to include interest on the Bonds in its federal gross income on a retroactive basis to the date of issue. KUB has covenanted to do everything necessary to meet these requirements of the Code.

A bondholder who is a particular kind of taxpayer may also have additional tax consequences from owning the Bonds. This is possible if a bondholder is:

- an S corporation,
- a United States branch of a foreign corporation,
- a financial institution,
- a property and casualty or a life insurance company,
- an individual receiving Social Security or railroad retirement benefits,
- an individual claiming the earned income credit or
- a borrower of money to purchase or carry the Bonds.

If a bondholder is in any of these categories, it should consult its tax advisor.

Bond Counsel is not responsible for updating its opinion in the future. It is possible that future events or changes in applicable law could change the tax treatment of the interest on the Bonds or affect the market price of the Bonds. See also the section "CHANGES IN FEDERAL AND STATE LAWS" below.

Bond Counsel expresses no opinion on the effect of any action taken or not taken in reliance upon an opinion of other counsel on the federal income tax treatment of interest on the Bonds, or under State, local or foreign tax law.

Bond Premium. If a bondholder purchases a Bond for a price that is more than the principal amount, generally the excess is "bond premium" on that Bond. The tax accounting treatment of bond premium is complex. It is amortized over time and as it is amortized a bondholder's tax basis in that Bond will be reduced. The holder of a Bond that is callable before its stated maturity date may be required to amortize the premium over a shorter period, resulting in a lower yield on such Bonds. A bondholder in certain circumstances may realize a taxable gain upon the sale of a Bond with bond premium, even though the Bond is sold for an amount less than or equal to the owner's original cost. If a bondholder owns any Bonds with bond premium, it should consult its tax advisor regarding the tax accounting treatment of bond premium.

Original Issue Discount. A Bond will have "original issue discount" if the price paid by the original purchaser of such Bond is less than the principal amount of such Bond. Bond Counsel's opinion is that any original issue discount on these Bonds as it accrues is excluded from a bondholder's federal gross income under the Internal Revenue Code. The tax accounting treatment of original issue discount is complex. It accrues on an actuarial basis and as it accrues a bondholder's tax basis in these Bonds will be increased. If a bondholder owns one of these Bonds, it should consult its tax advisor regarding the tax treatment of original issue discount.

Information Reporting and Backup Withholding. Information reporting requirements apply to interest on tax-exempt obligations, including the Bonds. In general, such requirements are satisfied if the interest recipient completes, and provides the payor with a Form W-9, "Request for Taxpayer Identification Number and Certification," or if the recipient is one of a limited class of exempt recipients. A recipient not otherwise exempt from information reporting who fails to satisfy the information reporting requirements will be subject to "backup withholding," which means that the payor is required to deduct and withhold a tax from the interest payment, calculated in the manner set forth in the Code. For the foregoing purpose, a "payor" generally refers to the person or entity from whom a recipient receives its payments of interest or who collects such payments on behalf of the recipient.

If an owner purchasing a Bond through a brokerage account has executed a Form W-9 in connection with the establishment of such account, as generally can be expected, no backup withholding should occur. In any event, backup withholding does not affect the excludability of the interest on the Bonds from gross income for Federal income tax purposes. Any amounts withheld pursuant to backup withholding would be allowed as a refund or a credit against the owner's Federal income tax once the required information is furnished to the Internal Revenue Service.

State Taxes

Under existing law, the Bonds and the income therefrom are exempt from all present state, county and municipal taxes in Tennessee except (a) Tennessee excise taxes on interest on the Bonds during the period the Bonds are held or beneficially owned by any organization or entity, or other than a sole proprietorship or general partnership doing business in the State of Tennessee, and (b) Tennessee franchise taxes by reason of the inclusion of the book value of the Bonds in the Tennessee franchise tax base of any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee.

CHANGES IN FEDERAL AND STATE TAX LAW

From time to time, there are Presidential proposals, proposals of various federal committees, and legislative proposals in the Congress and in the states that, if enacted, could alter or amend the federal and state tax matters referred to herein or adversely affect the marketability or market value of the Bonds or otherwise prevent holders of the Bonds from realizing the full benefit of the tax exemption of interest on the Bonds. Further, such proposals may impact the marketability or market value of the Bonds simply by being proposed. It cannot be predicted whether or in what form any such proposal might be enacted or whether if enacted it would apply to bonds issued prior to enactment. In addition, regulatory actions are from time to time announced or proposed and litigation is threatened or commenced which, if implemented or concluded in a particular manner, could adversely affect the market value, marketability or tax status of the Bonds. It cannot be predicted whether any such regulatory action will be implemented, how any particular litigation or judicial action will be resolved, or whether the Bonds would be impacted thereby. Purchasers of the Bonds should consult their tax advisors regarding any pending or proposed legislation, regulatory initiatives or litigation. The opinions expressed by Bond Counsel are based upon existing legislation and regulations as interpreted by relevant judicial and regulatory authorities as of the date of issuance and delivery of the Bonds, and Bond Counsel has expressed no opinion as of any date subsequent thereto or with respect to any proposed or pending legislation, regulatory initiatives or litigation.

Prospective purchasers of the Bonds should consult their own tax advisors regarding the foregoing matters.

CLOSING CERTIFICATES

Upon delivery of the Bonds, the Board and / or KUB will execute in a form satisfactory to Bond Counsel, certain closing certificates (which may be combined into one or more certificates) including the following: (i) A certificate as to the *Official Statement*, in final form, signed by the President & Chief Executive Officer and the Chief Financial Officer of KUB acting in their official capacity to the effect that to the best of their knowledge and belief, and after reasonable investigation, (a) neither the *Official Statement*, in final form, nor any amendment or supplement thereto, contains any untrue statements of material fact or omits to state any material fact necessary to make statements therein, in light of the circumstances in which they are made, misleading, (b) since the date of the *Official Statement*, in final form, no event has occurred which should have been set forth in such a memo or supplement, (c) there has been no material adverse change in the operation or the affairs of KUB since the date of the *Official Statement*, in final form, and having attached thereto a copy of the *Official Statement*, in final form, and (d) there is no litigation of any nature pending or threatened seeking to restrain the issuance, sale, execution and delivery of the Bonds, or contesting the validity of the Bonds or any proceeding taken pursuant to which the Bonds were authorized; (ii) a non-arbitrage certificate which supports the conclusions that based upon facts, estimates and circumstances in effect, upon delivery of the Bonds, the proceeds of the Bonds will not be used in a manner which would cause the Bonds to be arbitrage Bonds; (iii) certificates as to the delivery and payment, signed by the President and CEO and the CFO acting in their official capacity, evidencing delivery of and payment for the Bonds; and (iv) a signature identification and incumbency certificate, signed by the President and Chief Executive Officer and the CFO of KUB acting in their official capacities certifying as to the due execution of the Bonds.

APPROVAL OF LEGAL PROCEEDINGS

Certain legal matters relating to the authorization and the validity of the Bonds are subject to the approval of Bass, Berry & Sims PLC, Knoxville, Tennessee, Bond Counsel. Bond counsel has not prepared the *Preliminary Official Statement* or the *Official Statement*, in final form, or verified their accuracy, completeness or fairness. Accordingly, bond counsel expresses no opinion of any kind concerning the *Preliminary Official Statement* or *Official Statement,* in final form, except for the information under the caption "LEGAL MATTERS-Tax Matters". The opinion of Bond Counsel will be limited to matters relating to authorization and validity of the Bonds and to the tax-exemption of interest on the Bonds under present federal income tax laws, both as described above. The legal opinion will be delivered with the Bonds and is included in APPENDIX A, hereto.

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MISCELLANEOUS

RATINGS

S&P Global Ratings ("S&P") and Moody's Investor Services, Inc. ("Moody's") have given the Electric Bonds the ratings of "AA-" and "Aa2", respectively. S&P and Moody's have given the Water Bonds the ratings of "AAA" and "Aa1", respectively.

KUB furnished S&P and Moody's with certain information and materials concerning the Bonds, the City and KUB. Generally, S&P and Moody's base their ratings on such information and materials and also on such investigations, studies and assumptions that they may undertake independently. Such ratings reflect only the views of such organizations and explanations of the significance of such ratings should be obtained from such agencies.

There is no assurance that such ratings will continue for any given period of time or that the ratings may not be suspended, lowered or withdrawn entirely by S&P and Moody's, if circumstances so warrant. Due to the ongoing uncertainty regarding the economy of the United States of America, including, without limitation, matters such as the future political uncertainty regarding the United States debt limit, obligations issued by state and local governments, such as the Bonds, could be subject to a rating downgrade. Additionally, if a significant default or other financial crisis should occur in the affairs of the United States or of any of its agencies or political subdivisions, then such event could also adversely affect the market for and ratings, liquidity, and market value of outstanding debt obligations, including the Bonds. Any such downward change in or withdrawal of the ratings may have an adverse effect on the secondary market price of the Bonds.

Any explanation of the significance of the ratings may be obtained only from S&P and Moody's.

COMPETITIVE PUBLIC SALE

The Bonds were offered for sale at competitive public bidding on the sale date indicated in the *Official Notice of Sale*. Details concerning the public sale were provided to potential bidders and others in the *Preliminary Official Statement* dated July 23, 2024.

The successful bidder for the Electric Bonds was an account led by J.P. Morgan Securities LLC, New York, New York (the "Electric Underwriters") who contracted with the City, acting by and through KUB, subject to the conditions set forth in the Official Notice of Sale and Bid Form, to purchase the Electric Bonds at a purchase price of $94,216,250.87(consisting of the par amount of the Electric Bonds, plus a net premium of $3,778,025.90, and less an underwriter's discount of $561,775.03) or 103.534342% of par.

The successful bidder for the Water Bonds was an account led by J.P. Morgan Securities LLC, New York, New York (the "Water Underwriters") who contracted with the City, acting by and through KUB, subject to the conditions set forth in the Official Notice of Sale and Bid Form, to purchase the Water Bonds at a purchase price of $20,652,732.95 (consisting of the par amount of the Water Bonds, plus a net premium of $754,809.55 and less an underwriter's discount of $97,076.60) or 103.289487% of par.

After the Bonds have been awarded, KUB will prepare an *Official Statement* in final form to be dated as of the sale date. The *Official Statement* in final form will include, among other matters, the identity of the winning bidders, the expected selling compensation to such underwriters and other information on the interest rates and offering prices or yields of the Bonds, all as supplied by the successful bidders. For additional information, see the section entitled LEGAL MATTERS - Closing Certificates contained herein.

MUNICIPAL ADVISOR; RELATED PARTIES; OTHER

Municipal Advisor. Cumberland Securities Company, Inc. has served as Municipal Advisor (the "Municipal Advisor") to KUB for purposes of assisting with the development and implementation of a bond structure in connection with the issuance of the Bonds. The Municipal Advisor has not been engaged by KUB to compile, create, or interpret any information in the *Preliminary Official Statement* and *Official Statement* relating to KUB, including without limitation any of KUB's financial and operating data, whether historical or projected. Any information contained in the *Preliminary Official Statement* and *Official Statement* concerning KUB, any of its affiliates or contractors and any outside parties has not been independently verified by the Municipal Advisor, and inclusion of such information is not, and should not be construed as, a representation by the Municipal Advisor as to its accuracy or completeness or otherwise. The Municipal Advisor is not a public accounting firm and has not been engaged by KUB to review or audit any information in the *Preliminary Official Statement* and *Official Statement* in accordance with accounting standards.

Regions Bank. Regions Bank (the "Bank") is a wholly-owned subsidiary of Regions Financial Corporation. The Bank provides, among other services, commercial banking, investments and corporate trust services to private parties and to State and local jurisdictions, including serving as registration, paying agent, filing agent or escrow agent related to debt offerings. The Bank will receive compensation for its role in serving as Registration and Paying Agent for the Bonds. In instances where the Bank serves KUB in other normal commercial banking capacities, it will be compensated separately for such services.

Official Statements. Certain information relative to the location, economy and finances of the Issuer is found in the *Preliminary Official Statement,* in final form and the *Official Statement*, in final form. Except where otherwise indicated, all information contained in this *Official Statement* has been provided by KUB. The information set forth herein has been obtained by KUB from sources which are believed to be reliable but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation of, the Municipal Advisor or the Underwriter. The information contained herein is subject to change without notice, and neither the delivery of this *Official Statement* nor any sale made hereunder shall under any circumstances create an implication that there has been no change in the affairs of KUB, or the other matters described herein since the date hereof or the earlier dates set forth herein as of which certain information contained herein is given.

Cumberland Securities Company, Inc. distributed the *Preliminary Official Statement*, in final form, and the *Official Statement*, in final form on behalf of KUB and will be compensated and/or reimbursed for such distribution and other such services.

Bond Counsel. From time to time, Bass, Berry & Sims PLC has represented the Bank on legal matters unrelated to KUB and may do so again in the future.

Other. Among other services, Cumberland Securities Company, Inc. and the Bank may also assist local jurisdictions in the investment of idle funds and may serve in various other capacities, including Cumberland Securities Company's role as serving as KUB's Dissemination Agent. If KUB chooses to use one or more of these other services provided by Cumberland Securities Company, Inc. and/or the Bank, then Cumberland Securities Company, Inc. and/or the Bank may be entitled to separate compensation for the performance of such services.

INDEPENDENT ACCOUNTANTS

The financial statements of the Electric Division and the Water Division of KUB, as of June 30, 2023 for the year then ended, included in this *Preliminary Official Statement,* have been audited by Coulter & Justus, P.C., independent accountants, as stated in their report appearing herein.

FUTURE BONDS

KUB has authorized the refinancing of outstanding debt for savings in the Electric System and the Water System. Additionally, KUB does expect to occasionally sell, from time to time, additional bonds to finance normal and customary extensions and improvements to such Systems, and to refinance certain outstanding bonds at lower interest rates.

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CONTINUING DISCLOSURE

KUB will at the time the Bonds are delivered execute a Continuing Disclosure Certificate as to each System under which it will covenant for the benefit of holders and Beneficial Owners of the Bonds to provide certain financial information and operating data relating to KUB by not later than twelve months after the end of each fiscal year commencing with the fiscal year ending June 30, 2024 (the "Annual Report"), and to provide notice of the occurrence of certain significant events not later than ten business days after the occurrence of the events and notice of failure to provide any required financial information of KUB. The issuer will provide notice in a timely manner to the MSRB of a failure by KUB to provide the annual financial information on or before the date specified in the continuing disclosure agreement. The Annual Report (and audited financial statements if filed separately) and notices described above will be filed by KUB with the Municipal Securities Rulemaking Board ("MSRB") at www.emma.msrb.org and with any State Information Depository which may be established in Tennessee (the "SID"). The specific nature of the information to be contained in the Annual Report or the notices of events is summarized below. These covenants have been made in order to assist the Underwriters in complying with Securities Exchange Act Rule 15c2-12(b), as it may be amended from time to time (the "Rule 15c2-12").

Five-Year History of Filing. For the past five years, KUB is unaware of any instances in which it has not complied in all material respects with its existing continuing disclosure agreements in accordance with Rule 15c2-12.

Content of Annual Reports. KUB's Annual Report shall contain or incorporate by reference the audited financial statements of each System for the prior fiscal year, prepared in accordance with accounting principles generally accepted in the United States of America, and audited in accordance with auditing standards generally accepted in the United States of America; provided, however, if KUB's audited financial statements are not available by the time the Annual Report is required to be filed, the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained herein, and the audited financial statements shall be filed when available. The Annual Report shall also include in a similar format the following information included in APPENDIX B entitled "SUPPLEMENTAL INFORMATION STATEMENT."

Electric System.

1. Electric Rates of the Electric Division;
2. Condensed Statements of Revenues, Expenses and Changes in Net Position - Knoxville Utilities Board Electric Division for the fiscal year;
3. Operating and Financial History for such year;
4. The Ten Largest Electric Customers of the Electric Division;
5. Summary of Outstanding Bonded Indebtedness;
6. Summary of Bonded Debt Service Requirements; and
7. Historical Debt Service Coverages.

Water System.

1. Water Rates of the Water Division;
2. Operating Statistics and Number of Customers for such year;
3. Condensed Statements of Revenues, Expenses and Changes In Net Position - Knoxville Utilities Board Water Division for the fiscal year;

4. The Ten Largest Water System Customers;

5. Bonds Outstanding;

6. Debt Service Requirements; and

7. Historical Debt Service Coverage on Outstanding Water Bonds.

Any or all of the items listed above may be incorporated by reference from other documents, including *Official Statements* in final form for debt issues of KUB or the City or related public entities, which have been submitted to the MSRB's EMMA site. If the document incorporated by reference is a final *Official Statement*, in final form, it will be available from the Municipal Securities Rulemaking Board. KUB or the City shall clearly identify each such other document so incorporated by reference.

Reporting of Significant Events. KUB will file notice regarding material events with the MSRB and the SID, if any, as follows:

1. Upon the occurrence of a Listed Event (as defined in (3) below), KUB shall in a timely manner, but in no event more than ten (10) business days after the occurrence of such event, file a notice of such occurrence with the MSRB and SID, if any.

2. For Listed Events where notice is only required upon a determination that such event would be material under applicable Federal securities laws, KUB shall determine the materiality of such event as soon as possible after learning of its occurrence.

3. The following are the Listed Events:

    a. Principal and interest payment delinquencies;

    b. Non-payment related defaults, if material;

    c. Unscheduled draws on debt service reserves reflecting financial difficulties;

    d. Unscheduled draws on credit enhancements reflecting financial difficulties;

    e. Substitution of credit or liquidity providers, or their failure to perform;

    f. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds or other material events affecting the tax status of the Bonds;

    g. Modifications to rights of Bondholders, if material;

    h. Bond calls, if material, and tender offers;

    i. Defeasances;

    j. Release, substitution, or sale of property securing repayment of the securities, if material;

    k. Rating changes;

    l. Bankruptcy, insolvency, receivership or similar event of the obligated person;

m. The consummation of a merger, consolidation or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

n. Appointment of a successor or additional trustee or the change of name of a trustee, if material;

o. Incurrence of a financial obligation (which includes a debt obligation, a derivative instrument entered into connection with, or pledged as security or as a source of payment for, an existing or planned debt obligation, or a guarantee of debt obligation or derivative instrument) of KUB, if material, or agreement as to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of KUB, any of which affect security holders, if material; and

p. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation (as described above) of KUB, any of which reflect financial difficulties.

Termination of Reporting Obligation. KUB's obligations under the Disclosure Certificate shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Bonds.

Amendment; Waiver. Notwithstanding any other provision of a Disclosure Certificate, KUB may amend any Disclosure Certificate, and any provision of a Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions concerning the Annual Report and reporting of material significant events it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the holders of the applicable Bonds, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the holders or Beneficial Owners of the Bonds.

In the event of any amendment or waiver of a provision of a Disclosure Certificate, KUB shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or, in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by KUB. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given, and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Default. In the event of a failure of KUB to comply with any provision of a Disclosure Certificate, any holder or any beneficial owner may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause KUB to comply with its obligations under the Disclosure Certificate. A default under a Disclosure Certificate shall not be deemed an event of default, if any, under any Resolution and the sole remedy under each Disclosure Certificate in the event of any failure of KUB to comply with the Disclosure Certificate shall be an action to compel performance.

BONDHOLDER RISK

COVID-19. KUB has not experienced any material effect on electric or water revenue collections or other revenues as a result of the COVID-19 pandemic

The Electric System liquidity position remains strong. As of June 30, 2023, KUB had in excess of $46.2 million in reserves for the Electric System. KUB's current liquidity position is expected to be adequate to fund essential services and make timely debt service payments on debt of the Electric System.

The Water System liquidity position remains strong. As of June 30, 2023, KUB had in excess of $17.3 million in reserves for the Water System. KUB's current liquidity position is expected to be adequate to fund essential services and make timely debt service payments on debt of the Water System.

CLIMATE CHANGE. Planning for climate change in the State and its impact on the City's and KUB's operation is an unknown challenge. The State of Tennessee's climate is exceedingly variable and projections of future conditions range significantly. While projections in the State of Tennessee indicate rising average temperatures, precipitation projections are much less clear and often contradictory. Other potential impacts include changes in the length, intensity, and frequency of droughts and floods. The financial impact of the climate change is not yet known and therefore its future impact on the City and KUB cannot be quantified reliably at this time.

CYBER-SECURITY. Computer networks and data transmission and collection are vital to the efficient operations of the City and KUB. Despite security measures, information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise networks and the information stored there could be disrupted, accessed, publicly disclosed, lost or stolen. Any such disruption, access, disclosure or other loss of information could result in disruptions in operations and the services provided by the City and KUB, legal claims or proceedings, liability under laws that protect the privacy of personal information, regulatory penalties and the services provided, and cause a loss of confidence in the City's and KUB's operations, which could materially affect the City and KUB and its operations. The City and KUB maintain insurance to mitigate any potential financial losses from cyber-security threats.

ADDITIONAL INFORMATION

Use of the words "shall," "must," or "will" in the *Preliminary Official Statement* and *Official Statement* in summaries of documents or laws to describe future events or continuing obligations is not intended as a representation that such event will occur or obligation will be fulfilled but only that the document or law contemplates or requires such event to occur or obligation to be fulfilled.

Any statements made in the *Preliminary Official Statement* and *Official Statement* involving estimates or matters of opinion, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates or matters of opinion will be realized. Neither the *Preliminary Official Statement* and *Official Statement* nor any statement which may have been made orally or in writing is to be construed as a contract with the owners of the Bonds.

The references, excerpts and summaries contained herein of certain provisions of the laws of the State of Tennessee, and any documents referred to herein, do not purport to be complete statements of the provisions of such laws or documents, and reference should be made to the complete provisions thereof for a full and complete statement of all matters of fact relating to the Bonds, the security for the payment of the Bonds, and the rights of the holders thereof.

The *Preliminary Official Statement* and *Official Statement*, in final form, and any advertisement of the Bonds, is not to be construed as a contract or agreement between the City and the purchasers of any of the Bonds. Any statements or information printed in the *Preliminary Official Statement* or the *Official Statement*, in final form, involving matters of opinions or of estimates, whether or not expressly so identified, is intended merely as such and not as representation of fact.

KUB, on behalf of the City, has deemed this *Official Statement* as "final" as of its date within the meaning of Rule 15c2-12.

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CERTIFICATION OF ISSUER

On behalf of the City and KUB, we hereby certify that to the best of our knowledge and belief, the information contained herein as of this date is true and correct in all material respects, and does not contain an untrue statement of material fact or omit to state a material fact required to be stated where necessary to make the statement made, in light of the circumstance under which they were made, not misleading.

KNOXVILLE UTILITIES BOARD

/s/ Gabriel J. Bolas II
President and CEO

/s/ Mark A. Walker
Senior Vice President and CFO

APPENDIX A

LEGAL OPINIONS

LAW OFFICES OF
BASS, BERRY & SIMS PLC
900 SOUTH GAY STREET, SUITE 1700
KNOXVILLE, TENNESSEE 37902

Ladies and Gentlemen:

We have acted as bond counsel in connection with the issuance by the City of Knoxville, Tennessee (the "Issuer") of $91,000,000 Electric System Revenue Bonds, Series QQ-2024, dated August 29, 2024 (the "Bonds"). In such capacity, we have examined the law and such certified proceedings and other papers as we deemed necessary to render this opinion.

As to questions of fact material to our opinion, we have relied upon the certified proceedings and other certifications of public officials and others furnished to us without undertaking to verify such facts by independent investigation.

Based on the foregoing, we are of the opinion, as of the date hereof, as follows:

1. The Bonds have been duly authorized, executed and issued in accordance with the constitution and laws of the State of Tennessee and are valid and binding obligations of the Issuer.

2. Resolution No. R-154-2024 of the City Council of the Issuer authorizing the Bonds has been duly and lawfully adopted, is in full force and effect and is a valid and binding agreement of the Issuer enforceable in accordance with its terms.

3. The principal of, premium, if any, and interest on the Bonds are payable solely from and secured by a pledge of the income and revenues to be derived from the operation of the electric system of the Issuer, subject only to the payment of the reasonable and necessary costs of operating, maintaining, repairing, and insuring said system and on a parity and equality of lien with the Issuer's outstanding Electric System Revenue Refunding Bonds, Series EE-2015, dated May 1, 2015, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Bonds, Series GG-2016, dated August 5, 2016, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Refunding Bonds, Series HH-2017, dated April 7, 2017, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Bonds, Series II-2017, dated September 15, 2017, maturing July 1, 2025 and thereafter, its Electric System Revenue Bonds, Series JJ-2018, dated September 14, 2018, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Refunding Bonds, Series KK-2020, dated May 22, 2020, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Refunding Bonds, Series LL-2021, dated April 19, 2021, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Bonds, Series MM-2022, dated April 29, 2022, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Refunding Bonds, Series NN-2022, dated May 13, 2022, maturing July 1, 2025 and thereafter, its outstanding Electric System Revenue Bonds, Series OO-2022, dated December 16, 2022, maturing July 1, 2025 and thereafter, and its outstanding Electric

System Revenue Bonds, Series PP-2023, dated December 8, 2023, maturing July 1, 2025 and thereafter. We express no opinion as to the sufficiency of such revenues for the payment of principal of, premium, if any, or interest on the Bonds. The owners of the Bonds shall have no recourse to the power of taxation of the Issuer.

4. Interest on the Bonds (including any original issue discount properly allocable to an owner thereof) is excluded from gross income for federal income tax purposes. Interest on the Bonds is not an item of tax preference for purposes of the federal alternative minimum tax; however, such interest is taken into account in determining the annual adjusted financial statement income of applicable corporations (as defined in Section 59(k) of the Code) for the purpose of computing the alternative minimum tax imposed on corporations for tax years beginning after December 31, 2022. The opinion set forth in the first sentence of this Paragraph is subject to the condition that the Issuer comply with all requirements of the Internal Revenue Code of 1986, as amended, that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon be, or continue to be, excluded from gross income for federal income tax purposes. The Issuer has covenanted to comply with all such requirements. Failure to comply with certain of such requirements could cause interest on the Bonds to be so included in gross income retroactive to the date of issuance of the Bonds. Except as set forth in this Paragraph 4, we express no opinion regarding other federal tax consequences arising with respect to the Bonds.

5. Under existing law, the Bonds and the income therefrom are exempt from all present state, county and municipal taxation in Tennessee except (a) Tennessee excise taxes on all or a portion of the interest on any of the Bonds during the period such Bonds are held or beneficially owned by any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee, and (b) Tennessee franchise taxes by reason of the inclusion of the book value of the Bonds in the Tennessee franchise tax base or any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee.

It is to be understood that the rights of the owners of the Bonds and the enforceability of the Bonds and the resolution authorizing the Bonds may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights generally and by equitable principles, whether considered at law or in equity.

We express no opinion herein as to the accuracy, adequacy or completeness of the Official Statement relating to the Bonds.

This opinion is given as of the date hereof and we assume no obligation to update or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or changes in law that may hereafter occur.

Very truly yours,

LAW OFFICES OF
BASS, BERRY & SIMS PLC
900 SOUTH GAY STREET, SUITE 1700
KNOXVILLE, TENNESSEE 37902

Ladies and Gentlemen:

We have acted as bond counsel in connection with the issuance by the City of Knoxville, Tennessee (the "Issuer"), acting by and through the Knoxville Utilities Board, of $19,995,000 Water System Revenue Bonds, Series OO-2024, dated August 29, 2024 (the "Bonds"). In such capacity, we have examined the law and such certified proceedings and other papers as we deemed necessary to render this opinion.

As to questions of fact material to our opinion, we have relied upon the certified proceedings and other certifications of public officials and others furnished to us without undertaking to verify such facts by independent investigation.

Based on the foregoing, we are of the opinion, as of the date hereof, as follows:

1. The Bonds have been duly authorized, executed and issued in accordance with the constitution and laws of the State of Tennessee and are valid and binding obligations of the Issuer.

2. Resolution No. R-155-2024 of the City Council of the Issuer authorizing the Bonds has been duly and lawfully adopted, is in full force and effect and is a valid and binding agreement of the Issuer enforceable in accordance with its terms.

3. The principal of, premium, if any, and interest on the Bonds are payable solely from and secured by a pledge of the income and revenues to be derived from the operation of the water distribution and treatment system of the Issuer, subject only to the payment of the reasonable and necessary costs of operating, maintaining, repairing, and insuring said system and on a parity and equality of lien with the Issuer's outstanding Water System Revenue Refunding Bonds, Series BB-2015, dated May 1, 2015, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Bonds, Series CC-2015, dated May 20, 2015, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Bonds, Series DD-2016, dated August 5, 2016, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Refunding Bonds, Series EE-2016, dated August 5, 2016, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Refunding Bonds, Series FF-2017, dated April 7, 2017, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Bonds, Series GG-2017, dated September 15, 2017, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Bonds, Series HH-2018, dated September 14, 2018, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Bonds, Series II-2019, dated August 20, 2019, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Refunding Bonds, Series JJ-2020, dated May 22, 2020, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Bonds, Series KK-2020, dated October 30, 2020, maturing March 1, 2025 and thereafter, its

outstanding Water System Revenue Refunding Bonds, Series LL-2021, dated April 19, 2021, maturing March 1, 2025 and thereafter, its outstanding Water System Revenue Refunding Bonds, Series MM-2022, dated May 13, 2022, maturing March 1, 2025 and thereafter, and its outstanding Water System Revenue Bonds, Series NN-2023, dated December 8, 2023, maturing March 1, 2025 and thereafter. We express no opinion as to the sufficiency of such revenues for the payment of principal of, premium, if any, or interest on the Bonds. The owners of the Bonds shall have no recourse to the power of taxation of the Issuer.

4. Interest on the Bonds (including any original issue discount properly allocable to an owner thereof) is excluded from gross income for federal income tax purposes. Interest on the Bonds is not an item of tax preference for purposes of the federal alternative minimum tax; however, such interest is taken into account in determining the annual adjusted financial statement income of applicable corporations (as defined in Section 59(k) of the Code) for the purpose of computing the alternative minimum tax imposed on corporations for tax years beginning after December 31, 2022. The opinion set forth in the first sentence of this Paragraph is subject to the condition that the Issuer comply with all requirements of the Internal Revenue Code of 1986, as amended, that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon be, or continue to be, excluded from gross income for federal income tax purposes. The Issuer has covenanted to comply with all such requirements. Failure to comply with certain of such requirements could cause interest on the Bonds to be so included in gross income retroactive to the date of issuance of the Bonds. Except as set forth in this Paragraph 4, we express no opinion regarding other federal tax consequences arising with respect to the Bonds.

5. Under existing law, the Bonds and the income therefrom are exempt from all present state, county and municipal taxation in Tennessee except (a) Tennessee excise taxes on all or a portion of the interest on any of the Bonds during the period such Bonds are held or beneficially owned by any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee, and (b) Tennessee franchise taxes by reason of the inclusion of the book value of the Bonds in the Tennessee franchise tax base or any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee.

It is to be understood that the rights of the owners of the Bonds and the enforceability of the Bonds and the resolution authorizing the Bonds may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights generally and by equitable principles, whether considered at law or in equity.

We express no opinion herein as to the accuracy, adequacy or completeness of the Official Statement relating to the Bonds.

This opinion is given as of the date hereof and we assume no obligation to update or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or changes in law that may hereafter occur.

Very truly yours,

THE ELECTRIC DIVISION

THE ELECTRIC DIVISION

INTRODUCTION

Knoxville Utilities Board ("KUB") was established in 1939 and, under terms of the current City Charter, is vested with the authority to purchase, produce, sell and distribute utility services both inside and outside the city limits. All of the facilities used to provide these services are under the jurisdiction, control and management of the Board of Commissioners of KUB.

SOURCE OF ELECTRIC POWER

KUB purchases its entire power supply requirements from the Tennessee Valley Authority ("TVA") pursuant to a power contract dated May 11, 1988 as supplemented and amended (the "Power Contract"). The Power Contract is the fourth to be entered into between KUB and TVA. Under the Power Contract, TVA agrees to supply the amount of electric power required for service to KUB's electric customers and KUB agrees to purchase all of its electric power from TVA, about 5.9 billion kilowatt hours annually.

The Power Contract provides that TVA shall make every reasonable effort to increase the generating capacity of its system and to provide transmission facilities required to deliver the output thereof so as to be in a position to supply additional power when and to the extent needed by KUB. Neither TVA nor KUB is liable for breach of contract if the availability or use of power is interrupted or curtailed or if either party is prevented from performing under the Power Contract by circumstances reasonably beyond its control. The amount of power supplied by TVA and the contractual obligation to supply such power are limited by the capacity of TVA's generating and transmission facilities and the customary purchases from other companies on the power grid.

The Power Contract provides that KUB may sell power to all customers in its service area, except certain federal installations and large customers, which TVA may serve directly. At the present time, TVA does not directly serve any customers located within KUB's electric service territory.

The initial term of the contract was for twenty years, with an automatic one-year extension beginning on the tenth anniversary of the contract. In May 2002, KUB and TVA amended the contract in several ways to provide more flexibility to both parties. First, KUB's contract termination notification requirement was reduced from ten years to five years. Also, TVA relinquished its regulatory authority over KUB's electric retail rates (prior to May 2002, the Power Contract specified the retail rates to be charged by KUB, and KUB was obligated to adjust these rates in response to any adjustment in TVA wholesale rates. The adjustment of retail rates to cover changes in KUB cost also had to be approved by TVA).

In March 2020, KUB executed a new Long-Term Partnership Agreement with TVA, extending the term of its five-year evergreen power supply contract with TVA to a 20-year evergreen contract.

In April 2023, KUB launched Knoxville's first community solar program in partnership with the City of Knoxville and the Tennessee Valley Authority. KUB Community Solar allows customers to subscribe to clean, locally generated renewable energy and access the benefits of a shared solar array. KUB invested $1.4 million to build the 1 MW array, which is located at the City of Knoxville's Public Works Complex.

In April 1996, the Federal Energy Regulatory Commission (FERC) issued Order 888 which effectively ordered public interstate transmission companies to provide open access to their transmission systems. TVA, which is not presently subject to FERC jurisdiction, cannot be ordered by FERC to transmit (wheel) power on behalf of others for use inside its legislatively defined service territory (the "Fence"). Consequently, this "Anti-Cherry Picking" provision of federal law combined with KUB's long-term power contract with TVA has essentially precluded KUB from having the opportunity to purchase power from alternative sources.

THE TENNESSEE VALLEY AUTHORITY

TVA was established as a wholly-owned corporate agency and instrumentality of the United States of America by the Tennessee Valley Authority Act of 1933, as amended. The Act's objective is the development of the resources of the Tennessee Valley and adjacent areas in order to strengthen the regional and national economy and the national defense. Its specific purposes include: (1) flood control on the Tennessee River and its tributaries, and assistance to flood control on the lower Ohio and the Mississippi Rivers; (2) a modern navigable channel for the Tennessee River; (3) an ample supply of power within an area of 80,000 square miles; (4) development and introduction of more efficient soil fertilizers; and (5) greater agricultural and industrial development and improved forestry in the region.

In 2005, Congress passed legislation that impacted TVA in two significant ways. First, it changed the structure of TVA's Board from a three-person, full-time Board to a nine-person, part-time Board, which meets at least four times per year. The new Board members, whose appointment terms are five years, were appointed by the President and confirmed by the Senate. All powers of TVA are vested in its Board. Second, the new law requires TVA to file periodic financial updates with the Securities and Exchange Commission (the "SEC"), and be subject to certain reporting requirements of the SEC.

In August 2023, the Tennessee Valley Authority Board of Directors approved $15 billion in investments over the next three years to build additional generation and upgrade the existing system. The TVA Board also unanimously approved a 4.5 percent increase in the effective rate. That translates to an average increase of about $3.50 on a typical residential energy bill each month.

"It took us 90 years to build our current power system which positively changed the lives of millions," said TVA President and CEO Jeff Lyash. "In the next 30 years, we will have to double or triple the current systems at a speed unlike any other time in TVA history to ensure we can continue to provide affordable, reliable, resilient and sustainable energy to fuel the region's economic growth."

Even with the rate hike, Lyash pointed out TVA's energy costs remain lower than 70% of the nation's top 100 utilities. "TVA is not immune to cost increase, inflation and supply chain challenges," said Lyash. "We worked to minimize any impact on families while balancing our region's growing energy needs, and these funds will allow us to invest in new capacity as well as invest in the reliability of our current assets."

THE ELECTRIC SYSTEM

KUB experienced normal operations this fiscal year. However, inflation had a significant impact to operating costs and capital projects. Supply chain issues improved throughout the year but impacted the timing of some capital projects in fiscal year 2023. KUB continued to make progress constructing its fiber network on the electric system in year two of its deployment and remains on schedule for the seven-year deployment. KUB's ability to serve its electric customers has remained strong.

KUB serves 218,344 electric customers over a 688 square mile service area and maintains 5,490 miles of service lines and 63 electric substations to provide 5.9 million megawatt hours to its customers annually. The peak capacity of the system is 3,029,500 kVa. KUB's electric system record peak in demand remains 1,328 megawatt hours, set in February 2015.

Century II is KUB's proactive long-range program to improve and maintain its electric, natural gas, water, and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each utility system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In May 2017, a new Century II funding resolution was adopted by the KUB Board to express the continued commitment to funding Century II programs for the next ten years. The funding will be achieved through a combination of rate increases and debt issues supplemented by cost savings and new revenue from net customer additions.

In June 2017, the Board approved three electric rate increases to support the Century II program. The approved electric rate increases went into effect in October 2017, October 2018, and October 2019 generating $10.9 million, $11.2 million, and $5.7 million in additional annual Electric Division revenue, respectively.

In September 2021, the Board approved the next phase of electric rate increases to support both the Century II program and expanded fiber network. The first two of three approved 3 percent electric rate increases went into effect April 2022 and April 2023 generating $16.7 million and $17.4 million in additional annual Electric Division revenue, respectively. The remaining rate increase is effective April 2024 and is expected to provide an additional $18 million in annual Electric Division revenue.

During the fiscal year, KUB replaced 9 miles of transmission lines, and 6.9 miles of underground cable and stayed within the Electric Division's total capital budget.

During fiscal year 2023, KUB adopted GASB Statement No. 96, *Subscription-Based Information Technology Arrangements* (Statement No. 96), using a full retrospective approach. The objective of this Statement is to better meet the information needs of financial statement users by (a) establishing uniform accounting and financial reporting requirements for SBITAs; (b) improving the comparability of financial statements among governments that have entered into SBITAs; and (c) enhancing the understandability, reliability, relevance, and consistency of information about SBITAs. Accordingly, the accompanying financial statements, as of and for the year ended June 30, 2022, have been restated for the change, which did not have an impact on the net position.

During fiscal year 2022, KUB adopted GASB Statement No. 87, *Leases* (Statement No. 87) using a full retrospective approach. This statement requires a lessee to recognize an intangible right of use asset and a lease liability, and a lessor to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information regarding leasing activities. Accordingly, the accompanying financial statements, as of and for the year ended June 30, 2021, have been restated for the change, which did not have an impact on the net position.

FIBER NETWORK

During fiscal year 2021, KUB developed a Fiber to the Home Business Plan for the provision of broadband services to customers within its electric system service territory. In accordance with state law and KUB's wholesale power supply contract with TVA, the Business Plan was submitted to the Office of the Comptroller of the Treasury for Tennessee and TVA for review. The Office of the Comptroller found KUB's Business Plan to be financially feasible and TVA approved the Business Plan, finding no cross-subsidization exists between the proposed Fiber Division and the Electric Division.

After gaining the required approvals from TVA, the State of Tennessee, KUB's Board, and City Council, KUB launched its new Fiber Division. Broadband services will be provided by a high-speed fiber optic network that will be owned and maintained by the Electric Division. The Fiber Division will share in the cost to build and operate the Fiber network by paying the Electric Division an annual access fee based on the year-end value of those assets and the related expenses. The Fiber Division will also pay the Electric Division an annual utilization fee based on attachments to the network. In addition to providing broadband services, the fiber network will allow KUB to implement new advanced technologies to improve the reliability of its electric system.

As a component of the Fiber Division's start-up financing plan, approved by KUB's Board and TVA, the Electric Division will provide $55 million of interdivisional loans. The first $10 million was provided in October 2021, an additional $7 million was provided in August 2022, and $13 million was provided in February 2023, all maturing in June 2030.

In fiscal year 2022, KUB began the seven-year buildout on extending fiber infrastructure to make broadband service available to electric customers. The first broadband customers began receiving service in September 2022.

The Tennessee Emergency Broadband Fund selected KUB for a grant of $15.3 million to assist in the provision of broadband access to Grainger, Jefferson, Sevier, and Union Counties.

The fiber network is an integral component of a $702 million ten-year Enhanced Grid Modernization effort for the Electric Division. The program will be funded by a combination of electric rate increases, new bonds, grant funds, and projected payments from the new Fiber Division.

PENSION PLAN

Description of Plan

The Knoxville Utilities Board Pension Plan (the Plan) is a governmental plan as defined by the Employee Retirement Income Security Act of 1974 (ERISA or the Act), is not subject to any of the provisions of the Act, and was revised January 1, 2020, to include all prior approved amendments. The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board Resolution No. 980 dated February 18, 1999, effective July 1, 1999, as authorized by the Charter of the City of Knoxville §1107(J). KUB Board Resolution No. 979, effective July 1, 1999, as amended by Resolution No. 1037, establishing the KUB Retirement System, was amended effective June 18, 2020, to amend the term "Trustee" to include both custodians and/or trustees, in order to provide flexibility should KUB choose to change from its current Pension trustee. The Plan is designed to provide retirement, disability, and death benefits to KUB employees. KUB administers the Plan through an Administrative Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Plan involving costs not approved in the operating budget must be adopted by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Plan may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The Plan issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2011, KUB closed the Plan such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and to accrue benefits under the Plan.

Participants in the Plan consisted of the following as of December 31:

	2022	2021
Inactive plan members:		
Terminated vested participants	14	12
Retirees and beneficiaries	603	600
Active plan members	431	478
Total	1,048	1,090

Retirement Benefits

The Plan provides three benefit arrangements for KUB participants, retirees, and beneficiaries.

The Plan provides pension benefits through the Career Equity Program ("CEP") for eligible employees hired on or after January 1, 1999, and for eligible former "City System Plan A" participants who elected CEP coverage as of July 1, 1999. The guaranteed pension benefit payable to a participant who has completed five or more years of service (or reached the normal retirement date, if earlier) upon termination of KUB employment shall be a lump sum equal to the participant's average compensation times their benefit percentage, as defined in the Plan document, or an annuity may be chosen by the participant.

In addition, the Plan provided retirement benefits through "Plan A" for former City System Plan A participants who elected not to participate in the CEP. Plan A is a closed plan and is not available to KUB employees hired after July 1, 1999. Plan A provides for early retirement benefits with 25 years of service and normal retirement benefits at age 62 or later. Benefits provided to Plan A participants include several different forms of monthly annuity payments.

The Plan also provides retirement benefits through "Plan B" for former "City System Plan B" participants. Plan B is a closed plan providing benefits to participants not covered by Social Security. Benefits provided to Plan B participants include several different forms of monthly annuity payments available to participants.

Effective January 1, 2012, KUB began to provide for additional monthly supplements, which are not subject to cost-of-living adjustments, to certain former employees and surviving dependents of former employees who are eligible for and have elected coverage under the KUB retiree medical plan and are eligible for Medicare. This was done to compensate for the elimination of drug coverage under the KUB retiree medical plan and to assist such individuals in obtaining prescription drug coverage under Medicare Part D.

Contributions

Participation in Plan A requires employee contributions of three percent of the first $4,800 of annual earnings and five percent of annual earnings in excess of $4,800. KUB contributions are determined by the enrolled actuary of the Plan and equal the amount necessary to provide the benefits under the Plan determined by the application of accepted actuarial methods and assumptions. The method of funding shall be consistent with Plan objectives.

Plan Funding

KUB maintains a Funding Policy for the Plan in accordance with Tennessee State Law. The primary goal of the Policy is to document the method KUB has adopted to provide assurance that future KUB and employee contributions and current Plan assets will be sufficient to fund all benefits expected to be paid to current active, inactive and retired Plan participants and their beneficiaries. Per the Funding Policy, KUB fully funds its annual Actuarially Determined Contribution.

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Investments

The Plan's investments are held by State Street Bank and Trust Company (the "Trustee"). The Plan's policy in regard to the allocation of invested assets is established by the Retirement System Investment Committee and approved by the KUB Board of Commissioners and may only be amended by the KUB Board of Commissioners. It is the policy of the Retirement System Investment Committee to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Plan's adopted asset allocation policy as of December 31, 2022:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%
Domestic equity – convertible securities	0% - 10%
Non-U.S. equity	0% - 20%
Real estate equity	0% - 10%
Fixed income – aggregate bonds	5% - 25%
Fixed income – long-term bonds	10% - 25%
Cash and deposits	0% - 5%

Contributions of $2,624,373 and $3,665,168 for 2021 and 2020, respectively, were made during the Plan sponsor's fiscal years ended June 30, 2023, and 2022, respectively. Of these amounts, $1,247,636 and $1,712,192 are attributable to the Electric Division. The fiscal year 2023 contribution was determined as part of the January 1, 2021, valuation using the Individual Entry Age Normal funding method. The objective under this method is to fund each participant's benefits under the Plan as payments which are level as a percentage of salary, starting on the original participation date (employment date) and continuing until the assumed retirement, termination, disability, or death.

The Pension Plan actuarial valuation resulted in an actuarially determined contribution of $1,108,147 for the fiscal year ending June 30, 2024, based on the Plan's current funding policy. The Electric Division's portion of this contribution will be determined as part of the actuarial analysis for the December 31, 2023, measurement date. Subsequent to June 30, 2023, an actuarial valuation was completed and resulted in an actuarially determined contribution of $2,210,234 for the fiscal year ending June 30, 2025, based on the Plan's current funding policy. The Electric Division's portion of this contribution will be determined as part of the actuarial analysis for the December 31, 2024, measurement date. For the Plan year beginning January 1, 2023, the Plan's actuarial funded ratio is 106.88 percent, and the market value funded ratio is 91.43 percent.

See Appendix B-2 for additional pension plan information.

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QUALIFIED EXCESS BENEFIT ARRANGEMENT (QEBA)

Description

In fiscal year 2017, KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan administered by KUB. The number of participants in any given year for the QEBA is determined by the number of KUB Pension Plan participants who exceed the current year's section 415(b) limitations, as calculated by the KUB Pension Plan actuary. The amount of QEBA benefit will be the amount specified by the terms of the KUB Pension Plan without regard to Section 415(b) limitations minus the amount payable from the KUB Pension Plan as limited by Section 415(b). QEBA benefits are subject to cost-of-living adjustments.

As of June 30, 2023, there are 404 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the KUB Pension Plan. The KUB Pension Plan was amended to include the provision of QEBA benefits; therefore, amendments to the QEBA require the same authority as amendments to the KUB Pension Plan. As required by federal tax law, the QEBA is unfunded within the meaning of the federal tax laws. KUB may not pre-fund the QEBA to cover future liabilities beyond the current year. KUB has established procedures to pay for these benefits on a pay-as-you-go basis. There are no assets accumulated in a trust that meets the GASB's criteria. Due to the increase in the section 415(d) annual benefit limitation from 2021 to 2022, the pension benefit for the sole participant in the Excess Benefit Arrangement is now fully payable under the KUB Pension Plan and, as such, there is no benefit payable under the Excess Benefit Arrangement as of June 30, 2023, and 2022.

Total Pension Liability of the QEBA

The below summarizes the disclosures of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB 73"). GASB 73 extends a similar approach of financial reporting to plans meeting specific criteria that are not administered through trusts that GASB 68 established for pension plans. GASB 73 requires measurement of the total pension liability of the QEBA. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2023, and 2022, are based on a December 31, 2022, and 2021, measurement date, respectively. There is no Total Pension Liability as of June 30, 2023, and 2022.

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GASB 73 requires certain disclosures related to the total pension liability of the QEBA, as disclosed below:

	2022	2021
Total pension liability	$0	$0
Deferred outflows	(6,779)	(11,505)
Deferred inflows	3,408	16,927
Net impact on Statement of Net Position	($3,371)	$5,422
Covered payroll	$37,412,132	$38,074,863
Total pension liability as a % of covered payroll	0.00%	0.00%

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2023, KUB recognized pension expense of ($8,793) (Division's share ($4,221)) for the QEBA. This amount is not expected to be the same as KUB's contribution to the QEBA ($-), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [($3,371) - $5,422 + $-].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2020, this average was four years. There was a deferred inflow at the end of the measurement year of $3,408 (Division's share $1,636) from experience gains in prior years and a deferred outflow of $4,073 (Division's share $1,955) from experience losses in prior years.

There was a deferred outflow of $2,706 (Division's share $1,299) from assumption changes in prior years.

The following table summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 4,073	$ 3,408
Changes in assumptions	2,706	-
Total	$ 6,779	$ 3,408
Division's share	$ 3,254	$ 1,636

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Amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:		
2024	$	3,023
2025		348
2026		-
2027		-
2028		-
Thereafter		-

For the year ended June 30, 2022, KUB recognized pension expense of $16,613 (Division's share $7,974) for the QEBA. This amount is not expected to be the same as KUB's contribution to the QEBA ($19,875), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$5,422 - $8,684 + $19,875].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2020, this average was four years. During the measurement year, there was an experience gain of $6,816, with $1,704 recognized in the current year and each of the next three years, resulting in a deferred inflow of $5,112 (Division's share $2,454). There was a deferred inflow at the end of the measurement year of $7,225 (Division's share $3,468) from experience gains in prior years and a deferred outflow of $6,112 (Division's share $2,933) from experience losses in prior years.

During the measurement year, there were no assumption changes. There was a deferred inflow at the end of the measurement year of $4,590 (Division's share $2,203) and a deferred outflow of $5,393 (Division's share $2,589) from assumption changes in prior years.

The following table summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences between expected and actual experience	$	6,112	$	12,337
Changes in assumptions		5,393		4,590
Total	$	11,505	$	16,927
Division's share	$	5,522	$	8,125

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OTHER POST-EMPLOYMENT BENEFITS (OPEB)

Description of Trust

The Knoxville Utilities Board Other Post-Employment Benefits Trust (the Trust) is a single-employer trust established by the KUB Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. The Trust, along with the KUB Health Plan, make up a Voluntary Employee Beneficiary Association ("VEBA") and are intended to be tax-exempt pursuant to Code §501(c)(9). The purpose of the Trust is to fund KUB's post-employment health care plan (the "Plan"), which provides certain medical benefits for qualifying KUB retirees and beneficiaries. The applicable documentation was submitted to the State Funding Board and, in December 2007, the State Funding Board approved the Trust. The Trust was also approved by the Internal Revenue Service in June 2008. KUB administers the Trust through a Board of Trustees consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Trust involving costs not approved in the operating budget must be approved by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Trust may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The investment of all deposits to the Trust is governed by an Investment Policy, which was adopted by the KUB Board and approved by the State Funding Board. The Trust issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2022, the Plan was expanded to two benefit offerings. Employees with a benefit service date prior to July 1, 1999, will continue to be eligible for the Retiree Medical Benefit, while those with a later benefit service date will participate in a new Retiree Health Reimbursement Arrangement (HRA), given that each eligible employee meets the "Rule of 80", the sum of age and at least 20 years of qualified service equal to or exceeding 80, at retirement.

Participants in the Plan consisted of the following as of June 30:

	HRA		Retiree Medical Benefit	
	2023	2022	2023	2022
Retirees	6	4	542	549
Dependents of retirees	2	2	596	612
Eligible active employees	25	15	140	145
Total	33	21	1,278	1,306

Benefits

Benefits for pre-July 1, 1999, eligible participants may include, but shall not be limited to, medical, prescription drugs, dental, vision, hearing, Medicare Part B or Part D premiums, life insurance, long-term care, and long-term disability. Post-July 1, 1999, eligible participants are eligible for HRA benefits which include up to $50,000 to be used exclusively for reimbursement of qualified medical expenses of the retiree and his or her spouse and dependents. Any unused HRA amounts will remain assets of the OPEB Trust.

Contributions and Funding

The primary goal of the Funding Policy for the Trust is to document the method KUB has adopted to provide assurance that future KUB and retiree contributions and current Trust assets will be sufficient to fund all benefits expected to be paid to Trust beneficiaries. Per the Funding Policy, KUB's current practice is to fully fund its annual Actuarially Determined Contribution, which is determined by actuarial valuation.

Contributions are authorized by the terms of the Trust as established by KUB Resolution No. 1168, as amended, as approved by the Tennessee State Funding Board. KUB shall have the right at any time to amend, in whole or in part, the provisions of this Trust; however, no such amendment shall authorize or permit the assets of the Trust to be used for or diverted to purposes other than those expressed in the Declaration of Trust.

It shall be the sole and exclusive responsibility of KUB to determine the level of contributions KUB will make to the Trust for the purpose of financing other post-employment benefits accrued by its respective participants. Neither the Trust, nor the Trust's Board, shall be responsible for collecting or otherwise determining the level of contributions needed by KUB to finance any other post-employment benefits offered by KUB. The assets of the Trust shall be expended solely to make payments for other post-employment benefits pursuant to, and in accordance with, the terms of the Trust and to pay the cost of administration.

Based on the date of retirement, certain retired members are required to contribute specified amounts monthly to maintain health insurance. Those who retired prior to July 1983 have no required monthly premiums for themselves or dependents. The retirees, or their surviving dependents, who retired between August 1983 and January 1998 are required to pay $262.50 per month for pre-Medicare family health insurance. For individuals who retired after January 1998, the required monthly premium for pre-Medicare health insurance is $262.50 for single coverage and $525 for family coverage. There is currently no premium for Medicare eligible retirees or dependents. KUB is responsible for determining the level of retired plan member contributions on an annual basis as part of its review of healthcare cost sharing.

Participants in the Health Reimbursement Arrangement are not eligible for health insurance and are not required to make contributions.

Investments

The Trust holds investments in a balanced fund, which invests in passively managed common trust index funds, managed and sponsored by State Street Global Advisors (SSgA), with an asset allocation mirroring the asset allocation of the Trust and rebalanced monthly. The Trust's Investment Policy was established and may only be amended by the KUB Board of Commissioners. The Trust's Investment Policy is to invest in a manner that will provide sufficient investment return to meet current and future retiree health benefits, while conforming to all governing State and Federal statutes. It allows investment of Trust assets in any type of security instrument allowed for in T.C.A 8-50-1203. The following was the Trust's adopted investment target allocations as set forth in the Trust's Investment Policy as of June 30, 2023:

Asset Class	**Target Allocation**
Domestic Equity:	
Large Cap	30%
Small Cap	8%
International Equity:	
Developed	16%
Emerging	8%
Real Estate Equity	8%
Debt Securities	30%
Total	100%

Actuarially determined contributions for the Electric Division for the fiscal year ended June 30, 2023, were $657,934. For the fiscal year ended June 30, 2022, an actuarially determined contribution for the Electric Division of $923,921 was made to the OPEB Trust, which includes the division's share of an additional $1,500,000 contribution to help fund the HRA. These were based on the OPEB actuarial valuations as of January 1, 2021, and 2020.

The OPEB Plan actuarial valuation resulted in an actuarially determined contribution of $1,187,768 for the fiscal year ending June 30, 2024, based on the Plan's current funding policy. The Electric Division's portion of this contribution will be determined as part of the actuarial analysis for the June 30, 2024, measurement date. Subsequent to June 30, 2023, an actuarial valuation was completed and resulted in an actuarially determined contribution of $1,279,985 for the fiscal year ending June 30, 2025, based on the Plan's current funding policy. The Electric Division's portion of this contribution will be determined as part of the actuarial analysis for the June 30, 2025, measurement date. The Plan's actuarial funded ratio is 92.14 percent, and the market value funded ratio is 79.62 percent.

See Appendix B-2 for additional OPEB information.

FISCAL YEAR 2024 FINANCIAL UPDATE

For the ten months ending April 30, 2024, KUB's Electric Division recorded earnings of $35.8 million, representing an increase of $9.4 million over the same period last fiscal year. This increase is the net result of the April 2023 rate increase, offset by a 0.2 percent decrease in billed sales volumes compared to the same period last fiscal year.

As of April 30, 2024, the Electric Division had $409.3 million in outstanding debt, representing a debt to capitalization ratio of 43.1 percent. The Electric Division's current maximum debt service coverage ratio is projected to be 3.34.

Capital investment in the electric system infrastructure is projected to be $150.9 million for fiscal year 2024, with $78.9 million going to the construction of the fiber network and services for KUB's new broadband rollout. KUB's capital plan represents its continued commitment to the timely replacement of critical electric system assets, including poles, underground cable, and substation transformers, in addition to key overhead line and substation improvement projects.

On August 24, 2023, TVA's board voted to approve a 4.5 percent electric base rate increase effective October 1, 2023. The 2.5 percent Pandemic Relief Credit that had been provided to local power companies for the prior three years expired at the same time. These increases flow through directly to KUB's electric customers.

As a component of the Fiber Division's start-up financing plan, the Electric Division will provide $55 million of interdivisional loans. The first $10 million was provided in October 2021, an additional $7 million was provided in August 2022, and $13 million was provided in February 2023. A $7 million loan will be provided in May 2024.

ELECTRIC RATES

The rate schedules of the Electric Division are subject to the approval of the KUB Board of Commissioners. In October 2002, the Board established a Purchased Power Adjustment (the "PPA") mechanism, which provides for the adjustment of applicable electric rates to changes in TVA's wholesale power costs. In October 2006, TVA incorporated a Fuel Cost Adjustment that is evaluated on a quarterly basis to reflect change in the TVA's fuel costs. These fuel cost adjustments are flowed through the KUB's electric customers via the PPA mechanism. In October of 2009, TVA's Fuel Cost Adjustments were changed to a monthly evaluation.

In April 2011, TVA modified its wholesale rate structure to demand and energy billing for its distributors. In response, KUB revised its Purchased Power Adjustment to include a deferred accounting component to ensure appropriate matching of revenue and expenses and power cost recovery. KUB will adjust its retail rates on an annual basis to flow any over or under recovery of wholesale power costs through to its customers via the Purchased Power Adjustment.

In March 2020, KUB executed a new Long-Term Partnership Agreement with TVA, extending the term of its five-year evergreen power supply contract with TVA to a 20-year evergreen contract. In return for signing the longer-term agreement with TVA, KUB will receive an annual partnership credit of 3.1% on TVA's wholesale base rates, estimated to be around $9.3 million per year. Among other things, the new partnership agreement also provides KUB with the flexibility to self-generate up to five percent of its annual power supply through renewable sources.

During the period of October 2021 to September 2022, TVA is providing a Pandemic Recovery Credit to local power companies. KUB has excluded the Standard Service portion of this credit from the Purchased Power Adjustment in order to provide $6.3 million of emergency utility bill assistance for residential and small business customers and $1 million for home weatherization programs.

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On August 24, 2023, TVA's board voted to approve a 4.5 percent electric base rate increase effective October 1, 2023. The 2.5 percent Pandemic Relief Credit that had been provided to local power companies for the prior three years will expire at the same time. These increases will flow through directly to KUB's electric customers.

The current rate schedules of the Electric Division are as follows:

Residential Rate - Schedule RS

Availability

This rate shall be available only for electric service to a single-family dwelling and its appurtenances, where the major use of electricity is for domestic purposes such as lighting, household appliances, and the personal comfort and convenience of those residing therein.

Character of Service

Alternating current, single-phase, 60 hertz. Power shall be delivered at a service voltage available in the vicinity or agreed to by KUB. Multi-phase service shall be supplied in accordance with KUB's standard policy.

Base Charges

Basic Service Charge:	$20.50 per month
Energy Charge:	
Summer Period -	$0.10665 per kWh per month
Winter Period -	$0.10624 per kWh per month
Transition Period -	$0.10624 per kWh per month

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months.

Minimum Monthly Bill

The basic service charge constitutes the minimum monthly bill for all customers served under this rate schedule except those customers for which a higher minimum monthly bill is required under KUB's standard policy because of special circumstances affecting the cost of rendering service.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery and metering point, and at a single voltage.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

PILOT PROGRAM
RESIDENTIAL TIME-OF-USE RATE
SCHEDULE RS-TOU

Residential Time-Of-Use Rate Pilot Program Description

The purpose of the Residential Time-Of-Use Rate pilot program (RS-TOU pilot) is to enable a phased implementation of Time-Of-Use rates for all KUB Residential customers. The RS-TOU pilot will provide participating customers experience with Time-Of-Use billing processes and the bill impacts of varying usage in response to Time-Of-Use rates. The duration of the RS-TOU pilot shall be determined by KUB at its sole discretion.

Residential Time-Of-Use Rate Pilot Program Availability

This rate shall be available only for electric service through a single meter, or served through a multiple meter configuration designed as a single billing point for the Generation Partner program, or similar TVA program, to a single-family dwelling, where the major use of electricity is for domestic purposes such as lighting, household appliances, and the personal comfort and convenience of those residing therein. This rate shall be available to customers which have an advanced meter and have elected to participate in the RS-TOU pilot. KUB reserves the right to limit participation.

Character of Service

Alternating current, single-phase, 60 hertz. Power shall be delivered at a service voltage available in the vicinity or agreed to by KUB. Multi-phase service shall be supplied in accordance with KUB's standard policy.

Base Charges

Basic Service Charge:	$20.50 per month
Energy Charge:	
Onpeak	$0.21344 per kWh per month for all metered onpeak kWh

Offpeak	\$0.08034 per kWh per month for all metered offpeak kWh

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Onpeak and Offpeak Hours

All hours stated in Eastern Prevailing time

Weekdays (Monday - Friday)

Onpeak 2 p.m. to 8 p.m. calendar months April through October
5 a.m. to 11 a.m. calendar months November through March

Offpeak All other hours

Weekends and Holidays*

All hours Offpeak

*Holidays include:

New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day

Minimum Monthly Bill

The basic service charge constitutes the minimum monthly bill for all customers served under this rate schedule except those customers for which a higher minimum monthly bill is required under KUB's standard policy because of special circumstances affecting the cost of rendering service.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery and metering point, and at a single voltage.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

GENERAL POWER RATE - SCHEDULE GSA

Availability

This rate shall be available for the firm power requirements (where a customer's contract demand is 5,000 kW or less) for electric service to non-residential customers. This rate shall also apply to customers to whom service is not available under any other resale rate schedule.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a service voltage available in the vicinity or agreed to by KUB.

Base Charges

1. If (a) the higher of (i) the customer's currently effective contract demand, if any, or (ii) its highest billing demand during the latest 12-month period is not more than 50 kW and (b) the customer's monthly energy takings for any month during such period do not exceed 15,000 kWh:

Customer Charge:	$32.00 per delivery point per month
Energy Charge:	
Summer Period -	$0.12660 per kWh per month
Winter Period -	$0.12619 per kWh per month
Transition Period -	$0.12619 per kWh per month

2. If (a) the higher of (i) the customer's currently effective contract demand or (ii) its highest billing demand during the latest 12-month period is greater than 50 kW but not more than 1,000 kW or (b) the customer's billing demand is less than 50 kW and its energy takings for any month during such period exceed 15,000 kWh:

Customer Charge:		$104.00 per delivery point per month
Demand Charge:		
	Summer Period -	First 50 kW of billing demand per month, no demand charge Excess over 50 kW of billing demand per month, at $17.36 per kW
	Winter Period -	First 50 kW of billing demand per month, no demand charge Excess over 50 kW of billing demand per month, at $16.57 per kW
	Transition Period -	First 50 kW of billing demand per month, no demand charge Excess over 50 kW of billing demand per month, at $16.57 per kW
Energy Charge:		
	Summer Period -	First 15,000 kWh per month at $0.15841 per kWh Additional kWh per month at $0.07126 per kWh
	Winter Period -	First 15,000 kWh per month at $0.15800 per kWh Additional kWh per month at $0.07126 per kWh
	Transition Period -	First 15,000 kWh per month at $0.15800 per kWh Additional kWh per month at $0.07126 per kWh

3. If the higher of (a) the customer's currently effective contract demand or (b) its highest billing demand during the latest 12-month period is greater than 1,000 kW:

Customer Charge: $287.00 per delivery point per month

Demand Charge:

Summer Period -
- First 1,000 kW of billing demand per month, at $18.19 per kW
- Excess over 1,000 kW of billing demand per month, at $18.90 per kW, plus an additional
- $18.90 per kW per month for each kW, if any, of the amount by which the customer's billing demand exceeds the higher of 2,500 kW or its contract demand

Winter Period -
- First 1,000 kW of billing demand per month, at $17.43 per kW
- Excess over 1,000 kW of billing demand per month, at $18.14 per kW, plus an additional
- $18.14 per kW per month for each kW, if any, of the amount by which the customer's billing demand exceeds the higher of 2,500 kW or its contract demand

Transition Period -
- First 1,000 kW of billing demand per month, at $17.43 per kW
- Excess over 1,000 kW of billing demand per month, at $18.14 per kW, plus an additional
- $18.14 per kW per month for each kW, if any, of the amount by which the customer's billing demand exceeds the higher of 2,500 kW or its contract demand

Energy Charge:

Summer Period - $0.08220 per kWh per month

Winter Period - $0.08220 per kWh per month

Transition Period - $0.08220 per kWh per month

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months.

Determination of Demand

KUB shall meter the demands in kW of all customers having loads in excess of 50 kW. The metered demand for any month shall be the highest average during any 30-consecutive-minute period of the month of the load metered in kW. The measured demand for any month shall be the higher of the highest average during any 30-consecutive-minute period of the month of (a) the load metered in kW or (b) 85 percent of the load in kVA plus an additional 10 percent for that part of the load over 5,000 kVA, and such measured demand shall be used as the billing demand, except that the billing demand for any month shall in no case be less than 30 percent of the higher of the currently effective contract demand or the highest billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule shall not be less than the sum of (a) the base customer charge, (b) the base demand charge, as adjusted, applied to the customer's billing demand, and (c) the base energy charge, as adjusted, applied to the customer's energy takings; provided, however, that, under (2.) of the Base Charges, the monthly bill shall in no event be less than the sum (a) the base customer charge and (b) 20 percent of the portion of the base demand charge, as adjusted, applicable to the second block (excess over 50kW) of billing demand, multiplied by the higher of the customer's currently effective contract demand or its highest billing demand established during the preceding 12 months.

KUB may require minimum bills higher than those stated above.

Contract Requirements

KUB shall require contracts for service provided under this rate schedule to customers whose demand requirements exceed 1,000 kW and such contracts shall be for an initial term of at least one year. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single – Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery and metering point, and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery and metering point at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

PILOT PROGRAM
GENERAL POWER TIME-OF-USE RATE
SCHEDULE GSA-TOU

General Power Time-Of-Use Rate Pilot Program Description

The purpose of the General Power Time-Of-Use Rate pilot program (GSA-TOU pilot) is to enable a phased implementation of Time-Of-Use rates for all KUB General Power customers with demand of 1,000 kW or less. The GSA -TOU pilot will provide participating customers experience with Time-Of-Use billing processes and the bill impacts of varying usage in response to Time-Of-Use rates. The duration of the GSA-TOU pilot shall be determined by KUB at its sole discretion.

General Power Time-Of-Use Pilot Program Availability

This rate shall be available for the firm power requirements (where a customer's contract demand is 1,000 kW or less) for electric service to non-residential customers. This rate shall be available to customers which have an advanced meter and have elected to participate in the GSA-TOU pilot. KUB reserves the right to limit participation.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a service voltage available in the vicinity or agreed to by KUB.

Base Charges

1. If (a) the higher of (i) the customer's currently effective contract demand, if any, or (ii) its highest billing demand during the latest 12-month period is not more than 50 kW*:*

Customer Charge:	\$32.00 per delivery point per month
Demand Charge:	\$2.18 per kW of maximum billing demand per month
Energy Charge:	
Onpeak	\$0.22027 per kWh per month for all metered onpeak kWh
Offpeak	\$0.08717 per kWh per month for all metered offpeak kWh

2A. If the higher of (i) the customer's currently effective contract demand or (ii) its highest billing demand during the latest 12-month period is greater than 50 kW but not more than 100 kW*:*

Customer Charge: \$104.00 per delivery point per month

Demand Charge:	$4.94 per kW of maximum billing demand per month
Energy Charge:	
Onpeak	$0.23501 per kWh per month for all metered onpeak kWh
Offpeak	$0.10191 per kWh per month for all metered offpeak kWh

2B. If the higher of (a) the customer’s currently effective contract demand or (b) its highest billing demand during the latest 12-month period is greater than 100 kW but not more than 1,000 kW:

Customer Charge:	$122.00 per delivery point per month
Demand Charge:	$7.25 per kW of maximum billing demand per month
Energy Charge:	
Onpeak	$0.20906 per kWh per month for all metered onpeak kWh
Offpeak	$0.07596 per kWh per month for all metered offpeak kWh

3. If the higher of (a) the customer's currently effective contract demand or (b) its highest billing demand during the latest 12-month period is greater than 1,000 kW:

Customers meeting these requirements are not eligible to enter the GSA-TOU pilot program. The TDGSA and TDMSA (if qualified) rates are available as Time-Of-Use alternatives at this level of demand.

If customer’s demand rises above 1,000 kW while participating in the GSA-TOU pilot program, the customer will be removed from the pilot and billed under General Power Rate - Schedule GSA.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Onpeak and Offpeak Hours

All hours stated in Eastern Prevailing time

Weekdays (Monday - Friday)

Onpeak	2 p.m. to 8 p.m. calendar months April through October 5 a.m. to 11 a.m. calendar months November through March
Offpeak	All other hours

Weekends and Holidays*

All hours Offpeak

*Holidays include:

New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day

Determination of Demand

KUB shall meter the demands in kW of all customers served under the GSA-TOU rate schedule. The Metered Demand for any month shall be the highest average during any 30-minute-consecutive period of the month of the load metered in kW. The Measured Demand for any month shall be the higher of (a) or (b) below:

The Billing Demand for any month shall be the higher of the following:

(a) Metered Demand
(b) 85 percent of the load in kVA
(c) 30 percent of the higher of the currently effective contract demand or the highest billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule shall not be less than the sum of (a) the customer charge, (b) the demand charge, as adjusted, applied to the customer's billing demand, and (c) the energy charges, as adjusted, applied to the customer's energy takings.

KUB may require minimum bills higher than those stated above.

Contract Requirements

At its sole discretion, KUB may require contracts for service provided under this rate schedule and such contracts shall be for an initial term of at least one year. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single – Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery and metering point, and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery and metering point at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

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OUTDOOR LIGHTING RATE - SCHEDULE LS

Availability

Available for service to street and park lighting systems, traffic signal systems, athletic field lighting installations, and outdoor lighting for individual customers.

Service under this schedule is for a term of not less than one year.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months.

PART A – CHARGES FOR STREET AND PARK LIGHTING SYSTEMS, TRAFFIC SIGNAL SYSTEMS, AND ATHLETIC FIELD LIGHTING INSTALLATIONS

I. Energy Charge:

Summer Period -	$0.09679 per kWh per month
Winter Period -	$0.09679 per kWh per month
Transition Period -	$0.09679 per kWh per month

II. Facility Charge

The annual facility charge shall be 17.62 percent of the installed cost to KUB's electric system of the facilities devoted to street and park lighting service specified in this Part A. Such installed cost shall be recomputed on July 1 of each year, or more often if substantial changes in the facilities are made. Each month, one-twelfth of the then total annual facility charge shall be billed to the customer. If any part of the facilities has not been provided at the electric system's expense or if the installed cost of any portion thereof is reflected on the books of another municipality or agency or department, the annual facility charge shall be adjusted to reflect properly the remaining cost to be borne by the electric system.

Traffic signal systems and athletic field lighting installations shall be provided, owned, and maintained by and at the expense of the customer, except as KUB may agree otherwise in accordance with the provisions of the paragraph next following in this Section II. The facilities necessary to provide service to such systems and installations shall be provided by and at the expense of KUB's electric system, and the annual facility charge provided for first above in this Section II shall apply to the installed cost of such facilities.

When so authorized by policy duly adopted by the Board, traffic signal systems and athletic field lighting installations may be provided, owned, and maintained by KUB's electric system for the customer's benefit. In such cases KUB may require reimbursement from the customer for a portion of the initial installed cost of any such system or installation and shall require payment by the customer of a facility charge sufficient to cover all of KUB's costs (except reimbursed costs), including appropriate overheads, of providing, owning, and maintaining such system or installation; provided that, for athletic field lighting installations, such facility charge shall be 16.34 percent per year of such costs. Said facility charge shall be in addition to the annual facility charge on the facilities necessary to provide service to such system or installation as provided for in the preceding paragraph. Replacement of lamps and related glassware for traffic signal systems and athletic field lighting installations provided under this paragraph shall be paid for under the provisions of paragraph A in section IV.

III. Customer Charge – Traffic Signal Systems and Athletic Field Lighting Installations.

IV. KUB shall apply a uniform monthly customer charge of $2.50 for service to each traffic signal system or athletic field lighting installation.

V. Replacement of Lamps and Related Glassware – Street and Park Lighting
Customer shall be billed and shall pay for replacements as provided in paragraph A below, which shall be applied to all service for street and park lighting.

(a) KUB shall bill the customer monthly for such replacements during each month at KUB's cost of materials, including appropriate storeroom expense.

(b) KUB shall bill the customer monthly for one-twelfth of the amount by which KUB's cost of materials, including appropriate storeroom expenses, exceeds the products of 3 mills multiplied by the number of kilowatt-hours used for street and park lighting during the fiscal year immediately preceding the fiscal year in which such month occurs.

Metering

For any billing month or part of such month in which the energy is not metered or for which a meter reading is found to be in error or a meter is found to have failed, the energy for billing purposes for that billing month or part of such month shall be computed from the rated capacity of the lamps (including ballast) plus 5 percent of such capacity to reflect secondary circuit losses, multiplied by the number of hours of use.

Revenue and Cost Review

KUB's costs of providing service under Part A of this rate schedule are subject to review at any time to determine if KUB's revenues from the charges being applied are sufficient to cover its costs. (Such costs, including applicable overheads, include, but are not limited to, those incurred in the operation and maintenance of the systems provided and those resulting from depreciation and payments for taxes, tax equivalents and interest). If any such review discloses that revenues are either less or more than sufficient to cover said costs, the Board shall revise the above facility charges so that revenues will be sufficient to cover said costs.

PART B—CHARGES FOR OUTDOOR LIGHTING FOR INDIVIDUAL CUSTOMERS

Charges Per Fixture Per Month

(a) Type of Fixture	Lamp Size (Watts)	Lamp Size (Lumens)	Rated kWh	Facility Charge	Total Lamp Charge
Mercury Vapor or	175	7,650	70	$5.51	$12.29
Incandescent*	400	19,100	155	7.69	22.69
	1,000**	47,500	378	12.31	48.90
High Pressure	100	8,550	42	$5.51	$ 9.58
Sodium	250	23,000	105	6.53	16.69
	400	45,000	165	7.69	23.66
	1,000**	126,000	385	12.31	49.57
Decorative	100	8,550	42	$6.28	$ 10.35

* Mercury Vapor and Incandescent fixtures not offered for new service.
** 1,000 watt fixtures not offered for new service.

Light-Emitting Diode (LED) options provided through Schedule LED

(b) Energy Charge: For each lamp size under (a) above,

Summer Period	$0.09679 per kWh per month
Winter Period	$0.09679 per kWh per month
Transition Period	$0.09679 per kWh per month

Additional Facilities

The above charges in this Part B are limited to service from a photoelectrically controlled standard lighting fixture installed on a pole already in place. If the customer wishes to have the fixture installed at a location other than on a pole already in place, the customer shall pay an additional monthly charge of $5.55 per pole for additional poles required to serve the fixture from KUB's nearest available source. (This section does not apply to Decorative Lighting Fixtures).

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Lamp Replacements

Replacements of lamps and related glassware will be made in accordance with replacement policies of KUB.

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Special Outdoor Lighting Installations

When so authorized by policy duly adopted by the Board, special outdoor lighting installations (other than as provided for under Parts A and B above) may be provided, owned, and maintained by KUB's electric system. In such cases, KUB may require reimbursement from the customer for a portion of the initial installed cost of any such installation and shall require payment by the customer of monthly charges sufficient to cover all of KUB's costs (except reimbursed costs), including appropriate overheads of providing, owning, and maintaining such installations, and making lamp replacements.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

GENERAL POWER RATE SCHEDULE TDGSA

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where the higher of a customer's currently effective onpeak or offpeak contract demand is greater than 1,000 kW but not more than 5,000 kW for electric service to commercial, industrial, and governmental customers, and to institutional customers, including, without limitation, churches, clubs, fraternities, orphanages, nursing homes, rooming or boarding houses, and like customers, provided that the other conditions of this section are met.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

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Base Charges

Customer Charge: $1,500 per delivery point per month.
Administrative Charge: $700 per delivery point per month.
Demand Charge:

Summer Period -

Onpeak Demand is $11.43 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $8.02 per kW per month of the customer's maximum billing demand plus

Excess Demand is $19.45 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Winter Period -

Onpeak Demand is $10.43 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $8.02 per kW per month of the customer's maximum billing demand plus

Excess Demand is $18.45 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Transition Period -

Onpeak Demand is $10.43 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $8.02 per kW per month of the customer's maximum billing demand plus

Excess Demand is $18.45 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Energy Charge:

Summer Period -

Onpeak is $0.12278 per kWh per month for all metered onpeak kWh, plus

Offpeak

<u>Block 1</u> $0.08781 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

<u>Block 2</u> $0.04349 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.04033 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.10682 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.09091 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.04349 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.04033 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak is $0.09216 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.09216 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.04349 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.04033 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.02099 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer's currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

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Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least one year; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than four months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

GENERAL POWER RATE SCHEDULE GSB

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where the higher of a customer's currently effective onpeak or offpeak contract demand is greater than 5,000 kW but not more than 15,000 kW; provided that the other conditions of this section are met.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge: $1,500 per delivery point per month.
Administrative Charge: $700 per delivery point per month.
Demand Charge:

Summer Period -
- Onpeak Demand is $11.22 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.58 per kW per month of the customer's maximum billing demand plus
- Excess Demand is $17.80 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Winter Period -
- Onpeak Demand is $10.22 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.58 per kW per month of the customer's maximum billing demand plus
- Excess Demand is $16.80 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Transition Period -
- Onpeak Demand is $10.22 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.58 per kW per month of the customer's maximum billing demand plus
- Excess Demand is $16.80 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

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Energy Charge:

Summer Period - Onpeak is $0.09163 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.06589 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.03016 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02664 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.07989 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.06818 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.03016 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02664 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak$0.06555 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.06555 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.03016 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02664 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01913 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

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Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer's currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

**Determination of Onpeak and Offpeak Demands,
Maximum Metered Demand, and Energy Amounts**

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least one year; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than four months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

GENERAL POWER RATE SCHEDULE GSC

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where the higher of a customer's currently effective onpeak or offpeak contract demand is greater than 15,000 kW but not more than 25,000 kW; provided that the other conditions of this section are met.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge:		$1,500 per delivery point per month.
Administrative Charge:		$700 per delivery point per month.
Demand Charge:		
	Summer Period -	Onpeak Demand is $11.22 per kW per month of the customer's onpeak billing demand, plus
		Maximum Demand is $6.43 per kW per month of the customer's maximum billing demand plus
		Excess Demand is $17.65 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher
	Winter Period -	Onpeak Demand is $10.22 per kW per month of the customer's onpeak billing demand, plus
		Maximum Demand is $6.43 per kW per month of the customer's maximum billing demand plus
		Excess Demand is $16.65 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher
	Transition Period -	Onpeak Demand is $10.22 per kW per month of the customer's onpeak billing demand, plus
		Maximum Demand is $6.43 per kW per month of the customer's maximum billing demand plus

Excess Demand is $16.65 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Energy Charge:

Summer Period - Onpeak is $0.09161 per kWh per month for all metered onpeak kWh, plus

Offpeak

<u>Block 1</u> $0.06587 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

<u>Block 2</u> $0.03014 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

<u>Block 3</u> $0.02662 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.07987 per kWh per month for all metered onpeak kWh, plus

Offpeak

<u>Block 1</u> $0.06816 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

<u>Block 2</u> $0.03014 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

<u>Block 3</u> $0.02662 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak is $0.06553 per kWh per month for all metered onpeak kWh, plus

Offpeak

<u>Block 1</u> $0.06553 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

<u>Block 2</u> $0.03014 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

<u>Block 3</u> $0.02662 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01913 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer's currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

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Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, and (3) 50 percent of any kW in excess of 25,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, and (3) 50 percent of any kW in excess of 25,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

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Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least one year; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than four months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

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GENERAL POWER RATE SCHEDULE GSD

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where the higher of a customer's currently effective onpeak or offpeak contract demand is greater than 25,000 kW; provided that the other conditions of this section are met.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge: $1,500 per delivery point per month.
Administrative Charge: $700 per delivery point per month.
Demand Charge:

Summer Period -
- Onpeak Demand is $11.22 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.30 per kW per month of the customer's maximum billing demand plus
- Excess Demand is $17.52 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Winter Period -
- Onpeak Demand is $10.22 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.30 per kW per month of the customer's maximum billing demand plus

Excess Demand is $16.52 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Transition Period - Onpeak Demand is $10.22 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $6.30 per kW per month of the customer's maximum billing demand plus

Excess Demand is $16.52 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Energy Charge:

Summer Period - Onpeak is $0.09159 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.06585 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02894 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02660 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.07985 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.06814 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02894 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02660 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak is $0.06551 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.06551 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02894 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02660 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01913 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer's currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

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Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW; (3) 50 percent of the next 25,000 kW, (4) 60 percent of the next 50,000 kW, (5) 70 percent of the next 100,000 kW, (6) 80 percent of the next 150,000 kW, and (7) 85 percent of all kW in excess of 350,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, (3) 50 percent of the next 25,000 kW, (4) 60 percent of the next 50,000 kW, (5) 70 percent of the next 100,000 kW, (6) 80 percent of the next 150,000 kW, and (7) 85 percent of all kW in excess of 350,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least five years; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than sixteen months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

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Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

MANUFACTURING SERVICE RATE SCHEDULE TDMSA

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where (a) a customer's currently effective onpeak or offpeak contract demand, whichever is higher, is greater than 1,000 kW but not more than 5,000 kW, and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.

Prior to initially taking any service under this schedule, and from time to time thereafter as may be required by KUB, a customer shall certify to KUB that it meets the requirements set forth in condition (b) above. The certification form to be used shall be furnished by KUB to the customer, and signed and promptly returned by the customer to KUB. Further, such customer shall promptly certify any change in the status of any of the information contained in the certification form.

Service during any period for which a customer does not meet the eligibility requirements set forth in condition (b) above will be made available by KUB under, and billed in accordance with, the applicable General Power schedule.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge: $1,500 per delivery point per month.

Administrative Charge: $700 per delivery point per month.

Demand Charge:

Summer Period -
- Onpeak Demand is $10.69 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.09 per kW per month of the customer's maximum billing demand plus
- Excess Demand $16.78 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Winter Period -
- Onpeak Demand is $9.68 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.09 per kW per month of the customer's maximum billing demand plus
- Excess Demand is $15.77 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Transition Period -
- Onpeak Demand is $9.68 per kW per month of the customer's onpeak billing demand, plus
- Maximum Demand is $6.09 per kW per month of the customer's maximum billing demand plus
- Excess Demand is $15.77 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Energy Charge:

Summer Period -
- Onpeak is $0.09564 per kWh per month for all metered onpeak kWh, plus
- Offpeak

Block 1 $0.06956 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.04093 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.03828 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.08373 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.07187 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.04093 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.03828 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak $0.07280 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.07280 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.04093 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.03828 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.02099 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer's currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer’s onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer’s maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer’s onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer’s actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled “Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts”. Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least one year; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than four months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

MANUFACTURING SERVICE RATE SCHEDULE MSB

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where (a) a customer's currently effective onpeak or offpeak contract demand, whichever is higher, is greater than 5,000 kW but not more than 15,000 kW, and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.

Prior to initially taking any service under this schedule, and from time to time thereafter as may be required by KUB, a customer shall certify to KUB that it meets the requirements set forth in condition (b) above. The certification form to be used shall be furnished by KUB to the customer, and signed and promptly returned by the customer to KUB. Further, such customer shall promptly certify any change in the status of any of the information contained in the certification form.

Service during any period for which a customer does not meet the eligibility requirements set forth in condition (b) above will be made available by KUB under, and billed in accordance with, the applicable General Power schedule.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge:		$1,500 per delivery point per month.
Administrative Charge:		$700 per delivery point per month.
Demand Charge:		
	Summer Period -	Onpeak Demand is $10.58 per kW per month of the customer's onpeak billing demand, plus
		Maximum Demand is $3.37 per kW per month of the customer's maximum billing demand plus
		Excess Demand is $13.95 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher
	Winter Period -	Onpeak Demand is $9.58 per kW per month of the customer's onpeak billing demand, plus
		Maximum Demand is $3.37 per kW per month of the customer's maximum billing demand plus

Excess Demand is $12.95 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Transition Period - Onpeak Demand is $9.58 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $3.37 per kW per month of the customer's maximum billing demand plus

Excess Demand is $12.95 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Energy Charge:

Summer Period - Onpeak is $0.08321 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.05737 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02670 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02407 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.07143 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.05968 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02670 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02407 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak is $0.06058 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.06058 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus
Block 2 $0.02670 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus
Block 3 $0.02407 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01884 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer's currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

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Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of any kW in excess of 5,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least one year; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than four months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

MANUFACTURING SERVICE RATE SCHEDULE MSC

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where (a) a customer's currently effective onpeak or offpeak contract demand, whichever is higher, is greater than 15,000 kW but not more than 25,000 kW, and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.

Prior to initially taking any service under this schedule, and from time to time thereafter as may be required by KUB, a customer shall certify to KUB that it meets the requirements set forth in condition (b) above. The certification form to be used shall be furnished by KUB to the customer, and signed and promptly returned by the customer to KUB. Further, such customer shall promptly certify any change in the status of any of the information contained in the certification form.

Service during any period for which a customer does not meet the eligibility requirements set forth in condition (b) above will be made available by KUB under, and billed in accordance with, the applicable General Power schedule.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge: $1,500 per delivery point per month.
Administrative Charge: $700 per delivery point per month.
Demand Charge:

Summer Period -
Onpeak Demand is $10.58 per kW per month of the customer's onpeak billing demand, plus
Maximum Demand is $3.25 per kW per month of the customer's maximum billing demand plus
Excess Demand is $13.83 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Winter Period -
Onpeak Demand is $9.58 per kW per month of the customer's onpeak billing demand, plus
Maximum Demand is $3.25 per kW per month of the customer's maximum billing demand plus
Excess Demand is $12.83 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Transition Period -
Onpeak Demand is $9.58 per kW per month of the customer's onpeak billing demand, plus
Maximum Demand is $3.25 per kW per month of the customer's maximum billing demand plus
Excess Demand is $12.83 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Energy Charge:

Summer Period -
Onpeak is $0.08240 per kWh per month for all metered onpeak kWh, plus
Offpeak
Block 1 $0.05655 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus
Block 2 $0.02851 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02851 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.07060 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.05885 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02851 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02851 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak is $0.05976 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.05976 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02851 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02851 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01884 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer’s bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer’s currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

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Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, and (3) 50 percent of any kW in excess of 25,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, and (3) 50 percent of any kW in excess of 25,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least one year; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than four months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

MANUFACTURING SERVICE RATE SCHEDULE MSD

Availability

This rate, subject to availability from TVA, shall be available for firm electric power requirements where (a) a customer's currently effective onpeak or offpeak contract demand, whichever is higher, is greater than 25,000 kW, and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.

Prior to initially taking any service under this schedule, and from time to time thereafter as may be required by KUB, a customer shall certify to KUB that it meets the requirements set forth in condition (b) above. The certification form to be used shall be furnished by KUB to the customer, and signed and promptly returned by the customer to KUB. Further, such customer shall promptly certify any change in the status of any of the information contained in the certification form.

Service during any period for which a customer does not meet the eligibility requirements set forth in condition (b) above will be made available by KUB under, and billed in accordance with, the applicable General Power schedule.

For a customer requesting that its onpeak contract demand be different from its offpeak contract demand, this rate schedule shall be available only for (1) a new contract, (2) a replacement or renewal contract following expiration of the existing contract, or (3) a replacement or renewal contract or an amended existing contract in which the customer is increasing its demand requirements above the existing contract demand level, but under this item (3) neither the new onpeak nor the new offpeak contract demand shall be lower than the customer's existing contract demand.

Prior to participation in this rate, contract amendments may be required for continued participation in certain other programs and rate overlays as determined at KUB's sole discretion.

Character of Service

Alternating current, single or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge: $1,500 per delivery point per month.
Administrative Charge: $700 per delivery point per month.
Demand Charge:

Summer Period -

Onpeak Demand is $10.58 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $2.82 per kW per month of the customer's maximum billing demand plus

Excess Demand is $13.40 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Winter Period -

Onpeak Demand is $9.58 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $2.82 per kW per month of the customer's maximum billing demand plus

Excess Demand is $12.40 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Transition Period - Onpeak Demand is $9.58 per kW per month of the customer's onpeak billing demand, plus

Maximum Demand is $2.82 per kW per month of the customer's maximum billing demand plus

Excess Demand is $12.40 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher

Energy Charge:

Summer Period - Onpeak is $0.07880 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.05298 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02552 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02492 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Winter Period - Onpeak is $0.06701 per kWh per month for all metered onpeak kWh, plus

Offpeak

Block 1 $0.05526 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02552 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02492 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

Transition Period - Onpeak is $0.05617 per kWh per month for all metered onpeak kWh, plu

Offpeak

Block 1 $0.05617 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 2 $0.02552 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to total energy, plus

Block 3 $0.02492 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01884 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Facilities Rental Charge

There shall be no facilities rental charge under this rate schedule for delivery at bulk transmission voltage levels of 161kV or higher. For delivery at less than 161kV, there shall be added to the customer's bill a facilities rental charge. This charge shall be 37 cents per kW per month except for delivery at voltages below 46 kV, in which case the charge shall be 97 cents per kW per month for the first 10,000 kW and 76 cents per kW per month for the excess over 10,000 kW. Such charge shall be applied to the higher of (1) the highest billing demand established during the latest 12-consecutive-month period or (2) the higher of the customer's currently effective onpeak or offpeak contract demand and shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Reactive Demand Charge

If the reactive demand (in kVAR) is lagging during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's highest metered demand occurs, there shall be added to the customer's bill a reactive charge of $1.46 per kVAR of the amount, if any, by which the reactive demand exceeds 33 percent of such metered demand. If the reactive demand (in kVAR) is leading during the 30-consecutive-minute period beginning or ending on a clock hour of the month in which the customer's lowest metered demand (excluding any metered demands which are less than 25 percent of the highest metered demand) occurs, there shall be added to the customer's bill a reactive charge of $1.14 per kVAR of the amount of reactive demand. Such charges shall be in addition to all other charges under this rate schedule, including minimum bill charges.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition

Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be 1 p.m. to 7 p.m. during the months of April, May, June, July, August, September and October and from 4 a.m. to 10 a.m. during the months of January, February, March, November, and December. All other hours of each day that are not otherwise defined as onpeak hours and all hours of such excepted days shall be offpeak hours. Such times shall be Central Standard Time or Central Daylight Time, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

**Determination of Onpeak and Offpeak Demands,
Maximum Metered Demand, and Energy Amounts**

The onpeak and offpeak kWh for any month shall be the energy amounts taken during the respective hours of the month designated under this rate schedule as onpeak and offpeak hours; provided, however, that notwithstanding the metered energy amount, the offpeak energy for any month shall in no case be less than the product of (1) the offpeak billing demand as calculated in the last sentence of the paragraph below and (2) 110 hours (reflecting a 15 percent load factor applied to the average number of hours in a month).

KUB shall meter the onpeak and offpeak demands in kW of all customers taking service under this rate schedule. The onpeak metered demand and offpeak metered demand for any month shall be determined separately for the respective hours of the month designated under this rate schedule as onpeak and offpeak hours and in each case shall be the highest average during any 30-consecutive-minute period beginning or ending on a clock hour of the month of the load metered in kW, and, except as provided below in this section, such amounts shall be used as the onpeak and offpeak billing demands.

The maximum billing demand for any month shall be the higher of (1) the highest onpeak billing demand in the month or (2) the highest offpeak billing demand in the month. The onpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW and (2) 40 percent of the next 20,000 kW (3) 50 percent of the next 25,000 kW, (4) 60 percent of the next 50,000 kW, (5) 70 percent of the next 100,000 kW, (6) 80 percent of the next 150,000 kW, and (7) 85 percent of all kW in excess of 350,000 kW of the higher of the currently effective onpeak contract demand or the highest onpeak billing demand established during the preceding 12 months. The offpeak billing demand shall in no case be less than the sum of (1) 30 percent of the first 5,000 kW, (2) 40 percent of the next 20,000 kW, (3) 50 percent of the next 25,000 kW,

(4) 60 percent of the next 50,000 kW, and (5) 70 percent of the next 100,000 kW, (6) 80 percent of the next 150,000 kW, and (7) 85 percent of all kW in excess of 350,000 kW of the higher of the currently effective offpeak contract demand or the highest offpeak billing demand established during the preceding 12 months.

Minimum Bill

The monthly bill under this rate schedule, excluding any facilities rental charges and any reactive charges, shall not be less than the sum of (1) the base customer charge and administrative charge, (2) the portion of the base demand charge, as adjusted (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to onpeak billing demand applied to the customer's onpeak billing demand, (3) the portion of the base demand charge, as adjusted, (but excluding the additional portion thereof applicable to excess of billing demand over contract demand) applicable to maximum billing demand applied to the customer's maximum billing demand, (4) the base onpeak energy charge, as adjusted, applied to the customer's onpeak energy takings, and (5) the base offpeak energy charge, as adjusted, applied to the higher of customer's actual offpeak energy takings or the minimum offpeak energy takings amount provided for in the first paragraph of the section of this rate schedule entitled "Determination of Onpeak and Offpeak Demands, Maximum Metered Demand, and Energy Amounts". Notwithstanding the foregoing, any fuel cost that is included in *any purchased power adjustment adopted by the Board* shall not be applied to any billed offpeak energy that exceeds the metered offpeak energy.

KUB may require minimum bills higher than those stated above.

Contract Requirement

KUB shall require contracts for all service provided under this rate schedule. The contract shall be for an initial term of at least five years and any renewals or extensions of the initial contract shall be for a term of at least five years; after ten years of service, any such contract for the renewal or extension of service may provide for termination upon not less than sixteen months notice. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective onpeak or offpeak contract demand. If the customer uses any power other than that supplied by KUB under this rate schedule, the contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

Single Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery point and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

LIGHT-EMITTING DIODE (LED) OUTDOOR LIGHTING RATE - SCHEDULE LED

Availability

Available for LED outdoor lighting service to individual customers. Service under this schedule is for a term of not less than one year.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months.

Charges per Fixture Per Month

Lamp Size	Rated kWh	Facility Charge	Total Lamp Charge
100 WE	21	$6.34	$ 8.37
250 WE	58	7.84	13.45
400 WE	79	10.77	18.41

Energy Charge:	For each lamp size under (a) above,
Summer Period -	$0.09679 per kWh per month
Winter Period -	$0.09679 per kWh per month
Transition Period -	$0.09679 per kWh per month

Additional Facilities

The above charges are limited to service installed on a pole already in place. If the customer wishes to have the fixture installed at a location other than on a pole already in place, the customer shall pay an additional monthly charge of $5.55 per pole for additional poles required to serve the fixture from KUB's nearest available source.

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

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Lamp Replacements

Replacements of lamps and related glassware will be made in accordance with replacement policies of KUB.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

TWO-PART REAL TIME PRICING (RTP)

Availability

KUB provides Two-Part Real Time Pricing (Two-Part RTP) to qualified general power users through its wholesale power supplier, the Tennessee Valley Authority (TVA), in accordance with the power supply contract between KUB and TVA.

Two-Part RTP shall be made available to qualified general power users pursuant to specific contractual arrangements between KUB and the customer (such contractual arrangements may be contained in one or more written instruments and are hereinafter sometimes referred to as the “Contract”).

Charges for Two-Part RTP

KUB Administrative Charge: $350.00 per month

All other Two-Part RTP charges including TVA Administrative Charges shall be established in accordance with the Contract.

Interruptibility

Two-Part RTP furnished to a customer under the Contract may be subject to interruption and to suspension of availability as provided for in the Contract.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

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INTERRUPTIBLE POWER 5 (IP5)

Availability

KUB provides Interruptible Power 5 (IP5) to qualified power users through its wholesale power supplier, the Tennessee Valley Authority (TVA), in accordance with the power supply contract between KUB and TVA.

IP5 shall be made available to qualified power users pursuant to specific contractual arrangements between KUB and the customer (such contractual arrangements may be contained in one or more written instruments and are hereinafter sometimes referred to as the "Contract").

Charges for IP5

KUB Administrative Charge: $350.00 per month

All other IP5-related charges including TVA Administrative Cost Charges shall be established in accordance with the Contract.

Interruptibility

IP5 furnished to a customer under the Contract shall be subject to interruption and to suspension of availability as provided for in the Contract.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

INTERRUPTIBLE POWER 30 (IP30)

Availability

KUB provides Interruptible Power 30 (IP30) to qualified power users through its wholesale power supplier, the Tennessee Valley Authority (TVA), in accordance with the power supply contract between KUB and TVA.

IP30 shall be made available to qualified power users pursuant to specific contractual arrangements between KUB and the customer (such contractual arrangements may be contained in one or more written instruments and are hereinafter sometimes referred to as the "Contract").

Charges for IP30

KUB Administrative Charge: $350.00 per month

All other IP30-related charges including TVA Administrative Cost Charges shall be established in accordance with the Contract.

Interruptibility

IP30 furnished to a customer under the Contract shall be subject to interruption and to suspension of availability as provided for in the Contract.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

START-UP AND TESTING POWER (STP)

Availability

KUB provides Start-up and Testing Power (STP) to qualified power users through its wholesale power supplier, the Tennessee Valley Authority (TVA), in accordance with the power supply contract between KUB and TVA.

STP shall be made available to qualified power users pursuant to specific contractual arrangements between KUB and the customer (such contractual arrangements may be contained in one or more written instruments and are hereinafter sometimes referred to as the “Contract”).

Charges for STP

KUB Administrative Charge: $350.00 per month

All other STP-related charges including TVA Administrative Cost Charges shall be established in accordance with the Contract.

Interruptibility

STP furnished to a customer under the Contract shall be subject to interruption and to suspension of availability as provided for in the Contract.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

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ELECTRIC VEHICLE CHARGING POWER RATE - SCHEDULE EVC

Availability

This rate shall exclusively apply to separately metered charging stations for electric vehicles where the charging station's demand is greater than 50 kW but not more than 5,000 kW.

All customers participating under this rate schedule shall agree to a full requirements service from KUB. In addition, customers must agree that the sole use of the electric service is for the purpose of charging electric vehicles used for transportation purposes only.

Character of Service

Alternating current, single- or three-phase, 60 hertz. Power shall be delivered at a transmission voltage of 161 kV or, if such transmission voltage is not available, at the highest voltage available in the vicinity, unless at the customer's request a lower standard voltage is agreed upon.

Base Charges

Customer Charge:	$100 per delivery point per month
Energy Charge:	
All Seasons:	Onpeak $0.31492 per kWh per month for all metered onpeak kWh Offpeak $0.20073 per kWh per month for all metered offpeak kWh

Adjustment

Charges under this rate schedule may be increased or decreased to reflect changes in purchased power costs as determined by any purchased power adjustment adopted by the Board.

Determination of Seasonal Periods

Summer Period shall mean the June, July, August, and September billing months. Winter Period shall mean the December, January, February, and March billing months. Transition Period shall mean the April, May, October, and November billing months. The Seasonal Periods under this rate schedule are subject to change by KUB. In the event KUB determines that changed Seasonal Periods are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed periods, and KUB shall promptly notify customer.

Determination of Onpeak and Offpeak Hours

Except for Saturdays, Sundays, November 1, and the weekdays that are observed as Federal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, onpeak hours for each day shall for purposes of this rate schedule be from 2 p.m. to 8 p.m. during the months of April, May, June, July, August, September and October and from 5 a.m. to 11 a.m. during the months of January, February, March, November, and December. For all other hours of each day and all hours of such excepted days shall be offpeak hours. Such times shall be EST or EDT, whichever is then in effect. Said onpeak and offpeak hours are subject to change by KUB. In the event KUB determines that such changed onpeak and offpeak hours are appropriate, such decision shall be made at least 11 months prior to the effective date of such changed hours, and KUB shall promptly notify customer.

Minimum Bill

The base customer charge constitutes the minimum monthly bill for all customers served under this rate schedule except those customers for which a higher minimum monthly bill is required under KUB's standard policy because of special circumstances affecting the cost of rendering service.

Contract Requirement

At its sole discretion, KUB may require contracts for service provided under this rate schedule and such contracts shall be for an initial term of at least 90 days. The customer shall contract for its maximum requirements, which shall not exceed the amount of power capable of being used by customer, and KUB shall not be obligated to supply power in greater amount at any time than the customer's currently effective contract demand. The customer is prohibited from using any power other than that supplied by KUB under this rate schedule. All other power sources are prohibited. The contract may include other special provisions. The rate schedule in any power contract shall be subject to adjustment, modification, change, or replacement from time to time as approved by the Board.

After having received service for at least 90 days under this rate schedule, the customer, subject to 90 days prior written notice and appropriate amendments in its power contract with KUB, may receive service under the General Power Rate - Schedule GSA TOU. In such case the term of the power contract shall remain the same and the contract demand for service under the General Power Rate - Schedule GSA TOU shall not be less than the contract demand in effect when service was taken under this rate schedule.

Single-Point Delivery

The charges under this rate schedule are based upon the supply of service through a single delivery and metering point, and at a single voltage. If service is supplied to the same customer through more than one point of delivery or at different voltages, the supply of service at each delivery and metering point and at each different voltage shall be separately metered and billed.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

HISTORIC CAPITALIZATION AND CUSTOMERS

Electric Division Capitalization - Historic

	Fiscal Year	(Net Assets) Accumulated Earnings	Revenue Bonds	Revenue Notes	Total Capitalization	Debt as % of Capitalization
Historical	2019	$ 385,047,671	$ 322,170,000	$ -	$ 707,217,671	45.55%
	2020	$ 411,744,518	$ 305,835,000	$ -	$ 717,579,518	42.62%
	2021 as restated*	$ 443,334,288	$ 275,415,000	$ -	$ 718,749,288	38.32%
	2022	$ 472,525,429	$ 304,835,000	$ -	$ 777,360,429	39.21%
	2023	$ 503,945,859	$ 369,795,000	$ -	$ 873,740,859	42.32%

Electric Division Customers - Historic

(Measured by Bills Rendered)

Historical Number of Customers	2019	2020	2021	2022	2023
Residential	184,819	186,052	188,374	190,304	193,204
Small Commercial and Industrial	19,843	20,029	20,376	20,689	20,809
Large Commercial and Industrial	2,766	2,716	2,653	2,630	2,661
Outdoor Lighting	1,554	1,596	1,605	1,641	1,670
Total	**208,982**	**210,393**	**213,008**	**215,264**	**218,344**

Historic Electric Division Use

The following table shows historical figures for Knox County's population, the Electric Division's number of customers, and electric sales.

Fiscal Year	Knox Co. Population	Number of Customers	Total Sales MWh
1995	357,447	160,893	4,703,769
2000	382,032	177,201	5,210,716
2010	432,226	197,299	5,587,374
2019	470,313	208,982	5,394,429
2020	478,971	210,393	5,271,869
2021	486,677	213,008	5,640,161
2022	494,574	215,264	5,812,108
2023	494,574	218,344	5,753,288

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

KNOXVILLE UTILITIES BOARD
ELECTRIC DIVISION
CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
for the years ending on June 30

	2019	2020	2021 as restated*	2022 as restated**	2023
Operating Revenues:	$ 558,369,583	$ 547,686,983	$ 553,897,585	$ 606,335,419	$ 660,231,612
Operating Expenses:					
Purchased power	$ 417,674,655	$ 398,229,905	$ 394,541,982	$ 439,114,687	$ 475,899,728
Distribution	35,539,679	39,928,275	37,118,162	43,441,366	51,183,020
Customer service	7,160,178	6,186,221	6,204,319	6,650,825	6,101,877
Administrative and general	18,843,502	18,764,049	13,284,502	15,560,475	28,545,522
Provision for depreciation	31,991,227	29,994,212	40,385,025	38,871,150	40,651,472
Taxes and tax equivalents	18,710,928	18,332,928	19,147,427	19,293,655	19,918,570
Total Operating Expenses	$ 529,920,169	$ 511,435,590	$ 510,681,417	$ 562,932,158	$ 622,300,189
Operating Income	$ 28,449,414	$ 36,251,393	$ 43,216,168	$ 43,403,261	$ 37,931,423
Non-Operating Revenues / Expenses:					
Contribution in aid of Construction	$ 3,175,023	$ 2,063,288	$ 2,563,006	$ 3,019,363	$ 6,662,468
Interest and dividend income	2,666,532	1,579,182	236,934	716,419	4,879,006
Interest Expense	(11,704,490)	(11,647,959)	(11,218,425)	(10,739,172)	(13,538,166)
Plant Costs Recovered	(3,175,023)	(2,063,288)	(2,563,006)	(3,019,363)	(6,662,468)
Other	500,124	345,222	(644,907)	(4,189,367)	2,148,167
Total Non-Operating	$ (8,537,834)	$ (9,723,555)	$ (11,626,398)	$ (14,212,120)	$ (6,510,993)
Change in Net Position before Capital Contributions	$ 19,911,580	$ 26,527,838	$ 31,589,770	$ 29,191,141	$ 31,420,430
Capital Contributions	120,717	169,009	-	-	-
Change in Net Position	$ 20,032,297	$ 26,696,847	$ 31,589,770	$ 29,191,141	$ 31,420,430
Beginning of Period	$ 365,015,374	$ 385,047,671	$ 411,744,518	$ 443,334,288	$ 472,525,429
Adjustment	-	-	-	-	-
Net Position					
End of period	**$ 385,047,671**	**$ 411,744,518**	**$ 443,334,288**	**$ 472,525,429**	**$ 503,945,859**

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.
**Restated per GASB 96. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

Source: The above amounts have been derived from the Annual Audited Financial Statements of the Knoxville Utilities Board - Electric Division and the Board's internal financial records should be read in conjunction therewith.

KNOXVILLE UTILITIES BOARD
ELECTRIC DIVISION
OPERATING STATISTICS
for the Fiscal Years ended on June 30

Revenues:	**2019**	**2020**	**2021 as restated***	**2022**	**2023**
Residential	$ 262,794,531	$ 259,850,828	$ 265,036,915	$ 282,413,730	$ 307,569,936
Commercial	51,063,329	50,563,343	50,925,829	55,616,386	60,542,551
Industrial	229,155,656	217,185,900	220,669,452	244,582,768	275,755,562
Outdoor Lighting	6,890,780	5,834,487	5,718,036	5,824,823	6,220,762
Total Sales Revenues	$ 549,904,296	$ 533,434,558	$ 542,350,232	$ 588,437,707	$ 650,088,811
Other Revenues	8,465,287	14,252,425	11,547,353	17,897,712	10,142,801
Total Revenues	$ 558,369,583	$ 547,686,983	$ 553,897,585	$ 606,335,419	$ 660,231,612
Electric Usage - MWh:					
Residential	2,476,757	2,443,183	2,510,197	2,511,736	2,436,024
Commercial	405,893	396,722	401,691	418,914	412,304
Industrial	2,458,808	2,394,484	2,693,580	2,849,248	2,874,504
Outdoor Lighting	52,971	37,480	34,693	32,210	30,456
Total Electric Usage	5,394,429	5,271,869	5,640,161	5,812,108	5,753,288
Number of Customers:					
Residential	184,819	186,052	188,374	190,304	193,204
Commercial	19,843	20,029	20,376	20,689	20,809
Industrial	2,766	2,716	2,653	2,630	2,661
Outdoor Lighting	1,554	1,596	1,605	1,641	1,670
Total Customers	208,982	210,393	213,008	215,264	218,344
Purchased Power:					
MWh	5,545,119	5,439,712	5,828,430	6,000,965	5,868,613
Total Cost	$ 417,674,655	$ 398,229,905	$ 394,541,982	$ 439,114,687	$ 475,899,728
Wholesale Power Cost as % of Sales	75.95%	74.65%	72.75%	74.62%	73.21%
Electric System Peak (kW)	1,328,313	1,328,313	1,328,313	1,328,313	1,328,313

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

OPERATING AND FINANCIAL HISTORY OF THE ELECTRIC DIVISION

Sales in MWh

Fiscal Year	Residential	Commercial	Industrial	Outdoor Lighting	Total
2014	2,499,987	408,581	2,569,046	57,616	5,535,230
2015	2,505,079	402,268	2,571,186	57,775	5,536,308
2016	2,341,289	385,756	2,564,889	58,723	5,350,657
2017	2,396,248	393,907	2,515,987	59,252	5,365,394
2018	2,476,886	402,426	2,509,166	58,481	5,446,959
2019	2,476,757	405,893	2,458,808	52,971	5,394,429
2020	2,443,183	396,722	2,394,484	37,480	5,271,869
2021	2,510,197	401,691	2,693,580	34,693	5,640,161
2022	2,511,736	418,914	2,849,248	32,210	5,812,108
2023	2,436,024	412,304	2,874,504	30,456	5,753,288

Total Operating Revenue

Fiscal Year	Residential	Commercial	Industrial	Outdoor Lighting	Other	Total
2014	$ 242,439,020	$ 45,892,309	$ 220,298,930	$ 8,153,718	$ 11,048,814	$ 527,832,790
2015	$ 247,635,642	$ 45,928,833	$ 222,500,328	$ 8,371,010	$ 8,770,032	$ 533,205,845
2016	$ 234,748,373	$ 44,633,880	$ 221,132,641	$ 8,585,438	$ 12,268,870	$ 521,369,202
2017	$ 251,523,417	$ 47,499,537	$ 228,728,437	$ 9,082,469	$ 9,530,152	$ 546,364,012
2018	$ 259,179,059	$ 49,106,584	$ 227,302,729	$ 8,981,113	$ 15,541,022	$ 560,110,507
2019	$ 262,794,531	$ 51,063,329	$ 229,155,656	$ 6,890,780	$ 8,465,287	$ 558,369,583
2020	$ 259,850,828	$ 50,563,343	$ 217,185,900	$ 5,834,487	$ 14,252,425	$ 547,686,983
2021 as restated*	$ 265,036,915	$ 50,925,829	$ 220,669,452	$ 5,718,036	$ 11,547,353	$ 553,897,585
2022	$ 282,413,730	$ 55,616,386	$ 244,582,768	$ 5,824,823	$ 17,897,712	$ 606,335,419
2023	$ 307,569,936	$ 60,542,551	$ 275,755,562	$ 6,220,762	$ 10,142,801	$ 660,231,612

Growth Rates for Key Operating Data

	2018-2019	2019-2020	2020-2021 as restated*	2021-2022	2022-2023
Number of Customers	1.23%	0.68%	1.24%	1.06%	1.43%
Total Sales (MWh)	-0.96%	-2.27%	6.99%	3.05%	-1.01%
Total Operating Revenues	-0.31%	-1.91%	1.13%	9.47%	8.89%

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

TEN LARGEST ELECTRIC SYSTEM CUSTOMERS - 2023

The ten largest Electric System customers, as of June 30, 2023, in order of total sales generated are listed below. Those ten electric customers represent 16.16% of the total electric sales based on revenue and 25.27% of the total electric sales based on sales volume.

	Customer	Consumption MWh	Electric Sales Revenue	Percent of Sales Revenue
1.	Carpenter Creek LLC	542,376	$ 26,335,504	4.05%
2.	University of Tennessee	225,721	21,853,988	3.36%
3.	CMC Steel US LLC	292,384	16,327,472	2.51%
4.	Knox County Schools	48,681	7,901,675	1.22%
5.	KUB	66,015	7,778,777	1.20%
6.	University Health Systems Inc	79,110	6,830,361	1.05%
7.	Cemex Inc	90,559	6,370,797	0.98%
8.	K-VA-T Food Stores Inc	36,141	4,235,749	0.65%
9.	Fort Sanders Regional Medical Center	41,046	3,734,374	0.57%
10.	Parkwest Medical	32,034	3,675,697	0.57%
	TOTAL	**1,454,066**	**$ 105,044,394**	**16.16%**

Total Electric Sales Revenue		$ 650,088,811
Top 10 as Percent of Total Electric Sales Revenue		16.16%
Total Electric Sales Volume (MWh)	5,753,288	
Top 10 as Percent of Total Electric Sales Volume	25.27%	

KNOXVILLE UTILITIES BOARD
ELECTRIC DIVISION
BONDS OUTSTANDING

The following table shows the outstanding bond indebtedness of the Electric Division.

Amount Issued	Series	Due Date	Interest Rates	Outstanding Debt (1) and (2) As of June 30, 2024 (Unaudited)
$ 28,550,000	Electric System Revenue Refunding Bonds, Series EE-2015	07-01-29	Fixed	$ 16,815,000
40,000,000	Electric System Revenue Bonds, Series GG-2016	07-01-46	Fixed	33,650,000
23,445,000	Electric System Revenue Refunding Bonds, Series HH-2017	07-01-27	Fixed	10,520,000
40,000,000	Electric System Revenue Bonds, Series II-2017	07-01-47	Fixed	35,060,000
39,995,000	Electric System Revenue Bonds, Series JJ-2018	07-01-47	Fixed	35,725,000
14,380,000	Electric System Revenue Refunding Bonds, Series KK-2020	07-01-30	Fixed	10,740,000
70,180,000	Electric System Revenue Refunding Bonds, Series LL-2021	07-01-44	Fixed	65,715,000
45,650,000	Electric System Revenue Bonds, Series MM-2022	07-01-51	Fixed	44,885,000
27,215,000	Electric System Revenue Refunding Bonds, Series NN-2022	07-01-45	Fixed	27,215,000
79,000,000	Electric System Revenue Bonds, Series OO-2022	07-01-52	Fixed	79,000,000
55,000,000	Electric System Revenue Bonds, Series PP-2023 (Issued 12-8-2023)	07-01-53	Fixed	55,000,000
$ 463,415,000	**TOTAL DEBT**			$ 414,325,000
$ 91,000,000	Electric System Revenue Bonds, Series QQ-2024	07-01-54	Fixed	$ 91,000,000
$ 554,415,000	**TOTAL INDEBTEDNESS**			$ 505,325,000

NOTES:

(1) The above figures do not include short-term notes outstanding, if any. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

(2) The Electric System paid $17,320,000 of principal and $8,623,556.28 of interest on July 1, 2024, for the Fiscal Year Ending June 30, 2025.

KNOXVILLE UTILITIES BOARD
ELECTRIC DIVISION
DEBT SERVICE REQUIREMENTS

Fiscal Year	Outstanding Fiscal Year Debt Service on Bonds as of June 30, 2024 (Unaudited) Principal	Interest	Total	Electric System Revenue Bonds, Series QQ-2024 Principal	Interest (3)	Total	% Principal Repaid on Series QQ-2024 Bonds	TOTAL DEBT SERVICE (1) & (2) Principal	Interest	Total	% Principal Repaid on All Debt
2025	$ 17,320,000	$ 16,702,593	$ 34,022,593	$ -	$ 1,377,632	$ 1,377,632	0.00%	$ 17,320,000	$ 18,080,225	$ 35,400,225	3.46%
2026	16,440,000	15,790,649	32,230,649	-	4,065,144	4,065,144		16,440,000	19,855,793	36,295,793	
2027	17,140,000	15,050,074	32,190,074	1,475,000	4,028,269	5,503,269		18,615,000	19,078,343	37,693,343	
2028	17,820,000	14,326,296	32,146,296	1,550,000	3,952,644	5,502,644		19,370,000	18,278,940	37,648,940	
2029	15,825,000	13,650,294	29,475,294	1,630,000	3,873,144	5,503,144	5.12%	17,455,000	17,523,438	34,978,438	17.83%
2030	16,430,000	12,985,319	29,415,319	1,715,000	3,789,519	5,504,519		18,145,000	16,774,838	34,919,838	
2031	12,885,000	12,359,494	25,244,494	1,805,000	3,701,519	5,506,519		14,690,000	16,061,013	30,751,013	
2032	12,435,000	11,798,494	24,233,494	1,895,000	3,609,019	5,504,019		14,330,000	15,407,513	29,737,513	
2033	12,190,000	11,255,509	23,445,509	1,990,000	3,511,894	5,501,894		14,180,000	14,767,403	28,947,403	
2034	12,580,000	10,715,375	23,295,375	2,095,000	3,409,769	5,504,769	15.55%	14,675,000	14,125,144	28,800,144	33.02%
2035	12,970,000	10,163,113	23,133,113	2,200,000	3,302,394	5,502,394		15,170,000	13,465,506	28,635,506	
2036	13,395,000	9,621,763	23,016,763	2,315,000	3,189,519	5,504,519		15,710,000	12,811,281	28,521,281	
2037	13,795,000	9,089,575	22,884,575	2,435,000	3,070,769	5,505,769		16,230,000	12,160,344	28,390,344	
2038	14,250,000	8,533,150	22,783,150	2,560,000	2,945,894	5,505,894		16,810,000	11,479,044	28,289,044	
2039	14,685,000	7,957,306	22,642,306	2,690,000	2,814,644	5,504,644	28.96%	17,375,000	10,771,950	28,146,950	49.27%
2040	15,165,000	7,365,225	22,530,225	2,830,000	2,676,644	5,506,644		17,995,000	10,041,869	28,036,869	
2041	15,665,000	6,749,788	22,414,788	2,975,000	2,531,519	5,506,519		18,640,000	9,281,306	27,921,306	
2042	16,155,000	6,111,444	22,266,444	3,125,000	2,379,019	5,504,019		19,280,000	8,490,463	27,770,463	
2043	16,705,000	5,451,169	22,156,169	3,285,000	2,218,769	5,503,769		19,990,000	7,669,938	27,659,938	
2044	15,885,000	4,810,563	20,695,563	3,455,000	2,050,269	5,505,269	46.18%	19,340,000	6,860,831	26,200,831	68.31%
2045	16,455,000	4,187,619	20,642,619	3,610,000	1,891,694	5,501,694		20,065,000	6,079,313	26,144,313	
2046	15,550,000	3,569,519	19,119,519	3,760,000	1,744,294	5,504,294		19,310,000	5,313,813	24,623,813	
2047	14,330,000	2,993,013	17,323,013	3,915,000	1,588,347	5,503,347		18,245,000	4,581,359	22,826,359	
2048	12,885,000	2,458,719	15,343,719	4,080,000	1,426,000	5,506,000		16,965,000	3,884,719	20,849,719	
2049	9,090,000	2,005,600	11,095,600	4,245,000	1,259,500	5,504,500	67.73%	13,335,000	3,265,100	16,600,100	85.88%
2050	9,490,000	1,606,000	11,096,000	4,420,000	1,086,200	5,506,200		13,910,000	2,692,200	16,602,200	
2051	9,905,000	1,188,675	11,093,675	4,600,000	905,800	5,505,800		14,505,000	2,094,475	16,599,475	
2052	10,340,000	752,850	11,092,850	4,785,000	718,100	5,503,100		15,125,000	1,470,950	16,595,950	
2053	8,040,000	352,725	8,392,725	4,980,000	522,800	5,502,800		13,020,000	875,525	13,895,525	
2054	3,505,000	87,625	3,592,625	5,185,000	319,500	5,504,500	94.07%	8,690,000	407,125	9,097,125	98.92%
2055	-	-	-	5,395,000	107,900	5,502,900	100.00%	5,395,000	107,900	5,502,900	100.00%
	$ 409,325,000	$ 229,689,534	$ 639,014,534	$ 91,000,000	$ 74,068,123	$ 165,068,123		$ 500,325,000	$ 303,757,657	$ 804,082,657	

NOTES:

(1) The above figures do not include short-term notes outstanding, if any. Amounts represent unaudited June 30, 2024. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

(2) The Electric System paid $17,320,000 of principal and $8,623,556.28 (subject to change) of interest on July 1, 2024, for the Fiscal Year Ending June 30, 2025.

(3) Original True Interest Cost of 4.05%.

KNOXVILLE UTILITIES BOARD
ELECTRIC DIVISION
HISTORICAL DEBT COVERAGE ON OUTSTANDING ELECTRIC SYSTEM BONDS
For the Fiscal Years Ended June 30

The historical coverage for the actual debt service requirements and the projected maximum annual debt service requirements (FY 2027) of the Outstanding Bonds and Series QQ-2024 Bonds for June 30, 2019 through June 30, 2023 is set forth below.

	2019	2020	2021 as restated***	2022 as restated****	2023
Operating revenues	$ 558,369,583	$ 547,686,983	$ 553,897,585	$ 606,335,419	$ 660,231,612
Operating expenses *	(479,218,014)	(463,108,450)	(451,148,965)	(504,767,353)	(561,730,147)
Net income before depreciation & taxes	$ 79,151,569	$ 84,578,533	$ 102,748,620	$ 101,568,066	$ 98,501,465
Other revenue (Net)	2,666,532	1,579,182	236,934	716,419	4,879,006
FICA & Medicare Tax Expense	(2,251,026)	(2,265,718)	(2,256,238)	(2,502,307)	(2,742,935)
Income available for debt service	$ 79,567,075	$ 83,891,997	$ 100,729,316	$ 99,782,178	$ 100,637,536
Actual annual debt service requirements on outstanding bonds	$ 23,535,838	$ 25,456,523	$ 26,715,582	$ 24,583,195	$ 24,786,078
Coverage (Times)	3.38 x	3.30 x	3.77 x	4.06 x	4.06 x
Maximum annual debt service requirements (FY 2027) on Outstanding Bonds and Series QQ-2024 Bonds**	$ 37,693,343	$ 37,693,343	$ 37,693,343	$ 37,693,343	$ 37,693,343
Coverage (Times)	2.11 x	2.23 x	2.67 x	2.65 x	2.67 x

* Excluding Provision for Depreciation and Taxes
** From Debt Service Requirements Chart.
***Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.
***Restated per GASB 96. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

APPENDIX B-2

ELECTRIC DIVISION
REPORT OF INDEPENDENT AUDITORS AND FINANCIAL STATEMENTS

APPENDIX C-1

THE WATER DIVISION

THE WATER DIVISION

INTRODUCTION

The Water Division has been owned and operated by the City since 1909. The Water Division consists of a complete system for the treatment, storage, and distribution of water.

The Water Division distributes water to 82,799 customers on an exclusive basis covering 188 square miles throughout the City and on a non-exclusive basis in portions of Knox, Sevier, and Jefferson counties.

SOURCE OF WATER SUPPLY

The KUB service area is supplied with water from the Tennessee River. The river furnishes an abundant supply of water for the Mark B. Whitaker Plant (the "MBW"), which is KUB's sole water plant and has a capacity of 62.9 million gallons per day (MGD).

KUB's excellent track record in providing high quality, reliable water supply to its customers has been achieved by maintaining excess capacity. Tennessee Valley Authority reservoirs are upstream, providing the river a year-round flow far in excess of the City's needs. Even during drought conditions, Knoxville's water supply has been more than adequate to meet customer requirements. MBW's average flow for fiscal year 2023 was 34.8 MGD.

KUB is committed to delivering a reliable supply of high-quality drinking water to its customers. KUB's water quality laboratory is one of the few utility laboratories in the state certified by the State Department of Health and Environment to perform the complicated analysis necessary to maintain compliance with all federal drinking water regulations. The Safe Drinking Water Act of 1986 provides for mandatory disinfection and filtration treatment processes, which the Water Division has constantly maintained.

Capital projects that have improved the water filtration facilities at MBW include new filter valves and actuators. Those upgrades provide more operational flexibility for the plant.

KUB constructed a new Low Service Pump Station (LSPS) in May 2014 to address the reliability of the raw water pumping system at MBW. The system moves raw water from the Tennessee River to the MBW clarification system. The $8.5 million project included a new 70 MGD pump station with four submersible pumps, a new electrical building, piping, and controls to help KUB provide safe, high-quality water for many years to come.

In fiscal year 2017, KUB completed the transition to a new disinfection system at the MBW Treatment plant.

KUB is currently in the process of implementing a Water Plant Redundancy initiative to ensure that high quality, reliable water service will be provided to customers over the long term. KUB maintains a single water treatment plant for its system. In lieu of building a second treatment facility to ensure capacity will be available to meet the needs of current and future water customers, KUB will invest approximately $161 million in various redundant facilities at the site of its existing Mark B. Whitaker Water Treatment Plant over a 16-year period that began in fiscal year 2017. Construction of a new generator building with three 2,500 kW diesel generators and associated switchgear was completed in fiscal year 2022 at the Mark B. Whitaker Water Treatment Plant.

Knox County has committed $2.6 million in a Tennessee Department of Environment and Conservation (TDEC) non-competitive grant and $10 million in direct American Rescue Plan Act (ARPA) funding, and the City of Knoxville has committed $7.5 million in a TDEC non-competitive grant and $5 million in direct ARPA funding each for a total of $25.1 million in grant money. The grants will be used to help fund KUB's new water filter project at its Mark B. Whitaker Water Treatment Plant. The project commenced in October 2022 and is projected to be completed by May 2025.

THE WATER DISTRIBUTION SYSTEM

KUB experienced normal operations this fiscal year. However, inflation had a significant impact to operating costs and capital projects. Supply chain issues improved throughout the year but impacted the timing of some capital projects in fiscal year 2023. KUB's ability to serve its water customers has remained strong.

KUB's water distribution system territory covers 188 square miles. The system includes 26 booster pump stations, 28 storage facilities, and 1,412 miles of water service main.

Century II is KUB's proactive long-range program to improve and maintain the electric, natural gas, water, and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In May 2017, a new Century II funding resolution was adopted by the KUB Board to express the continued commitment to funding Century II programs for the next ten years. The funding will be achieved through a combination of rate increases and debt issues supplemented by cost savings and new revenue from net customer additions.

In June 2017, the Board approved three water rate increases to support the Century II program. The three approved water rate increases went into effect July 2017, July 2018, and July 2019, generating $3.1 million, $3.1 million, and $3.3 million in additional annual Water Division revenue, respectively.

In June 2021, the Board approved a 2 percent water rate increase effective in July 2021, generating $1.1 million in additional annual Water Division revenue.

In June 2022, the Board approved the next phase of water rate increases to support the Century II program. The first of three approved 5 percent water rate increases went into effect July 2022, generating $3.4 million of additional annual Water Division revenue. The remaining two rate increases are effective July 2023 and July 2024, and are expected to provide an additional $3.4 million and $3.6 million in annual Water Division revenue, respectively.

KUB remains on track with its Century II water system infrastructure program. In fiscal year 2023, KUB replaced 3.2 miles of galvanized water main and 5.2 miles of cast iron main while staying within the Water Division's total capital budget.

During fiscal year 2023, KUB adopted GASB Statement No. 96, *Subscription-Based Information Technology Arrangements* (Statement No. 96), using a full retrospective approach. The objective of this Statement is to better meet the information needs of financial statement users by (a) establishing uniform accounting and financial reporting requirements for SBITAs; (b) improving the comparability of financial statements among governments that have entered into SBITAs; and (c) enhancing the understandability, reliability, relevance, and consistency of information about SBITAs. Accordingly, the accompanying financial statements, as of and for the year ended June 30, 2022, have been restated for the change, which did not have an impact on the net position.

During fiscal year 2022, KUB adopted GASB Statement No. 87, *Leases* (Statement No. 87) using a full retrospective approach. This statement requires a lessee to recognize an intangible right of use asset and a lease liability, and a lessor to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information regarding leasing activities. Accordingly, the accompanying financial statements, as of and for the year ended June 30, 2021, have been restated for the change, which did not have an impact on the net position.

PENSION PLAN

Description of Plan

The Knoxville Utilities Board Pension Plan (the Plan) is a governmental plan as defined by the Employee Retirement Income Security Act of 1974 (ERISA or the Act), is not subject to any of the provisions of the Act, and was revised January 1, 2020, to include all prior approved amendments. The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board Resolution No. 980 dated February 18, 1999, effective July 1, 1999, as authorized by the Charter of the City of Knoxville §1107(J). KUB Board Resolution No. 979, effective July 1, 1999, as amended by Resolution No. 1037, establishing the KUB Retirement System, was amended effective June 18, 2020, to amend the term "Trustee" to include both custodians and/or trustees, in order to provide flexibility should KUB choose to change from its current Pension trustee. The Plan is designed to provide retirement, disability, and death benefits to KUB employees. KUB administers the Plan through an Administrative Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Plan involving costs not approved in the operating budget must be adopted by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Plan may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The Plan issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2011, KUB closed the Plan such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and to accrue benefits under the Plan.

Participants in the Plan consisted of the following as of December 31:

	2022	2021
Inactive plan members:		
Terminated vested participants	14	12
Retirees and beneficiaries	603	600
Active plan members	431	478
Total	1,048	1,090

Retirement Benefits

The Plan provides three benefit arrangements for KUB participants, retirees, and beneficiaries.

The Plan provides pension benefits through the Career Equity Program ("CEP") for eligible employees hired on or after January 1, 1999, and for eligible former "City System Plan A" participants who elected CEP coverage as of July 1, 1999. The guaranteed pension benefit payable to a participant who has completed five or more years of service (or reached the normal retirement date, if earlier) upon termination of KUB employment shall be a lump sum equal to the participant's average compensation times their benefit percentage, as defined in the Plan document, or an annuity may be chosen by the participant.

In addition, the Plan provided retirement benefits through "Plan A" for former City System Plan A participants who elected not to participate in the CEP. Plan A is a closed plan and is not available to KUB employees hired after July 1, 1999. Plan A provides for early retirement benefits with 25 years of service and normal retirement benefits at age 62 or later. Benefits provided to Plan A participants include several different forms of monthly annuity payments.

The Plan also provides retirement benefits through "Plan B" for former "City System Plan B" participants. Plan B is a closed plan providing benefits to participants not covered by Social Security. Benefits provided to Plan B participants include several different forms of monthly annuity payments available to participants.

Effective January 1, 2012, KUB began to provide for additional monthly supplements, which are not subject to cost-of-living adjustments, to certain former employees and surviving dependents of former employees who are eligible for and have elected coverage under the KUB retiree medical plan and are eligible for Medicare. This was done to compensate for the elimination of drug coverage under the KUB retiree medical plan and to assist such individuals in obtaining prescription drug coverage under Medicare Part D.

Contributions

Participation in Plan A requires employee contributions of three percent of the first $4,800 of annual earnings and five percent of annual earnings in excess of $4,800. KUB contributions are determined by the enrolled actuary of the Plan and equal the amount necessary to provide the benefits under the Plan determined by the application of accepted actuarial methods and assumptions. The method of funding shall be consistent with Plan objectives.

Plan Funding

KUB maintains a Funding Policy for the Plan in accordance with Tennessee State Law. The primary goal of the Policy is to document the method KUB has adopted to provide assurance that future KUB and employee contributions and current Plan assets will be sufficient to fund all benefits expected to be paid to current active, inactive and retired Plan participants and their beneficiaries. Per the Funding Policy, KUB fully funds its annual Actuarially Determined Contribution.

Investments

The Plan's investments are held by State Street Bank and Trust Company (the "Trustee"). The Plan's policy in regard to the allocation of invested assets is established by the Retirement System Investment Committee and approved by the KUB Board of Commissioners and may only be amended by the KUB Board of Commissioners. It is the policy of the Retirement System Investment Committee to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Plan's adopted asset allocation policy as of December 31, 2022:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%
Domestic equity – convertible securities	0% - 10%
Non-U.S. equity	0% - 20%
Real estate equity	0% - 10%
Fixed income – aggregate bonds	5% - 25%
Fixed income – long-term bonds	10% - 25%
Cash and deposits	0% - 5%

Contributions of $2,624,373 and $3,665,168 for 2021 and 2020, respectively, were made during the Plan sponsor's fiscal years ended June 30, 2023, and 2022, respectively. Of these amounts, $458,397 and $609,183 are attributable to the Water Division. The fiscal year 2023 contribution was determined as part of the January 1, 2021, valuation using the Individual Entry Age Normal funding method. The objective under this method is to fund each participant's benefits under the Plan as payments which are level as a percentage of salary, starting on the original participation date (employment date) and continuing until the assumed retirement, termination, disability, or death.

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The Pension Plan actuarial valuation resulted in an actuarially determined contribution of $1,108,147 for the fiscal year ending June 30, 2024, based on the Plan's current funding policy. The Water Division's portion of this contribution will be determined as part of the actuarial analysis for the December 31, 2023, measurement date. Subsequent to June 30, 2023, an actuarial valuation was completed and resulted in an actuarially determined contribution of $2,210,234 for the fiscal year ending June 30, 2025, based on the Plan's current funding policy. The Water Division's portion of this contribution will be determined as part of the actuarial analysis for the December 31, 2024, measurement date. For the Plan year beginning January 1, 2023, the Plan's actuarial funded ratio is 106.88 percent, and the market value funded ratio is 91.43 percent.

See Appendix C-2 for additional pension plan information.

QUALIFIED EXCESS BENEFIT ARRANGEMENT (QEBA)

Description

In fiscal year 2017, KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan administered by KUB. The number of participants in any given year for the QEBA is determined by the number of KUB Pension Plan participants who exceed the current year's section 415(b) limitations, as calculated by the KUB Pension Plan actuary. The amount of QEBA benefit will be the amount specified by the terms of the KUB Pension Plan without regard to Section 415(b) limitations minus the amount payable from the KUB Pension Plan as limited by Section 415(b). QEBA benefits are subject to cost-of-living adjustments.

As of June 30, 2023, there are 404 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the KUB Pension Plan. The KUB Pension Plan was amended to include the provision of QEBA benefits; therefore, amendments to the QEBA require the same authority as amendments to the KUB Pension Plan. As required by federal tax law, the QEBA is unfunded within the meaning of the federal tax laws. KUB may not pre-fund the QEBA to cover future liabilities beyond the current year. KUB has established procedures to pay for these benefits on a pay-as-you-go basis. There are no assets accumulated in a trust that meets the GASB's criteria. Due to the increase in the section 415(d) annual benefit limitation from 2021 to 2022, the pension benefit for the sole participant in the Excess Benefit Arrangement is now fully payable under the KUB Pension Plan and, as such, there is no benefit payable under the Excess Benefit Arrangement as of June 30, 2023, and 2022.

Total Pension Liability of the QEBA

The below summarizes the disclosures of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB

73"). GASB 73 extends a similar approach of financial reporting to plans meeting specific criteria that are not administered through trusts that GASB 68 established for pension plans. GASB 73 requires measurement of the total pension liability of the QEBA. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2023, and 2022, are based on a December 31, 2022, and 2021, measurement date, respectively. There is no Total Pension Liability as of June 30, 2023, and 2022. GASB 73 requires certain disclosures related to the total pension liability of the QEBA, as disclosed below:

	2022	**2021**
Total pension liability	$0	$0
Deferred outflows	(6,779)	(11,505)
Deferred inflows	3,408	16,927
Net impact on Statement of Net Position	($3,371)	$5,422
Covered payroll	$37,412,132	$38,074,863
Total pension liability as a % of covered payroll	0.00%	0.00%

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2023, KUB recognized pension expense of ($8,793) (Division's share ($1,143)) for the QEBA. This amount is not expected to be the same as KUB's contribution to the QEBA ($-), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [($3,371) - $5,422 + $-].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2020, this average was four years. There was a deferred inflow at the end of the measurement year of $3,408 (Division's share $443) from experience gains in prior years and a deferred outflow of $4,073 (Division's share $529) from experience losses in prior years.

There was a deferred outflow of $2,706 (Division's share $352) from assumption changes in prior years.

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The following table summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences between expected and actual experience	$	4,073	$	3,408
Changes in assumptions		2,706		-
Total	$	6,779	$	3,408
Division's share	$	881	$	443

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:		
2024	$	3,023
2025		348
2026		-
2027		-
2028		-
Thereafter		-

For the year ended June 30, 2022, KUB recognized pension expense of $16,613 (Division's share $2,160) for the QEBA. This amount is not expected to be the same as KUB's contribution to the QEBA ($19,875), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$5,422 - $8,684 + $19,875].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2020, this average was four years. During the measurement year, there was an experience gain of $6,816, with $1,704 recognized in the current year and each of the next three years, resulting in a deferred inflow of $5,112 (Division's share $665). There was a deferred inflow at the end of the measurement year of $7,225 (Division's share $939) from experience gains in prior years and a deferred outflow of $6,112 (Division's share $795) from experience losses in prior years.

During the measurement year, there were no assumption changes. There was a deferred inflow at the end of the measurement year of $4,590 (Division's share $597) and a deferred outflow of $5,393 (Division's share $700) from assumption changes in prior years.

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The following table summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences between expected and actual experience	$	6,112	$	12,337
Changes in assumptions		5,393		4,590
Total	$	11,505	$	16,927
Division's share	$	1,495	$	2,201

OTHER POST-EMPLOYMENT BENEFITS (OPEB)

Description of Trust

The Knoxville Utilities Board Other Post-Employment Benefits Trust (the Trust) is a single-employer trust established by the KUB Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. The Trust, along with the KUB Health Plan, make up a Voluntary Employee Beneficiary Association ("VEBA") and are intended to be tax-exempt pursuant to Code §501(c)(9). The purpose of the Trust is to fund KUB's post-employment health care plan (the "Plan"), which provides certain medical benefits for qualifying KUB retirees and beneficiaries. The applicable documentation was submitted to the State Funding Board and, in December 2007, the State Funding Board approved the Trust. The Trust was also approved by the Internal Revenue Service in June 2008. KUB administers the Trust through a Board of Trustees consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Trust involving costs not approved in the operating budget must be approved by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Trust may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The investment of all deposits to the Trust is governed by an Investment Policy, which was adopted by the KUB Board and approved by the State Funding Board. The Trust issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2022, the Plan was expanded to two benefit offerings. Employees with a benefit service date prior to July 1, 1999, will continue to be eligible for the Retiree Medical Benefit, while those with a later benefit service date will participate in a new Retiree Health Reimbursement Arrangement (HRA), given that each eligible employee meets the "Rule of 80", the sum of age and at least 20 years of qualified service equal to or exceeding 80, at retirement.

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Participants in the Plan consisted of the following as of June 30:

	HRA		Retiree Medical Benefit	
	2023	2022	2023	2022
Retirees	6	4	542	549
Dependents of retirees	2	2	596	612
Eligible active employees	25	15	140	145
Total	33	21	1,278	1,306

Benefits

Benefits for pre-July 1, 1999, eligible participants may include, but shall not be limited to, medical, prescription drugs, dental, vision, hearing, Medicare Part B or Part D premiums, life insurance, long-term care, and long-term disability. Post-July 1, 1999, eligible participants are eligible for HRA benefits which include up to $50,000 to be used exclusively for reimbursement of qualified medical expenses of the retiree and his or her spouse and dependents. Any unused HRA amounts will remain assets of the OPEB Trust.

Contributions and Plan Funding

The primary goal of the Funding Policy for the Trust is to document the method KUB has adopted to provide assurance that future KUB and retiree contributions and current Trust assets will be sufficient to fund all benefits expected to be paid to Trust beneficiaries. Per the Funding Policy, KUB's current practice is to fully fund its annual Actuarially Determined Contribution, which is determined by actuarial valuation.

Contributions are authorized by the terms of the Trust as established by KUB Resolution No. 1168, as amended, as approved by the Tennessee State Funding Board. KUB shall have the right at any time to amend, in whole or in part, the provisions of this Trust; however, no such amendment shall authorize or permit the assets of the Trust to be used for or diverted to purposes other than those expressed in the Declaration of Trust.

It shall be the sole and exclusive responsibility of KUB to determine the level of contributions KUB will make to the Trust for the purpose of financing other post-employment benefits accrued by its respective participants. Neither the Trust, nor the Trust's Board, shall be responsible for collecting or otherwise determining the level of contributions needed by KUB to finance any other post-employment benefits offered by KUB. The assets of the Trust shall be expended solely to make payments for other post-employment benefits pursuant to, and in accordance with, the terms of the Trust and to pay the cost of administration.

Based on the date of retirement, certain retired members are required to contribute specified amounts monthly to maintain health insurance. Those who retired prior to July 1983 have no required monthly premiums for themselves or dependents. The retirees, or their surviving dependents, who retired between August 1983 and January 1998 are required to pay $262.50 per month for pre-Medicare family health insurance. For individuals who retired after January 1998, the required monthly premium for pre-Medicare health insurance is $262.50 for single coverage and $525 for family coverage. There is currently no premium for Medicare eligible retirees or dependents. KUB is responsible for determining the level of retired plan member contributions on an annual basis as part of its review of healthcare cost sharing.

Participants in the Health Reimbursement Arrangement are not eligible for health insurance and are not required to make contributions.

Investments

The Trust holds investments in a balanced fund, which invests in passively managed common trust index funds, managed and sponsored by State Street Global Advisors (SSgA), with an asset allocation mirroring the asset allocation of the Trust and rebalanced monthly. The Trust's Investment Policy was established and may only be amended by the KUB Board of Commissioners. The Trust's Investment Policy is to invest in a manner that will provide sufficient investment return to meet current and future retiree health benefits, while conforming to all governing State and Federal statutes. It allows investment of Trust assets in any type of security instrument allowed for in T.C.A 8-50-1203. The following was the Trust's adopted investment target allocations as set forth in the Trust's Investment Policy as of June 30, 2023:

Asset Class	Target Allocation
Domestic Equity:	
Large Cap	30%
Small Cap	8%
International Equity:	
Developed	16%
Emerging	8%
Real Estate Equity	8%
Debt Securities	30%
Total	100%

Actuarially determined contributions for the Water Division for the fiscal year ended June 30, 2023, were $232,079. For the fiscal year ended June 30, 2022, an actuarially determined contribution for the Water Division of $326,406 was made to the OPEB Trust, which includes the division's share of an additional $1,500,000 contribution to help fund the HRA. These were based on the OPEB actuarial valuations as of January 1, 2021, and 2020.

The OPEB Plan actuarial valuation resulted in an actuarially determined contribution of $1,187,768 for the fiscal year ending June 30, 2024, based on the Plan's current funding policy. The Water Division's portion of this contribution will be determined as part of the actuarial analysis for the June 30, 2024, measurement date. Subsequent to June 30, 2023, an actuarial valuation was completed and resulted in an actuarially determined contribution of $1,279,985 for the fiscal year ending June 30, 2025, based on the Plan's current funding policy. The Water Division's portion of this contribution will be determined as part of the actuarial analysis for the June 30, 2025, measurement date. The Plan's actuarial funded ratio is 92.14 percent, and the market value funded ratio is 79.62 percent.

See Appendix C-2 for additional OPEB information.

FISCAL YEAR 2024 FINANCIAL UPDATE

For the ten months ending April 30, 2024, KUB's Water Division had earnings of $13.5 million, representing an increase of $2.4 million from the previous fiscal year. This increase is the result of the July 2023 rate increase and a 2.2 percent increase in billed water sales volumes compared to the last fiscal year.

As of April 30, 2024, the Water Division had $196.5 million in outstanding debt, representing a debt to capitalization ratio of 43.8 percent. The Water Division's current maximum debt service coverage ratio is 2.51.

Capital investment in water system infrastructure is approximately $51.5 million for fiscal year 2024, reflecting KUB's continued commitment to the timely replacement of aging water pipe.

Knox County has committed $2.6 million in a Tennessee Department of Environment and Conservation (TDEC) non-competitive grant and $10 million in direct American Rescue Plan Act (ARPA) funding, and the City of Knoxville has committed $7.5 million in a TDEC non-competitive grant and $5 million in direct ARPA funding each for a total of $25.1 million in grant money. The grants will be used to help fund KUB's new water filter project at its Mark B. Whitaker Water Treatment Plant. The project commenced in October 2022 and is projected to be completed by May 2025.

WATER RATES

The current rate schedules of the Water Division are as follows:

WATER GENERAL SERVICE - RESIDENTIAL

Availability

Service under this rate schedule shall be available only to residential customers served individually through a separate meter.

An existing customer or applicant for service under this schedule may be required to execute a contract specifying, among other things, a minimum bill and minimum term for service under this schedule.

Rate

The Water Service Charge shall be calculated using the applicable rate tables provided below, based on the customer's meter size and monthly water usage. KUB may, at its sole discretion, bill water using the same rates converted to a rate per gallon for usage measured in gallons: 1 Ccf equals 748 gallons.

In the event more than one meter is utilized to determine billed consumption, multiple basic service charges may apply. Charges will apply without regard to ownership of the meter(s).

I. <u>Inside City Rate</u>

For water furnished to premises entirely within the corporate limits of the City of Knoxville:

Basic Service Charge	
5/8" meter	$18.00

For meters greater than 5/8" the Customer Charges listed in the Water Nonresidential schedule shall be utilized.

Commodity Charge		
First	2 Ccf at	$1.65 per Ccf
Over	2 Ccf at	$3.40 per Ccf

II. <u>Outside City Rate</u>

For water furnished to premises upon which any water faucet or other outlet is outside the corporate limits of the City of Knoxville:

Basic Service Charge	
5/8" meter	$19.40

For meters greater than 5/8" the Customer Charges listed in the Water Nonresidential schedule shall be utilized.

Commodity Charge		
First	2 Ccf at	$1.85 per Ccf
Over	2 Ccf at	$4.05 per Ccf

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

WATER GENERAL SERVICE – NONRESIDENTIAL

Availability

Service under this rate schedule shall be available to any commercial or industrial customer.

An existing customer or applicant for service under this schedule may be required to execute a contract specifying, among other things, a minimum bill and minimum term for service under this schedule.

Rate

The Water Service Charge shall be calculated using the applicable rate tables provided below, based on the customer's meter size and monthly water usage. KUB may, at its sole discretion, bill water using the same rates converted to a rate per gallon for usage measured in gallons: 1 Ccf equals 748 gallons.

In the event more than one meter is utilized to determine billed consumption, multiple customer charges may apply. Charges will apply without regard to ownership of the meter(s).

I. <u>Inside City / Industrial Park Rate</u>

For water furnished to premises entirely within the corporate limits of the City of Knoxville or within the boundaries of an area recognized as an industrial park by the Tennessee Department of Economic and Community Development:

Customer Charge	
5/8" meter	$ 20.75
1" meter	$ 34.00
1 ½" meter	$ 71.00
2" meter	$ 99.00
3" meter	$ 209.00
4" meter	$ 321.00
6" meter	$ 618.00
8" meter	$1,026.00
10" meter	$1,563.00
12" meter	$2,400.00

Commodity Charge	
First	2 Ccf at $ 3.00 per Ccf
Next	8 Ccf at $ 5.15 per Ccf
Next	90 Ccf at $ 5.85 per Ccf
Next	300 Ccf at $ 4.95 per Ccf
Next	4,600 Ccf at $ 2.95 per Ccf
Over	5,000 Ccf at $ 1.35 per Ccf

II. <u>Outside – City Rate</u>

For water furnished to premises upon which any water faucet or other outlet is outside the corporate limits of the City of Knoxville, excluding premises within the boundaries of an area recognized as an industrial park by the Tennessee Department of Economic and Community Development:

Customer Charge

5/8” meter	$ 22.85
1” meter	$ 38.25
1 ½" meter	$ 79.00
2” meter	$ 110.00
3” meter	$ 237.00
4” meter	$ 361.00
6” meter	$ 715.00
8” meter	$1,260.00
10” meter	$1,920.00
12” meter	$2,840.00

Commodity Charge

First	2 Ccf at $3.40 per Ccf
Next	8 Ccf at $5.90 per Ccf
Next	90 Ccf at $6.90 per Ccf
Next	300 Ccf at $5.65 per Ccf
Next	4,600 Ccf at $3.50 per Ccf
Over	5,000 Ccf at $1.60 per Ccf

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

SCHEDULE B – PRIVATE FIRE SERVICE

Availability

Under this schedule, KUB provides water supply to privately owned automatic sprinklers or hose outlets. Such service is available to any residential, commercial, or industrial customer.

Rate

The private Fire Service Charge shall be calculated using the table below based on the customer’s fire line connections.

Monthly Service Charge per Connection

Connection less than 4”	$ 41.00
4” Connection	$ 98.00
6” Connection	$214.00
8” Connection	$375.00
10” Connection	$571.00
12” Connection and greater	$844.00

These service charges shall be in addition to the charge for any water use through fire line connections. The amount of unmetered water so used, as determined by KUB, shall be paid for at KUB's applicable rate schedules.

No charge under this Schedule B shall be made where the water supply to private fire protection facilities is through one or more metered connection(s) for which payment is made under the Water General Service – Nonresidential Rate Schedule.

No credit for charges under this rate schedule shall be allowed against the Water General Service – Nonresidential Rate Schedule charge for water supplied through a fire line to one or more metered connection(s) where the fire line serves as a connecting line between the metered connection(s) and KUB's mains.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

SCHEDULE C – UNMETERED GOVERNMENT SERVICE

For water used from KUB's mains with KUB's permission by any department of a governmental entity through unmetered fire hydrants for purposes other than for public fire service:

I. Inside – City Rate

The total amount of water used monthly by each department of a governmental entity for such purposes through a fire hydrant within the corporate limits of the City of Knoxville shall be billed to each such department at the Inside City rates set forth in the Water General Service – Nonresidential Rate Schedule.

II. Outside – City Rate

The total amount of water used monthly by each department of a governmental entity for such purposes through a fire hydrant outside the corporate limits of the City of Knoxville shall be billed to each such department at the Outside City rates set forth in the Water General Service – Nonresidential Rate Schedule.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

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SCHEDULE D – PUBLIC FIRE PROTECTION SERVICE

Availability

Service under this schedule shall be available only to a governmental entity that undertakes to provide public fire protection service for an area that contains at least four square miles. KUB reserves the right to require any applicant for service under this schedule to execute a contract specifying, among other things, a minimum bill and minimum term for service.

Rate

For public fire protection service rendered, the governmental entity shall pay KUB a fire protection service charge at the rate of $589.49 per year for each KUB owned public fire hydrant located within the jurisdictional boundaries of the governmental entity and within areas provided public fire protection service by such governmental entity. In addition to the fire protection service charge, the governmental entity shall pay for all water used for fire fighting at rates set forth in the Water General Service – Nonresidential Rate Schedule.

KUB may contract with other utility providers to supply public fire protection service to an eligible governmental entity in any service area (or portion thereof), where KUB determines it desirable to do so. Charges to a governmental entity for fire protection service provided under such a contract shall be at the same rate specified above, and the hydrants of the utility provider utilized under such a contract shall be deemed to be facilities owned by KUB for the sole purpose of calculating charges under this schedule.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

SCHEDULE E – SALES FOR RESALE

Availability

For water purchased on an interruptible basis for resale by a customer that does not use KUB as its sole supplier of water. This service shall be available only on an interruptible basis and only to the extent, in KUB's sole opinion, that such service can be supplied through existing facilities without adversely affecting water service to any other customer of KUB. Nothing contained herein shall prevent KUB from providing water for resale under the Water General Service – Nonresidential Rate Schedule.

<u>Commodity Charge</u>
$1.48 per Ccf

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KUB may, at its sole discretion, bill water using the same rates converted to a rate per gallon for usage measured in gallons: 1 Ccf equals 748 gallons.

Any unauthorized usage under this tariff shall be billed at the Outside City rates set forth in the Water General Service – Nonresidential Rate Schedule.

Rules and Regulations

Service is subject to Rules and Regulations of KUB.

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KNOXVILLE UTILITIES BOARD
WATER DIVISION
CAPITALIZATION HISTORY

Historical	Fiscal Year	Accumulated Earnings	Contributed Capital	Revenue Bonds	Revenue Notes	Total Capitalization	Debt as % of Capitalization
	2019	$ 188,011,582	$ -	$ 192,820,000	$ -	$ 380,831,582	50.63%
	2020	$ 202,337,153	$ -	$ 204,890,000	$ -	$ 407,227,153	50.31%
	2021 as restated*	$ 211,224,667	$ -	$ 198,600,000	$ -	$ 409,824,667	48.46%
	2022	$ 225,583,951	$ -	$ 191,540,000	$ -	$ 417,123,951	45.92%
	2023	$ 238,694,469	$ -	$ 184,265,000	$ -	$ 422,959,469	43.57%

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

KNOXVILLE UTILITIES BOARD
WATER DIVISION
OPERATING STATISTICS
for the Fiscal Years ending on June 30

	2019	2020	2021 as restated*	2022	2023
Revenues:					
General Customers	$ 47,996,074	$ 50,690,076	$ 50,863,984	$ 52,787,176	$ 56,821,857
Private Fire Protection	3,431,913	4,212,473	4,269,550	4,374,265	4,453,902
Public Fire Protection	3,668,547	3,982,044	4,025,025	4,067,615	4,267,915
Sales to Public Authorities	1,121,460	1,271,157	1,239,649	1,209,909	1,283,175
Total Sales Revenues	$ 56,217,994	$ 60,155,750	$ 60,398,208	$ 62,438,965	$ 66,826,849
Other Revenues	$ 1,855,485	$ 2,317,774	$ 1,401,231	$ 2,119,381	$ 1,875,900
Total Revenues	$ 58,073,479	$ 62,473,524	$ 61,799,439	$ 64,558,346	$ 68,702,749
Water Usage - (000s Gallons*):					
General Customers	7,579,777	7,448,209	7,464,522	7,606,678	7,798,539
Other	530,320	562,052	569,691	611,495	648,523
Total	8,110,097	8,010,261	8,034,213	8,218,173	8,447,062
Number of Customers:					
General Customers	78,882	79,377	79,906	80,485	81,163
Private Fire Protection	1,564	1,579	1,596	1,622	1,633
Public Fire Protection	1	1	1	1	1
Other	2	4	3	2	2
Total	80,449	80,961	81,506	82,110	82,799
Input to System (000s Gallons)	12,579,220	12,700,180	12,155,230	11,964,980	12,694,960
Source of Supply and Treatment Expense	$ 3,984,176	$ 3,644,360	$ 4,444,493	$ 4,570,431	$ 5,453,159

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

KNOXVILLE UTILITIES BOARD
WATER DIVISION
CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
For The Fiscal Years Ending on June 30

	2019	2020	2021 as restated*	2022 as restated**	2023
Operating Revenues:	$ 58,073,479	$ 62,473,524	$ 61,799,439	$ 64,558,346	$ 68,702,749
Operation Expenses:					
Treatment	$ 3,984,176	$ 3,644,360	$ 4,444,493	$ 4,570,431	$ 5,453,159
Distribution	15,417,999	15,175,452	15,492,694	16,763,904	17,465,753
Customer Service	1,886,682	1,659,209	1,711,933	1,820,874	1,739,250
Administrative and General	6,632,782	6,397,245	4,826,048	4,731,941	9,806,790
Provision for Deprec. & Amortization	10,315,031	10,039,955	11,602,283	11,840,748	12,439,495
Taxes and Tax Equivalents	4,418,426	4,327,074	4,494,108	4,507,469	4,717,414
Total Operating Expenses	$ 42,655,096	$ 41,243,295	$ 42,571,559	$ 44,235,367	$ 51,621,861
Operating Income	$ 15,418,383	$ 21,230,229	$ 19,227,880	$ 20,322,979	$ 17,080,888
Non-Operating Revenues / Expenses:					
Contributions in aid of construction	$ 860,459	$ 1,298,668	$ 957,719	$ 1,185,417	$ 7,972,512
Interest and dividend income	885,864	841,842	143,931	179,724	1,361,782
Interest expense	(6,839,885)	(7,132,413)	(7,195,357)	(6,944,930)	(6,644,158)
Write-down of plant for costs recovered through contributions	(860,459)	(1,298,668)	(957,719)	(1,185,417)	(7,972,512)
Other	142,901	(670,475)	(3,610,348)	(242,146)	446,898
Total Non-Operating	$ (5,811,120)	$ (6,961,046)	$ (10,661,774)	$ (7,007,352)	$ (4,835,478)
Change in Net Position before	$ 9,607,263	$ 14,269,183	$ 8,566,106	$ 13,315,627	$ 12,245,410
Capital contribution	563,998	56,388	321,408	1,043,657	865,108
Change in Net Position	$ 10,171,261	$ 14,325,571	$ 8,887,514	$ 14,359,284	$ 13,110,518
Net Position, beginning of year	$ 177,840,321	$ 188,011,582	$ 202,337,153	$ 211,224,667	$ 225,583,951
Adjustment	-	-	-	-	-
Net Position, end of year	**$ 188,011,582**	**$ 202,337,153**	**$ 211,224,667**	**$ 225,583,951**	**$ 238,694,469**

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.
**Restated per GASB 96. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

Source: The above amounts have been derived from the Annual Audited Financial Statements for the Knoxville Utilities Board, Water Division and the Board's internal financial records and should be read in conjunction therewith.

KNOXVILLE UTILITIES BOARD
WATER DIVISION
OPERATING AND FINANCIAL HISTORY OF THE WATER DIVISION

OPERATING REVENUE FROM WATER SALES

Fiscal Year Ended June 30	Revenue	
2014	$	39,373,714
2015	$	44,173,190
2016	$	47,453,401
2017	$	50,769,639
2018	$	54,365,215
2019	$	58,073,479
2020	$	62,473,524
2021 as restated*	$	61,799,439
2022	$	64,558,346
2023	$	68,702,749

WATER SALES IN GALLONS

Fiscal Year Ended June 30	Thousand Gallons
2014	7,807,977
2015	7,944,545
2016	7,965,560
2017	8,376,557
2018	8,198,380
2019	8,110,097
2020	8,010,261
2021	8,034,213
2022	8,218,173
2023	8,447,062

*Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

TEN LARGEST WATER SYSTEM CUSTOMERS - 2023

The ten largest Water System customers, as of June 30, 2023, in order of total sales generated are listed below. Those ten water customers represent 20.23% of the total water sales based on revenue and 24.76% of the total water based on sales volume.

	Customer	Consumption CCF	Sales Revenue	Percent of Sales Revenue
1.	City of Knoxville	138,652	$ 4,970,989	7.44%
2.	University of Tennessee	830,894	3,710,834	5.55%
3.	KCDC	218,205	1,021,703	1.53%
4.	Shady Grove Utility District	515,786	763,363	1.14%
5.	Knox County Schools	73,854	651,155	0.97%
6.	Dandridge Water Management Facility	350,517	518,765	0.78%
7.	University Health Systems Inc	195,765	482,748	0.72%
8.	KUB	127,651	473,636	0.71%
9.	Rohm & Haas Tennessee Inc	201,745	473,278	0.71%
10.	CMC Steel US LLC	143,014	450,279	0.67%
	TOTAL	**2,796,083**	**$ 13,516,750**	**20.23%**

Total Water Sales Revenue		$ 66,826,849
Top 10 as Percent of Total Water Sales Revenue		20.23%
Total Water Sales Volume(CCF)	11,292,864	
Top 10 as Percent of Total Water Sales Volume	24.76%	

KNOXVILLE UTILITIES BOARD
WATER DIVISION
BONDS OUTSTANDING

The following table shows the outstanding bond indebtedness of the Water Division.

Amount Issued	Series	Due Date	Interest Rates	Outstanding as of June 30, 2024 (Unaudited) (1)
$ 23,005,000	Water System Revenue Refunding Bonds, Series BB-2015	03-01-33	Fixed	$ 15,915,000
20,000,000	Water System Revenue Bonds, Series CC-2015	03-01-26	Fixed	1,075,000
25,000,000	Water System Revenue Bonds, Series DD-2016	03-01-46	Fixed	20,825,000
20,875,000	Water System Revenue Refunding Bonds, Series EE-2016	03-01-33	Fixed	14,490,000
5,310,000	Water System Revenue Refunding Bonds, Series FF-2017	03-01-27	Fixed	1,815,000
20,000,000	Water System Revenue Bonds, Series GG-2017	03-01-47	Fixed	17,225,000
19,995,000	Water System Revenue Bonds, Series HH-2018	03-01-48	Fixed	17,415,000
19,995,000	Water System Revenue Bonds, Series II-2019	03-01-49	Fixed	18,030,000
19,520,000	Water System Revenue Refunding Bonds, Series JJ-2020	03-01-40	Fixed	17,505,000
9,045,000	Water System Revenue Bonds, Series KK-2020	03-01-50	Fixed	8,295,000
33,180,000	Water System Revenue Refunding Bonds, Series LL-2021	03-01-44	Fixed	29,385,000
14,915,000	Water System Revenue Refunding Bonds, Series MM-2022	03-01-45	Fixed	14,815,000
19,995,000	Water System Revenue Bonds, Series NN-2023 (Issued 12-8-2023)	03-01-53	Fixed	19,745,000
$ 250,835,000	**TOTAL DEBT**			$ 196,535,000
$ 19,995,000	Water System Revenue Bonds, Series OO-2024	03-01-54	Fixed	$ 19,995,000
$ 270,830,000	**TOTAL INDEBTEDNESS**			$ 216,530,000

NOTES:

(1) The above figures do not include short-term notes outstanding, if any. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

KNOXVILLE UTILITIES BOARD
WATER DIVISION
DEBT SERVICE REQUIREMENTS

Fiscal Year	Outstanding Fiscal Year Debt Service on Bonds as of June 30, 2024 (Unaudited) Principal	Interest	Total	Water System Revenue Bonds, Series OO-2024 Principal	Interest (2)	Total	% Principal Repaid on OO-2024 Bonds	TOTAL DEBT SERVICE (1) Principal	Interest	Total	% Principal Repaid on All Debt
2025	$ 8,120,000	$ 6,934,944	$ 15,054,944	$ -	$ 449,306	$ 449,306	0.00%	$ 8,120,000	$ 7,384,250	$ 15,504,250	3.75%
2026	8,420,000	6,622,019	15,042,019	330,000	888,738	1,218,738		8,750,000	7,510,756	16,260,756	
2027	8,675,000	6,304,406	14,979,406	350,000	872,238	1,222,238		9,025,000	7,176,644	16,201,644	
2028	9,025,000	5,961,181	14,986,181	365,000	854,738	1,219,738		9,390,000	6,815,919	16,205,919	
2029	9,365,000	5,617,863	14,982,863	385,000	836,488	1,221,488	7.15%	9,750,000	6,454,350	16,204,350	20.80%
2030	9,710,000	5,259,713	14,969,713	400,000	817,238	1,217,238		10,110,000	6,076,950	16,186,950	
2031	10,020,000	4,885,494	14,905,494	420,000	797,238	1,217,238		10,440,000	5,682,731	16,122,731	
2032	10,205,000	4,540,094	14,745,094	445,000	776,238	1,221,238		10,650,000	5,316,331	15,966,331	
2033	10,455,000	4,193,900	14,648,900	465,000	753,988	1,218,988		10,920,000	4,947,888	15,867,888	
2034	7,580,000	3,866,475	11,446,475	490,000	730,738	1,220,738	18.25%	8,070,000	4,597,213	12,667,213	43.98%
2035	7,735,000	3,615,313	11,350,313	515,000	706,238	1,221,238		8,250,000	4,321,550	12,571,550	
2036	7,905,000	3,357,594	11,262,594	540,000	680,488	1,220,488		8,445,000	4,038,081	12,483,081	
2037	8,050,000	3,092,731	11,142,731	565,000	653,488	1,218,488		8,615,000	3,746,219	12,361,219	
2038	8,235,000	2,827,625	11,062,625	595,000	625,238	1,220,238		8,830,000	3,452,863	12,282,863	
2039	8,425,000	2,555,144	10,980,144	625,000	595,488	1,220,488	32.46%	9,050,000	3,150,631	12,200,631	63.92%
2040	8,575,000	2,274,994	10,849,994	655,000	564,238	1,219,238		9,230,000	2,839,231	12,069,231	
2041	7,000,000	1,983,606	8,983,606	690,000	531,488	1,221,488		7,690,000	2,515,094	10,205,094	
2042	7,205,000	1,738,188	8,943,188	725,000	496,988	1,221,988		7,930,000	2,235,175	10,165,175	
2043	7,425,000	1,483,550	8,908,550	760,000	460,738	1,220,738		8,185,000	1,944,288	10,129,288	
2044	7,655,000	1,220,969	8,875,969	790,000	430,338	1,220,338	50.56%	8,445,000	1,651,306	10,096,306	83.08%
2045	6,300,000	954,031	7,254,031	820,000	398,738	1,218,738		7,120,000	1,352,769	8,472,769	
2046	5,460,000	742,288	6,202,288	855,000	365,938	1,220,938		6,315,000	1,108,225	7,423,225	
2047	4,325,000	560,250	4,885,250	890,000	330,669	1,220,669		5,215,000	890,919	6,105,919	
2048	3,410,000	411,575	3,821,575	925,000	293,956	1,218,956		4,335,000	705,531	5,040,531	
2049	2,440,000	291,075	2,731,075	965,000	255,800	1,220,800	72.84%	3,405,000	546,875	3,951,875	95.27%
2050	1,475,000	204,400	1,679,400	1,005,000	217,200	1,222,200		2,480,000	421,600	2,901,600	
2051	1,065,000	146,125	1,211,125	1,040,000	177,000	1,217,000		2,105,000	323,125	2,428,125	
2052	1,115,000	99,531	1,214,531	1,085,000	135,400	1,220,400		2,200,000	234,931	2,434,931	
2053	1,160,000	50,750	1,210,750	1,125,000	92,000	1,217,000		2,285,000	142,750	2,427,750	
2054	-	-	-	1,175,000	47,000	1,222,000	100.00%	1,175,000	47,000	1,222,000	100.00%
	$ 196,535,000	**$ 81,795,825**	**$ 278,330,825**	**$ 19,995,000**	**$ 15,835,369**	**$ 35,830,369**		**$ 216,530,000**	**$ 97,631,194**	**$ 314,161,194**	

NOTES:

(1) The above figures do not include short-term notes outstanding, if any. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

(2) True Interest Cost of 4.04%.

KNOXVILLE UTILITIES BOARD
WATER DIVISION
HISTORICAL DEBT COVERAGE ON OUTSTANDING WATER BONDS
For the Years Ended June 30

The historical coverage for the actual debt service requirements and the projected maximum annual debt service requirements (FY 2026) of the Outstanding Bonds and Series OO-2024 Bonds for fiscal years ended June 30, 2019 through June 30, 2023 is set forth below.

	2019	2020	2021 as restated***	2022 as restated****	2023
Operating Revenues	$ 58,073,479	$ 62,473,524	$ 61,799,439	$ 64,558,346	$ 68,702,749
Operating Expenses*	(27,921,639)	(26,876,266)	(26,475,168)	(27,887,150)	(34,464,952)
Net Income Before Depreciation & Taxes	$ 30,151,840	$ 35,597,258	$ 35,324,271	$ 36,671,196	$ 34,237,797
Other Revenue	885,864	841,842	143,931	179,724	1,361,782
FICA & Medicare Tax Expense	(906,770)	(948,179)	(965,973)	(1,061,454)	(1,071,217)
Income available for debt service	30,130,934	35,490,921	34,502,229	35,789,466	34,528,362
Actual annual debt service requirements on outstanding bonds	$ 13,024,114	$ 14,023,460	$ 14,836,825	$ 13,889,992	$ 13,878,353
Coverage	2.31 x	2.53 x	2.33 x	2.58 x	2.49 x
Maximum annual debt service requirement** (FY 2026) on Outstanding Bonds and Series OO-2024 Bonds**	$ 16,260,756	$ 16,260,756	$ 16,260,756	$ 16,260,756	$ 16,260,756
	1.85 x	2.18 x	2.12 x	2.20 x	2.12 x

* Excluding Provision for Depreciation and Taxes
** From Debt Service Requirements Chart.
***Restated per GASB 87. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.
****Restated per GASB 96. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

APPENDIX C-2

WATER DIVISION
REPORT OF INDEPENDENT AUDITORS AND FINANCIAL STATEMENTS

GENERAL INFORMATION

THE CITY OF KNOXVILLE

THE CITY

The City of Knoxville (the “City”) was founded in 1791 and incorporated in 1815. It is governed by a Mayor-Council form of government. The Mayor is the chief executive and administrative officer and is elected by direct vote of the people to a four-year term. The Mayor is responsible for the day-to-day operations of the City and appoints and supervises the heads of all major City departments. The City Council is composed of six district and three at-large members, each elected for a four-year overlapping term. As the City's legislative body, the Council is responsible for acting on ordinances and resolutions which govern the City as well as for the confirmation of members to most boards and commissions. A municipal judge is elected by direct vote to a four-year term and is responsible for the enforcement of certain City ordinances and the administration of the City court system.

On a continuing basis, the City provides a full range of municipal services contemplated by its Charter and various state statutes. Governmental functions include police and fire protection, sanitation services, inspections, engineering, street maintenance, parks and recreation, economic development, and general administrative support systems. The City is also engaged in several proprietary activities and owns and operates (under a separate authority) two municipal airports, utility systems (electric, fiber, gas, water and wastewater), an auditorium / coliseum, a convention center, an exhibition center, a public transportation system and several parking facilities.

Knoxville, the county seat, is the largest incorporated municipality in Knox County (the “County”). The City is located on the Tennessee River near the geographic center of East Tennessee and has a land area of approximately 98 square miles within its corporate limits. The 2020 U.S. Census figures show the population of Knox County as being 478,971.

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KNOXVILLE UTILITIES BOARD

HISTORY AND ORGANIZATION

The Knoxville Utilities Board (the "Board" or "KUB") (under its then name of Knoxville Electric Power and Water Board) was organized on March 14, 1939. The present name of Knoxville Utilities Board was adopted in 1947. As originally established, the Board consisted of five members with terms of ten years. A Charter amendment, adopted in compliance with the home rule provisions of the Tennessee Constitution, including approval in a city-wide referendum held November 5, 1974, changed some of the provisions concerning the membership of the Board. The Board was enlarged to seven members. The term for each member was reduced to seven years with the terms being so arranged that the appointment of one member will be made each year. Members of the Board are limited to one seven-year term.

The selection procedure for a member is initiated by the Board submitting to the mayor a list of at least five nominees from which list the mayor selects one nominee to present to the City Council for confirmation or rejection. In case the City Council rejects a nominee, the nominating procedure is repeated until an appointment is made.

The Board operates the City's Water Division (purchased in 1909), the City's Electric Division (purchased in 1939), the City's Gas Division (purchased in 1945), the City's Wastewater Division (transferred to the Board by referendum in 1987), the City's Fiber Division (created 2021). The joint operation of these five city-owned utilities provides cost savings to each system by reason of joint billing and other operating economies.

KUB's organizational structure has three major functional areas including an Engineering and Operations Division, Finance Division and Administrative Division.

Except as specifically limited by the provisions of the City Charter relating to the Board, the Board is authorized to exercise all powers of the City to construct, acquire, expand, operate, manage, and control the City's electric, fiber, gas, water, and wastewater systems free from the jurisdiction, direction and control of the mayor, city council and its officers.

THE BOARD OF COMMISSIONERS

Members of the Board of Commissioners are:

ADRIENNE SIMPSON-BROWN, Chair, Commissioner. Chief United States Probation Officer of the United States District Court for the Eastern District of Tennessee.

RON FEINBAUM, Vice Chair, Commissioner. Chief Marketing Officer, PYA.

CLAUDIA CABALLERO, Commissioner. President and CEO of Centro Hispano de East Tennessee.

CYNTHIA GIBSON, Commissioner. General Counsel, Bush Brothers & Company.

KATHY HAMILTON, CPA (inactive), Commissioner.

CELESTE HERBERT, Commissioner. Attorney, Herbert, Meadows and Wall, PLLC.

DR. CRAIG PICKETT JR., Commissioner, Diversity, Equity, and Inclusion at the University of Tennessee Medical Center.

OFFICERS

GABRIEL J. BOLAS II, President and Chief Executive Officer, was appointed to this position in 2018. Mr. Bolas has been with KUB since 1995. He has a B.S. in Electric Engineering, as well as a Master of Science in Engineering/Industrial Management from the University of Tennessee.

MARK A. WALKER, Senior Vice President and Chief Financial Officer, was appointed to this position in 2011 and serves as the fifth CFO since KUB was formed. Mr. Walker currently serves as Secretary of the Board of Commissioners. He has been with KUB since 1993. Mr. Walker received a B.S. in Finance from the University of Tennessee's College of Business and received an M.B.A. in Economics from the University of Tennessee.

SUSAN F. EDWARDS, Senior Vice President and Chief Administrative Officer, was appointed to the position in 2013. She has been with KUB since 1997. She has a B.S. in Business Administration from the University of Tennessee.

JOHN W. WILLIAMS III, Senior Vice President and Chief Infrastructure and Compliance Officer, was appointed to this position in 2024. Mr. Williams has been with KUB since 1998. He has a B.S. in Business Administration from the University of Tennessee.

JAMIE DAVIS, Senior Vice President Fiber Deployment and Chief Technology Officer, was appointed to this position in 2024. Mr. Davis has been with KUB since 1996. He has a B.S. in Business Administration from Tennessee Tech, as well as a Master of Accountancy from the University of Tennessee.

TIFFANY MARTIN, Senior Vice President and Chief Customer Officer, was appointed to this position in 2024. Mrs. Martin has been with KUB since 2001. She has a B.S. in Business Administration/Marketing from the University of Tennessee.

JOHN GRESHAM, Senior Vice President and Chief Engineering and Operations Officer, was appointed to this position in 2024. Mr. Greshman has been with KUB since 1989. He has a B.S. in Electrical and Computer Engineering from the University of Tennessee.

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INSURANCE

Crime. Coverage for losses resulting from employee dishonesty, robbery, burglary, and computer fraud. Limits of coverage - $5,000,000; $250,000 retention.

Directors' and Officers' Liability. Covers KUB personnel appropriately authorized to make decisions on behalf of KUB (including but not limited to Commissioners, President and CEO, Senior Vice Presidents, Vice Presidents, and Directors) for wrongful acts. Limits of coverage – $20,000,000; $500,000 corporate deductible, $0 individual deductible.

Employment Practices Liability. Coverage for costs related to actual or alleged employment practices violations for amounts exceeding specified amount ($500,000). Limits of coverage - $10,000,000.

Fiduciary. Covers losses resulting from wrongful acts related to KUB's Pension, 401(k), OPEB Trust funds, and Medical Plan. Limits of coverage - $10,000,000; $150,000 deductible.

Environmental and Pollution Legal Liability. Environmental and Pollution coverage for covered losses resulting from a pollution or environmental event. Limits of coverage - $15,000,000.

Property Insurance. This coverage provides protection of KUB's property for fire, extended coverage, vandalism and malicious mischief, and coverage on boilers and machinery. Also included are flood and earthquake damage and mechanical failure. Limits of coverage - $250,000,000 per occurrence (subject to certain sublimits); $2,500,000 deductible per occurrence.

Travel Accident. Covers losses related to employees' business travel. Limits of coverage - $1,000,000 aggregate.

Excess Insurance for General Liability. As a governmental entity, KUB's liability is limited under the Tennessee Governmental Tort Liability Act (TCA §29-20-403). Limits of coverage - $5,000,000; $700,000 retention.

Excess Insurance for Workers' Compensation. Covers all losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - Statutory; stop loss coverage applies for aggregate losses over $5,000,000.

Employee Health Plan Stop Loss Coverage. KUB's employee health plan is self-funded. KUB has purchased stop loss insurance, which covers KUB's exposure to annual expenses for more than $600,000 per individual participant.

Cyber Security Liability. Covers losses resulting from employee dishonesty, robbery, burglary, and computer fraud. Limits of coverage - $3,000,000; $500,000 retention.

RETIREMENT PLAN

For more information concerning KUB's retirement and disability plans, please refer to the "Notes to the Financial Statements" attached hereto.

SERVICE AREA

KUB provides electric, fiber, natural gas, water, and wastewater services for all of Knoxville, and certain utilities in most of Knox County, a substantial area of Union County and a limited area of Grainger, Jefferson, Blount, Anderson, Loudon, and Sevier Counties. Knox County has a land area of about 508 square miles of which approximately 98 square miles are within the corporate limits of Knoxville. KUB is the distributor of electric power supplied by the Tennessee Valley Authority (the "TVA"), for natural gas energy purchased from various suppliers, and for water which is taken from the Tennessee River.

ELECTRIC DIVISION

The Electric Division, which was established in 1939, is owned by the City and operated by KUB. KUB purchases all its electric power requirements from TVA. During year ended June 30, 2023, sales revenues of the Electric Division totaled $650,088,811, of which $475,899,728 or 73%, was paid to TVA for the purchase of power.

The electric system includes 5,490 miles of service lines, serving a portion of seven different counties. As of June 30, 2023, KUB had 218,344 electric system customers. The Division's outstanding long-term debt as of June 30, 2023, including the current portion, totaled $369,795,000. KUB sold $79 million in electric system revenue bonds in November 2022 for the purpose of funding electric system capital improvements.

FIBER DIVISION

After gaining the required approvals from TVA, the State of Tennessee, KUB's Board, and City Council, KUB launched its new Fiber Division. Broadband services will be provided by a high-speed fiber optic network that will be owned and maintained by the Electric Division. The Fiber Division will share in the cost to build and operate the Fiber network by paying the Electric Division an annual access fee based on the year-end value of those assets and the related expenses. The Fiber Division will also pay the Electric Division an annual utilization fee based on attachments to the network. In addition to providing broadband services, the fiber network will allow KUB to implement new advanced technologies to improve the reliability of its electric system.

As a component of the Fiber Division's start-up financing plan, approved by KUB's Board and TVA, the Electric Division will provide $55 million of interdivisional loans. The first $10 million was provided in October 2021, an additional $7 million was provided in August 2022, and $13 million was provided in February 2023, all maturing in June 2030.

In fiscal year 2022, KUB began the seven-year buildout on extending fiber infrastructure to make broadband service available to electric customers. KUB commenced a pilot customer program in June 2022, and the first broadband customers began receiving service in September 2022. As of June 30, 2023, KUB had 2,331 fiber system customers.

The fiber network is an integral component of a $702 million ten-year Enhanced Grid Modernization effort for the Electric Division. The program will be funded by a combination of electric rate increases, new bonds, grant funds, and projected payments from the new Fiber

Division.

GAS DIVISION

The Gas Division has been owned by the City and operated by KUB since 1945 when it was purchased from City Service Company for $450,000. KUB purchases natural gas from multiple suppliers. During the year ended June 30, 2023, sales revenues of the Gas Division totaled $146,104,504 of which $83,361,663 or 57% was paid to natural gas suppliers and pipelines.

KUB's natural gas system has 2,570 miles of services mains. Due to an extreme cold weather event in December 2022, the natural gas system set a new record peak in demand of 169,458 dekatherms. As of June 30, 2023, KUB had 108,698 gas system customers. The Division's outstanding long-term debt as of June 30, 2023, including the current portion, totaled $78,105,000.

WATER DIVISION

In 1939, the City's Electric Power and Water Board, now KUB, was established and granted responsibility for the operation of the city-owned Water and Electric Divisions. The Water Division consists of facilities for the treatment, storage and distribution of water obtained from the Tennessee River. The Water Division distributes water throughout the City of Knoxville, a portion of East Knox County, and other small portions of Knox, Jefferson, and Sevier Counties.

During year ended June 30, 2023, the operating revenues of the Water Division totaled $68,702,749. As of June 30, 2023, KUB had 82,799 water system customers. The Division's outstanding long-term debt as of June 30, 2023, including the current portion, totaled $184,265,000.

WASTEWATER DIVISION

On November 4, 1986, voters in the City elected to transfer operation of the City's Wastewater Division to KUB effective July 1, 1987. While the Wastewater Division is a self-sustained financial entity, the operations of both the Water and Wastewater Divisions have been merged to achieve operating efficiencies. The Wastewater Division provides collection and treatment throughout the City and portions of East Knox County.

For the fiscal year ended June 30, 2023, operating revenues for the Wastewater Division totaled $108,369,907. As of June 30, 2023, KUB served 74,041 wastewater system customers. The Division's outstanding long-term debt as of June 30, 2023, including the current portion, totaled $467,345,000. KUB sold $10 million in wastewater system revenue bonds in November 2022 for the purpose of funding wastewater system capital improvements.

FEDERAL CONSENT DECREE

In February 2005, a Consent Decree was entered into federal court regarding the operation of KUB's wastewater system. Under the terms of the Consent Decree, the remediation of identified sanitary sewer overflows (SSOs) on KUB's wastewater system had to be completed by June 30, 2016. KUB completed all the requirements of the Consent Decree for the collection system two years in advance of the deadline.

The Consent Decree also required KUB to perform an evaluation of the wet weather performance and capacity of its wastewater treatment plants. In July 2007, KUB submitted a Composite Correction Plan (CCP) for its wastewater treatment plants to EPA for review. The development and filing of the CCP was a requirement of the federal order of February 2005. The CCP includes recommended improvements to KUB's Kuwahee and Fourth Creek treatment plants to address wet weather capacity issues noted in prior assessments. The EPA approved the CCP in January 2009 including a recommended schedule of plant improvements that extends beyond the expiration date of the original Consent Decree. An amendment to the Consent Decree incorporating and establishing this schedule was agreed to by all parties and was entered on June 23, 2009. The purpose of the Amendment is to allow KUB to complete a portion of work outlined in the CCP after the Consent Decree deadline of June 30, 2016. The CCP provided for a biologically enhanced high-rate clarification (the BEHRC) secondary treatment system to be installed at the Fourth Creek treatment plant and at the Kuwahee treatment plant. KUB successfully completed the installation of the BEHRC system at the Fourth Creek treatment plant in the 2018 fiscal year. The project at the Kuwahee treatment plant was completed this fiscal year. The total cost of the CCP improvements at the Fourth Creek treatment plant and Kuwahee treatment plant was approximately $120 million.

KUB's funding plan for the Consent Decree included long-term bonds and a series of rate increases phased in over the term of the order. Bond proceeds fund all types of wastewater capital projects, the majority of which are related to the Consent Decree. As of June 30, 2022, the Wastewater Division had issued $594.8 million in bonds to fund wastewater system capital improvements since the inception of the Consent Decree. The Board approved two 50 percent rate increases, which went into effect in April 2005 and January 2007. The Board also approved an 8 percent rate increase, which was effective in September 2008, two 12 percent rate increases, which were effective in April 2011 and October 2012, three 6 percent rate increases, which were effective October 2014, October 2015, and October 2016, three 5 percent rate increases, which were effective July 2017, July 2018, and July 2019, and three 4 percent rate increases, which are effective July 2022, July 2023, and July 2024. KUB anticipates additional bond issues and rate increases over the next decade to help fund wastewater capital improvements.

KUB successfully completed the first cycle of Maintenance Operation Management (MOM) requirements one year before the deadline by inspecting manholes and gravity mains, smoke testing gravity mains, performing required inspections of pump stations and the related force mains, and completing all Corrective Action Plan/Engineering Report (CAP/ER) projects. KUB initiated the second MOM cycle that continues to focus on the prevention of SSOs. As part of the Century II initiative, formally known as the PACE10 program, KUB has installed storage tanks providing 34 million gallons of wastewater storage to control wet weather overflows and rehabilitated or replaced 432 miles of collection system pipe. KUB also continues to maintain a proactive operations and maintenance plan for the wastewater collection system including inspection, grease control, and private lateral enforcement. The result of the PACE10/Century II initiative has been an 80 percent reduction in SSOs.

As of June 30, 2022, the Wastewater Division had completed its 18th full year under the Consent Decree, spending $579.8 million on capital investments to meet Consent Decree requirements.

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KUB's request for termination of the Consent Decree was submitted in January 2022 and was granted on June 16, 2022, by the applicable regulatory authorities.

CENTURY II INFRASTRUCTURE PROGRAM

Century II is KUB's proactive long-range program to improve and maintain the electric, natural gas, water, and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In June 2017, the Board adopted three annual rate increases for all KUB Divisions. The three approved electric rate increases went into effect in October 2017, October 2018, and October 2019, generating $10.9 million, $11.2 million, and $5.7 million in additional annual Electric Division revenue, respectively. The three approved gas rate increases went into effect in October 2017, October 2018, and October 2019, generating $2.2 million, $2.3 million, and $2.3 million in additional annual Gas Division revenue, respectively. The three water rate increases went into effect July 2017, July 2018, and July 2019, generating $3.1 million, $3.1 million, and $3.3 million of additional annual Water Division revenue, respectively. The three approved wastewater rate increases went into effect in July 2017, July 2018, and July 2019, generating $4.3 million, $4.2 million, and $4.5 million in additional annual Wastewater Division revenue, respectively.

In June 2021, the Board approved a 2 percent water rate increase effective in July 2021, generating $1.1 million in additional annual Water Division revenue.

In September 2021, the Board approved the next phase of electric rate increases to support both the Century II program and expanded fiber network. The first two of three approved 3 percent electric rate increases went into effect April 2022 and April 2023 generating $16.7 million and $17.4 million in additional annual Electric Division revenue, respectively. The remaining rate increase is effective April 2024 and is expected to provide an additional $18 million in annual Electric Division revenue.

In June 2022, the Board approved the next phase of water and wastewater rate increases to support the Century II program. The first of three approved 5 percent water rate increases went into effect July 2022, generating $3.4 million of additional annual Water Division revenue. The remaining two rate increases are effective July 2023 and July 2024, and are expected to provide an additional $3.4 million and $3.6 million in annual Water Division revenue, respectively. The first of three approved 4 percent wastewater rate increases went into effect July 2022, generating $3.9 million of additional annual Wastewater Division revenue. The remaining two rate increase are effective July 2023 and July 2024, and are expected to provide an additional $4 million and $4.2 million in annual Wastewater Division revenue, respectively.

KUB is currently in the process of implementing a Water Plant Redundancy initiative to ensure that high quality, reliable water service will be provided to customers over the long term. KUB maintains a single water treatment plant for its system. In lieu of building a second treatment facility to ensure capacity will be available to meet the needs of current and future water customers, KUB will invest approximately $158 million in various redundant facilities at the site of its existing Mark B. Whitaker Water Treatment Plant over a 16-year period that began in fiscal year 2017.

Construction of a new generator building with three 2,500 kW diesel generators and associated switchgear was completed at the Mark B. Whitaker Water Treatment Plant.

Knox County has committed $2.6 million in a Tennessee Department of Environment and Conservation (TDEC) non-competitive grant and $10 million in direct American Rescue Plan Act (ARPA) funding, and the City of Knoxville has committed $7.5 million in a TDEC non-competitive grant and $5 million in direct ARPA funding each for a total of $25.1 million in grant money. The grants will be used to help fund KUB's new water filter project at its Mark B. Whitaker Water Treatment Plant. The project commenced in October 2022 and is projected to be completed by May 2025.

For the fiscal year, KUB stayed on track with its overall Century II capital budget and production goals. The electric system replaced 9 miles of transmission lines and 6.9 miles of underground cable. In the natural gas system, 6.3 miles of gas steel main were replaced. In the water system, 3.2 miles of galvanized water main and 5.2 miles of cast iron water main were replaced. In the wastewater system, 9.5 miles of main were rehabilitated or replaced.

FIBER NETWORK

During fiscal year 2021, KUB developed a Fiber to the Home Business Plan for the provision of broadband services to customers within its electric system service territory. In accordance with state law and KUB's wholesale power supply contract with TVA, the Business Plan was submitted to the Office of the Comptroller of the Treasury for Tennessee and TVA for review. The Office of the Comptroller found KUB's Business Plan to be financially feasible and TVA approved the Business Plan, finding no cross-subsidization exists between the proposed Fiber Division and the Electric Division.

After gaining the required approvals from TVA, the State of Tennessee, KUB's Board, and City Council, KUB launched its new Fiber Division. Broadband services will be provided by a high-speed fiber optic network that will be owned and maintained by the Electric Division. The Fiber Division will share in the cost to build and operate the Fiber network by paying the Electric Division an annual access fee based on the year-end value of those assets and the related expenses. The Fiber Division will also pay the Electric Division an annual utilization fee based on attachments to the network. In addition to providing broadband services, the fiber network will allow KUB to implement new advanced technologies to improve the reliability of its electric system.

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In fiscal year 2022, KUB began the seven-year buildout on extending fiber infrastructure to make broadband service available to electric customers. KUB commenced a pilot customer program in June 2022, and the first broadband customers began receiving service in September 2022.

As of June 30, 2023, the Fiber Division added 2,331 customers.

The Tennessee Emergency Broadband Fund selected KUB for a grant of $15.3 million to assist in the provision of broadband access to Grainger, Jefferson, Sevier, and Union Counties.

In August 2022, the Board approved KUB's entrance into an Interlocal Cooperation Agreement with Knox County for the purpose of providing funding for KUB's Community Low-Income Internet Program for eligible low-income student households receiving KUB internet service located within the jurisdictional limits of Knox County and outside of the jurisdictional limits of the City of Knoxville. KUB's pilot program, ConnectED, provides eligible households $50 monthly toward fiber-related charges.

The fiber network is an integral component of a $702 million ten-year Enhanced Grid Modernization effort for the Electric Division. The program will be funded by a combination of electric rate increases, new bonds, grant funds, and projected payments from the new Fiber Division.

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KNOX COUNTY AND CITY OF KNOXVILLE

LOCATION

Knox County (the "County") is located in the eastern portion of the State. Founded in 1791 where the French Broad and Holston Rivers converge to form the Tennessee River, the County is located in a broad valley between the Cumberland Mountains to the northwest and the Great Smoky Mountains to the southeast. The County is the hub of the areas of East Tennessee, Southeast Kentucky, Southwest Virginia and Western North Carolina. This area encompasses over two million people. To the north, Union and Grainger Counties border the County. Jefferson and Sevier Counties make up the County's eastern border, while the County's southern border is provided by Blount and Loudon Counties. To the immediate west of the County lies Anderson County. The total land area of the County is approximately 528 square miles.

The U.S. Census Bureau's 2020 census demographic population data reported that 478,971 citizens reside within the County, which ranks it as the third largest county in Tennessee.

The City of Knoxville (the "City"), the County seat, is the largest city in East Tennessee and within the County. Also, Knoxville is the third largest city in the state and is about 50 miles west of the North Carolina state line. The City has a land area of approximately 104 square miles within its corporate limits and is located on the Tennessee River near the geographic center of East Tennessee, a highly industrialized section of the state.

The City's 2020 population was reported at 190,740. Farragut, the only other municipality in the County, has an estimated population of 23,506.

GENERAL

In 2004, Knoxville was designated a Metropolitan Statistical Area (the "MSA") with a population of 879,773 according to the 2020 U.S. Census. The MSA includes Knox (Knoxville and Farragut), Anderson (Oak Ridge and Clinton), Blount (Maryville and Alcoa), Campbell (LaFollette), Grainger (Rutledge), Loudon (Loudon), Morgan (Wartburg), Roane (Harriman) and Union (Maynardville) Counties.

The City is also part of the Knoxville-Sevierville-Harriman Combined Statistical Area (the "CSA"). The CSA's population is 1,156,861 according to the 2020 U.S. Census. The CSA includes Roane, Anderson, Blount, Knox, Loudon, Union, Grainger, Hamblen, Jefferson, Campbell, Cocke, and Sevier Counties.

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The following table shows past and current population figures for the City and County:

Population Growth

	1980	1990	2000	2010	2020	2022*
Knoxville	175,045	165,121	173,890	178,874	190,740	195,889
Knox County	319,694	335,749	382,032	432,226	478,971	494,574

* 2022 Estimates from U.S. Census Bureau
Source: U.S. Census Bureau.

The only other municipality within the County, the Town of Farragut, has an estimated 2022 population of approximately 24,817 persons.

SOCIOECONOMIC DATA

The following socioeconomic factors indicate the standard of living in the County, as compared to that of the Nation and State:

Social and Economic Characteristics

	National	Tennessee	Knox County	Knoxville	Farragut
Median Value Owner Occupied Housing	$281,900	$232,100	$248,200	$184,200	$463,300
% High School Graduates or Higher Persons 25 Years Old and Older	89.10%	89.30%	92.3%	90.2%	98.5%
% Persons with Income Below Poverty Level	11.50%	13.30%	11.6%	20.7%	2.4%
Median Household Income	$75,149	$64,035	$68,580	$48,309	$135,725

Source: U.S. Census Bureau State & County QuickFacts - 2022.

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Per Capita Personal Income

	2018	**2019**	**2020**	**2021**	**2022**
National	$53,309	$55,547	$59,153	$64,430	$65,470
Tennessee	$46,452	$48,889	$51,928	$56,970	$58,292
Knox County	**$49,770**	**$52,241**	**$55,991**	**$62,028**	**$63,494**
Index vs. National	93	94	95	96	97
Index vs. State	107	107	108	109	109
Knoxville MSA	**$45,883**	**$48,406**	**$51,776**	**$57,057**	**$58,239**
Index vs. National	86	87	88	89	89
Index vs. State	99	99	100	100	100
Knoxville-Sevierville-Harriman CSA	**$43,783**	**$46,181**	**$49,354**	**$54,597**	**$55,634**
Index vs. National	82	83	83	85	85
Index vs. State	94	94	95	96	95

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

TRANSPORTATION

The area has transportation facilities by rail, air, river and highway. The CSX, Norfolk Southern, and KXHR-Gulf & Ohio Railroads have terminals and stops in the County, with 270 miles of lines radiating in nine directions. Pellissippi Parkway (I-140) provides a direct link to Oak Ridge from I-40 and I-75 in Knox County. Major highways serving the County include U.S. Highways 44, 129, 321, 411 and 441 as well as State Routes 33, 75 and 95.

McGhee Tyson Airport. The McGhee Tyson Airport is the principal commercial airport in East Tennessee, serving the commercial airline industry, air cargo, military aviation and general aviation. With parallel 9,000 feet runways, McGhee Tyson Airport can accommodate any size aircraft. The Airport is located within the city limits of Alcoa, which is 12 miles south of downtown Knoxville. The airport occupies more than 2,000 acres of land with space for additional air cargo facilities or economic development. This facility is owned and managed by the Metropolitan Knoxville Airport Authority.

According to a study by the University of Tennessee's Center for Transportation Research, the airport contributes over $1 billion to the local economy (including Anderson, Blount, Knox, Loudon and Sevier Counties) every year. The report examined the employment, business, and tax impacts of the airport, including the Downtown Island Airport.

The Metropolitan Knoxville Airport Authority (MKAA) was established in 1978 as an independent nonprofit agency to own and operate McGhee Tyson Airport and Downtown Island Airport. The Authority's nine-member Board of Commissioners is appointed by the Mayor of Knoxville and confirmed by City Council. This Board determines the policies for the current

Airport Authority staff of 150 employees in six departments. The Board appoints a President who serves as the chief administrator and executive officer. All of the revenues are generated by user fees and rental income so no taxpayer dollars are used to support airport operations.

Two air cargo services provide daily service. In addition, six passenger airlines carry air cargo on most flights. More than 44,206 tons of airfreight annually pass through its cargo facilities. Federal Express and United Parcel Service are the main couriers.

McGhee Tyson Airport has several major airlines serving 28 non-stop destinations including Atlanta, Chicago, Dallas/Ft. Worth, Denver, New York, Orlando and Washington D.C. With more than 120 arrivals and departures each day and more than 4,000 seats available, McGhee Tyson Airport is one of the most convenient and accessible regional airports in the nation.

The airport is served by two low-fare carriers: Allegiant Air and Frontier Airlines. Allegiant Travel Company is focused on linking travelers in small cities to world-class leisure destinations. Through its subsidiary, Allegiant Air, the company operates a low-cost, high-efficiency, all-jet passenger airline offering air travel both on a stand-alone basis and bundled with hotel rooms, rental cars and other travel related services. Frontier Airlines started flights in the summer of 2011 from Knoxville to its hub in Denver, Colorado.

McGhee Tyson is served by major and regional carriers including:

Major Airlines:		***Regional Carriers:***	
Allegiant Air	Delta Airlines	American Eagle	United Express
American Airlines	Frontier Airlines		
United			

Source: Metropolitan Knoxville Airport Authority.

These airlines connect passengers with service to several hub airports across the nation on more than 100 flights daily.

McGhee Tyson Airport

Total Year	Commercial Passengers	Total Air Cargo in Tons
2013	1,676,374	84,029,942
2014	1,738,133	74,115,672
2015	1,747,472	77,395,631
2016	1,827,989	84,831,987
2017	1,988,626	82,884,887
2018	2,221,137	81,363,507
2019	2,572,822	84,678,684
2020	1,161,447	84,151,936
2021	1,995,197	89,230,552
2022	2,343,910	85,823,544

Source: Metropolitan Knoxville Airport Authority, and Knoxville-Knox County Planning "*2022 Facts and Figures*".

TACAir is McGhee Tyson Airport's general aviation services provider. In addition to providing fuel and services to commercial carriers, they also accommodate the general aviation industry, which includes corporate aviation, charter flights, flight schools and people who fly as a hobby.

The Tennessee Air National Guard's 134th Air Refueling Group operates 10 aircraft at McGhee Tyson Airport. The Guard's KC-135E tankers provide refueling to the country's military aircraft. In addition, the Army Aviation Support Facility, the 110th and 119th Tactical Control Squadrons and the 228th Combat Communications Squadron operate on the base.

Downtown Island Home Airport. Knoxville's Downtown Island Home Airport, located five minutes from downtown, serves as another home base for smaller and privately owned airplanes. The Island Home Airport is a 150-acre general aviation facility with a 3,500-foot runway. It is home to nearly 140 private and corporate aircraft, with 24 hours a day service available.

Waterways. Fifteen miles away is the head of the Tennessee River navigation channel in Knoxville. This river is part of the Interconnected Inland Water System that links Knoxville with 21 states, the Mississippi River and the Great Lakes. Linkages may be made to the entire inland waterway system, allowing shipments to be made by water to Houston, Tampa, Pittsburgh, Minneapolis and Little Rock. Cargo through the Fort Loudoun Lock was over 637,000 tons in 2022.

Six active river terminals handle barge shipments throughout the area. The Tennessee-Tombigbee Waterway links East Tennessee with 13 other states and the Gulf of Mexico. This 234-mile canal connects 16,000 miles of waterways throughout Tennessee, Mississippi and Alabama leading to the Port of Mobile and the Gulf of Mexico. This Waterway shortens the shipping between Tennessee and the Gulf of Mexico by 882 miles and enables East Tennessee products to arrive at their Gulf destination from eight to nine days earlier. Barge shipping has always been a popular alternative to rail in East Tennessee because of the existence of the Inland Water System.

Knoxville has a Foreign Trade Zone and is an inland Port of Entry with a U.S. Customs Office. In 1988, Knoxville was given its Foreign Trade Zone designation by the U.S. Department of Commerce. This designation allows manufacturers to ship foreign raw materials and components to parts of Knoxville and store them duty free in Knoxville until used. In May 1991, the Foreign Trade Zone was activated.

EDUCATION

Knox County School System. The County operates 91 schools. Included are five magnet schools offering enhanced arts and science curriculum and a Science, Technology, Engineering, and Mathematics (STEM) Academy. Knox County is also home to Tennessee School for the Deaf, serving toddlers through age 22 in both residential and day programs. The district enrolls over 58,800 students and employs over 4,000 teachers. In addition to public education, there are 35 private and parochial schools offering elementary and secondary instruction in Knox County.

Post-secondary education is available at ten public and private four-year institutions in Knox County and the surrounding area. The University of Tennessee's main campus is in Knoxville. Pellissippi State Technical Community College and Roane State Community College offer two-year programs for technical and associate degrees along with two other vocational/technical institutions. There are four business colleges located in the area.

Source: Tennessee Department of Education and Knox Metropolitan Planning Commission.

University of Tennessee, Knoxville (the "UT" or "UTK"). UTK is one of the oldest land-grant universities in the nation. There are over 294 buildings on a 910-acre campus. Blount College, UTK's forerunner, was established in Knoxville in 1794, two years before Tennessee became a state. With a fall 2022 enrollment of 33,805 students and over 1,600 full-time instructional faculty, UTK is the largest campus in the University of Tennessee System (the "System").

The System is a statewide institution governed by a 26-member Board of Trustees appointed by the governor of Tennessee. Institutions of the System are UTK, UT Health Science Center in Memphis, UT Chattanooga, UT Martin, UT Space Institute in Tullahoma, and UT Institute for Public Service in Knoxville. In addition to the primary campus, the Agricultural Campus houses the UT Institute of Agriculture, a statewide administrative unit that includes the College of Veterinary Medicine, the College of Agricultural Sciences and Natural Resources, the Agricultural Extension Service and the Agricultural Experiment Stations.

UTK is a major research institution, attracting more than $130 million in externally sponsored programs annually. The Division of Aeromedical Services is one of the country's most respected and comprehensive aeromedical programs. UTK is a co-manager with UT-Battelle, LLC of the nearby Oak Ridge National Lab (the "ORNL"). UT-Battelle, LLC was established in 2000 as a private not-for-profit company for the sole purpose of managing and operating the ORNL for the U.S. Department of Energy (the "DOE"). Formed as a 50-50 limited liability partnership between the UTK and Battelle Memorial Institute, UT-Battelle, LLC is the legal entity responsible for delivering the DOE's research mission at ORNL. Faculty and students experience unparalleled research and learning opportunities at the DOE's largest science and energy lab.

UTK conducts externally-funded research totaling more than $300 million annually, including some $17 million annually in research sponsored by ORNL. Areas of joint research with ORNL include the Bioenergy Science Center's work on cellulosic ethanol; the Center for Computational Sciences' partnership with the National Science Foundation; and the Science Alliance, with divisions in biological, chemical, physical, and mathematical/computer science.

The System and its statewide campuses bring in over $2 billion in annual income to the State and support more than 50,000 jobs. UTK also generates over $200 million in state and local tax revenue per year. Students and visitors attending athletic events at each campus spent approximately $348 million, accounting for $147.3 million in income and more than 4,800 jobs.

Source: University of Tennessee, UT-Battelle and the News Sentinel.

Knox County Center for Health Sciences. In 2022, Roane State Community College, the Tennessee College of Applied Technology - Knoxville and Covenant Health built a new healthcare training facility to East Tennessee. The 16,000-square-foot campus was an estimated $75 million investment. The facility was built in West Knoxville on land gifted by Covenant Health, the release stated. The parcel is located near Parkwest Medical Center. See "RECENT DEVELOPMENTS".

Source: The Oak Ridger.

Johnson University – Tennessee. Johnson University-Tennessee is a private, coeducational institution of higher learning offering associate, bachelor's, and master's degrees about 12 miles from Knoxville. Founded in 1893, Johnson University-Tennessee is the second oldest continuing university in America. The purpose of the University is to educate students for specialized Christian ministries with emphasis on the preaching ministry. In the fall of 2022, total enrollment was 967 for the 350-acre campus.

Source: Johnson University.

Oak Ridge Associated Universities (the "ORAU"). ORAU is a consortium of 121 universities and a contractor for the DOE located in Oak Ridge, Tennessee. Founded in 1946, ORAU works with its member institutions that include UTK and its satellite campuses. The purposes are to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members. Through the Oak Ridge Institute for Science and Education (the "ORISE"), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, and faculty enjoy access to a multitude of opportunities for study and research. A pioneer in technology transfer with historic contributions in nuclear medicine and health physics, ORAU today conducts specialized training in nuclear related areas of energy, health and the environment.

Source: Oak Ridge Associated Universities.

Pellissippi State Community College (the "PSCC"). Since its founding in 1974 as State Technical Institute at Knoxville, PSCC has expanded the teaching of technology, the use of technology in instruction, and the transfer of technology to local business and industry in support of regional economic development. Enrollment for fall 2022 was 8,506. PSCC continues to support and develop career/technical associate's degrees and institutional certificates, university parallel associate's degree programs, and continuing education opportunities for the citizens of Knox, Blount, and surrounding counties. PSCC has released a 2018 report showing the school has added more than $346 million annually into the Knoxville-area economy over the preceding 5 years.

Five campuses make up PSCC. The main campus is the Hardin Valley Campus in west Knoxville. The Division Street Campus and the Magnolia Avenue Campus, which opened in 2000, are also in Knoxville. A $22 million campus was completed in late 2010 in Blount County. The Strawberry Plains campus began offering coursework in August 2012.

Source: Pellissippi State Community College and TN Higher Education Commission.

Roane State Community College (the "RSCC"). RSCC, which began operation in 1971 in Harriman, Tennessee, is a two-year higher education institution which serves a fifteen county area. Fall 2022 enrollment was 4,704 students. Designed for students who plan to transfer to senior institutions, RSCC academic transfer curricula include two years of instruction in the humanities, mathematics, natural sciences, and social sciences.

RSCC's 138-acre main campus is centrally located in Roane County where a wide variety of programs are offered. RSCC has nine locations across East Tennessee – the Roane County flagship campus; an Oak Ridge campus; campuses in Campbell, Cumberland, Fentress, Loudon, Morgan, and Scott Counties; and a center for health science education in west Knoxville.

Source: Roane State Community College.

South College. South College is a private institution that has been a part of Knoxville since 1882. South College has 5 campuses in Tennessee, Georgia and North Carolina. Throughout its history, South College has endeavored to meet the demands of the East Tennessee business community. South College offers a Master's of Health Science in Physician Assistant Studies and baccalaureate degree programs including Pharmaceutical Science (Pre-Pharmacy), Nursing, Health Science (Radiography/Nuclear Medicine), Elementary Education, Business Administration, and Legal Studies. Current associate degree programs include Radiography, Physical Therapist Assistant, Paralegal Studies, Business Administration, Accounting, and Medical Assisting. Nuclear Medicine and Post-Baccalaureate Program (Elementary Education K-6) are the certificate programs offered.

Source: South College.

Tennessee College of Applied Technology-Knoxville (the "TCAT-Knoxville"). TCAT-Knoxville is part of a statewide system of 27 vocational-technical schools. TCAT-Knoxville meets a Tennessee mandate that no resident is more than 50 miles from a vocational-technical shop. TCAT-Knoxville's primary purpose is to meet the occupational and technical training needs of the citizens including employees of existing and prospective businesses and industries in the region. TCAT-Knoxville serves the central east region of the state including Knox and Blount Counties. TCAT-Knoxville began operations in 1966, and the main campus is located in Knox County. Fall 2021 enrollment was 2,061 students.

Source: Tennessee College of Applied Technology-Knoxville.

Tusculum College Graduate and Professional Studies Program (the "Tusculum"). Tusculum maintains offices in Knoxville for its Graduate and Professional Studies Program, in addition to other class sites across East Tennessee. Located in Greeneville, Tusculum is a private college affiliated with the Presbyterian Church. Tusculum was founded in 1794, making it the oldest college in Tennessee and the twenty-eighth oldest college in the nation. Fall 2023 enrollment was 1,200. The wooded 140-acre Tusculum campus has eight buildings and the Tusculum Arch that are listed on the National Register of Historic Places. Tusculum is one of three colleges in the country to operate on a focused calendar, in which courses are scheduled one at a time.

Source: Tusculum College.

MEDICAL FACILITIES

Knoxville serves as a regional medical center for 27 counties in East Tennessee and Kentucky. The available technology, the specialized institutions, and a reputation for quality health care bring people into Knoxville from a 200-mile radius. There are 2,433 beds in six acute care hospitals in the County, including three healthcare systems (Covenant Health Care, Tennova Health System and University of Tennessee). There is also a Children's Hospital with 152 beds.

Source: Knox Metropolitan Planning Commission and the News Sentinel, Covenant Health

Covenant Health is a comprehensive health system established in 1996 by the consolidation of Fort Sanders Health System, Knoxville, Tennessee, and MMC HealthCare System, parent company of Methodist Medical Center of Oak Ridge, Tennessee. Covenant Health, headquartered in Knoxville, has nine acute-care hospitals plus inpatient and outpatient cancer care, behavioral and rehabilitation centers, home health, outpatient surgery and diagnostic centers, physician offices and more. More than 11,000 people are employed by Covenant Health and its member organizations, with nearly 1,500 affiliated physicians.

Covenant Health includes 30 member organizations, nine of which are acute care hospitals in East Tennessee: Fort Sanders Regional Medical Center and Parkwest Medical Center in Knoxville, Methodist Medical Center in Oak Ridge, Fort Loudon Medical Center in Lenoir City, LeConte Medical Center in Sevierville, Roane Medical Center in Harriman, Morristown-Hamblen Healthcare System in Morristown, Cumberland Medical Center in Crossville and Claiborne Medical Center in Tazewell. It also includes Peninsula Hospital, a psychiatric hospital in East Tennessee's Blount County. Covenant Health also operates numerous other healthcare facilities for outpatient clinics, cancer centers, breast centers, behavioral health, rehabilitation, home health, and weight management facilities.

Fort Sanders Regional Medical Center (the "Fort Sanders"). Part of Covenant Health, Fort Sanders is a 590-bed full-service acute care hospital with more than 350 doctors located in the Fort Sanders community of downtown Knoxville. The hospital was built in 1919 and has about 2,100 employees. In 2013, Fort Sanders received national recognition as a comprehensive stroke center; they are the second Tennessee hospital to receive this award. This certification from the Joint Commission on Accreditation of Healthcare Organizations means that the medical center is recognized as having the infrastructure, staff, and training to receive and treat complex cases. Fort Sanders is a regional referral center for neurosurgery, neurological disorders, orthopedics, oncology, cardiology, obstetrics and rehabilitation medicine. Fort Sanders offers a variety of specialized services such as a 24-hour Chest Pain Center, one-day surgery, electrodiagnostics, a Sleep Disorders Center, a Diabetes Center, prenatal education, and sports medicine.

Parkwest Medical Center (the "Parkwest"). Part of Covenant Health, Parkwest is the region's only Top 100 Heart Hospital. Parkwest has 492 beds with over 600 doctors on staff. The total employment is about 1,300. The campus includes one of the area's first all-digital catheterization laboratories and a comprehensive breast center with a multidisciplinary approach to women's health. Peninsula Behavioral Health is a division of Parkwest Medical. See "RECENT DEVELOPMENTS" for more information on a three year renovation that began in 2018.

Tennova Healthcare

Tennova Healthcare is a for-profit healthcare system and has several acute care hospitals in Knoxville and the surrounding area and is owned by Community Health Systems, Inc. (the "CHS"). Tennova Healthcare employs over 2,900 people. CHS is one of the nation's leading operators of general acute care hospitals based in Franklin, TN. The organization's affiliates own, operate, or lease 81 hospitals in 16 states with approximately 17,000 licensed beds. There are seven CHS hospitals in Tennessee.

North Knoxville Medical Center. Part of Tennova Healthcare, North Knoxville Medical Center opened in the fall of 2007 in north Knox County. The full-service facility has 116 beds. The North Knoxville Medical Center expanded its cancer care services and underwent renovations to add cardiac catheterization laboratories and operating rooms so it can begin taking cardiac care and orthopedic, general, and vascular surgeries originally performed at Physicians Regional. This was completed in 2020.

Turkey Creek Medical Center (the "Turkey Creek"). Part of Tennova Healthcare, Turkey Creek Medical Center has 131 beds in west Knoxville. Turkey Creek has a 24-hour, full-service, all-digital campus, with a completely staffed emergency department that cares for men, women, and children of all ages. Every patient room is a private room. An intensive care unit, state-of-the-art surgical suites, imaging services, rehabilitation services, and specialized staff and physicians bring groundbreaking, comprehensive treatment. Turkey Creek converted its existing obstetrical beds to general medical/surgical beds and added operating rooms and intensive care unit beds to accommodate more general and cardiovascular surgeries originally performed at Physicians Regional. This was completed in 2020.

East Tennessee Children's Hospital (the "Children's")

Located in Knoxville, Children's is a private, independent, not-for-profit pediatric medical center. There are 152 beds with doctors on staff, representing 32 pediatric subspecialties. Over 1,800 people are employed at the hospital. Children's Hospital originally opened in 1937 and is the only Comprehensive Regional Pediatric Center in East Tennessee certified by the state. Pediatric services offered include ICUs, emergency services, outpatient clinics for oncology, hematology, diabetes, cystic fibrosis, and a rehabilitation center.

University Health System, Inc. (the "UHS")

UHS is a regional health system that is comprised of the UT Medical Center, the UT Heart Hospital, UT Health Network, and various partnerships and joint ventures with physicians and healthcare companies. UHS is affiliated with the University of Tennessee Graduate School of Medicine and numerous regional hospitals and physician organizations. UHS supports and collaborates with the UT Graduate School of Medicine and other academic endeavors as part of its commitment to excellence in education and research.

University of Tennessee Medical Center (the "UT Medical Center"). The UT Medical Center in Knoxville is an acute care teaching hospital with 710 beds and more than 800 doctors. The UT Medical Center employs 5,290 people. Designated as the region's Level I adult and pediatric Trauma Center by the State of Tennessee, UT Medical Center provides the highest level of programs and emergency services. Critically ill patients are transported to UT Medical Center via one of LIFESTAR'S two helicopters.

Special care units such as cardiac care, open heart, medical intensive care, neuro-respiratory, and trauma surgical intensive care are available for patients who require maximum medical attention. A Level IV Intensive Care Nursery, a Pediatric Intensive Care Unit, a newborn nursery and many other programs comprising Children's Health Services enable UT Medical Center to provide the region's most comprehensive medical services for infants and children. UT Medical Center also serves as the Regional Perinatal Center.

Source: Covenant Health, Tennova Healthcare, East TN Children's Hospital, University Health System and the News Sentinel.

SCIENCE AND ENERGY

The DOE and Oak Ridge

Oak Ridge History

The City of Oak Ridge has a unique history. This area was selected by the United States government in 1942 as the location for its production plants for uranium-235, a component of the first atomic bomb. The original town site was built during World War II to house and furnish necessary facilities for the employees of the uranium plants. This project (known as the "Manhattan Project") was transferred to the Atomic Energy Commission in 1947, and the community was operated by contractors under the control of the Atomic Energy Commission. In 1955, the Atomic Energy Commission sold the homes and land to the residents. In 1959, the residents voted in favor of incorporation under a modified city manager-council form of government.

Since the 1940's, the nuclear industry has been the largest employer for the City of Oak Ridge and Roane and Anderson Counties when a weapons fabrication division was built by the U.S. Corps of Engineers. As part of the secret World War II "Manhattan Project", the early task of the plant was the separation of fissionable uranium-235 from the more stable uranium-238 by an electro-magnetic process to be utilized in the world's first atomic bomb. Some 80,000 workers were hired for emergency construction of the laboratories and offices on the 56,000-acre site. At the peak of production during the war, 23,000 employees kept the separation units working at a cost of $500 million for the entire project.

Today, the DOE occupies approximately 33,000 acres and almost 1,200 buildings within the Oak Ridge city limits, and employs over 13,000 in engineering, skilled and semi-skilled crafts, technical and administrative support. Since October 1999, DOE has contracted with the University of Tennessee and Battelle to manage the ORNL. UT-Battelle began management of the lab on June 1, 2000. Consolidated Nuclear Security, a Bechtel-led contractor team, took over management of the Y-12 nuclear weapons plant effective July 1, 2014 (BWXT, Inc. was the appointed contractor for the Y-12 Plant). DOE awarded its environmental cleanup contract to Bechtel Jacobs from 1997 to 2011. URS-CH2M Oak Ridge took over the cleanup contract in 2011.

Oak Ridge Research

The extensive energy research and development conducted by private and public agencies make Oak Ridge one of the world’s great research centers. The presence of the University of Tennessee, the ORNL, Oak Ridge Associated Universities and the Tennessee Valley Authority (the “TVA”) makes Oak Ridge a prime location for research facilities, as well as technology-based and conventional manufacturing industries. Science is a worldwide business, and the facilities at DOE in Oak Ridge have attracted a large number of technical people and their families. ORNL campus also houses visiting scientists and researchers that come to work at the world-class facility in an $8.9 million Guest House (built in 2010) with 47 units.

<u>BioEnergy Sciences Center (the “BESC”)</u>. BESC is one of three Bioenergy Research Centers funded by DOE’s Office of Science. It opened in ORNL in 2007. BESC works to accelerate research in the development of cellulosic ethanol and other biofuels, and make biofuel production cost competitive on a national scale. The new site received $135 million in federal funding. The University of Tennessee serves as one of the academic partners, providing specialized instrumentation, plant breeding technologies and new microbe discovery. Energy crops like switchgrass, which can be grown on marginal crop land, can produce affordable, domestic renewable fuel without raising food or feed costs. The BESC is dedicated to studying how to economically break down the cellulose in those sources to convert it into usable sugars for ethanol production.

<u>Oak Ridge National Lab.</u> ORNL is a multi-program science and technology laboratory managed for the DOE by UT-Battelle, LLC. Scientists and engineers at ORNL conduct basic and applied research and development to create scientific knowledge and technological solutions that

strengthen the nation's leadership in key areas of science; increase the availability of clean, abundant energy; restore and protect the environment; and contribute to national security. ORNL also performs other work for DOE, including isotope production, information management, and technical program management, and provides research and technical assistance to other organizations. The laboratory is a program of DOE's Oak Ridge Field Office.

ORNL also boasts having the Spallation Neutron Source accelerator project (described below) and several supercomputers for scientific purposes. These unique projects bring about 3,000 scientists to visit each year for varying periods of time, and numerous small industries to be spun off from the experiments and findings. Each job created is expected to have an impact on housing, retail banking, automobile and transportation, hotels, restaurants, hospitals, and business services.

The world's most powerful neutron science project is the *Spallation Neutron Source* (the "SNS") at ORNL. The giant research complex, spread across 75 acres on Chestnut Ridge a couple of miles from the main ORNL campus, is the world's top source of neutrons for experiments. The SNS is an accelerator-based neutron source built in Roane County by DOE. The SNS provides the most intense pulsed neutron beams in the world for scientific research and industrial development. At a total cost of $1.4 billion, construction began in 1999 and was completed in 2006. In 2009, SNS reached full power when it set the world record in producing beam power three times more powerful than the previous world record. More neutrons are produced with a higher beam power.

Neutron-scattering research has a lot to do with everyday lives. For example, things like jets; credit cards; pocket calculators; compact discs, computer disks, and magnetic recording tapes; shatter-proof windshields; adjustable seats; and satellite weather information for forecasts have all been improved by neutron-scattering research. Neutron research also helps researchers improve materials used in high-temperature superconductors, powerful lightweight magnets, aluminum bridge decks, and stronger, lighter plastic products. The medical field will also be impacted with new drugs and medicines expected from experiments at the SNS.

ORNL is also completing a series of upgrades at the *High Flux Isotope Reactor*. This ORNL facility is sometimes referred to as the lab's "other" billion-dollar machine. It is the world's most powerful research reactor, and it is used to perform experiments similar to - but different from - those to be done at the Spallation Neutron Source.

The DOE selected ORNL in 2020 to lead a collaboration, the *Quantum Science Center*, charged with developing quantum technologies that will usher in a new era of innovation. The center supports the National Quantum Initiative Act of 2018 by enhancing America's national security and retaining its global leadership in scientific research and development - goals that require broad expertise and capabilities.

The Quantum Science Center will receive $115 million over five years from DOE's Office of Science to realize the potential of topological quantum materials for manipulating, transferring and storing quantum information. Quantum materials exhibit exotic properties under specific conditions, and the center will transition this knowledge to the private sector for use in practical applications such as quantum computers and sensors.

The United States aims to invest $765 million over the next five years in a dozen scientific centers dedicated to the study of artificial intelligence (AI) and quantum information science (QIS), such as quantum computing. Private tech companies such as IBM, Google, and Intel will also contribute to the twin pushes, which call for a total of more than $1 billion in research investment.

ORNL's *Supercomputers* are housed in a 170,000-square-foot facility that includes over 400 staff and 40,000 square feet of space for computer systems and data storage. The facility will house or has housed several supercomputers - the new exascale computer “Frontier” currently undergoing installation as of 2022, the “Summit”, the “Kraken”, the soon-to-be replaced “Titan”, and the dismantled “Jaguar”.

“Frontier” is expected to be ranked as the world’s fastest supercomputer when it becomes fully operational in 2023. “Summit” was the third computer at Oak Ridge to be ranked as the fastest supercomputer in the world in 2018. The “Titan” was the world’s fastest at its November 2012 debut, and the “Jaguar” while in operation held the title twice in November 2009 and June 2010. The machines work on breakthrough discoveries in biology, fusion energy, climate prediction, nanoscience and many other fields that will fundamentally change both science and its impact across society.

The first-of-its-kind system, the “Frontier” exascale supercomputer, is capable of calculating one quintillion operations per second. This will make “Frontier” 50 times faster than other supercomputers, including ORNL’s “Summit”. By solving calculations up to 50 times faster than other top supercomputers - 1,018 calculations per second – “Frontier” will enable researchers to deliver breakthroughs in scientific discovery, energy assurance, economic competitiveness, and national security.

This second-generation artificial intelligence system, “Frontier”, will replace the “Titan” at ORNL. Built by Cray Inc., the “Frontier” system is valued in excess of $600 million and delivery was completed in late 2021. Installation and integration of “Frontier” will be available to researchers for open science later in 2022 and will be in full user operations on Jan. 1, 2023. Due to the system’s advanced nature, the largest, most comprehensive upgrade in the history of ORNL had to be completed to the power and cooling infrastructures of the facility.

The “Summit” supercomputer cost an estimated $200 million to build and is used for a wide range of scientific applications including combustion science, climate change, energy storage and nuclear power. “Summit” also serves as an artificial intelligence and deep learning computer, capable of analyzing massive amounts of data and automating critical steps of the discovery process.

The “Summit” was operational in 2018 and is eight times faster than the “Titan”. “Summit” is able to make over 140 quadrillion calculations per second, measured as 140 petaflops. Due to all the energy and heat produced by the calculations, “Summit” produces more heat per square centimeter than tiles on the bottom of a spaceship re-entering Earth's atmosphere. Therefore, “Summit” is cooled by water pumped through plates that sit on top of the computer's chips. In all, “Summit” uses up to 15 megawatts, equivalent to the power 9,000 to 18,000 homes would consume, depending on the time of day. At peak, “Titan” uses about 9 megawatts.

The supercomputer “Titan” will be replaced by the “Frontier” in 2023. The National Oceanic and Atmospheric Administration (the “NOAA”) sponsored the “Titan”, funded with Recovery Act money. NOAA awarded Cray and ORNL a $47 million contract to provide the “Titan” to work on climate research, energy, efficient engines and materials science. The “Titan” was online in late 2012 after several years of development to replace the “Jaguar” supercomputer at ORNL. When the “Titan” was listed as the world’s fastest computer in late 2012, it marked the fourth time a computer from ORNL has achieved that distinction since 1953. “Titan” was capable of a peak performance of about 27-petaflops. That speed is about 10 times the capability of the first “Jaguar”, which at one time was also the world's fastest computer. The total cost of the “Titan” was estimated to be about $100 million, but about $20 million was saved by reusing much of the “Jaguar” structure.

The DOE and the National Science Foundation (the “NSF”) sponsor the supercomputer “Kraken” which came online in 2009. The NSF awarded the University of Tennessee (the “UT”), ORNL and other institutions a $65 million grant to build “Kraken” to work on a range of scientific challenges, such as climate change and new medicines. UT’s “Kraken” is housed with the ORNL’s “Titan”.

Through interagency agreements, DOE's Oak Ridge facilities have launched a highly successful "work for others" program. Local firms contract with numerous federal agencies to provide services and products. The value of these contracts have grown from approximately $50 million in 1983 to $270 million in recent years.

<u>University of Tennessee (the “UT”).</u> The University of Tennessee's flagship campus in Knoxville is home to a wide array of vigorous programs doing research on issues vital to the community, the state, the nation, and the world. The university has collaborative relationships with public and private agencies including ORNL, Battelle Memorial Institute (forming UT-Battelle), St. Jude Children's Research Hospital, the Memphis Bioworks Foundation, and the Boston-Baskin Cancer group (forming UT Cancer Institute).

Cherokee Campus at UT. The Cherokee Farm concept came into being in 2001 as a way to further research by UT and ORNL in computational sciences, climate and environment, advanced materials, biomedical sciences, and renewable energy. UT and ORNL started development of the campus with $87 million in capital investments and incentives. This is part of a UT goal to join the ranks of the nation’s top 25 public research universities. The former site of UT’s 188-acre dairy operation was chosen and development of 77 acres of the property began in 2010. The farm is less than a mile from the Knoxville campus.

The first building, the $47 million, 142,000-square-foot Joint Institute for Advanced Materials facility, opened in early 2016. The rest of the campus will include 16 building sites. These sites, ranging up to 2 acres, should allow a total of 1.6 million square feet of development. Moving research to the Cherokee campus would free up buildings on the main campus, which could be renovated and used for additional administration and instructional space.

The Joint Institute for Advanced Materials building will house seven high-powered microscopes that researchers from UT, ORNL and elsewhere will use in screening and analyzing materials. The work is oriented toward producing strong, lightweight materials for the automotive and aerospace industries. Researchers will also be able to make use of supercomputers at ORNL.

The first private tenant at Cherokee Farm was announced in May 2016. Civil and Environmental Consultants, Inc. (CEC) is recognized for providing innovative design solutions and integrated expertise in the primary practice areas of civil engineering, ecological sciences, environmental engineering and sciences, survey, waste management and water resources.

National Institute for Mathematical and Biological Synthesis (NIMBioS) is a first-of-its-kind institute dedicated to combining mathematics and biology to solve problems in both scientific fields. The center was funded by a 2008 $16 million award from the National Science Foundation and is located at the University of Tennessee. A unique aspect of NIMBioS will be its partnership with the Great Smoky Mountains National Park. The park and its Twin Creeks Science Center play a key role in the institute's work, with the park serving as a testing ground for many of the ideas that come from NIMBioS. Partners in NIMBioS include the US Department of Agriculture and the US Department of Homeland Security, IBM and ESRI, a developer of software and technology related to geographic information systems. It draws over 600 researchers each year to Knoxville.

Knoxville Community Development Corporation. Oak Ridge National Lab and the DOE with work with the Knoxville Community Development Corporation on a $5 million project to combat the climate crisis in helping reduce home energy costs. It's part of the DOE's Advanced Building Construction Initiative. Knoxville's retrofit project was one of seven awardees chosen nationwide. The test will consist of the exteriors of a dozen of single-family housing units that will be retrofitted with a 3D printed shell to fit around the existing buildings. The test will help advance the technology, transform the look of the building's exterior and save residents in energy costs. If the test is successful, the families living in these homes will see 75% reductions in home energy use and achieve decarbonization goals.

Locally, the project is part of Knoxville Community Development Corporation's Transform Western Plan in the Western Heights neighborhood. Part of the plan involves renovating eight to twelve buildings in the aging section of Western Heights. The panels are made of fiberglass and foam insulation and have an integrated heat pump system. The pumps are tied into the home HVAC system to maximize energy efficiency. The installation is expected to be finished in four years. Four buildings are expected to be done by the end of 2023. The final piece of the project will involve retrofitting the exterior of the Boys & Girls Clubs building in Western Heights.

Source: City of Oak Ridge, ORNL, Y-12 National Security Complex and the Knoxville News Sentinel.

Oak Ridge Nuclear

Integrated Facilities Disposition Program. The DOE has approved a massive $18 billion Oak Ridge cleanup campaign. The cleanup program would demolish more than 400 contaminated buildings at ORNL and the Y-12 nuclear weapons plant. The program would also focus on mitigating polluted ground water at the sites and other actions to reduce environmental damage. The work began in 2011 and could take up to 45 years to complete.

The 2009 stimulus act passed by Congress gave the DOE Oak Ridge's office $1.9 billion for environmental cleanup projects. The stimulus money sent directly for projects in Oak Ridge, $1.2 billion. A former gaseous diffusion building was torn down by the DOE as part of its program to convert the former K-25 site for use by private industry. The building went into operation in

1951 and was shut down in 1987. Demolition was completed at the end of 2007. The gigantic K-25 building, a mile-long U-shaped structure that processed the uranium in WWII, was demolished in 2010.

Y-12 National Security Complex. The Y-12 National Security Complex is another large federal plant in Oak Ridge. The ongoing functions of the Y-12 plant are to support the DOE's weapons design labs, recover uranium-235 from spent nuclear weapons and provide support to other government agencies.

Y-12 has been undergoing a major modernization program. Y-12 is a key facility in the U.S. Nuclear Weapons Complex and is responsible for ensuring the safety, reliability, and security of the nuclear weapons stockpile and serves as the nation's primary repository of highly enriched uranium. Y-12 houses the country's stockpile of bomb-grade uranium, builds uranium bomb parts and dismantles nuclear weapon systems as needed to support a much smaller nuclear arsenal. The National Nuclear Security Administration (the "NNSA") is planning to transform the nuclear weapons complex to be smaller, more efficient and more cost effective. The goal is by 2020 to have only two facilities where there used to be 700 buildings.

Contractors have already demolished dozens of World War II era buildings at Y-12, about a million square feet since 2001, to reduce the surveillance and maintenance costs, and to support the new programs. Some new office buildings already have been built, including the Jack Case Center that holds about a third of the workforce, or around 1,500 employees. This $58 million, 420,000-square-foot office building was completed in the summer of 2007. A 137,000-square-foot visitor's center and auditorium, which cost about $18 million, was also completed in 2007.

Outfall 200, a water treatment plant designed to capture Y-12 mercury runoff, began site preparation in 2017 and cost $1.4 million. A four-year construction period for the plant began in 2019 with a projected cost of $92 million. Once operational, the treatment facility will have a treatment capacity of 3,000 gallons of water per minute and have a 2-million-gallon storage capacity.

The $549 million *Highly Enriched Uranium Materials Facility* at Y-12, a storage complex for weapons-grade uranium, was completed in late 2008. This storage facility replaced multiple aging facilities and allows for storage of its uranium stocks in one central location that represents maximized physical security with minimal vulnerabilities and operating costs. It is designed to protect the large cache of uranium-235 against any type of terrorist assault. The facility is currently over 85% storage capacity of bomb-grade uranium.

The *Uranium Processing Facility* (the "UPF") Project, cornerstone of Y-12's new modernization strategy, will replace current enriched uranium and other processing operations. It will replace Y-12's main production center and cost $6.5 billion. In 2018, the last approval from the DOE was given to build the final three buildings that will make up the UPF. The $6.5 billion project will be the largest construction project the state has ever seen, and the project is expected to create more than 2,000 jobs during peak construction. The design phase began in 2006, construction began in 2009, and the facility should be in operation by 2025. Construction of the UPF will accelerate consolidation of aging facilities, bringing production operations currently housed in multiple buildings together, reducing the size of the plant's highest security area by 90 percent, improving the overall security posture, making the plant more secure and saving millions of dollars in annual operating costs. See "RECENT DEVELOPMENTS" for more information.

Source: City of Oak Ridge, ORNL, Y-12 National Security Complex and the Knoxville News Sentinel.

POWER PRODUCTION

Tennessee Valley Authority (the "TVA"). TVA was established as a wholly-owned corporate agency and instrumentality of the United States of America by the Tennessee Valley Authority Act of 1933 (the "TVA Act"), as amended. TVA Act's objective is the development of the resources of the Tennessee Valley and adjacent areas in order to strengthen the regional and national economy and the national defense. Its specific purposes include: (1) flood control on the Tennessee River and its tributaries, and assistance to flood control on the lower Ohio and the Mississippi Rivers; (2) a modern navigable channel for the Tennessee River; (3) ample supply of power within an area of 80,000 square miles in most of Tennessee and parts of Alabama, Mississippi, Kentucky, Georgia, North Carolina and Virginia; (4) development and introduction of more efficient soil fertilizers; and (5) greater agricultural and industrial development and improved forestry in the region.

TVA is the nation's largest, government-owned energy provider. TVA supplies safe, reliable, clean low-cost public power to 153 local power companies and 58 large industrial customers and federal facilities, generating over half of all electricity from carbon-free resources. These include nuclear and hydroelectric plants, as well as renewable resources. In fiscal year 2022:

- TVA's transmission system achieved 99.999 percent reliability for the 22nd year in a row.
- TVA's generation portfolio is 42% nuclear, 15% coal, 28% natural gas, 12% hydro, and 3% wind and solar with a total capacity of 36,937 megawatts.

In 2022, about 80 percent of the nation paid more for energy than residential customers served by TVA. And TVA's industrial rates are lower than more than 95 percent of the nation.

TVA's generating assets as of 2022 are below:

- 5 fossil plants (25 active units)
- 3 nuclear plants (7 units)
- 29 hydroelectric plants (109 units)
- 1 pumped storage hydroelectric plant (4 units)
- 9 natural gas combustion turbine gas plants (86 units)
- 8 natural gas combined cycle gas plants (14 power blocks, 35 units [21 gas turbines, 14 steam turbines])
- 1 diesel generator site (5 units)
- 14 solar energy sites

In 2021, TVA initiated a decarbonization plan to reduce carbon emissions to 70 percent by 2030 and a path to reaching 80 percent by 2035, all while using existing technology and without impacting reliability or costs. TVA also expects to retire the balance of their coal-fired fleet by 2035. TVA will add 10,000 megawatts of solar energy by 2035, representing more than a 15-fold increase from 2021. By 2050, TVA plans to achieve net-zero carbon emissions by the development of emerging technologies, such as advanced nuclear, long-duration energy storage, carbon-capture technologies and alternative fuels like hydrogen.

TVA will invest nearly $1.5 billion in transmission improvements between 2022-2025, to include a $289 million investment in a new System Operations Center and $90 million in a new Energy Management System.

As of 2018, TVA has contracted or installed around 400 megawatts of solar generating capacity, has more than 1,200 megawatts of wind power, and over 50 megawatts from burning organic garbage. About 13 percent of TVA's power comes from renewable sources, with 3 percent of that coming from wind and solar (it is projected to increase to 5 percent by 2025).

TVA operates several solar power facilities in Tennessee, including a 97-kilowatt facility at Finley Stadium in Chattanooga, Tennessee. Tennessee is one of the top three hydroelectric power producers east of the Rocky Mountains due to the many TVA hydroelectric power plants located on the Tennessee and Cumberland River systems. Hydroelectric power, although variable, has been contributing about one-eighth of the state's net generation in recent years. Biomass, primarily from wood and wood waste, also contributes a small amount to the state's net generation. TVA also uses methane gas from the Memphis wastewater treatment plant to boost generating capacity at one coal-fired power plant, increasing the plant's capacity by 8 megawatts.

Source: Tennessee Valley Authority and The Knoxville News Sentinel.

Solar and Renewable Energy

Tennessee was an early leader among southeastern states in developing its renewable energy resources. The southeastern region's first major wind farm, located on Buffalo Mountain near Oliver Springs, Tennessee, began operating as a 2-megawatt facility in 2000. Its generating capacity has since been expanded to 29 megawatts. Two utility-scale solar photovoltaic facilities in McNairy County, Tennessee, are the largest in the state and have a combined capacity of 40 megawatts.

In 2015, Knox County installed 5 megawatts of solar photovoltaic systems on the rooftops of several county buildings to provide more than $29 million in energy savings to the county over the next three decades.

KUB constructed Knoxville's first community solar array in partnership with TVA and the City of Knoxville. Operational as of April 2023, the 1-megawatt shared community solar array is housed on three acres of land at the City of Knoxville's Public Works facility and will generate enough renewable energy annually to avoid approximately 964 metric tons of CO2e emissions. Shares are available to KUB's residential and commercial customers, who will share in the energy produced by the solar array.

Efficient Energy of Tennessee. Efficient Energy, in partnership with Natural Energy Group, built a solar panel site in East Knoxville in 2010. The site has more than one megawatt worth of solar panels on a five-acre lot. The 4,608 solar panels can produce nearly 1.2 megawatts of electricity, enough to power about 125 homes. The site is also a resource for local research and educational organizations, such as the Oak Ridge National Lab, Cleveland State Community College and Pellissippi State Community College.

Sharp Electronics. In West Tennessee, Sharp Electronics in Shelby County (Memphis) has a large array consisting of nearly 4,160 solar panels for $4.3 million that cover the plant's roof to generate about 200 kilowatts of power. Sharp Electronics also has produced over 2 million solar panels since 2003 and has over 480 employees.

Tennessee Solar Institute. Located in Knoxville, the Tennessee Solar Institute is part of the Volunteer State Solar Initiative with UTK and ORNL. The objective of the initiative will be to find ways of reducing the cost of producing solar energy and ways to store energy until needed. Among other purposes, it brings together scientists, engineers and technical experts with business leaders, policymakers, and industry workers to help speed the deployment of solar photovoltaic technology.

Solar Manufacturing Plants. East Tennessee has several manufacturing plants. In East Knoxville, Efficient Energy built a 1.2-megawatt solar panel site with Natural Energy Group to be used for local research and education. In Roane County near the ORNL, a smaller array of 200-kilowatts was online in 2012. In Bradley County, the $2.5 billion Wacker Polysilicon plant created approximately 650 jobs to produce silicon used for the solar energy industry. The plant was operational in early 2016. Also in Bradley County, a new $30 million, 9.5-megawatts solar park is providing power to the Volkswagen Plant in Chattanooga.

Volunteer State Solar Initiative (the "VSSI"). In 2009, the State of Tennessee and the Department of Economic and Community Development allocated more than $60 million in American Recovery and Reinvestment Act Funds from the DOE to form the VSSI, including the West Tennessee Solar Farm and the Tennessee Solar Institute. The VSSI was a comprehensive solar energy and economic development program focused on job creation, education, renewable power production and technology commercialization.

West Tennessee Solar Farm. The University of Tennessee's West Tennessee Solar Farm is a $31 million, five-megawatt solar electricity generation facility. The solar farm stores enough to power 500 homes and offset 250 tons of coal per month with approximately 21,000 photovoltaic solar panels on 25 acres in Haywood County.

The West Tennessee Solar Farm is the product of a multi-sector collaboration between higher education, business, and government. Tennessee-based Signal Energy designed and built the facility in 2011, and connection to TVA's electrical grid came in early 2012 through Chickasaw Rural Electric Cooperative. Visible to 12 million Interstate 40 travelers a year, the TN Dept of Transportation built an Information and Welcome Center at the West Tennessee Solar Farm to house SPECTRUM, an educational solar exhibit.

Source: U.S. Department of Energy (Energy Information Administration), Memphis Commercial Appeal, the Knoxville News Sentinel and the University of Tennessee.

TRADE AREA

Because of its central location in the eastern United States, the County metropolitan area serves thousands of industrial and commercial customers in a concentrated eight-state area. It is within 500 miles of approximately one-third of the population of the United States, and nearly half of the nation's population is within a day's drive of Knoxville. For many years the County has been known as one of the South's leading wholesale markets. Based on 2021 estimates, there were approximately 1,191 wholesale establishments, 1,865 retail establishments, and 10,504 service industries located in the County.

The area is the trade center for a 42-county region, located in East Tennessee, Kentucky, Virginia and North Carolina, which serves over two million people. It also is the cultural, tourist, and professional center for this region. The MSA includes more than 909 manufacturing firms, which produce a large variety of items including medical devices, electronic components, chemicals, manufactured housing, apparel, and automobile parts.

Source: 2022 Knox County, Tennessee Annual Comprehensive Financial Report.

BUSINESS CLIMATE AND INDUSTRIAL INVESTMENT

The County has a history of being a regional leader in economic activity. The County offers premier location opportunities for high-technology and precision manufacturing firms. The University of Tennessee, Tennessee Valley Authority, and the Oak Ridge National Laboratory help to provide a stable, secure employment base. The Knoxville area is home to many medium-sized manufacturing and distribution operations, as well as customer service centers. The Knoxville area boasts a strong and reliable workforce, and low union membership rates. These assets, combined with an excellent location at the intersections of Interstates 40, 75 and 81, make Knox County a great location for any business. The County is also well served by 250 trucking companies, three railroads, five airlines, and three local river terminals that provide direct links to the Great Lakes and to the Gulf of Mexico. The Knoxville area continually receives recognition for high quality of life, combining an attractive natural setting with a moderate four-season climate. In addition, the Knoxville area ranks among the nation's top markets for low cost of living. The Knoxville MSA ranks as one of the top southeastern urban areas with an index of 83.7 compared to the average of all participating cities of 100. The County has over 6,418 acres of park and recreation space, with approximately 198 miles of greenways and walking trails. The arts and culture are well served, with the Knoxville Symphony, Knoxville Opera Company, Knoxville Museum of Art, and several performing arts organizations, including the Clarence Brown Theater, providing numerous cultural opportunities. Live entertainment includes touring Broadway productions and many concerts at numerous venues throughout the area, including the historic, beautifully renovated Tennessee and Bijou theaters.

Commerce and industry vary from the media success of Discovery, Inc. formerly Scripps Television Networks (HGTV, DIY, Food, Cooking, GAC, and Travel), to Sysco Corporation's (largest food service marketer and distributor in North America) regional warehouse and distribution center. In addition, many other local companies are recognized as national and global leaders, including Clayton Homes, Brunswick Corporation, Keurig Green Mountain, Bush Brothers, Pilot/Flying J Travel Centers, and Denso Manufacturing.

The area is also gaining a reputation as a prime location for corporate headquarters. High profile companies headquartered here in the MSA include the Tennessee Valley Authority, Jewelry Television, AC Entertainment, DeRoyal Industries, PetSafe/Radio Systems Corporation, and Regal Entertainment. Knox County has eight business parks and a Technology Corridor to meet a wide range of corporate facility needs.

Four regional shopping malls and over 200 shopping centers and factory outlets meet the retail needs of Knox County citizens and visitors. Knox County has traditionally been the regional hub of the MSA. The 2021 retail sales in the MSA grossed over $19.8 billion, with approximately 66% of that total generated in Knox County.

Source: 2022 Knox County, Tennessee Annual Comprehensive Financial Report.

MANUFACTURING AND COMMERCE

The County has eight business parks and a Technology Corridor to meet a wide range of corporate facility needs. The Forks of The River Industrial Park has 1,615 acres. EastBridge Business Park has 800 acres. WestBridge Business Park has 250 acres. Pellissippi Corporate Center has 150 acres. Hardin Business Park is a light industrial park with 95 acres. CenterPoint Business Park is a commercial park with 60 acres.

A proposed 345-acre business park off Midway Road was approved in 2016 by the Metropolitan Planning Commission and the Knox County Commission. It is expected to be several years before any development occurs, but when complete, it could add approximately 2,200 new jobs to the area.

A new 80-acre business park in Karns Valley will feature four to five development-ready sites with convenient access to ORNL and McGhee Tyson Airport.

The County had 15,862 businesses and the MSA had 24,428 businesses operating in 2021. The County also had 594 manufacturing facilities in 2021 and the MSA had 1,043 for the same period.

Knoxville-Oak Ridge Innovation Valley Inc. is an investor-directed program for five counties designed to recruit, retain, and expand business growth throughout the Innovation Valley region. The organization is focused on technology-led economic development, as well as education and workforce development. These two areas of focus represent key differentiators in this plan of work.

The Pavilion at Turkey Creek (the "Turkey Creek"). Turkey Creek is the largest single commercial development ever built in the metropolitan area of Knoxville. Designed for mixed use and beautifully landscaped, Turkey Creek boasts more than 300 acres of space zoned for retail shopping outlets, medical facilities, theaters, office space, banks, restaurants, and hotels. The developers of Turkey Creek also created a 58-acre nature preserve and designed greenways throughout the site. Being only three miles from the junction of Interstate 75 and 40 to the west and 14 miles from downtown Knoxville makes the site a quick drive from the urban center, suburban Knoxville, and rural counties.

Select Tennessee Certified Sites Program (the "STCSP"). Two lots in the Pellissippi Corporate Center (33 acres) and three lots in the Eastbridge Business Park (121 acres) have both been certified with the STCSP. The STSCP has helped communities prepare industrial sites for private investment and job creation since 2012. The certification process ensures that each certified site meets high quality standards and are primed for development. Certified sites must have documented environmental conditions and geotechnical analysis, existing onsite utilities or a formal plan to extend utilities to the site, and truck-quality road access. The program's goal is to give companies detailed and reliable information during the site selection process and markets the sites to a targeted group of site selection consultants and business leaders in Tennessee's key industry clusters. As of 2024, seventy-three sites in Tennessee have been certified and 23 companies have invested over $2.01 billion in capital investment to construct facilities on certified sites, accounting for more than 7,494 new job commitments.

Source: Tennessee Department of Economic and Community Development.

The *Technology 2020* project was initiated in 1993 to capitalize on the unique resources of the East Tennessee region: the presence of the ORNL, the University of Tennessee-Knoxville, the headquarters of the Tennessee Valley Authority, and a significant number of both large and small technology companies in the region. A $4.5 million investment has been made by DOE, South Central Bell, the Tennessee Public Service Commission and Lockheed-Martin to set up a regional telecommunications laboratory. This economic development resource center is located in Oak Ridge's Commerce Park. An 18,000 square foot facility has been constructed on the 5.2-acre site. The facility will be used for testing and demonstrating new communications technologies and applications.

The *Tennessee Valley Authority* (the "TVA") provides support, technology, expertise, and financial resources to existing businesses and industries in the Valley to help them grow and be more efficient and profitable. These resources include technical assistance, low-interest loans, and other tools needed by businesses for successful operation.

The *University of Tennessee's* flagship campus in Knoxville is home to a wide array of vigorous programs doing research on issues vital to the community, the state, the nation, and the world. The university has collaborative relationships with public and private agencies including ORNL, Battelle Memorial Institute (forming UT-Battelle), St. Jude Children's Research Hospital, the Memphis Bioworks Foundation, and the Boston-Baskin Cancer group (forming UT Cancer Institute).

Source: Knox News Sentinel and Knox County Metro Planning Commission.

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Major Employers in the Knoxville MSA

Name	County	Industry	Employment
Covenant Health Alliance[1]	Knox	Health Care	11,357
Y-12 National Security Complex[2]	Roane	National Security	9,616
Knox County Public Schools	Knox	Education	9,558
The University of TN, Knoxville	Knox	Education	8,959
Wal-Mart Stores	MSA	Retail	6,863
Oak Ridge National Lab[2]	Roane	National Security	5,772
Clayton Homes[3]	Blount	Mobile Homes	5,436
University Health System	Knox	Health Care	5,290
K-VA-T Food Stores (Food City)	Knox	Retail	4,227
Denso	Blount	Automotive Parts	4,500
Dollywood Co[4]	Sevier	Amusement Park	4,000
Roark Capital Group	MSA	Restaurant	3,530
State of Tennessee	Knox	Regional Government	3,176
Sevier County Schools	Sevier	Education	3,000
Tennova Health System[5]	Knox	Health Care	2,900
McDonald's Corp	MSA	Restaurant	2,785
Blount Memorial Hospital	Blount	Healthcare	2,722
Kroger Co	MSA	Retail	2,621
Knox County	Knox	Government	2,600
Team Health Inc.	Knox	Healthcare	2,260
City of Knoxville	Knox	Government	2,136
Yum! Brands	MSA	Restaurants (KFC, Pizza Hut & Taco Bell)	1,908
JTEKT Automotive	Monroe	Automotive Manufacturing	1,893
UCOR	Roane	Environmental Engineering	1,863
East TN Children's Hospital	Knox	Health Care	1,838
Hamblen County Schools	Hamblen	Education	1,748
Summit Medical Group	Knox	Health Care Providers	1,700
Blount County Schools	Blount	Education	1,694
Cracker Barrel	MSA	Restaurant	1,626
McGhee Tyson ANG Base	Blount	Air National Guard Unit	1,609
Pilot / Flying J	Knox	Fuel and Travel Centers	1,491
CVS Caremark Inc.	MSA	Retail	1,477
U.S. Postal Service	MSA	Mail Service	1,470
United Parcel Service	Knox	Transportation	1,450
Anderson County Schools	Anderson	Education	1,442
U.S. Bank & Elavon	MSA	Bank	1,418
Copper Cellar Corp	Knox	Restaurants (Calhoun's & etc)	1,402
Hilton Worldwide	MSA	Hotel	1,402

Name	County	Industry	Employment
Lowe's Home Improvement	MSA	Retail	1,375
Darden Restaurants	MSA	Restaurants (LongHorn & Olive Garden)	1,340
Home Depot	MSA	Retail	1,290
Roane County Schools	Roane	Public School System	1,257
Wyndham Hotel Group	Sevier	Hotel	1,255
Tennessee Valley Authority[6]	Knox	Power	1,232
Jewelry Television	Knox	Home-Shopping Cable Network	1,211
Restaurant Brands Int'l	MSA	Restaurants (Burger King)	1,191
Jefferson County Schools	Jefferson	Education	1,184
Knoxville Utilities Board	Knox	Utility	1,073
Pellissippi State Tech. College	Knox	Education	1,063
Target Co.	MSA	Retail	1,045
Discovery, Inc.	Knox	Discovery Channel Networks	1,035
MAHLE Engine	Hamblen	Automotive Manufacturing	1,015
Maryville Schools	Blount	Education	1,012
Old Dominion Freight	Hamblen	Transportation	1,007
Koch Foods, Inc.	MSA	Poultry Production	1,000
Oak Ridge Associated Universities[2]	Roane	National Security	1,000
Burleson Brands	MSA	Restaurants	992
Walgreens Co.	MSA	Retail	971
Quality Home Health	MSA	Healthcare	946
Monroe County Schools	Monroe	Education	942
University Physicians Association	Knox	Health Care Providers	934
Dollar General Corp.	MSA	Retail	916
SL America Corp	Anderson	Manufacturing	913
Dine Brands	MSA	Restaurants	904
Arconic (formerly ALCOA)[7]	Blount	Aluminum Ingot, Coiled Steel	900
Eagle Bend	Anderson	Manufacturing	900
Keurig Dr. Pepper	Knox	Coffee Manufacturing	900
Newell Brands	Blount	Manufacturing	900

[1] Includes Ft. Sanders Reg Med Center, Parkwest, Methodist Med Center & all other Covenant Hospitals in the area.
[2] Joint venture of University of Tennessee and Battelle. The total employees for the ORNL, Y-12 facility and contractors is 15,388.
[3] Headquarters based in Blount Co., but employment excludes some employees working in McMinn Co.
[4] Employment figure is based on Operating season; it drops to around 300 during the off-season.
[5] Includes all Tennova Health System hospitals in the area.
[6] Includes Corporate headquarters in Knoxville, Bull Run Steam Plant, Norris and Corryton.
[7] Includes some employees working in Knox Co.

Source: Knoxville Chamber of Commerce - 2022.

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RECREATION AND TOURISM

Although industry is frequently considered the core of an economic base, secondary and tertiary activities also make important contributions to economic development. Tourism in Knox County generated more than $1.8 billion in visitor spending during 2022, ranking fourth in the state. Overall, tourism in Tennessee generated $29 billion in domestic and international travel spending, up 19% from 2021. 2022 also marked the largest visitor spending nationally in Tennessee's history. The release said that travelers in Tennessee spent an estimated $79 million per day.

Source: 2022 Economic Impact of Travel on Tennessee.

The County has 6,443 acres of park and recreation space, with 212 miles of greenways and walking trails. Just three miles from downtown is 1,000 forested acres with 65 miles of multi-use trails known as Knoxville's Urban Wilderness. The arts and culture are well served, with the Knoxville Symphony, Knoxville Opera Company, Knoxville Museum of Art, and several performing arts organizations, including the Clarence Brown Theater, providing numerous cultural opportunities. Live entertainment includes touring Broadway productions and many concerts at numerous venues throughout the area, including the historic, beautifully renovated Tennessee and Bijou theaters.

The convention and tourist business contribute to the County's economic base in the sense that income is drawn into the region resulting in employment and investment opportunities in tourist-related facilities.

Sports. The Tennessee Smokies provide AA minor league baseball in neighboring Sevier County. The Knoxville Ice Bears provide professional hockey at the Coliseum October through March. National championship UTK sports teams, including the 2007 and 2008 NCAA National Champion Lady Vols, draw thousands of enthusiasts to games each year. One Knoxville SC, Knoxville's pre-professional soccer team, began its inaugural season in 2022 and gained a large following of local fans. The City is also home to the Women's Basketball Hall of Fame.

State and National Parks. The County is the principal gateway area to the Great Smoky Mountains National Park (the "GSMNP"), located 40 miles to the southeast. The beauty of the Great Smoky Mountains has always attracted visitors to this region. There are over 500,000 acres that make up the nation's most visited National Park, extending over the states of Tennessee and North Carolina. The GSMNP received over 12.9 million visitors in 2022, more than twice the number of any other national park in the country. Major attractions in the Smokies are Gatlinburg (40 miles southeast of the City) and Pigeon Forge (20 miles southeast of the City). Numerous restaurants, gift and craft shops, along with ski lodge, ski lifts and tramway, make Gatlinburg a year-round resort town. Pigeon Forge is known for being home to hundreds of retail outlets and Dollywood, a theme park named for the country music singer, Dolly Parton.

Other parks and recreational areas in the Greater Knoxville area include: Big South Fork National River and Recreational Area 100,000 acres; Frozen Head State Natural Area 11,562 acres; Norris Dam State Resort Park 4,000 acres; Big Ridge State Park 3,687 acres; Cumberland Mountain State Park 1,720 acres; Panther Creek State Park 1,400 acres; Cove Lake State Recreational Area 667 acres; Roan Mountain State Resort Park 600 acres; Fort Loudon State Historical Area 500 acres; Indian Mountain State Park 213 acres; Warriors' Path State Recreational

Park 500 acres; Trail of the Lonesome Pine: State Scenic Trail 35 miles; and Cumberland Trail: Section II: Tennessee Scenic Trails System Act 31 miles.

Lakes and Wildlife. Seven TVA lakes surround Knoxville and provide year-round fishing and boating. There are no closed seasons on TVA waterways. Area lakes provide over 3,425 miles of shoreline and 266 square miles of water surface.

Alpine Skiing. Ober Gatlinburg Ski Resort in Sevier County and Cumberland Gardens Resort in nearby Cumberland County offer convenient facilities for winter skiing.

Conventions, Events and Festivals. Special seasonal events include the Dogwood Arts Festival in the spring and December's celebration, Christmas in the City. Knoxville supports an active tourism and convention trade with a 500,000-square-foot convention center located downtown at World's Fair Park. Other local facilities are a large civic coliseum/auditorium, two exhibition halls, and UTK's 22,000-seat Thompson Boling Arena.

Cultural Activities. The General James White Memorial Civic Auditorium and Coliseum Complex, the historic Tennessee Theatre, and the Bijou Theater host a variety of performances, including the Knoxville Symphony Orchestra, touring Broadway productions, ice shows, circuses, concerts of all types and the professional hockey team, The Knoxville Ice Bears. Local radio station WDVX hosts a live radio broadcast weekdays downtown called "The Blue Plate Special" where nationally known artists and area performers appear free of charge.

The University of Tennessee Theaters continue to provide a wealth of entertainment and culture to Knoxvillians. The Clarence Brown Theater, UTK's premier performance space, seats 600 in a proscenium theater. The Clarence Brown Theater Company is dedicated to the classics of the stage and produces three full scale and one or two touring productions each season. The Carousel Theater is UTK's smaller theater which holds 250-300 people.

The Knoxville Museum of Art and the Emporium Center for Arts and Culture feature changing exhibits throughout the year, while the area's libraries, historic sites, and museums, such as East Tennessee History Center, McClung Museum of Natural History and Culture, Museum of Appalachia, and Beck Cultural Center, celebrate regional heritage.

Other popular events in Knoxville are presented by the Knoxville Symphony Orchestra, Knoxville Opera, the Appalachian Ballet Company, Circle Modern Dance Company, Carpet Bag Theatre, Tennessee Stage Company, Tennessee Valley Players, Knoxville Choral Society, and the Tennessee Children's Dance Ensemble, the only professional dance troupe for children in the country.

Ijams Nature Center. Ijams Nature Center is a nonprofit environmental education and resource center located on 318 acres on the banks of the Tennessee River in South Knoxville. The area encompasses woods, meadows, sinkholes, a spring-fed pond, and informal perennial gardens connected by a series of trails. The park has been developed to display East Tennessee's ecological systems at work and provide a conservation area for wildlife indigenous to the park. A number of high-quality programs, events, and environmental information are available to schools, the media, and the general public.

Knoxville Zoological Gardens (the "Zoo Knoxville"). Zoo Knoxville is recognized as one of the top 20 zoos in America. It is located on 80 acres and has more than 1,000 species of animals. Zoo Knoxville has the largest "big cat" collection in the United States and is home to the first African Elephant birth in the United States. Zoo Knoxville is also home to Gorilla Valley, where three baby gorillas were born during 2015 and 2016. The gorillas are the first of the endangered species to be born at the park and the first born in Tennessee in 30 years. Zoo Knoxville has a collection of red pandas and is the world leader in captive breeding of this rare breed. In addition, a critically endangered red wolf pup was born at the zoo in April 2016; the male pup is the first red wolf born at the zoo in 23 years.

Source: Knoxville News Sentinel and the Knox County Metro Planning Commission.

Tennessee Whiskey Trail. The Tennessee Whiskey Trail was launched in 2017 and is more than 800 miles to distilleries throughout the state, including the Jack Daniel Distillery in Middle Tennessee. Tennessee has been a leader in spirits distillation throughout the nation's history, including the time before, during, and after Prohibition.

According to the Department of Tourist Development's 2018 Economic Impact report, more than 6.3 million visitors crisscrossed the state to experience the distilleries on the Trail. Since Tennessee state law changed in 2009 to allow more distilleries, almost 30 distilleries in Tennessee are now on the Tennessee Whiskey Trail. The distilleries on the Trail house three million barrels of whiskey valued at $5 billion and accounting for nearly 100 percent of all distilled spirits produced in Tennessee. More than $280 million has been invested in Trail distilleries since 2009, adding more than 500 jobs throughout the state.

Knoxville has two distilleries on the Trail. Knox Whiskey Works was established in 2015 and produces multiple spirits, including bourbon from made from locally grown heirloom corn. Post Modern Spirits opened in 2017 and produces unaged spirits and single malt whiskey.

Source: Tennessee Whiskey Trail.

RECENT DEVELOPMENTS

Following are some recent developments within the boundaries of the City and County and the Knoxville MSA that have had a direct economic impact on the area. The source for statistical information below is the Knoxville Area Chamber Partnership, the City of Knoxville, the Knoxville-Knox County Metropolitan Planning Commission, the Knoxville News Sentinel and The Daily Times.

EAST KNOX COUNTY

Booz Allen Hamilton Inc. The technology consulting firm Booz Allen Hamilton expects to create approximately 52 new jobs over the next five years (2019-2024) and invest more than $3.6 million in new R&D facility located in Knoxville. Booz Allen is investing in the expansion of its engineering business by locating a research and development facility in Knoxville. Activities at this facility will include engineering, prototyping and testing for a variety of technical systems. Booz Allen provides management and technology consulting, engineering, analytics, digital, mission operations and cyber solutions to governments, corporations and not-for-profit organizations in the United States and internationally. The company has more than 26,000 employees and 80 offices worldwide.

Fraley and Schilling, Inc. The trucking company, Fraley and Schilling, Inc., began expanding its operations in Knoxville in 2020. As part of the expansion, Fraley and Schilling will invest $2.4 million and expects to add approximately 50 office jobs over the next five years. Due to growing demand in transportation and logistics, Fraley and Schilling is expanding by adding a new terminal building, which is currently under construction. The new building will be the largest in the company at approximately 11,600 square feet. Founded in 1955, Fraley and Schilling is a trucking and logistics provider, specializing in lightweight equipment for hauling heavy products. Today, Fraley and Schilling employs 250 people in Tennessee and more than 700 in the U.S., and operates over 500 trucks across the eastern half of the U.S.

WEST KNOX COUNTY

ATC Drivetrain. ATC Drivetrain, a leading global independent remanufacturer of automotive powertrain and drivetrain systems, announced in 2022 that the company will build a new $8.3 million manufacturing facility in Knoxville and expects to create approximately 218 new jobs over the next five years. The site is scheduled to begin production in April 2022 and will support the company's growing remanufacturing and battery life cycle management businesses. Founded in 1938 and headquartered in Farmington Hills, Michigan, ATC Drivetrain supplies remanufacturing products and services to various international blue-chip automakers. In addition to operations in Europe and Asia, the Knoxville facility will be ATC Drivetrain's third manufacturing facility in the U.S. ATC Drivetrain currently operates two manufacturing facilities and a distribution center in Oklahoma City, Oklahoma.

Hardcoat Technologies LLC. Hardcoat Technologies LLC will invest $6.6 million in 2022 to expand manufacturing operations at its Papermill Drive location in Knoxville. Hardcoat Technologies will create approximately 85 new jobs in Knox County as the company locates additional operations adjacent to its headquarters and original injection molding plant. As part of this project, Hardcoat Technologies will acquire an existing building and construct a new 23,500-square-foot facility on Papermill Drive. Both operations will support the company's recent contract with SL Tennessee and, upon completion, will more than double Hardcoat Technologies' injection molding, warehousing and assembly capabilities. Founded in 2014 and headquartered in Knoxville, Tennessee, Hardcoat Technologies specializes in injection molding and hardcoating for the automotive, ATV and industrial markets. Through this project, Hardcoat Technologies will employ more than 130 people in Tennessee.

IGT Technologies Inc. IGT Technologies Inc. (IGT) invested $3.9 million in 2021 to expand its operations in Knoxville and expects to add approximately 200 new jobs. IGT is a business process management and software development company. Its Knoxville facility will oversee and assist with the operations for IGT's North American customers by working with the latest technologies in chat, email, analytics and robotics process automation. This project will comprise an inbound call center and a technology development center, catering to the growing demand of travel, retail, eCommerce and hi-tech companies. It also plans to set up a Customer Experience Incubation Lab to support startups. Founded in 1998 and headquartered in Gurugram, India, IGT has more than 14,000 employees who are customer experience and technology specialists providing services to more than 80 marquee customers worldwide. Having a presence in the United States for over 15 years, IGT's global footprint consists of 20 delivery centers across 10 countries. These delivery centers provide 24/7 support in multiple languages and allow each customer to choose a global sourcing delivery that is best suited to its specific business needs.

Knox County Center for Health Sciences. In 2022, Roane State Community College, the Tennessee College of Applied Technology – Knoxville, and Covenant Health formed a partnership that will bring a new healthcare training facility to East Tennessee. The center is meant to replace Roane State's current Knox County Center for Health Sciences, a 16,000-square-foot campus currently located in West Knoxville and will be the new home of TCAT Knoxville's health science programs. As proposed, the Knox Regional Health Science and Simulation Center would have 130,000 square feet in total, with at least 11,000 square feet devoted to the simulation center.

The total estimated dollar amount for the project is $75 million, which includes previous funding of $1 million appropriated in fiscal year 2021-22 for the preliminary design phase. $67.5 million in state funding is expected for the Knox Regional Health Science and Simulation Center. Roane State is expected to provide at least a $6.5 million campus match. The facility will enable instructors to provide comprehensive simulations of the work students will be doing when they graduate, in settings similar to clinics and hospitals. Plans are to construct the facility in West Knoxville on land gifted by Covenant Health. The parcel is located near Parkwest Medical Center.

Lending Solutions, Inc. Lending Solutions, Inc. will invest $2 million and expects to add approximately 265 new jobs to open a call center in Knoxville, which will operate primarily as a training center for new employees. Once trained, the new employees will be approved to work from home. Lending Solutions, Inc. was founded in 1994 and is a provider of lending center services and consulting programs for financial institutions across North America.

Pilot Flying J Travel Centers. In 2017, Berkshire Hathaway purchased a minority share in the Knoxville-based Pilot Flying J, the largest operator of travel centers in North America with 750 locations and more than $20 billion in revenues. Until 2023, Berkshire Hathaway will have 38.6 percent equity stake, while the Haslam family will hold a majority interest with 50.1 percent ownership. After 2023, Berkshire Hathaway will become the majority shareholder with 41.1 percent stake with the Haslam family dropping to hold 20 percent ownership.

NORTH KNOX COUNTY

Axle Logistics, LLC. Founded in 2012, Axle Logistics, LLC will invest $37.9 million in 2023 to expand logistics operations at its Knoxville headquarters. Axle Logistics will create approximately 650 new jobs in Knox County over the next five years, nearly tripling its total headcount in Tennessee. As part of the project, the company will construct an 85,000-square-foot facility adjacent to its existing operations on North Central Street. Axle Logistics, LLC is a Tennessee-based, third-party logistics company that serves an array of transportation customers across the U.S., Canada and Mexico. Today, the company is headquartered in Knoxville, Tennessee, with one satellite office in Chattanooga.

Custom Foods of America Inc. Custom Foods of America Inc. will invest more than $51 million in 2024 to expand its manufacturing and distribution operations in Knoxville, Tennessee. This will create approximately 249 new jobs, which will bring its total headcount in the region to approximately 500 people. The expansion add nearly 200,000 square feet of new space for manufacturing, storage, staging and shipping. Founded in 1982, Custom Foods of America Inc. is a Tennessee-based manufacturer and supplier of food products such as soups, side dishes, appetizers and sauces. Today, the company serves its customers in the restaurant and convenience store industries from its sole location in Knoxville, Tennessee.

Lincoln Memorial University (the "LMU"). LMU began offering nursing programs on a portion of the former Physicians Regional Medical Center in 2021.

Public Safety Complex. Opened in June 2023, the City invested $40 million to reconstruct vacant office buildings on the former Physicians Regional Medical Center site. The complex is for the police and fire department, E911, pension system officers and city court operations. The historic 1929 original St. Mary's hospital building will be preserved with its parapets and marble accents. An additional $6.5 million was also invested on the former hospital campus for private redevelopment.

SOUTH KNOX COUNTY

Greenheck Group. Greenheck Group will construct its fourth corporate campus in Knoxville in 2024. This will create approximately 440 new jobs and will invest $300 million. The corporate campus will include manufacturing and warehousing facilities as well as a main office and dedicated space for training and research and development. Greenheck Group is one of Wisconsin's largest privately owned manufacturers. The company specializes in manufacturing industrial ventilation equipment, which can be found in schools, malls, office spaces and industrial plants. Today, Greenheck Group employs more than 5,000 people across its operations in the U.S., Mexico and India.

Kelvion Inc. The global heat exchanger manufacturer, Kelvion Inc,. expanded its operations in Knoxville in 2021 and expects to add approximately 74 new jobs over the next few years. Kelvion invested $3.8 million and expanded at the Forks of the River Valley Industrial Park in Knoxville, where the company established operations in 2018. This expansion increases Kelvion's production of innovative heat exchangers, which can be offered as configurable or customized, for the Refrigeration and Data Center Industries.

Regal Entertainment Group. In early 2018, Regal Entertainment Group was acquired by Cineworld Group. Cineworld Group is based out of London and is the United Kingdom's largest cinema operator. Cineworld Group filed for Chapter 11 bankruptcy in the United States in September 2022. Regal is currently headquartered in a nine-story office building on the former Baptist Hospital site on Knoxville's south waterfront. Regal intends to uphold the financial agreement it made with Knoxville City Council in 2016 in which it agreed the business would maintain the new site as its headquarters and employ at least 275 people during its 10-year lease.

DOWNTOWN BUSINESS DISTRICT

Bassmaster Classic. In March of 2019, the GEICO Bassmaster Classic was held in downtown Knoxville on the Tennessee River. The Economic impact during the competition was $32.2 million with 153,000 people in attendance. This exceeded the economic impact and attendance made in the prior year's Bassmaster Classic held in South Carolina. The event returned to Knoxville in March 2023. The economic impact of the 2023 event was $35.5 million with 163,914 fans in attendance.

CGI. Global IT and business consulting company CGI located new operations in Knoxville for its eighth U.S. IT delivery center. In 2021, CGI invested $27 million and expects to add approximately 300 jobs over the next five years (2021-2026). CGI offers IT delivery options to its government and commercial industry clients. The Knoxville location was the newest member of CGI's innovative U.S. delivery center network that will help clients gain access to high quality, U.S.-based IT services, support, and solutions. CGI is partnering with the University of Tennessee, Knoxville on the launch of the IT delivery center and will be working with the university to engage students across interdisciplinary programs in colleges such as the Haslam College of Business and the Tickle College of Engineering. CGI will partner with the university to build a talent pipeline focusing primarily on advanced analytics, cybersecurity, and digital transformation through emerging technologies for the new Knoxville facility. Founded in 1976, CGI's fiscal year 2020 reported revenue is $12.16 billion.

East Tennessee Children's Hospital (the" ETCH"). In 2021, the ETCH opened a $14 million renovation to the Emergency Department. The improvements include a renovated lobby, dedicated trauma rooms, exam rooms with increased privacy for patients and sensory-sensitive rooms.

Fort Sanders Regional Medical Center. Fort Sanders Regional Medical Center announced in 2018 plans for a $115 million expansion to the hospital that includes new critical care and intermediate care beds and emergency department rooms. Construction was completed in 2020. In addition to new beds, the expansion created easier access to the facility and improved parking.

UNIVERSITY OF TENNESSEE

The University of Tennessee Knoxville Campus is undergoing a record $1 billion makeover to transform the look and feel of the campus to improve facilities and infrastructure to become a Top 25 public research institution.

Energy and Environmental Science Research Building (EESRB). The EESRB will be new construction totaling about 157,000 gross square feet over four stories. This facility will house teaching laboratories, research and public service labs, offices, and new classrooms for the UT Institute of Agriculture. With a budget of $95 million, it is expected to be complete in Fall 2023.

Johnson Ward Pedestrian Mall Extension. The Johnson Ward Pedestrian Mall Extension project involves the conversion of Andy Holt Avenue from a vehicular roadway to a pedestrian mall. The $2.5 million project is expected to be completed in 2022.

Nuclear Education Funding. The fund assists nuclear power-related businesses choosing to relocate or grow in the Volunteer State and supports the state's universities and research institutions in further developing their nuclear education programs.

The University of Tennessee, Knoxville and Roane State Community College will receive $50 million in 2024 from Tennessee's Nuclear Energy Fund to support existing nuclear programs as well as develop and implement new nuclear education curriculum. Both campuses, which are in close proximity to Oak Ridge National Laboratory, will play a vital role in attracting nuclear companies to the region with the enhanced curriculum and equipment.

The University of Tennessee will establish a new program for non-nuclear engineers to obtain a minor in nuclear engineering at its Knoxville campus. The additional degree will better prepare these engineers entering the nuclear energy field and will shorten the time needed to provide extensive training by their employers. Separately, funding will also be used to support Roane State Community College in purchasing laboratory equipment for its inaugural nuclear technology program, which launches in the fall of 2024.

Veterinary Medical Center – Teaching and Learning Center. A 19,375 gross-square-foot addition to the Veterinary Medical Center will provide much needed classroom, instructional laboratory, and informal gathering space for the UT Institute for Agriculture's College of Veterinary Medicine. The $9 million project is expected to be completed in 2022.

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APPENDIX D-2

CONSOLIDATED SYSTEMS
REPORT OF INDEPENDENT AUDITORS AND FINANCIAL STATEMENTS

SUMMARY OF CERTAIN PROVISIONS OF ELECTRIC BOND RESOLUTION

SUMMARY OF CERTAIN PROVISIONS OF THE ELECTRIC BOND RESOLUTIONS

The following statements are brief summaries of certain provisions of the Electric Bond Resolutions, copies of which are available for examination at the offices of the Knoxville Utilities Board (the "Board"). Terms defined in the Electric Bond Resolutions and not defined below or elsewhere in this Official Statement shall have the meaning set forth in the Electric Bond Resolutions. Section numbers refer to sections of Resolution No. 1644, as amended by Resolution No. 2171, Resolution No. 3491, Resolution No. R-317-90, Resolution No. R-422-98, Resolution No. R-149-01, Resolution No. R-332-2010 and Resolution No. R-230-2018, and as supplemented by Resolution No. R-154-2024 and as otherwise supplemented prior to the date hereof (collectively, the "Resolution").

Security

The Series QQ-2024 Bonds constitute and, when issued will be Bonds under the Resolution. All Series QQ-2024 Bonds are limited obligations of the City, payable solely and ratably from the net revenues of the Electric System of the City and are on parity with each other in all respects.

The Series QQ-2024 Bonds will be issued pursuant to the Resolution which sets forth in detail covenants of the City with respect to the Series QQ-2024 Bonds. The following summary is a brief outline of certain provisions contained in the Resolution and is not to be considered as a full statement thereof. This summary is qualified by reference to and is subject to the Resolution, copies of which may be examined at the office of the Board.

Certain Definitions

"Accreted Value" shall mean, with respect to any Capital Appreciation Debt, an amount equal to the principal amount of such Capital Appreciation Debt (determined on the basis of the principal amount per $5,000 at maturity thereof) plus the amount assuming semi-annual compounding of earnings which would be produced on the investment of such principal amount, beginning on the dated date of such Capital Appreciation Debt and ending at the date such Accreted Value is calculated, at a yield which, if produced until maturity, will produce $5,000 at maturity. As of any Valuation Date, the Accreted Value of any Capital Appreciation Debt shall mean the amount set forth for such date in the resolution authorizing such Capital Appreciation Debt, which amount shall be required to be determined in the manner described above, and as of any date other than a Valuation Date, the sum of (a) the Accreted Value on the preceding Valuation Date and (b) the product of (1) a fraction, the numerator of which is the number of days having elapsed from the preceding Valuation Date and the denominator of which is the number of days from such preceding Valuation Date to the next succeeding Valuation Date and (2) the difference between the Accreted Values for such Valuation Dates.

"Aggregate Debt Service" for any period shall mean, as of any date of calculation, the sum of the amounts of Debt Service for such period with respect to all indebtedness with respect to which such calculation is required to be made for such period.

"Balloon Date" shall mean any maturity date for Balloon Indebtedness in a Balloon Year.

"Balloon Indebtedness" shall mean any bonds, notes or other indebtedness of the Board or the City, on behalf of the Board, other than Short-Term Indebtedness, twenty-five percent or more of the initial principal amount of which matures (or must be redeemed at the option of the holder) during any twelve month period, if such twenty-five percent or more is not to be amortized to below twenty-five percent by mandatory redemption prior to the beginning of such twelve month period.

"Balloon Year" shall mean any 12-month period in which more than 25% of the original principal amount of related Balloon Indebtedness matures or is subject to mandatory redemption by the Authority.

"Capital Appreciation Debt" shall mean any bonds, notes or other indebtedness of the Board or of the City on behalf of the Board as to which interest is payable only at the maturity or prior redemption of such bonds.

"Commitment," when used with respect to Balloon Indebtedness, shall mean a binding written commitment from a financial institution, surety, or insurance company to refinance such Balloon Indebtedness on or prior to any Balloon Date thereof.

"Consulting Engineer" shall mean (i) an engineering firm or individual engineer employed by the Board with substantial experience in advising utilities similar to the System operated by the Board as to the construction and maintenance of the System and in the projection of relative costs of expansion in the System or (ii) an engineer or engineers who are employees of the Board whose reports or projections are certified by a financial advisor with substantial experience in advising utilities similar to the System.

"Current Operating Expenses" shall include but not be limited to, expenses for ordinary repairs, removals and replacements of the System, salaries and wages, employees' health, hospitalization, pension and retirement expenses, fees for services, materials and supplies, rents, administrative and general expenses (including legal, engineering, accounting and financial advisory fees and expenses and costs of other consulting or technical services not funded with proceeds of indebtedness), insurance expenses, taxes and other governmental charges, the imposition or amount of which is not subject to control of the Board or the City, any payments made by the Board during any fiscal year to purchase electrical power for delivery during or after the end of that fiscal year, and other payments made under any electrical power supply contract, and any principal or interest payments made by the Board during any fiscal year on bonds, notes or other obligations, including loan agreements, issued or entered into for the purpose of financing the purchase of electrical power, and to the extent so provided by the resolution authorizing such bonds, notes or obligations and to the extent not inconsistent with generally accepted accounting principles. Current Operating Expenses do not include depreciation or obsolescence charges or reserves therefor, amortization of intangibles or other bookkeeping entries of a similar nature, interest charges and charges for the payment of principal or amortization of bonded or other indebtedness of the Board or the City, on behalf of the Board, payable from revenues of the System, costs or charges made therefor, capital additions, replacements, betterments, extensions or improvements to or retirement from the System which under generally accepted accounting principles are properly chargeable to the capital account or the reserve for depreciation, and do not include losses from the sale, abandonment, reclassification, revaluation or other disposition of any properties of the System, nor such property items, including taxes and fuels, which are capitalized pursuant to the then existing accounting practices of the Board or expenses of a system that is merged into the System, as permitted hereunder, if revenues of the merged system are not included in Revenues at the election of the Board. If the Board operates its utilities as a Combined System, as defined herein, Current Operating Expenses shall be deemed to refer to the Current Operating Expenses of the Combined System.

"Debt Service" for any period shall mean, as of any date of calculation and with respect to the indebtedness with respect to which such calculation is being made, an amount equal to (i) the interest accruing during such period on such indebtedness plus (ii) the portion of each Principal Installment which would accrue during such period if such Principal Installment were deemed to accrue periodically in equal amounts from the next preceding Principal Installment due date for such indebtedness (or, if there shall be no such preceding Principal Installment due date, from a date of issuance of the indebtedness). For purposes of this definition:

(a) The principal and interest portions of the Accreted Value of Capital Appreciation Debt becoming due at maturity or by virtue of a Sinking Fund Installment shall be included in the calculations of accrued and unpaid and accruing interest or Principal Installments in such manner and during such period of time as is specified in the resolution authorizing such Capital Appreciation Debt.

(b) The annual principal and interest requirement on Short-Term Indebtedness shall be calculated as that amount necessary to amortize the Short-Term Indebtedness from the date it was issued over twenty (20) years in twenty (20) approximately equal annual payments of principal and interest using an assumed interest rate (which shall be the interest rate as of the date of issuance or the date of calculation, whichever is less, certified by a Financial Advisor to be the interest rate at which the City on behalf of the Board could reasonably expect to borrow the same amount by issuing indebtedness with the same priority of lien as such Balloon Indebtedness and with a 20-year term).

(c) With respect to any Variable Rate Indebtedness, including Hedged Indebtedness if the interest thereon calculated as set forth below is expected to vary, the interest coming due in any specified future period shall be determined as if the interest rate in effect at all times during such future period was, at the option of the Board, either (1) the average of the actual interest rates which were in effect (weighted according to the length of the period during which each such interest rate was in effect) for the most recent 12-month period immediately preceding the date of calculation for which such information is available (or shorter period if such information is not available for a 12-month period), or (2) the current average annual fixed rate of interest on securities of similar quality having a similar maturity date as certified by a Financial Advisor.

(d) With respect to any Hedged Indebtedness, the interest on such Hedged Indebtedness during any Hedge Period and for so long as the provider of the related Hedge Agreement has not defaulted on its payment obligations thereunder shall be calculated by adding (x) the amount of interest payable by the City or the Board on such Hedged Indebtedness pursuant to its terms and (y) the amount of Hedge Payments payable by the City or the Board under the related Hedge Agreement and subtracting (z) the amount of Hedge Receipts payable by the provider of the related Hedge Agreement at the rate specified in the related Hedge Agreement; provided, however, that to the extent that the provider of any Hedge Agreement is in default thereunder, the amount of interest payable by the City or the Board on the related Hedged Indebtedness shall be the interest calculated as if such Hedge Agreement had not been executed. In determining the amount of Hedge Payments or Hedge Receipts that are not fixed throughout the Hedge Period (i.e., which are variable), payable or receivable for any future period, such Hedge Payments or Receipts for any period of calculation (the "Determination Period") shall be computed by assuming that the variables comprising the calculation (e.g., indices) applicable to the Determination Period are equal to the average of the actual variables which were in effect (weighted according to the length of the period during which each such variable was in effect) for the most recent 12-month period immediately preceding the date of calculation for which such information is available (or shorter period if such information is not available for a 12-month period).

(e) With respect to Balloon Indebtedness (1) which is subject to a Commitment or (2) which does not have a Balloon Year commencing within 12 months from the date of calculation, such Balloon Indebtedness shall be assumed to be amortized in substantially equal annual amounts to be paid for principal and interest over an assumed amortization period of 20 years from the date of issuance at an assumed interest rate (which shall be the interest rate as of the date of issuance or the date of calculation, whichever is less, certified by a Financial Advisor to be the interest rate at which the City on behalf of the Board could reasonably expect to borrow the same amount by issuing indebtedness with the same priority of lien as such Balloon Indebtedness and with a 20-year term); provided, however, that if the maturity of such Balloon Indebtedness (taking into account the term of any Commitment) is in excess of 20 years from the date of issuance, then such Balloon Indebtedness shall be assumed to be amortized in substantially equal annual amounts to be paid for principal and interest over an assumed amortization period of years equal to the number of years from the date of issuance of such Balloon Indebtedness to maturity (including the Commitment) and at the interest rate provided above. For the purpose of calculating the Debt Service Requirement on Balloon Indebtedness (a) which are not subject to a Commitment and (b) which have a Balloon Year commencing within 12 months from the date of calculation, the principal payable on such Balloon Indebtedness during the Balloon Year shall be calculated as if paid on the Balloon Date.

(f) The principal of and interest on Parity Indebtedness and Hedge Payments shall be excluded from the determination of Debt Service to the extent that the same were or are expected to be paid with amounts on deposit on the date of calculation (or proceeds of indebtedness to be deposited on the date of issuance of any proposed Parity Indebtedness) in a fund established for such purpose.

(g) In calculating the Debt Service on any Parity Indebtedness or proposed Parity Indebtedness with respect to which the federal government or any agency thereof is or is expected to be obligated to make tax refunds or other payments to the City or the Board for the purpose of reducing the interest costs associated therewith, the Board may offset any stated interest payment on such Parity Indebtedness or proposed Parity Indebtedness by the amount of the scheduled tax refund or other payment corresponding thereto.

"Financial Advisor" shall mean an investment banking or financial advisory firm or commercial bank who or which is retained by the Board for the purpose of passing on questions relating to the availability and terms of specified types of indebtedness and is actively engaged in and, in the good faith opinion of the Board, has a favorable reputation for skill and experience in underwriting or providing financial advisory services in respect of similar types of securities.

"Fiscal Year" shall mean the twelve month period beginning July 1 of each year and ending June 30 of the following year.

"Hedge Agreement" shall mean, without limitation, (i) any contract known as or referred to or which performs the function of an interest rate swap agreement, currency swap agreement, forward payment conversion agreement, or futures contract; (ii) any contract providing for payments based on levels of, or changes or differences in, interest rates, currency exchange rates, or stock or other indices; (iii) any contract to exchange cash flows or payments or series of payments; (iv) any type of contract called, or designed to perform the function of, interest rate floors, collars, or caps, options, puts, or calls, to hedge or minimize any type of financial risk, including, without limitation, payment, currency, rate, or other financial risk; and (v) any other type of contract or arrangement that the Board determines is to be used, or is intended to be used, to manage or reduce the cost of any indebtedness or other obligations, to convert any element of any indebtedness or other obligations from one form to another, to maximize or increase investment return, to minimize investment return risk, or to protect against any type of financial risk or uncertainty. A Hedge Agreement shall not include any commodity hedge agreement or similar arrangement. For purposes of Resolution No. 1644, as amended, a Hedge Agreement shall be deemed not to have any principal amount for purposes of obtaining consents or approvals of holders of Parity Indebtedness or for otherwise determining the amount of Outstanding Parity Indebtedness.

"Hedged Indebtedness" shall mean any indebtedness or other obligation for which the Board or the City, on behalf of the Board, shall have entered into a Qualified Hedge Agreement.

"Hedge Payments" shall mean amounts payable by the Board or the City, on behalf of the Board, pursuant to any Hedge Agreement, other than termination payments, fees, expenses, and indemnity payments.

"Hedge Period" shall mean the period during which a Hedged Agreement is in effect.

"Hedge Receipts" shall mean amounts payable by any provider of a Hedge Agreement pursuant to such Hedge Agreement, other than termination payments, fees, expenses, and indemnity payments.

"Maximum Annual Aggregate Debt Service" shall mean the maximum Aggregate Debt Service in the Fiscal Year during which such calculation is made or any future Fiscal Year.

"Net Revenues" shall mean Revenues, excluding any profits or losses on the sale or other disposition, not in the ordinary course of business, of investments or fixed or capital assets, less Current Operating Expenses.

"Outstanding Parity Indebtedness" shall mean any Parity Indebtedness that is outstanding under the Resolution or other document under which such Parity Indebtedness is issued.

"Parity Indebtedness" shall mean bonds, notes, loan agreements, and other debt obligations, including Balloon Indebtedness, Short-Term Indebtedness, Variable Rate Indebtedness and Hedge Agreements (but only to the extent of Hedge Payments), issued by or entered into by the Board or by the City on behalf of the Board on a parity of lien under Resolution No. 1644 in accordance with the restrictive provisions of the Resolution described herein, including any bonds, notes, loan agreements or other obligations secured by a pledge of and/or lien on a Merged System and the revenues derived from the operation of such Merged System, as defined herein, (provided such pledge and lien are subject only to normal and customary expenses of operating, maintaining, repairing and insuring any such System), so long as the Merged System is not being operated separately from the System as is permitted herein.

"Principal Installment" shall mean, as of the date of calculation and with respect to the indebtedness with respect to which the calculation is being made, (i) the principal amount of the indebtedness due on a certain future date for which no Sinking Fund Installments have been established, (ii) Sinking Fund Installment due on a certain future date for such indebtedness and (iii) if such future dates coincide, the sum of such principal amount and any such Sinking Fund Installment.

"Qualified Hedge Provider" shall mean an entity whose senior unsecured long term obligations, financial program rating, counterparty rating, or claims paying ability, or whose payment obligations under the related Hedge Agreement are absolutely and unconditionally guaranteed or insured or collateralized by an entity whose senior unsecured long term obligations, financial program rating, counterparty rating, or claims paying ability, are rated either (i) at least as high as "A" or better by Standard & Poors' Rating Group (or any successor thereto) ("S&P") or "A2" or better by Moody's Investors Services, Inc. (or any successor thereto) ("Moody's") (the "Initial Rating Requirement") and such entity maintains a rating on its debt or claims paying ability of not less than "A-" from S&P or "A3" from Moody's (the "Minimum Rating Requirement"); provided that this requirement shall be deemed to have been met, even if the rating of such entity is reduced below the Minimum Rating Requirement, if such entity is replaced with an entity meeting the Initial Rating Requirement within twenty business days from when the Board receives notice that the Minimum Rating Requirement has not been met. An entity's status as a Qualified Hedge Provider is made as of the time the applicable calculation is made.

"Revenues" shall mean all revenues, rentals, earnings and income of the System from whatever source, determined in accordance with generally accepted accounting principles, including all revenues derived from the operation of the System; proceeds from the sale of property; proceeds of insurance and condemnation awards and compensation for damages, to the extent not applied to the payment of the cost of repairs, replacements and improvements; and all amounts realized from the investment of money in the accounts and funds of the System (excluding any investment earnings from construction or improvement funds created for the deposit of bond, note, or loan agreement proceeds pending use, to the extent such income is applied to the purposes for which the bonds, notes or loan agreement were issued, and funds created to refund any outstanding obligations payable from Revenues of the System) and at the election of the Board, shall not include any rates, fees, rentals or other charges or other income received by the Board from the operation of a Merged System. "Revenues" shall also not include any payments to the Board with respect to which an adjustment to Debt Service has been made pursuant to subparagraph (g) of the definition of Debt Service.

"Short-Term Indebtedness" shall mean bonds, notes or other obligations, including Variable Rate Indebtedness, maturing five (5) years or less from their date of issuance which are issued in anticipation of the issuance of revenue bonds the proceeds of which will be used to pay the Short-Term Indebtedness.

"Sinking Fund Installment" shall mean, as of any particular date of calculation, the amount required to be paid on a certain future date for the retirement of Outstanding Parity Indebtedness which mature after said future date, but does not include any amount payable by reason of the maturity of an Outstanding Parity Indebtedness or by call for redemption at the election of the Board or the City on behalf of the Board.

"Valuation Date" shall mean with respect to any Capital Appreciation Indebtedness, the date or dates set forth in the resolution authorizing such Capital Appreciation Bonds on which specific Accreted Values are assigned to the Capital Appreciation Bonds.

"Variable Rate Indebtedness" shall mean any bonds, notes or other obligations of the Board or the City, on behalf of the Board, the interest rate on which is subject to periodic adjustment, at intervals, at such times and in such manner as shall be determined by the resolution authorizing such indebtedness, provided that if the interest rate shall have been fixed for the remainder of the term thereof (including a fixed rate pursuant to a Hedge Agreement with a Qualified Hedge Provider), it shall no longer be Variable Rate Indebtedness.

The term "Bonds" in Resolution No. 1644 shall for all purposes have the same meaning as "Parity Indebtedness" described above unless the context clearly requires otherwise, and notwithstanding any provision of Resolution No. 1644 to the contrary, any Parity Indebtedness issued on a parity of lien under the Resolution, as amended, may be in such form, may be executed in such manner, may be payable upon such terms and upon such dates, may be subject to such registration provisions, may be designated in such manner, may be issued for such purpose and may be issued pursuant to such applicable laws as is provided in the resolution authorizing such Parity Indebtedness.

Pledge of Revenues

The punctual payment of principal and premium, if any, and interest on all Parity Indebtedness and Hedge Payments with respect to Parity Indebtedness shall be payable from and secured equally and ratably by the Net Revenues of the System, without priority by reason of number or time of sale or execution or delivery and such Net Revenues are irrevocably pledged to the punctual payment of such principal, premium, interest and Hedge Payments as the same become due.

Disposition of Revenues

As long as any Parity Indebtedness shall be outstanding and unpaid either as to principal or as to interest, or until the discharge and satisfaction of the Parity Indebtedness as provided in the resolution authorizing said Parity Indebtedness, the entire income and revenues of the System shall be deposited as collected in the Revenue Fund established by the Resolution (the "Revenue Fund"), to be administered and controlled by the Board. The income and revenues deposited therein shall be used only as follows:

(a) The money in the Revenue Fund shall be disbursed first from month to month for the payment of Current Operating Expenses.

(b) The money remaining in the Revenue Fund, after payment of Current Operating Expenses, shall next be used to make deposits into a separate and special fund, to be known as the Debt Service Fund (the "Debt Service Fund"), to be kept separate and apart from all other funds of the Board and used to pay principal of and interest on Parity Indebtedness and Hedge Payments (net of Hedge Receipts) with respect thereto as the same become due, either by maturity or mandatory redemption. Such deposits shall be made monthly, or as otherwise set forth herein or in the resolution authorizing such Parity Indebtedness or Hedged Payments, until all Parity Indebtedness is paid in full or discharged and satisfied. Unless otherwise authorized in the resolution authorizing any Parity Indebtedness, for the period commencing with the month next following the delivery of the Parity Indebtedness, each monthly deposit shall be an amount that, together with all other monthly deposits of approximately equal amounts during such period and amounts otherwise in said Fund, will be equal to principal due on the Parity Indebtedness on the next principal payment date, divided by the number of months from and including the month of the first such deposit to and including the months preceding the next principal payment date; provided that, if the next principal payment date is more than 13 months following the month next following the delivery of the Parity Indebtedness, such monthly deposits to the Debt Service Fund shall commence in the month that is 13 months prior to the month of the next principal payment date. Furthermore, during such period, there shall be deposited to the Debt Service Fund monthly an amount equal to one-sixth (1/6) of the interest coming due on the next interest payment date for Parity Indebtedness (unless otherwise specified in the resolution authorizing such Parity Indebtedness).

In each month thereafter, each monthly deposit shall consist of an interest component and a principal component except as provided above. If interest is payable semi-annually, then the interest component shall be an amount equal to not less than one-sixth (1/6th) of the interest coming due on any Parity Indebtedness on the next succeeding interest payment date, unless otherwise specified in the resolution authorizing such Parity Indebtedness. Unless otherwise specified in the resolution authorizing Parity Indebtedness, the principal component shall be an amount which shall be established annually on each July 1 for all payments to be made during the ensuing twelve-month period commencing in July of each calendar year and ending in June of the following calendar year and shall be not less than one-twelfth (1/12) of the principal amounts, as the case may be, coming due, whether by maturity or mandatory redemption, on the Parity Indebtedness then outstanding during such twelve-month period. No further deposit shall be required when the Debt Service Fund balance is equal to or greater than the amount needed to pay interest coming due on the next interest payment date and the total of the principal amounts payable, either by maturity or mandatory redemption, during the applicable twelve-month period. Money in the Debt Service Fund shall be used solely and is expressly and exclusively pledged for the purpose of paying principal of and interest on Parity Indebtedness. Notwithstanding the foregoing, deposits for the payment of principal and interest on Variable Rate Indebtedness or Hedge Payments shall be made as set forth in the resolution authorizing such Variable Rate Indebtedness or Hedge Payments.

(c) The next available money in the Revenue Fund shall be paid to any issuer of an insurance policy, surety bond, letter of credit or similar instrument (a "Reserve Fund Credit Facility") (pro rata, if more than one) to the extent needed to reimburse the issuer for any amounts advanced under the Reserve Fund Credit Facility, including any amounts payable under any guaranty agreement relating to such amounts, together with reasonable related expenses incurred by the issuer of such Reserve Fund Credit Facility and any interest relating to such amounts.

(d) The next available money in the Revenue Fund shall be deposited to any reserve fund created pursuant to any resolution authorizing Parity Indebtedness in the manner provided in such resolution.

(e) The next available money in the Revenue Fund shall be used to pay liquidity fees, remarketing agent fees and similar fees that are payable in connection with the issuance of Parity Indebtedness.

(f) The next available money in the Revenue Fund shall be used for the payment of all other payments to be made under the Parity Indebtedness not provided for in the preceding subsections including payments in connection with Hedge Agreements that are not Hedge Payments, including termination payments.

(g) The next available money in the Revenue Fund shall be used for the purpose of making payments in lieu of taxes and, to the extent not so used, may be used for any lawful purpose, including such reserve funds and other funds as the Board deems necessary and appropriate.

(h) Money on deposit in the Funds described above may be invested by the Board in such investments as shall be permitted by applicable law, as determined by an authorized representative of the Board, all such investments to mature not later than the date on which the money so invested shall be required for the purpose for which the respective Fund was created. All income derived from such investments shall be regarded as revenues of the System and shall be deposited in the Revenue Fund. Such investments shall at any time necessary be liquidated and the proceeds thereof applied to the purpose for which the respective Fund was created. The Board is authorized to enter into contracts with third parties for the investment of funds in any of the Funds described herein.

(i) The Revenue Fund and the Debt Service Fund shall be held and maintained by the Board and, when not invested, kept on deposit with a bank or financial institution regulated by and the deposits of which are insured by the Federal Deposit Insurance Corporation or similar federal agency. All moneys in such Funds so deposited shall at all times be secured to the extent and in the manner required by applicable State law.

(j) Notwithstanding the foregoing, the Board may deposit any amounts described in subparagraph (g) of the definition of Debt Service directly into the Debt Service Fund at the Board's option.

Additional Indebtedness

The Series QQ-2024 Bonds issued pursuant to the Resolution shall be on a parity with the Outstanding Parity Indebtedness, and with all Parity Indebtedness hereafter issued within the terms, limitations and restrictions of the Resolution, as amended.

The City has covenanted that it will incur no indebtedness payable from the revenues of the Electric System and having priority over the Series QQ-2024 Bonds.

The following shall apply to the incurrence of additional Parity Indebtedness:

(a) All payments required to be made to the Debt Service Fund and into any reserve fund which may be required under resolutions authorizing Parity Indebtedness are current as of the date of issuance of the additional bonds, notes or other obligations, additional bonds, notes or other obligations may be issued or entered into by the City or the Board on a parity and equality of lien with the Outstanding Parity Indebtedness with respect to the lien and claim of such additional bonds, notes or other obligations to the net revenues of the System and the money on deposit in the Debt Service Fund for the following purposes and under the following conditions, but not otherwise:

(i) For the purpose of refunding any Outstanding Parity Indebtedness, subordinate bonds, notes, loan agreements or other obligations, provided that after the issuance of such additional Parity Indebtedness, the Aggregate Debt Service on all Outstanding Parity Indebtedness, including the additional Parity Indebtedness to be issued, in any Fiscal Year shall not increase by more than ten percent (10%) after the issuance of such additional Parity Indebtedness.

(ii) For the purpose of financing the completion or equipping of improvements to the System for which Outstanding Parity Indebtedness have previously been issued but only to the extent necessary to complete such improvements in the manner contemplated at the time of the issuance of the Outstanding Parity Indebtedness that financed such improvements.

(iii) For the purposes of refunding any Outstanding Parity Indebtedness or any Prior Lien Bonds, subordinated bonds, notes or other obligations or extending, improving or replacing the System or for any other lawful purposes under applicable law, if one of the following conditions shall have been met: (A) the Net Revenues for any twelve-month period selected by the Board ending within the twelve months prior to the date of the issuance of the additional Parity Indebtedness must have been equal to at least 120% of the Maximum Annual Aggregate Debt Service on Outstanding Parity Indebtedness plus the Debt Service on the additional Parity Indebtedness proposed to be issued or (B) the estimated Net Revenues of the System for each of the three Fiscal Years next succeeding the issuance of the additional Parity Indebtedness, must be equal at least to 120% of Maximum Annual Aggregate Debt Service on the Notes, any other Outstanding Parity Indebtedness and all outstanding Prior Lien Bonds plus the Debt Service on the additional Parity Indebtedness proposed to be issued; provided, however, that if the additional Parity Indebtedness is to be issued for the acquisition or construction of any extension, improvement or replacement to the System, then the estimate of Net Revenues may be for the three Fiscal Years ensuing after the time that such improvement, extension or replacement is expected to be placed in service.

(iv) For the purpose of entering into a Hedge Agreement with a Qualified Hedge Provider with respect to Outstanding Parity Indebtedness but only to the extent of Hedge Payments.

(b) In calculating Net Revenues, Debt Service and Maximum Annual Aggregate Debt Service for all purposes under the Resolution, the following adjustments and assumptions shall be made:

(i) In calculating Net Revenues on a historical basis, the amount of such Net Revenues may be adjusted to take into account any rate increase adopted by the Board that is effective prior to the date of such calculation.

(ii) In calculating projected Net Revenues for any period in the future, the amount of such Net Revenues may be adjusted to take into account any rate increase adopted by the Board that is to be effective within one year of the date of such calculation, and if such calculation is being made in connection with the issuance of Parity Indebtedness, the Net Revenues may be calculated based upon the assumption that any improvements financed with proceeds of the Parity Indebtedness will be completed within a time period established in a report of a Consulting Engineer.

(c) Any calculation or projection of Net Revenues described above, whether for a historical period or for a future period, shall be set forth in a certificate of the President and Chief Executive Officer and Chief Financial Officer of the Board. If the calculation is made as to a future period, a Consulting Engineer shall state in a report that the assumptions underlying any projections of the Board as to Net Revenues are reasonable. Any calculation of the Maximum Annual Aggregate Debt Service shall also be set forth in a certificate of the President and Chief Executive Officer and Chief Financial Officer of the Board, which certificate shall be accompanied by a certificate of a financial advisory firm to the effect that the calculation of Maximum Annual Aggregate Debt Service is correct and is in compliance with the terms of the Resolution, but such certificate of the financial advisory firm shall only be required if Variable Rate Indebtedness, Balloon Indebtedness or Short-Term Indebtedness must be taken into account in the calculation of Maximum Annual Aggregate Debt Service.

(d) Any obligation of the Board to pay amounts under a Hedge Agreement other than Hedge Payments, including a termination payment upon the termination of a Hedge Agreement, shall be a subordinate obligation to the obligations with respect to Parity Indebtedness.

Collection of Revenues

All revenues which will be received by the City from the System shall be deposited in a separate fund, which shall be kept separate and distinct from all other funds of the City, and is designated as the "Electric Fund."

Rate Covenant

The City will fix rates and collect charges for electric energy and the services, facilities and commodities furnished by the System of the City so as to provide revenues sufficient to pay, as the same shall become due, the principal of and interest on the bonds, in addition to pay, as the same shall become due, the necessary expenses or operating and maintaining the System and all other obligations and indebtedness payable out of the Electric Fund, and that such rates and charges shall not be reduced so as to be insufficient to provide revenues for such purposes.

Without limiting the foregoing, the Board will fix rates and collect charges for electric energy and the services, facilities and commodities furnished by the System so that the Net Revenues of the System will be at least sufficient for each Fiscal Year beginning on and after July 1, 2018, computed as of the date such rates and charges are established, to pay the sum of:

(i) an amount equal to 120% of the Aggregate Debt Service on all Outstanding Parity Indebtedness for such Fiscal Year; and

(ii) certain amounts, if any, required to be paid or deposited during such Fiscal Year relating to any reserve fund deposits, liquidity fees, remarketing agent fees and similar fees, and reimbursements under any Reserve Fund Credit Facility.

Operating and Maintenance

The City will maintain the System in good condition, and will operate the System in an efficient and economical manner, making such expenditures for equipment and for renewals and replacement as may be proper for the economical operation and maintenance thereof.

Discharge and Satisfaction of Bonds

If the Board, on behalf of the City, shall pay and discharge the indebtedness evidenced by any of the Series QQ-2024 Bonds or Parity Bonds (referred to hereinafter, collectively, in this Section as the "Bonds") in any one or more of the following ways:

(a) By paying or causing to be paid, by deposit of sufficient funds as and when required with the Registration Agent, the principal of and interest on such Bonds as and when the same become due and payable;

(b) By depositing or causing to be deposited with any financial institution which has trust powers and which is regulated by and the deposits of which are insured by the Federal Deposit Insurance Corporation or similar federal agency ("as Agent"; which Agent may be the Registration Agent), in trust or escrow, on or before the date of maturity or redemption, sufficient money or Defeasance Obligations, the principal of and interest on which, when due and payable, will provide sufficient moneys to pay or redeem such Bonds and to pay premium, if any, and interest thereon when due until the maturity or redemption date (provided, if such Bonds are to be redeemed prior to maturity thereof, proper notice of such redemption shall have been given or adequate provision shall have been made for the giving of such notice); or

(c) By delivering such Bonds to the Registration Agent, for cancellation by it;

and if the Board, on behalf of the City, shall also pay or cause to be paid all other sums payable under the Resolution by the Board or the City with respect to such Bonds, or make adequate provision therefor, and by resolution of the Board instruct any such Agent to pay amounts when and as required to the Registration Agent for the payment of principal of and interest and redemption premiums, if any, on such Bonds when due, then and in that case the indebtedness evidenced by such Bonds shall be discharged and satisfied and all covenants, liens, pledges, agreements and obligations entered into, created or imposed under the Resolution, including the pledge of and lien on the net revenues of the System set forth herein, shall be fully discharged and satisfied with respect to such Bonds and the owners thereof and shall thereupon cease, terminate and become void.

If the Board, on behalf of the City, shall pay and discharge or cause to be paid and discharged the indebtedness evidenced by any of the Bonds in the manner provided in either clause (a) or clause (b) above, then the registration owners thereof shall thereafter be entitled only to payment out of the money or Defeasance Obligations deposited as aforesaid.

Except as otherwise provided in the Resolution, neither Defeasance Obligations nor moneys deposited with the Agent pursuant to this Section nor principal or interest payments on any such Defeasance Obligations shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal of and premium, if any, and interest on said Bonds; provided that any cash received from such principal or interest payments on such Defeasance Obligations deposited with the Agent, (A) to the extent such cash will not be required at any time for such purpose, shall be paid over to the Board as received by the Agent and (B) to the extent such cash will be required for such purpose at a later date, shall, to the extent practicable, be reinvested in Defeasance Obligations maturing at times and in amounts sufficient to pay when due the principal and premium, if any, and interest to become due on said Bonds on or prior to such redemption date or maturity date thereof, as the case may be, and interest earned from such reinvestments, to the extent not needed for the payment of such principal, premium and interest, shall be paid over to the Board, as received by the Agent. For the purposes described herein, Defeasance Obligations shall mean direct obligations of, or obligations, the principal of and interest on which are guaranteed by, the United States of America, or any agency thereof, obligations of any agency or instrumentality of the United States or any other obligations at the time of the purchase thereof are permitted investments under Tennessee law for the purposes described in this Section, which bonds or other obligations shall not be subject to redemption prior to their maturity other than at the option of the registered owner thereof.

Nothing described above shall be construed to alter or change the redemption provisions relating to the Series QQ-2024 Bonds. No redemption privilege shall be exercised with respect to the Series QQ-2024 Bonds or any Parity Bonds except at the option and election of the Board. The right to redemption set forth in the Resolution shall not be exercised by any Registration Agent or Agent unless expressly directed in writing by an authorized representative of the Board.

Sale of Electric System

The System may be sold, mortgaged, leased or otherwise disposed of only as a whole, or substantially as a whole, and only if the proceeds to be realized shall be sufficient to fully retire all obligations of the System and upon consent by the holders of sixty-five percent (65%) in the aggregate principal amount of the outstanding Bonds (exclusive of issuer-owned Bonds) to be obtained in the manner provided in the Resolution; provided, however, that the City shall have, and reserves the right to sell, lease, or otherwise dispose of any of the property comprising a part of the System determined to be no longer necessary and useful in the operation thereof, which is found, by the Board, or such other body as may be authorized to manage and operate the System, not to be both useful and necessary for the continued operation of the System substantially as it now exists; and, prior to any such sale, lease or other disposition of said property, the Board, or such other body as may be authorized to manage and operate the System shall, by resolution duly adopted, have made said finding and authorized such sale, lease or other disposition of the property. The proceeds from any such property shall be paid into the Renewal and Replacement Fund, but shall not reduce the amount otherwise required to be paid into said fund. Disbursement of such additional payments shall be made in the same manner and for the same purposes as other disbursements from the Renewal and Replacement Fund.

Notwithstanding anything elsewhere provided in the Resolution, and without being subject to any of the foregoing restrictions, the City shall have the right to sell, lease, transfer, or otherwise dispose of the System, as a whole or substantially as a whole, to any municipal corporation, county, political subdivision, governmental corporation, or governmental agency (each of which shall be included within the term "Transferee" as herein used), provided the Transferee thus acquiring the System from the City will assume the performance of and be bound by all of the City's obligations to the holders of the Bonds under the covenants and provisions of the Resolution, as amended.

Insurance

The City will carry adequate fire and windstorm insurance on buildings and contents of buildings of the System and provide for adequate public liability insurance, and the City will also carry such other insurance as is ordinarily carried by utility companies privately or municipally owned and doing a similar business in territory contiguous to the City. Proceeds from any insurance policies, except public liability, shall be paid into the Renewal and Replacement Fund which payments shall not reduce the amount otherwise required to be paid into said fund. Disbursements of such proceeds of insurance shall be made in the same manner and for the same purposes as other disbursements from the Renewal and Replacement Fund.

Audits

The City will cause proper books and accounts adapted to the System to be kept and will cause the books and accounts with respect to the System to be audited annually by an independent firm of certified public accountants, and will make generally available to security holders the balance sheet and the profit and loss statement of the System as certified by such accountants.

Appointment of Receiver

Any holder of the Bonds, including a trustee or trustees for such holders shall, in addition to all other remedies and rights of holders of any of the Bonds, have the right, by appropriate proceedings in any court of competent jurisdiction, in the event of default in the payment of the principal of or interest on the Bonds, to obtain the appointment of a receiver for the System, which receiver may enter upon and take possession of the System, operate and maintain the System, fix rates and collect all revenues arising therefrom in as full a manner and to the same extent as the City itself might do. The receiver shall deposit all moneys collected by him in a separate account or accounts and shall dispose of such revenues in accordance with the terms and conditions of the Resolution and as the court shall direct.

Amendment of Resolution

The Resolution may be amended without the consent of or notice to the holders of the Parity Indebtedness for the purposes of (i) curing any ambiguity or formal defect or omission in the Resolution; (ii) making such amendments as are necessary to prevent interest on any Parity Indebtedness from being included in gross income of the holders thereof for federal income tax purposes; (iii) adding to the covenants and agreements of the City or the Board or surrendering or limiting any right or power of the City or the Board; or (iv) making such amendments as are necessary for any Parity Indebtedness to be held or continue to be held in book-entry form.

In addition to the amendments to the Resolution without the consent of the holders as referred to above, the Resolution may be amended from time to time if such amendment shall have been consented to by the holders of not less than a majority in principal amount of Outstanding Parity Indebtedness (not including in any case any Bonds or Parity Indebtedness which may then be held or owned by or for the account of the City or Board); but the Resolution may not be so amended (without the consent of all affected holders of Outstanding Parity Indebtedness) in such manner as to:

(a) make any change in the maturity or interest rate (other than in accordance with its terms) of the Parity Indebtedness, or modify the terms of payment of principal of or interest on Parity Indebtedness or impose any conditions with respect to such payment; or

(b) to make any Parity Indebtedness redeemable other than in accordance with its terms; or

(c) to create a preference or priority of any Parity Indebtedness over any other Parity Indebtedness; or

(d) reduce the percentage of the principal amount of Parity Indebtedness the consent of the holders of which is required to effect a further amendment.

Whenever the City shall propose to amend the Resolution as described above, the Board shall cause notice of the proposed amendment to the holders of the Parity Indebtedness by sending a summary of such proposed amendment to such holders and shall state that a copy of the proposed amendatory resolution is on file in the office of the Secretary of the Board. The holders of Parity Indebtedness shall be determined by the registration records of the City or the Board or any registration agent therefor or in such other manner as is commercially reasonable.

Whenever at any time within one year from the date of the mailing of such notice there shall be filed with the Secretary an instrument or instruments executed by the holders of at least a majority aggregate principal amount of the Outstanding Parity Indebtedness, which instrument or instruments shall refer to the proposed amendatory resolution described in such notice and shall specifically consent to and approve the adoption thereof, then the Board and/or the City may adopt such amendatory resolution and such resolution shall become effective and binding upon the holders of all Parity Indebtedness.

Any consent given by the holder of Parity Indebtedness as described above shall be irrevocable for a period for one year from the date of the instrument evidencing such consent and shall be conclusive and binding upon all future holders of the same Parity Indebtedness during such period. Such consent may be revoked at any time after one year from the date of such instrument by the holder who gave such consent or by a successor in title by filing notice of such revocation with the Secretary.

For purposes of determining the aggregate principal amount of Parity Indebtedness outstanding for purposes of amendments, and whether the holders of a sufficient percentage in aggregate principal amount of Bonds and Parity Indebtedness have consented to any amendment, the Board may make such determination at any time while a request for consents to such amendment is outstanding and may include any Parity Indebtedness issued during such period in making such determination. The Accreted Value of any Capital Appreciation Debt as of the time of any such determination shall be used in making any such determination.

The fact and date of the execution of any instrument relative to amendments may be proved by the certificate of any officer in any jurisdiction who by the laws thereof is authorized to take acknowledgments of deeds within such jurisdiction, that the person signing such instrument acknowledged before him the execution thereof, or may be proved by an affidavit of a witness to such execution sworn to before such officer. In the event that any Parity Indebtedness is held in book-entry form, any consent to an amendment may be executed by any beneficial owner of such Parity Indebtedness, which beneficial ownership may be proved by an affidavit of the beneficial owner.

Notwithstanding anything in the Resolution to the contrary, the Board and/or the City may adopt amendments to the Resolution that do not become effective until the payment or defeasance of any Parity Indebtedness outstanding on the date such amendments are adopted.

Separate Systems

Nothing contained in the Resolution shall prevent the Board from acquiring a separate electric transmission or distribution system or any combination thereof, or any other system, facilities or equipment which municipalities in Tennessee operating electric distribution systems are authorized to own, operate or finance, and nothing herein shall prevent the issuance of bonds, notes, warrants, certificates or other obligations or evidences of indebtedness, to acquire any such system or facilities. Any facilities or system acquired by the Board, at the election of the Board, may be operated as a separate and independent system or be merged into the System and operated as a single unified system with the System (the "Merged Systems"). Revenues of the Merged Systems may be commingled without keeping separate accounts of the funds of each of the systems, provided all Revenues of the Merged Systems are applied in accordance with the Resolution, including the payment of principal of and interest on all bonds, notes or other obligations of the acquired system. All Outstanding Parity Indebtedness and any bonds, notes and other obligations of the acquired system outstanding upon the merger of the systems designated by the Board may be payable from revenues of the Merged Systems on a parity and equality of lien with each other, provided the Net Revenues of the Merged Systems, for a period of twelve consecutive months (hereinafter sometimes called the "Twelve-Month Period") out of the eighteen months immediately preceding the merger of the systems shall be equal to at least 1.2 times the Maximum Annual Aggregate Debt Service on all Outstanding Parity Indebtedness, all bonds, notes and obligations of the acquired system then outstanding and any additional indebtedness to be then issued; or if within twelve months prior to any such calculation, the Board shall have put into effect a revised schedule of rates for the Merged Systems or any part thereof, then the Net Revenues of the Merged Systems, as certified by a Consulting Engineer or Financial Adviser, that would have resulted from such revised rates had they been in effect for the Twelve-Month Period, may be used in lieu of the actual Net Revenues for such Twelve-Month Period.

Combined Systems

Notwithstanding anything provided in the Resolution, nothing contained in the Resolution shall prevent the Board from combining any or all of the Board's utility systems into a single unified operation (the "Combined System") and commingling the revenues of the systems so combined in the Combined System without keeping separate accounts of the funds of each of such systems, provided payments from the funds of the Combined System are required to be made into the Debt Service Fund created hereunder from time to time in amounts sufficient to comply with provisions thereof and in amounts sufficient to pay the principal of and interest on the Outstanding Parity Indebtedness as such principal and interest becomes due. Bonds, notes and other obligations ("Parity Combined System Obligations") payable from revenues of the Combined System may be issued on a parity with Outstanding Parity Indebtedness provided at the time of the issuance of any such Parity Combined System Obligations, the following conditions have been complied with. The Net Revenues of the Combined System, for a period of twelve consecutive months (hereinafter sometimes called the "Combined Twelve-Month Period") out of the eighteen months immediately preceding the issuance of such Parity Combined System Obligations shall be equal to at least 1.2 times the Maximum Annual Aggregate Debt Service on all Outstanding Parity Indebtedness and the obligations proposed to be issued; or if within twelve months prior to the issuance of the Parity Combined System Obligations a revised schedule of rates for the Combined System or any part thereof shall have been put into effect, then the Net Revenues of the Combined System for the Twelve-Month Period, as certified by a Consulting Engineer or Financial Advisor, that would have resulted from such revised rates had they been in effect for the Twelve-Month Period, may be used in lieu of the actual Net Revenues for such Twelve-Month Period.

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APPENDIX F

SUMMARY OF CERTAIN PROVISIONS
OF
WATER BOND RESOLUTION

SUMMARY OF CERTAIN PROVISIONS OF THE WATER BOND RESOLUTIONS

The following statements are brief summaries of certain provisions of the Water Bond Resolutions, copies of which are available for examination at the offices of the Knoxville Utilities Board (the "Board"). Terms defined in the Water Bond Resolutions and not defined elsewhere in this Official Statement shall have the meaning set forth in the Water Bond Resolutions. Section numbers refer to sections of Resolution No. 2075, as amended by Resolution No. 3633, Resolution No. R-26-88, Resolution No. R-8-98, Resolution No. R-151-01 and Resolution R-228-2018, and as supplemented by Resolution No. R-155-2024 and as otherwise supplemented prior to the date hereof (collectively, the "Resolution").

Security

The OO-2024 Bonds constitute and, when issued, will be Bonds under the Resolution. All OO-2024 Bonds are limited obligations of the City, payable solely and ratably from the Net Revenues of the Water System of the City and are on parity with each other in all respects.

The OO-2024 Bonds will be issued pursuant to the provision of the Resolution which sets forth in detail covenants of the City with respect to the OO-2024 Bonds. The following summary is a brief outline of certain provisions contained in the Resolution and is not to be considered as a full statement thereof. This summary is qualified by reference to and is subject to the Resolution, copies of which may be examined at the office of the Board.

Pledge of Revenues

The Bonds issued under and pursuant to the Resolution shall not be general obligations of the City, and no holder of any Bond issued under the Resolution shall ever have the right to compel any exercise of taxing power of the City to pay said Bonds or the interest thereon. The punctual payment of principal and premium, if any, and interest on all Parity Indebtedness and Hedge Payments with respect to Parity Indebtedness shall be payable from and secured equally and ratably by the Net Revenues of the System, without priority by reason of number or time of sale or execution or delivery and such Net Revenues are irrevocably pledged to the punctual payment of such principal, premium, interest and Hedge Payments as the same become due.

Certain Definitions

"Accreted Value" shall mean, with respect to any Capital Appreciation Debt, an amount equal to the principal amount of such Capital Appreciation Debt (determined on the basis of the principal amount per $5,000 at maturity thereof) plus the amount assuming semi-annual compounding of earnings which would be produced on the investment of such principal amount, beginning on the dated date of such Capital Appreciation Debt and ending at the date such Accreted Value is calculated, at a yield which, if produced until maturity, will produce $5,000 at maturity. As of any Valuation Date, the Accreted Value of any Capital Appreciation Debt shall mean the amount set forth for such date in the resolution authorizing such Capital Appreciation Debt, which amount shall be required to be determined in the manner described above, and as of any date other than a Valuation Date, the sum of (a) the Accreted Value on the preceding Valuation Date and (b) the product of (1) a fraction, the numerator of which is the number of days having elapsed from the preceding Valuation Date and the denominator of which is the number of days from such preceding Valuation Date to the next succeeding Valuation Date and (2) the difference between the Accreted Values for such Valuation Dates.

"Aggregate Debt Service" for any period shall mean, as of any date of calculation, the sum of the amounts of Debt Service for such period with respect to all indebtedness with respect to which such calculation is required to be made for such period.

"Balloon Date" shall mean any maturity date for Balloon Indebtedness in a Balloon Year.

"Balloon Indebtedness" shall mean any bonds, notes or other indebtedness of the Board or the City, on behalf of the Board, other than Short-Term Indebtedness, twenty-five percent or more of the initial principal amount of which matures (or must be redeemed at the option of the holder) during any twelve month period, if such twenty-five percent or more is not to be amortized to below twenty-five percent by mandatory redemption prior to the beginning of such twelve month period.

"Balloon Year" shall mean any 12-month period in which more than 25% of the original principal amount of related Balloon Indebtedness matures or is subject to mandatory redemption by the Authority.

"Capital Appreciation Debt" shall mean any bonds, notes or other indebtedness of the Board or of the City on behalf of the Board as to which interest is payable only at the maturity or prior redemption of such bonds.

"Commitment," when used with respect to Balloon Indebtedness, shall mean a binding written commitment from a financial institution, surety, or insurance company to refinance such Balloon Indebtedness on or prior to any Balloon Date thereof.

"Consulting Engineer" shall mean (i) an engineering firm or individual engineer employed by the Board with substantial experience in advising utilities similar to the System operated by the Board as to the construction and maintenance of the System and in the projection of relative costs of expansion in the System or (ii) an engineer or engineers who are employees of the Board whose reports or projections are certified by a financial advisor with substantial experience in advising utilities similar to the System.

"Current Operating Expenses" shall include but not be limited to, expenses for ordinary repairs, removals and replacements of the System, salaries and wages, employees' health, hospitalization, pension and retirement expenses, fees for services, materials and supplies, rents, administrative and general expenses (including legal, engineering, accounting and financial advisory fees and expenses and costs of other consulting or technical services not funded with proceeds of indebtedness), insurance expenses, taxes and other governmental charges, the imposition or amount of which is not subject to control of the Board or the City, any payments made by the Board during any fiscal year to purchase water for delivery during or after the end of that fiscal year, and other payments made under any water supply contract, and any principal or interest payments made by the Board during any fiscal year on bonds, notes or other obligations, including loan agreements, issued or entered into for the purpose of financing the purchase of water, and to the extent so provided by the resolution authorizing such bonds, notes or obligations and to the extent not inconsistent with generally accepted accounting principles. Current Operating Expenses do not include depreciation or obsolescence charges or reserves therefor, amortization of intangibles or other bookkeeping entries of a similar nature, interest charges and charges for the payment of principal or amortization of bonded or other indebtedness of the Board or the City, on behalf of the Board, payable from revenues of the System, costs or charges made therefor, capital additions, replacements, betterments, extensions or improvements to or retirement from the System which under generally accepted accounting principles are properly chargeable to the capital account or the reserve for depreciation, and do not include losses from the sale, abandonment, reclassification, revaluation or other disposition of any properties of the System, nor such property items, including taxes and fuels, which are capitalized pursuant to the then existing accounting practices of the Board or expenses of a system that is merged into the System, as permitted hereunder, if revenues of the merged system are not included in Revenues at the election of the Board. If the Board operates its utilities as a Combined System, as defined herein, Current Operating Expenses shall be deemed to refer to the Current Operating Expenses of the Combined System.

"Debt Service" for any period shall mean, as of any date of calculation and with respect to the indebtedness with respect to which such calculation is being made, an amount equal to (i) the interest accruing during such period on such indebtedness plus (ii) the portion of each Principal Installment which would accrue during such period if such Principal Installment were deemed to accrue periodically in equal amounts from the next preceding Principal Installment due date for such indebtedness (or, if there shall be no such preceding Principal Installment due date, from a date of issuance of the indebtedness). For purposes of this definition:

(a) The principal and interest portions of the Accreted Value of Capital Appreciation Debt becoming due at maturity or by virtue of a Sinking Fund Installment shall be included in the calculations of accrued and unpaid and accruing interest or Principal Installments in such manner and during such period of time as is specified in the resolution authorizing such Capital Appreciation Debt.

(b) The annual principal and interest requirement on Short-Term Indebtedness shall be calculated as that amount necessary to amortize the Short-Term Indebtedness from the date it was issued over twenty (20) years in twenty (20) approximately equal annual payments of principal and interest using an assumed interest rate (which shall be the interest rate as of the date of issuance or the date of calculation, whichever is less, certified by a Financial Advisor to be the interest rate at which the City on behalf of the Board could reasonably expect to borrow the same amount by issuing indebtedness with the same priority of lien as such Balloon Indebtedness and with a 20-year term).

(c) With respect to any Variable Rate Indebtedness, including Hedged Indebtedness if the interest thereon calculated as set forth below is expected to vary, the interest coming due in any specified future period shall be determined as if the interest rate in effect at all times during such future period was, at the option of the Board, either (1) the average of the actual interest rates which were in effect (weighted according to the length of the period during which each such interest rate was in effect) for the most recent 12-month period immediately preceding the date of calculation for which such information is available (or shorter period if such information is not available for a 12-month period), or (2) the current average annual fixed rate of interest on securities of similar quality having a similar maturity date as certified by a Financial Advisor.

(d) With respect to any Hedged Indebtedness, the interest on such Hedged Indebtedness during any Hedge Period and for so long as the provider of the related Hedge Agreement has not defaulted on its payment obligations thereunder shall be calculated by adding (x) the amount of interest payable by the City or the Board on such Hedged Indebtedness pursuant to its terms and (y) the amount of Hedge Payments payable by the City or the Board under the related Hedge Agreement and subtracting (z) the amount of Hedge Receipts payable by the provider of the related Hedge Agreement at the rate specified in the related Hedge Agreement; provided, however, that to the extent that the provider of any Hedge Agreement is in default thereunder, the amount of interest payable by the City or the Board on the related Hedged Indebtedness shall be the interest calculated as if such Hedge Agreement had not been executed. In determining the amount of Hedge Payments or Hedge Receipts that are not fixed throughout the Hedge Period (i.e., which are variable), payable or receivable for any future period, such Hedge Payments or Receipts for any period of calculation (the "Determination Period") shall be computed by assuming that the variables comprising the calculation (e.g., indices) applicable to the Determination Period are equal to the average of the actual variables which were in effect (weighted according to the length of the period during which each such variable was in effect) for the most recent 12-month period immediately preceding the date of calculation for which such information is available (or shorter period if such information is not available for a 12-month period).

(e) With respect to Balloon Indebtedness (1) which is subject to a Commitment or (2) which does not have a Balloon Year commencing within 12 months from the date of calculation, such Balloon Indebtedness shall be assumed to be amortized in substantially equal annual amounts to be paid for principal and interest over an assumed amortization period of 20 years from the date of issuance at an assumed interest rate (which shall be the interest rate as of the date of issuance or the date of calculation, whichever is less, certified by a Financial Advisor to be the interest rate at which the City on behalf of the Board could reasonably expect to borrow the same amount by issuing indebtedness with the same priority of lien as such Balloon Indebtedness and with a 20-year term); provided, however, that if the maturity of such Balloon Indebtedness (taking into account the term of any Commitment) is in excess of 20 years from the date of issuance, then such Balloon Indebtedness shall be assumed to be amortized in substantially equal annual amounts to be paid for principal and interest over an assumed amortization period of years equal to the number of years from the date of issuance of such Balloon Indebtedness to maturity (including the Commitment) and at the interest rate provided above. For the purpose of calculating the Debt Service Requirement on Balloon Indebtedness (a) which are not subject to a Commitment and (b) which have a Balloon Year commencing within 12 months from the date of calculation, the principal payable on such Balloon Indebtedness during the Balloon Year shall be calculated as if paid on the Balloon Date.

(f) The principal of and interest on Parity Indebtedness and Hedge Payments shall be excluded from the determination of Debt Service to the extent that the same were or are expected to be paid with amounts on deposit on the date of calculation (or proceeds of indebtedness to be deposited on the date of issuance of any proposed Parity Indebtedness) in a fund established for such purpose.

"Financial Advisor" shall mean an investment banking or financial advisory firm or commercial bank who or which is retained by the Board for the purpose of passing on questions relating to the availability and terms of specified types of indebtedness and is actively engaged in and, in the good faith opinion of the Board, has a favorable reputation for skill and experience in underwriting or providing financial advisory services in respect of similar types of securities.

"Fiscal Year" shall mean the twelve month period beginning July 1 of each year and ending June 30 of the following year.

"Hedge Agreement" shall mean, without limitation, (i) any contract known as or referred to or which performs the function of an interest rate swap agreement, currency swap agreement, forward payment conversion agreement, or futures contract; (ii) any contract providing for payments based on levels of, or changes or differences in, interest rates, currency exchange rates, or stock or other indices; (iii) any contract to exchange cash flows or payments or series of payments; (iv) any type of contract called, or designed to perform the function of, interest rate floors, collars, or caps, options, puts, or calls, to hedge or minimize any type of financial risk, including, without limitation, payment, currency, rate, or other financial risk; and (v) any other type of contract or arrangement that the Board determines is to be used, or is intended to be used, to manage or reduce the cost of any indebtedness or other obligations, to convert any element of any indebtedness or other obligations from one form to another, to maximize or increase investment return, to minimize investment return risk, or to protect against any type of financial risk or uncertainty. A Hedge Agreement shall not include any commodity hedge agreement or similar arrangement. For purposes of Resolution No. 2075, as amended, a Hedge Agreement shall be deemed not to have any principal amount for purposes of obtaining consents or approvals of holders of Parity Indebtedness or for otherwise determining the amount of Outstanding Parity Indebtedness.

"Hedged Indebtedness" shall mean any indebtedness or other obligation for which the Board or the City, on behalf of the Board, shall have entered into a Hedge Agreement.

"Hedge Payments" shall mean amounts payable by the Board or the City, on behalf of the Board, pursuant to any Hedge Agreement, other than termination payments, fees, expenses, and indemnity payments.

"Hedge Period" shall mean the period during which a Hedged Agreement is in effect.

"Hedge Receipts" shall mean amounts payable by any provider of a Hedge Agreement pursuant to such Hedge Agreement, other than termination payments, fees, expenses, and indemnity payments.

"Maximum Annual Aggregate Debt Service" shall mean the maximum Aggregate Debt Service in the Fiscal Year during which such calculation is made or any future Fiscal Year.

"Net Revenues" shall mean Revenues, excluding any profits or losses on the sale or other disposition, not in the ordinary course of business, of investments or fixed or capital assets, less Current Operating Expenses.

"Outstanding Parity Indebtedness" shall mean any Parity Indebtedness that is outstanding under the resolution or other document under which such Parity Indebtedness is issued.

"Parity Indebtedness" shall mean bonds, notes, loan agreements, and other debt obligations, including Balloon Indebtedness, Short-Term Indebtedness, Variable Rate Indebtedness and Hedge Agreements (but only to the extent of Hedge Payments), issued by or entered into by the Board or by the City on behalf of the Board on a parity of lien under the Resolution in accordance with the restrictive provisions of the Resolution described herein, including any bonds, notes, loan agreements or other obligations secured by a pledge of and/or lien on a Merged System and the revenues derived from the operation of such Merged System, as defined herein, (provided such pledge and lien are subject only to normal and customary expenses of operating, maintaining, repairing and insuring any such System), so long as the Merged System is not being operated separately from the System as is permitted herein.

"Principal Installment" shall mean, as of the date of calculation and with respect to the indebtedness with respect to which the calculation is being made, (i) the principal amount of the indebtedness due on a certain future date for which no Sinking Fund Installments have been established, (ii) Sinking Fund Installment due on a certain future date for such indebtedness and (iii) if such future dates coincide, the sum of such principal amount and any such Sinking Fund Installment.

"Qualified Hedge Provider" shall mean an entity whose senior unsecured long term obligations, financial program rating, counterparty rating, or claims paying ability, or whose payment obligations under the related Hedge Agreement are absolutely and unconditionally guaranteed or insured or collateralized by an entity whose senior unsecured long term obligations, financial program rating, counterparty rating, or claims paying ability, are rated either (i) at least as high as "A" or better by Standard & Poor's Rating Group (or any successor thereto) ("S&P") or "A2" or better by Moody's Investors Services, Inc. (or any successor thereto) ("Moody's") (the "Initial Rating Requirement") and such entity maintains a rating on its debt or claims paying ability of not less than "A-" from S&P or "A3" from Moody's (the "Minimum Rating Requirement"); provided that this requirement shall be deemed to have been met, even if the rating of such entity is reduced below the Minimum Rating Requirement, if such entity is replaced with an entity meeting the Initial Rating Requirement within twenty business days from when the Board receives notice that the Minimum Rating Requirement has not been met. An entity's status as a Qualified Hedge Provider is made as of the time the applicable calculation is made.

"Revenues" shall mean all revenues, rentals, earnings and income of the System from whatever source, determined in accordance with generally accepted accounting principles, including all revenues derived from the operation of the System; proceeds from the sale of property; proceeds of insurance and condemnation awards and compensation for damages, to the extent not applied to the payment of the cost of repairs, replacements and improvements; and all amounts realized from the investment of money in the accounts and funds of the System (excluding any investment earnings from construction or improvement funds created for the deposit of bond, note, or loan agreement proceeds pending use, to the extent such income is applied to the purposes for which the bonds, notes or loan agreement were issued, and funds created to refund any outstanding obligations payable from Revenues of the System) and at the election of the Board, shall not include any rates, fees, rentals or other charges or other income received by the Board from the operation of a Merged System.

"Short-Term Indebtedness" shall mean bonds, notes or other obligations, including Variable Rate Indebtedness, maturing five (5) years or less from their date of issuance which are issued in anticipation of the issuance of revenue bonds the proceeds of which will be used to pay the Short-Term Indebtedness.

"Sinking Fund Installment" shall mean, as of any particular date of calculation, the amount required to be paid on a certain future date for the retirement of Outstanding Parity Indebtedness which mature after said future date, but does not include any amount payable by reason of the maturity of an Outstanding Parity Indebtedness or by call for redemption at the election of the Board or the City on behalf of the Board.

"Valuation Date" shall mean with respect to any Capital Appreciation Indebtedness, the date or dates set forth in the resolution authorizing such Capital Appreciation Bonds on which specific Accreted Values are assigned to the Capital Appreciation Bonds.

"Variable Rate Indebtedness" shall mean any bonds, notes or other obligations of the Board or the City, on behalf of the Board, the interest rate on which is subject to periodic adjustment, at intervals, at such times and in such manner as shall be determined by the resolution authorizing such indebtedness, provided that if the interest rate shall have been fixed for the remainder of the term thereof (including a fixed rate pursuant to a Hedge Agreement with a Qualified Hedge Provider), it shall no longer be Variable Rate Indebtedness.

The term "Bonds" in Resolution No. 2075 shall for all purposes have the same meaning as "Parity Indebtedness" described above unless the context clearly requires otherwise, and notwithstanding any provision of Resolution No. 2075 to the contrary, any Parity Indebtedness issued on a parity of lien under Resolution No. 2075, as amended, may be in such form, may be executed in such manner, may be payable upon such terms and upon such dates, may be subject to such registration provisions, may be designated in such manner, may be issued for such purpose and may be issued pursuant to such applicable laws as is provided in the resolution authorizing such Parity Indebtedness.

Additional Indebtedness

The OO-2024 Bonds issued pursuant to the Resolution shall be on a parity with the Outstanding Parity Indebtedness, and with all Parity Indebtedness hereafter issued within the terms, limitations and restrictions of the Resolution, as amended.

The City has covenanted that it will not incur any other obligations or indebtedness payable from the revenues of the System which will have priority, with respect to the payment of principal or interest out of the Water Fund, over the OO-2024 Bonds.

The following shall apply to the incurrence of additional Parity Indebtedness:

(a) Provided that all payments required to be made to the Debt Service Fund and into any reserve fund which may be required under resolutions authorizing Parity Indebtedness are current as of the date of issuance of the additional bonds, notes or other obligations, additional bonds, notes or other obligations may be issued or entered into by the City or the Board on a parity and equality of lien with the Outstanding Parity Indebtedness with respect to the lien and claim of such additional bonds, notes or other obligations to the net revenues of the System and the money on deposit in the Debt Service Fund for the following purposes and under the following conditions, but not otherwise:

(i) For the purpose of refunding any Outstanding Parity Indebtedness, subordinate bonds, notes, loan agreements or other obligations, provided that after the issuance of such additional Parity Indebtedness, the Aggregate Debt Service on all Outstanding Parity Indebtedness, including the additional Parity Indebtedness to be issued, in any Fiscal Year shall not increase by more than ten percent (10%) after the issuance of such additional Parity Indebtedness.

(ii) For the purpose of financing the completion or equipping of improvements to the System for which Outstanding Parity Indebtedness have previously been issued but only to the extent necessary to complete such improvements in the manner contemplated at the time of the issuance of the Outstanding Parity Indebtedness that financed such improvements.

(iii) For the purposes of refunding any Outstanding Parity Indebtedness or any Prior Lien Bonds, subordinated bonds, notes or other obligations or extending, improving or replacing the System or for any other lawful purpose under applicable law, if one of the following conditions shall have been met: (A) the Net Revenues for any twelve-month period selected by the Board ending within the twelve months prior to the date of the issuance of the additional Parity Indebtedness must have been equal to at least 120% of the Maximum Annual Aggregate Debt Service on Outstanding Parity Indebtedness plus the Debt Service on the additional Parity Indebtedness proposed to be issued or (B) the estimated Net Revenues of the System for each of the three Fiscal Years next succeeding the issuance of the additional Parity Indebtedness, must be equal at least to 120% of Maximum Annual Aggregate Debt Service on the Notes, any other Outstanding Parity Indebtedness and all outstanding Prior Lien Bonds plus the Debt Service on the additional Parity Indebtedness proposed to be issued; provided, however, that if the additional Parity Indebtedness is to be issued for the acquisition or construction of any extension, improvement or replacement to the System, then the estimate of Net Revenues may be for the three Fiscal Years ensuing after the time that such improvement, extension or replacement is expected to be placed in service.

(iv) For the purpose of entering into a Hedge Agreement with a Qualified Hedge Provider with respect to Outstanding Parity Indebtedness but only to the extent of Hedge Payments.

(b) In calculating Net Revenues, Debt Service and Maximum Annual Aggregate Debt Service for all purposes under the Resolution, the following adjustments and assumptions shall be made:

(i) In calculating Net Revenues on a historical basis, the amount of such Net Revenues may be adjusted to take into account any rate increase adopted by the Board that is effective prior to the date of such calculation.

(ii) In calculating projected Net Revenues for any period in the future, the amount of such Net Revenues may be adjusted to take into account any rate increase adopted by the Board that is to be effective within one year of the date of such calculation, and if such calculation is being made in connection with the issuance of Parity Indebtedness, the Net Revenues may be calculated based upon the assumption that any improvements financed with proceeds of the Parity

Indebtedness will be completed within a time period established in a report of a Consulting Engineer.

(c) Any calculation or projection of Net Revenues described above, whether for a historical period or for a future period, shall be set forth in a certificate of the President and Chief Executive Officer and Chief Financial Officer of the Board. If the calculation is made as to a future period, a Consulting Engineer shall state in a report that the assumptions underlying any projections of the Board as to Net Revenues are reasonable. Any calculation of the Maximum Annual Aggregate Debt Service shall also be set forth in a certificate of the President and Chief Executive Officer and Chief Financial Officer of the Board, which certificate shall be accompanied by a certificate of a financial advisory firm to the effect that the calculation of Maximum Annual Aggregate Debt Service is correct and is in compliance with the terms of the Resolution, but such certificate of the financial advisory firm shall only be required if Variable Rate Indebtedness, Balloon Indebtedness or Short-Term Indebtedness must be taken into account in the calculation of Maximum Annual Aggregate Debt Service.

(d) Any obligation of the Board to pay amounts under a Hedge Agreement other than Hedge Payments, including a termination payment upon the termination of a Hedge Agreement, shall be a subordinate obligation to the obligations with respect to Parity Indebtedness.

Collection of Revenues and Disposition of Revenues

As long as any Parity Indebtedness shall be outstanding and unpaid either as to principal or as to interest, or until the discharge and satisfaction of the Parity Indebtedness as provided in the resolution authorizing said Parity Indebtedness, the entire income and revenues of the System shall be deposited as collected in the Revenue Fund established by the Resolution (the "Revenue Fund"), to be administered and controlled by the Board. The income and revenues deposited therein shall be used only as follows:

(a) The money in the Revenue Fund shall be disbursed first from month to month for the payment of Current Operating Expenses.

(b) The money remaining in the Revenue Fund, after payment of Current Operating Expenses, shall next be used to make deposits into a separate and special fund, to be known as the Debt Service Fund (the "Debt Service Fund"), to be kept separate and apart from all other funds of the Board and used to pay principal of and interest on Parity Indebtedness and Hedge Payments (net of Hedge Receipts) with respect thereto as the same become due, either by maturity or mandatory redemption. Such deposits shall be made monthly, or as otherwise set forth herein or in the resolution authorizing such Parity Indebtedness or Hedged Payments, until all Parity Indebtedness is paid in full or discharged and satisfied. Unless otherwise authorized in the resolution authorizing any Parity Indebtedness, for the period commencing with the month next following the delivery of the Parity Indebtedness, each monthly deposit shall be an amount that, together with all other monthly deposits of approximately equal amounts during such period and amounts otherwise in said Fund, will be equal to principal due on the Parity Indebtedness on the next principal payment date, divided by the number of months from and including the month of the first such deposit to and including the months preceding the next principal payment date; provided that, if the next principal payment date is more than 13 months following the month next following the delivery of the Parity Indebtedness, such monthly deposits to the Debt Service Fund shall commence in the month that is 13 months prior to the month of the next principal payment date. Furthermore, during such period, there shall be deposited to the Debt Service Fund monthly an amount equal to one-sixth (1/6) of the interest coming due on the next interest payment date for Parity Indebtedness (unless otherwise specified in the resolution authorizing such Parity Indebtedness).

In each month thereafter, each monthly deposit shall consist of an interest component and a principal component except as provided in the Resolution. If interest is payable semi-annually, then the interest component shall be an amount equal to not less than one-sixth (1/6th) of the interest coming due on any Parity Indebtedness on the next succeeding interest payment date, unless otherwise specified in the resolution authorizing such Parity Indebtedness. Unless otherwise specified in the resolution authorizing Parity Indebtedness, the principal component shall be an amount which shall be established annually on each July 1 for all payments to be made during the ensuing twelve-month period commencing in July of each calendar year and ending in June of the following calendar year and shall be not less than one-twelfth (1/12) of the principal amounts, as the case may be, coming due, whether by maturity or mandatory redemption, on the Parity Indebtedness then outstanding during such twelve-month period. No further deposit shall be required when the Debt Service Fund balance is equal to or greater than the amount needed to pay interest coming due on the next interest payment date and the total of the principal amounts payable, either by maturity or mandatory redemption, during the applicable twelve-month period. Money in the Debt Service Fund shall be used solely and is expressly and exclusively pledged for the purpose of paying principal of and interest on Parity Indebtedness. Notwithstanding the foregoing, deposits for the payment of principal and interest on Variable Rate Indebtedness or Hedge Payments shall be made as set forth in the resolution authorizing such Variable Rate Indebtedness or Hedge Payments.

(c) The next available money in the Revenue Fund shall be paid to any issuer of an insurance policy, surety bond, letter of credit or similar instrument (a "Reserve Fund Credit Facility") (pro rata, if more than one) to the extent needed to reimburse the issuer for any amounts advanced under the Reserve Fund Credit Facility, including any amounts payable under any guaranty agreement relating to such amounts, together with reasonable related expenses incurred by the issuer of such Reserve Fund Credit Facility and any interest relating to such amounts.

(d) The next available money in the Revenue Fund shall be deposited to any reserve fund created pursuant to any resolution authorizing Parity Indebtedness in the manner provided in such resolution.

(e) The next available money in the Revenue Fund shall be used to pay liquidity fees, remarketing agent fees and similar fees that are payable in connection with the issuance of Parity Indebtedness.

(f) The next available money in the Revenue Fund shall be used for the payment of all other payments to be made under the Parity Indebtedness not provided for in the preceding subsections including payments in connection with Hedge Agreements that are not Hedge Payments, including termination payments.

(g) The next available money in the Revenue Fund shall be used to pay principal of and interest on (including reasonable reserves therefor) any bonds, notes or obligations payable from the Revenues of the System, but junior and subordinate to the Parity Indebtedness and then for the purpose of the payment of liquidity fees, credit enhancement fees, remarketing agent fees and similar fees that are payable in connection with bonds, notes or other obligations payable from the Revenues of the System, but junior and subordinate to the Parity Indebtedness.

(h) The next available money in the Revenue Fund shall be used for the purpose of making payments in lieu of taxes and, to the extent not so used, may be used for any lawful purpose, including such reserve funds and other funds as the Board deems necessary and appropriate.

(i) Money on deposit in the Funds described above may be invested by the Board in such investments as shall be permitted by applicable law, as determined by an authorized representative of the

Board, all such investments to mature not later than the date on which the money so invested shall be required for the purpose for which the respective Fund was created. All income derived from such investments shall be regarded as revenues of the System and shall be deposited in the Revenue Fund. Such investments shall at any time necessary be liquidated and the proceeds thereof applied to the purpose for which the respective Fund was created. The Board is authorized to enter into contracts with third parties for the investment of funds in any of the Funds described herein.

(j) The Revenue Fund and the Debt Service Fund shall be held and maintained by the Board and, when not invested, kept on deposit with a bank or financial institution regulated by and the deposits of which are insured by the Federal Deposit Insurance Corporation or similar federal agency. All moneys in such Funds so deposited shall at all times be secured to the extent and in the manner required by applicable State law.

Rate Covenant

The City shall maintain the System in good condition and will operate the System in an efficient and economical manner, and the City will fix rates and collect charges for water and for the services, facilities and commodities furnished by the System so as to provide revenues sufficient to pay, as the same shall become due, the principal of and interest on the Bonds, in addition to paying as the same shall become due the necessary expenses of operating and maintaining the System and all other obligations and indebtedness that are payable out of the revenues of the System, which obligations and indebtedness are a charge against said revenues equally and ratably with the charge of the Bonds.

Without limiting the foregoing, the Board will fix rates and collect charges for water and the services, facilities and commodities furnished by the System so that the Net Revenues of the System will be at least sufficient for each Fiscal Year beginning on and after July 1, 2018, computed as of the date such rates and charges are established, to pay the sum of:

(i) an amount equal to 120% of the Aggregate Debt Service on all Outstanding Parity Indebtedness for such Fiscal Year; and

(ii) certain amounts, if any, required to be paid or deposited during such Fiscal Year relating to any reserve fund deposits, liquidity fees, remarketing agent fees and similar fees, and reimbursements under any Reserve Fund Credit Facility.

Discharge and Satisfaction of Bonds

If the Board, on behalf of the City, shall pay and discharge the indebtedness evidenced by any of the OO-2024 Bonds (referred to hereinafter, collectively, as the "Bonds") in any one or more of the following ways:

(a) By paying or causing to be paid, by deposit of sufficient funds as and when required with the Registration Agent, the principal of and interest on such Bonds as and when the same become due and payable;

(b) By depositing or causing to be deposited with any financial institution which has trust powers and which is regulated by and the deposits of which are insured by the Federal Deposit Insurance Corporation or similar federal agency ("an Agent"; which Agent may be the Registration Agent), in trust or escrow, on or before the date of maturity or redemption, sufficient money or Defeasance Obligations, the principal of and interest on which, when due and payable, will provide sufficient moneys to pay or redeem such Bonds and to pay premium, if any, and interest thereon when due until the maturity or redemption date (provided, if such Bonds are to be redeemed prior to maturity thereof, proper notice of such redemption shall have been given or adequate provision shall have been made for the giving of such notice); or

(c) By delivering such Bonds to the Registration Agent, for cancellation by it;

and if the Board, on behalf of the City, shall also pay or cause to be paid all other sums payable under the Resolution by the Board or the City with respect to such Bonds or make adequate provision therefor, and by resolution of the Board instruct any such Agent to pay amounts when and as required to the Registration Agent for the payment of principal of and interest and redemption premiums, if any, on such Bonds when due, then and in that case the indebtedness evidenced by such Bonds shall be discharged and satisfied and all covenants, liens, pledges, agreements and obligations entered into, created, or imposed under the Resolution, including the pledge of and lien on the net earnings of the System set forth in the Resolution, shall be fully discharged and satisfied with respect to such Bonds and the owners thereof and shall thereupon cease, terminate and become void.

If the Board, on behalf of the City, shall pay and discharge or cause to be paid and discharged the indebtedness evidenced by any of the Bonds in the manner provided in either clause (a) or clause (b) above, then the registered owners thereof shall thereafter be entitled only to payment out of the money or Defeasance Obligations deposited as aforesaid.

Except as otherwise provided in the Resolution, neither Defeasance Obligations nor moneys deposited with the Agent nor principal or interest payments on any such Defeasance Obligations shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal of and premium, if any, and interest on said Bonds; provided that any cash received from such principal or interest payments on such Defeasance Obligations deposited with the Agent, (A) to the extent such cash will not be required at any time for such purpose, shall be paid over to the Board as received by the Agent and (B) to the extent such cash will be required for such purpose at a later date, shall, to the extent practicable, be reinvested in Defeasance Obligations maturing at times and in amounts sufficient to pay when due the principal and premium, if any, and interest to become due on said Bonds on or prior to such redemption date or maturity date thereof, as the case may be, and interest earned from such reinvestments, to the extent not needed for the payment of such principal, premium and interest, shall be paid over to the Board, as received by the Agent. For the purposes described herein, Defeasance Obligations shall mean direct obligations of, or obligations, the principal of and interest on which are guaranteed by, the United States of America, or any agency thereof, obligations of any agency or instrumentality of the United States or any other obligations at the time of the purchase thereof are permitted investments under Tennessee law for the purposes described in this Section, which bonds or other obligations shall not be subject to redemption prior to their maturity other than at the option of the registered owner thereof.

Nothing described above shall be construed to alter or change the redemption provisions relating to the OO-2024 Bonds. No redemption privilege shall be exercised with respect to the OO-2024 Bonds or any Parity Bonds except at the option and election of the Board. The right of redemption set forth in the Resolution shall not be exercised by any Registration Agent or Agent unless expressly so directed in writing by an authorized representative of the Board.

<u>Sale of System</u>

Except as expressly authorized by the Resolution, the City shall not sell, mortgage, lease or otherwise dispose of the System or any substantial-part thereof. However, the City shall have, and reserves the right to sell, lease or otherwise dispose of any of the property comprising a part of the System determined to be no longer necessary and useful in the operation thereof, which is found, by the Board, or such other body as may be authorized to manage and operate the System, not to be both useful and necessary for the continued operation of the System substantially as it now exists; and prior to any such sale, lease or other disposition of said property, the Board, or such other body as may be hereafter authorized to manage and operate the System, shall by resolution duly adopted, have made said finding and authorized such sale, lease or other disposition of the property. Also, the City shall have the right to sell, lease, transfer or otherwise dispose of the System as a whole or substantially as a whole, to any municipal corporation, county, political subdivision, governmental corporation or governmental agency (each of which shall be included within the term “Transferee” as herein used), provided the Transferee thus acquiring the System from the City will assume the performance of and be bound by all of the City's obligations to the holders of the Bonds under the covenants and provisions of the Resolution.

Insurance

The City will carry adequate fire and windstorm insurance on buildings and contents of buildings of the System and provide for adequate public liability insurance, and the City will also carry such other insurance as is ordinarily carried by utility companies privately owned or municipally owned and doing a similar business in territory contiguous to the City.

Audits

The City will cause proper books and accounts adapted to the System to be kept and will cause the books and accounts with respect to the System to be audited annually by an independent firm of certified public accountants, and will make generally available to security holders the balance sheet and the profit and loss statement of the System as certified by such accountants.

Appointment of Receiver

The holder or holders of not less than twenty-five percent (25%) of the Bonds then outstanding, including a trustee or trustees for such holders, shall, in addition to all other remedies and rights of holders of any of the Bonds, have the right, by appropriate proceedings in any court of competent jurisdiction, in the event of default in the payment of the principal of or interest on the Bonds which default shall continue for a period of thirty days, to obtain the appointment of a receiver for the System, which receiver may enter upon and take possession of the System, operate and maintain the System, fix rates and collect all revenues arising therefrom in as full a manner and to the same extent as the City itself might do. The receiver shall deposit all moneys collected by him in a separate account or accounts and shall dispose of such revenues in accordance with the terms and conditions of this resolution and as the court shall direct.

Combined Systems

Notwithstanding anything provided in the Resolution, nothing contained in the Resolution shall prevent the Board from combining any or all of the Board's utility systems into a single unified operation (the "Combined System") and commingling the revenues of the systems so combined in the Combined System without keeping separate accounts of the funds of each of such systems, provided payments from the funds of the Combined System are required to be made into the Debt Service Fund created under the Resolution from time to time in amounts sufficient to comply with provisions thereof and in amounts sufficient to pay the principal of and interest on the Outstanding Parity Indebtedness as such principal and interest becomes due. Bonds, notes and other obligations ("Parity Combined System Obligations") payable from revenues of the Combined System may be issued on a parity with Outstanding Parity Indebtedness provided at the time of the issuance of any such Parity Combined System Obligations, the following conditions have been complied with. The Net Revenues of the Combined System, for a period of twelve consecutive months (hereinafter sometimes called the "Combined Twelve-Month Period") out of the eighteen months immediately preceding the issuance of such Parity Combined System Obligations shall be equal to at least 1.2 times the Maximum Annual Aggregate Debt Service on all Outstanding Parity Indebtedness and the obligations proposed to be issued; or if within twelve months prior to the issuance of the Parity Combined System Obligations a revised schedule of rates for the Combined System or any part thereof shall have been put into effect, then the Net Revenues of the Combined System for the Twelve-Month Period, as certified by a Consulting Engineer or Financial Adviser, that would have resulted from such revised rates had they been in effect for the Twelve-Month Period, may be used in lieu of the actual Net Revenues for such Twelve-Month Period.

Separate or Merged Systems

Nothing contained in the Resolution shall prevent the Board from acquiring a separate water transmission or distribution system or any combination thereof, or any other system, facilities or equipment which municipalities in Tennessee operating water distribution systems are authorized to own, operate or finance, and nothing herein shall prevent the issuance of bonds, notes, warrants, certificates or other obligations or evidences of indebtedness, to acquire any such system or facilities. Any facilities or system acquired by the Board, at the election of the Board, may be operated as a separate and independent system or be merged into the System and operated as a single unified system with the System (the "Merged Systems"). Revenues of the Merged Systems may be commingled without keeping separate accounts of the funds of each of the systems, provided all Revenues of the Merged Systems are applied in accordance with the Resolution, including the payment of principal of and interest on all bonds, notes or other obligations of the acquired system. All Outstanding Parity Indebtedness and any bonds, notes and other obligations of the acquired system outstanding upon the merger of the systems designated by the Board may be payable from revenues of the Merged Systems on a parity and equality of lien with each other, provided the Net Revenues of the Merged Systems, for a period of twelve consecutive months (hereinafter sometimes called the "Twelve-Month Period") out of the eighteen months immediately preceding the merger of the systems shall be equal to at least 1.2 times the Maximum Annual Aggregate Debt Service on all Outstanding Parity Indebtedness, all bonds, notes and obligations of the acquired system then outstanding and any additional indebtedness to be then issued; or if within twelve months prior to any such calculation, the Board shall have put into effect a revised schedule of rates for the Merged Systems or any part thereof, then the Net Revenues of the Merged Systems, as certified by a Consulting Engineer or Financial Adviser, that would have resulted from such revised rates had they been in effect for the Twelve-Month Period, may be used in lieu of the actual Net Revenues for such Twelve-Month Period.

Amendment of Resolution

The Resolution may be amended without the consent of or notice to the holders of the Parity Indebtedness for the purposes of (i) curing any ambiguity or formal defect or omission in the Resolution; (ii) making such amendments as are necessary to prevent interest on any Parity Indebtedness from being included in gross income of the holders thereof for federal income tax purposes; (iii) adding to the covenants and agreements of the City or the Board or surrendering or limiting any right or power of the City or the Board; or (iv) making such amendments as are necessary for any Parity Indebtedness to be held or continue to be held in book-entry form.

In addition to the amendments to the Resolution without the consent of the holders as referred to above, the Resolution may be amended from time to time if such amendment shall have been consented to by the holders of not less than a majority in principal amount of Outstanding Parity Indebtedness (not including in any case any Bonds or Parity Indebtedness which may then be held or owned by or for the account of the City or Board); but the Resolution may not be so amended (without the consent of all affected holders of Outstanding Parity Indebtedness) in such manner as to:

(a) make any change in the maturity or interest rate (other than in accordance with its terms) of the Parity Indebtedness, or modify the terms of payment of principal of or interest on Parity Indebtedness or impose any conditions with respect to such payment; or

(b) to make any Parity Indebtedness redeemable other than in accordance with its terms; or

(c) to create a preference or priority of any Parity Indebtedness over any other Parity Indebtedness; or

(d) reduce the percentage of the principal amount of Parity Indebtedness the consent of the holders of which is required to effect a further amendment.

Whenever the City shall propose to amend the Resolution under the provisions described above, the Board shall cause notice of the proposed amendment to the holders of the Parity Indebtedness by sending a summary of such proposed amendment to such holders and shall state that a copy of the proposed amendatory resolution is on file in the office of the Secretary of the Board. The holders of Parity Indebtedness shall be determined by the registration records of the City or the Board or any registration agent therefor or in such other manner as is commercially reasonable.

Whenever at any time within one year from the date of the mailing of such notice there shall be filed with the Secretary an instrument or instruments executed by the holders of at least a majority aggregate principal amount of the Outstanding Parity Indebtedness, which instrument or instruments shall refer to the proposed amendatory resolution described in such notice and shall specifically consent to and approve the adoption thereof, then the Board and/or the City may adopt such amendatory resolution and such resolution shall become effective and binding upon the holders of all Parity Indebtedness.

Any consent given by the holder of Parity Indebtedness pursuant to the provisions described above, shall be irrevocable for a period for one year from the date of the instrument evidencing such consent and shall be conclusive and binding upon all future holders of the same Parity Indebtedness during such period. Such consent may be revoked at any time after one year from the date of such instrument by the holder who gave such consent or by a successor in title by filing notice of such revocation with the Secretary.

For purposes of determining the aggregate principal amount of Parity Indebtedness outstanding for purposes of amendments, and whether the holders of a sufficient percentage in aggregate principal amount of Bonds and Parity Indebtedness have consented to any amendment, the Board may make such determination at any time while a request for consents to such amendment is outstanding and may include any Parity Indebtedness issued during such period in making such determination. The Accreted Value of any Capital Appreciation Debt as of the time of any such determination shall be used in making any such determination.

The fact and date of the execution of any instrument relative to amendments may be proved by the certificate of any officer in any jurisdiction who by the laws thereof is authorized to take acknowledgments of deeds within such jurisdiction, that the person signing such instrument acknowledged before him the execution thereof, or may be proved by an affidavit of a witness to such execution sworn to before such officer. In the event that any Parity Indebtedness is held in book-entry form, any consent to an amendment may be executed by any beneficial owner of such Parity Indebtedness, which beneficial ownership may be proved by an affidavit of the beneficial owner.

Notwithstanding anything in the Resolution to the contrary, the Board and/or the City may adopt amendments to the Resolution that do not become effective until the payment or defeasance of any Parity Indebtedness outstanding on the date such amendments are adopted.