NEW ISSUE BOOK-ENTRY ONLY

RATINGS*: Moody's: Aa3 (Stable) S&P: AA- (Stable)

In the opinion of Miller, Canfield, Paddock and Stone, P.L.C., Bond Counsel, under existing law, assuming compliance with certain covenants by the Lansing Board of Water and Light (the "Board" or the "BWL"), (i) interest on the BWL's Utility System Revenue and Revenue Refunding Bonds, Series 2024A (the "Bonds") is excludable from gross income for federal income tax purposes, (ii) interest on the Bonds is not an item of tax preference for purposes of the federal alternative minimum tax and (iii) the Bonds and interest thereon are exempt from all taxation by the State of Michigan (the "State") or by any taxing authority within the State except estate taxes and taxes on gains realized from the sale, payment or other disposition thereof. See "TAX MATTERS" herein and "Appendix E - FORM OF APPROVING OPINION" for a description of certain provisions of the Internal Revenue Code of 1986, as amended (the "Code"), which may affect the tax treatment of interest on the Bonds for certain Bondholders.

\$364,625,000 LANSING BOARD OF WATER AND LIGHT CITY OF LANSING, MICHIGAN UTILITY SYSTEM REVENUE AND REVENUE REFUNDING BONDS, SERIES 2024A



Dated: Date of Delivery

Due: July 1, as shown on the inside cover page

The Utility System Revenue and Revenue Refunding Bonds, Series 2024A (the "Bonds") will be issued by the Lansing Board of Water and Light (the "Board" or the "BWL") to provide funds for the purposes of (i) paying costs for system improvements, (ii) paying certain capitalized interest, (iii) paying the purchase price of BWL bonds tendered for purchase pursuant to the BWL Tender Offer (as more fully described herein), (iv) refunding certain outstanding bonds of the BWL, and (v) paying costs of issuance of the Bonds. The Bonds are authorized to be issued pursuant to the Revenue Bond Act of 1933, Act No. 94, Public Acts of Michigan, 1933, as amended ("Act 94"), an Amended and Restated Utility System Revenue Bond Resolution adopted by the Board on March 27, 2018, as amended on March 26, 2019 and November 17, 2020 and supplemented by a Third Supplemental Utility System Revenue Bond Resolution adopted by the Board on November 14, 2023 (collectively, the "Bond Resolution"), and a Sale Order executed by the BWL on January 17, 2024, approving the sale and terms of the Bonds (the "Sale Order," and together with the Bond Resolution, the "Resolution").

The Bonds are secured by a statutory lien on, and payable solely from, Net Revenues, as defined herein, of the System, as defined herein. The Bonds are not a general obligation of the City of Lansing, Michigan (the "City") and neither the full faith and credit nor the taxing power of the City is pledged to the payment of the principal of and interest on the Bonds. The Bonds do not constitute an indebtedness of the City within any constitutional, statutory or charter limitation.

The Bonds will be issued as fully registered bonds and, when issued, will be registered in the name of Cede & Co., as registered owner and nominee for The Depository Trust Company, New York, New York ("DTC"). So long as Cede & Co. is the registered owner of the Bonds, principal of and interest on the Bonds are payable by U.S. Bank Trust Company, National Association, as Transfer Agent, to Cede & Co., as nominee for DTC, and payment thereof will be made to purchasers by DTC direct participants or indirect participants, as described herein. Purchasers will acquire beneficial ownership interests in denominations of \$5,000 or integral multiples thereof.

The Bonds will bear interest at the rates set forth on the inside cover of this Official Statement, payable semiannually on January 1 and July 1 of each year, commencing July 1, 2024. Certain of the Bonds are subject to optional and mandatory redemption prior to maturity as described herein. (See "The Bonds—Optional Redemption Prior to Maturity" and "The Bonds—Mandatory Redemption Prior to Maturity.")

The Bonds are offered when, as, and if issued and received by the Underwriters, subject to the approving opinion of Bond Counsel, Miller, Canfield, Paddock and Stone, P.L.C., Lansing and Detroit, Michigan. PFM Financial Advisors LLC is serving as the municipal advisor to the BWL in connection with the sale and issuance of the Bonds. Certain matters will be passed on for the Underwriters by their counsel, Dykema Gossett PLLC, Lansing, Michigan. It is expected that the Bonds will be available for delivery through the facilities of DTC in New York, New York on or about January 31, 2024.

This cover page contains certain information for quick reference only. It is not a summary of the Bonds. Investors must read the entire Official Statement to obtain information essential to the making of an informed investment decision.

BofA Securities

Goldman Sachs & Co. LLC

J.P. Morgan

The date of this Official Statement is: January 17, 2024.

\$364,625,000 LANSING BOARD OF WATER AND LIGHT CITY OF LANSING, MICHIGAN UTILITY SYSTEM REVENUE AND REVENUE REFUNDING BONDS, SERIES 2024A

Maturity	Principal				CUSIP [†]
July 1	Amount	Interest Rate	Yield	Price	Base No. 516391
2025	\$2,715,000	5.000%	2.870%	102.933%	EQ8
2026	2,645,000	5.000	2.760	105.199	ER6
2027	6,535,000	5.000	2.630	107.693	ES4
2028	3,985,000	5.000	2.560	110.126	ET2
2029	4,460,000	5.000	2.550	112.319	EU9
2030	7,550,000	5.000	2.550	114.415	EV7
2031	3,920,000	5.000	2.580	116.238	EW5
2032	7,705,000	5.000	2.590	118.118	EX3
2033	8,915,000	5.000	2.620	119.744	EY1
2034	4,955,000	5.000	2.670	121.063	EZ8
2035	9,390,000	5.000	2.790	119.855 **	FA2
2036	21,900,000	5.000	2.930	118.464 **	FB0
2037	9,830,000	5.000	3.040	117.385 **	FC8
2038	6,185,000	5.000	3.160	116.220 **	FD6
2039	6,505,000	5.000	3.230	115.548 **	FE4
2040	6,840,000	5.000	3.340	114.500 **	FF1
2041	7,190,000	5.000	3.410	113.839 **	FG9
2042	5,285,000	5.000	3.520	112.810 **	FH7
2043	5,545,000	5.000	3.590	112.160 **	FJ3
2044	5,825,000	5.000	3.640	111.700 **	FK0

\$137,880,000 Serial Bonds

\$226,745,000 Term Bonds

Maturity	Principal				CUSIP [†]
July 1	Amount	Interest Rate	Yield	Price	Base No. 516391
2049	\$35,020,000	5.000%	3.880%	109.518% **	FL8
2054	116,725,000	5.000	4.050	108.005 **	FM6
2054	75,000,000	5.250	4.000	110.560 **	FN4

[†] Copyright 2024, American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed on behalf of the American Bankers Association by S&P Global Marketing Intelligence. 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 BWL does not make any representation with respect to such number or undertake any responsibility for its 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.

†† Priced to the par call date of July 1, 2034.

Certain information contained in this Official Statement has been obtained by the BWL, the City and from DTC and other sources that are deemed to be reliable. No representation or warranty is made, however, as to the accuracy or completeness of such information by the Underwriters. Nothing contained in this Official Statement is or shall be relied on as a promise or representation by the Underwriters. This Official Statement is being used in connection with the sale of securities as referred to herein and may not be used, in whole or in part, for any other purpose. The delivery of this Official Statement at any time does not imply that information in it is correct as of any time subsequent to its date.

No dealer, broker, salesman, or other person has been authorized by the BWL, the City or by the Underwriters, to give any information or to make any representations other than those contained herein, and if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of any 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.

U.S. Bank Trust Company, National Association, Detroit, Michigan (the "Transfer Agent"), by acceptance of its duties as Transfer Agent, has not reviewed this Official Statement and has made no representations as to the information contained herein.

The Underwriters have provided the following sentence for inclusion in this Official Statement: The Underwriters have reviewed the information in this Official Statement in accordance with and as part of their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any other sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the BWL.

The Bonds have not been registered with the Securities and Exchange Commission under the Securities Act of 1933, as amended, in reliance upon exemptions contained in such Act. The registration or qualification of the Bonds in accordance with the applicable provisions of securities laws of the states in which the Bonds have been registered or qualified and the exemption from registration or qualification in other states cannot be regarded as a recommendation thereof.

IN MAKING ANY INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE BWL AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The Official Statement contains disclosures which contain "forward-looking statements." Forward-looking statements include all statements that do not relate solely to historical or current fact and can be identified by use of words like "may," "believe," "will," "expect," "project," "estimate," "anticipate," "plan" or "continue." These forward-looking statements are based on the current plans and expectations of the BWL and are subject to a number of known and unknown uncertainties and risks, many of which are beyond the BWL's control, that could significantly affect current plans and expectations and the BWL's future financial position and results of operations. These factors include, but are not limited to, (i) changes in economic and fiscal conditions, and (ii) the outcome of pending and any future litigation. As a consequence, current plans, anticipated actions and future financial position and results of operations may differ from those expressed in any forward-looking statements made by or on behalf of the BWL. All forward-looking statements are expressly qualified by the cautionary statements contained in this paragraph. Neither the BWL nor the City undertakes any duty to update any forward-looking statements.

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CITY OF LANSING OFFICIALS Mayor

Andy Schor

City Council

Jeffrey Brown	Tamera Carter [*]	Jeremy A. Garza
Adam Hussain	Brian T. Jackson	Ryan Kost
Trini Pehlivanoglu [*]	Peter Spadafore	

* Elected as a new member to City Council effective January 1, 2024.

LANSING BOARD OF WATER AND LIGHT OFFICIALS **Board of Commissioners**

Chair Vice Chair David J. Price Semone James Beth Graham Deshon Leek Dale Schrader Tony Mullen Tracy Thomas Sandra Zerkle **Non-Voting Commissioners Brian Pillar** J. R. Beauboeuf **BWL Administration** General Manager Richard R. Peffley Chief

Chief Financial Officer Heather Shawa

General Counsel Mark Matus

Executive Director of Human Resources Michael Flowers

Director of Electric Production Roberto Hodge

Lansing Board of Water & Light P.O. Box 13007 Lansing, Michigan 48901 Phone: (517) 702-6000 www.LBWL.com

PROFESSIONAL SERVICES

Baker Tilly Virchow Krause, LLP, Madison, Wisconsin Miller, Canfield, Paddock and Stone, P.L.C., Lansing, Michigan PFM Financial Advisors LLC, Charlotte, North Carolina U.S. Bank Trust Company, National Association, Detroit, Michigan Dykema Gossett PLLC, Lansing, Michigan

Auditor: **Bond Counsel: Municipal Advisor: Transfer/Paying Agent: Underwriters'** Counsel:

Robert Worthy

Operations Officer Dave Bolan

Executive Director of

Customer Experience

Stephen Serkaian

OFFICIAL STATEMENT \$364,625,000 LANSING BOARD OF WATER AND LIGHT CITY OF LANSING, MICHIGAN UTILITY SYSTEM REVENUE AND REVENUE REFUNDING BONDS, SERIES 2024A

INTRODUCTION

The Lansing Board of Water and Light (the "Board" or the "BWL") is issuing its \$364,625,000 Utility System Revenue and Revenue Refunding Bonds, Series 2024A (the "Bonds") for the purposes of: (i) paying costs for system improvements, (ii) paying certain capitalized interest, (iii) paying the purchase price of BWL bonds tendered for purchase pursuant to the BWL Tender Offer (as more fully described herein), (iv) refunding certain outstanding bonds of the BWL, and (v) paying costs of issuance of the Bonds.

The City of Lansing, Michigan (the "City"), located in the Counties of Ingham and Eaton, is a municipal corporation of the State of Michigan (the "State"), organized and existing under the laws of the State including the City's Charter, as amended (the "Charter"). Under the Charter, the BWL is an administrative board and permanent agency of the City and has full and exclusive management of the water, heat, steam and electric utility services of the City.

The Bonds are authorized to be issued pursuant to the Revenue Bond Act of 1933, Act No. 94, Public Acts of Michigan, 1933, as amended ("Act 94"), and an Amended and Restated Utility System Revenue Bond Resolution adopted by the Board on March 27, 2018, as amended on March 26, 2019 and November 17, 2020 and supplemented by a Third Supplemental Utility System Revenue Bond Resolution adopted by the Board on November 14, 2023 (collectively, the "Bond Resolution"), and a Sale Order executed by the BWL on January 17, 2024, approving the sale and terms of the Bonds (the "Sale Order," and together with the Bond Resolution, the "Resolution"). U.S. Bank Trust Company, National Association, Detroit, Michigan, is currently the Transfer Agent and bond registrar under the Bond Resolution.

Pursuant to the Bond Resolution, all bonds issued and outstanding thereunder, except for Junior Lien Bonds and Junior Lien Notes (as defined in the Bond Resolution), are of equal standing and parity of lien and equally secured by the pledges and covenants in the Bond Resolution. See herein "THE BONDS—Security." The outstanding bonds previously issued on a parity basis with and excluding the Bonds are called the "Outstanding Bonds" herein. Under the Bond Resolution, the BWL can issue Junior Lien Bonds and Junior Lien Notes which are of junior standing and junior priority of lien to the Bonds with respect to the Net Revenues.

THE BONDS

General

The Bonds will be issued in the original aggregate principal amount as shown on the cover of this Official Statement. The Bonds will be dated as of the date of delivery and will bear interest from that date. Interest on the Bonds shall be payable semiannually on January 1 and July 1 of each year commencing on July 1, 2024. Interest on the Bonds shall be computed using a 360-day year and twelve 30-day months. The Bonds will mature on the dates and in the principal amounts and will bear interest at the rates as set forth on the inside cover of this Official Statement.

The Bonds will be issued as fully registered Bonds without coupons and, when issued, will be registered in the name of Cede & Co., as nominee for The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Bonds. Purchases of beneficial interests in the Bonds will be made in book-entry-only form, in the denominations of \$5,000 or any integral multiple thereof. Purchasers will not receive certificates representing their beneficial interests in Bonds purchased. So long as Cede & Co. is the Bondholder, as nominee for DTC, references herein to the Bondholders or registered owners shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners (as defined herein) of the Bonds. See "THE BONDS—Book-Entry-Only System and Transfer Outside Book-Entry-Only System" herein.

The principal and interest shall be payable at the designated corporate trust office of the Transfer Agent or such other Transfer Agent as the BWL may hereafter designate by notice mailed to the Bondholders. So long as DTC or its nominee, Cede & Co., is the Bondholder, such payments will be made directly to DTC. Disbursement of such payments to the Beneficial Owners is the responsibility of DTC Direct Participants and Indirect Participants (both as defined herein), as more fully described below. Interest shall be paid when due by check or draft mailed to the registered owners of Bonds as

shown on the registration books as of the fifteenth day of the calendar month preceding the payment date for each interest payment.

Optional Redemption Prior to Maturity

The Bonds maturing in the years 2025 through 2034, inclusive, shall not be subject to optional redemption prior to maturity. The Bonds, or portions of the Bonds in multiples of \$5,000 maturing or subject to mandatory redemption in the years 2035 and thereafter shall be subject to redemption at the option of the Board in such order of maturity as the Board shall determine, and within a single maturity by lot, on any date on or after July 1, 2034 at par plus accrued interest to the date fixed for redemption.

Mandatory Redemption Prior to Maturity

The Term Bonds maturing on July 1, 2049, the 5.00% Term Bonds maturing on July 1, 2054 and the 5.25% Term Bonds maturing on July 1, 2054 are subject to mandatory redemption prior to maturity, at a redemption price of par plus accrued interest to the date fixed for redemption, on July 1 of the years and in the principal amounts set forth below:

5.00% Term Bonds due July 1, 2049

Year	Principal Amount
2045	\$6,120,000
2046	6,425,000
2047	6,750,000
2048	7,085,000
2049 (Maturity Date)	8,640,000

5.00% Term Bonds due July 1, 2054

Year	Principal Amount
2050	\$5,640,000
2051	5,920,000
2052	33,360,000
2053	35,030,000
2054 (Maturity Date)	36,775,000

5.25% Term Bonds due July 1, 2054

Year	Principal Amount
2050	\$3,435,000
2051	3,615,000
2052	21,500,000
2053	22,630,000
2054 (Maturity Date)	23,820,000

The principal amount of Bonds to be mandatorily redeemed in each year may be reduced through the earlier optional redemptions of such Bonds credited against sinking fund requirements in such order of the sinking fund payment dates as the Board may determine.

Notice and Manner of Redemption

Notice of redemption, either conditional or unconditional, shall be given to each registered owner of Bonds or portions thereof to be redeemed by mailing such notice not less than thirty (30) days prior to the date fixed for redemption to the registered owner at the address of the registered owner as shown on the bond register of the BWL. If redeemed, the Bonds shall be called for redemption in multiples of \$5,000, and Bonds of denominations of more than \$5,000 shall be treated as representing the number of Bonds obtained by dividing the denomination of the Bonds by \$5,000 and such Bonds may be redeemed in part. The notice of redemption for Bonds redeemed in part shall state that, upon surrender of the Bonds to be redeemed, a new Bond or Bonds in the same aggregate principal amount equal to the unredeemed portion of the Bonds surrendered shall be issued to the registered owner thereof with the same interest rate and maturity. No further interest on Bonds or portions of Bonds called for redemption shall accrue after the date fixed for redemption, whether the Bonds have been presented for redemption or not, provided funds are on hand with the Transfer Agent to redeem the Bonds or portion thereof.

Security

The principal of and interest and redemption premium, if any, on the Bonds are payable solely from and secured by the Net Revenues (as defined herein) of the System. The "System" is defined in the Bond Resolution as the complete facilities of the BWL for the supply and distribution of water and the generation and distribution of electricity, steam, chilled water, and heat, including all plants, works, instrumentalities and properties used or useful in connection with the supply and distribution of water and the generation of electricity, steam, chilled water, and heat, and all additions, extensions and improvements thereto existing or hereafter acquired by the BWL. Pursuant to Act 94 and the Bond Resolution, the Net Revenues are pledged to the Bonds and the Outstanding Bonds (as defined herein) on a parity basis, and there is created a statutory lien thereon which is a first lien on a parity basis. As of December 1, 2023, there was \$707,810,000 in aggregate outstanding principal of Outstanding Bonds, but not including the Bonds described herein.

"Revenues" is defined in the Bond Resolution as the income derived from the rates charged for the services, facilities, and commodities furnished by the System, earnings on investment of funds and accounts of the System required to be deposited in the Receiving Fund pursuant to the Bond Resolution and other revenues derived from or pledged to the operation of the System. "Net Revenues" is defined in the Bond Resolution as the Revenues remaining after deducting the reasonable expenses of administration, operation, and maintenance of the System.

The statutory lien on the Net Revenues of the System securing the Bonds and the Outstanding Bonds is senior in priority to the statutory lien on Net Revenues of the System pledged to pay any outstanding Junior Lien Bonds and Junior Lien Notes. The Board has Junior Lien Bonds outstanding in the principal amount of \$32,220,000.

The rights or remedies of Bondholders may be affected by bankruptcy, insolvency, fraudulent conveyance or other laws affecting creditors' rights generally now existing or hereafter enacted and by the application of general principles of equity, including those relating to equitable subordination.

The Bonds are not a general obligation of the City, and neither the full faith and credit nor the taxing power of the City is pledged to the payment of the principal of and interest on the Bonds. The Bonds do not constitute an indebtedness of the City within any constitutional, statutory or charter limitation.

The Bond Resolution

The Bonds are authorized to be issued pursuant to the Bond Resolution. For a summary of the Amended and Restated Utility System Revenue Bond Resolution, see "Appendix D – BOND RESOLUTION CONSOLIDATED VERSION."

Rate Covenant

The BWL has covenanted and agreed that it will at all times fix, establish, maintain and collect rates, fees and charges for the sale of the output, capacity, use or service of the System which, together with other income, are reasonably expected to yield Net Revenues equal to at least 125% of the principal and interest due on the Bonds, the Outstanding Bonds and any Additional Bonds (as defined in the Bond Resolution) for the forthcoming 12-month period plus such amount as is

necessary to comply with all covenants in the Bond Resolution and to pay all charges and liens whatsoever payable out of Net Revenues in such period.

Rate Setting Authority

The Charter provides that the BWL shall have full and exclusive management of the water supply, steam and electric utility services of the City and such other services as may be agreed upon by the BWL and the City. The Charter also provides that the BWL may, with proper notice, hearing and Board approval, fix just and reasonable rates as it deems necessary for such services. The implementation of new rates takes approximately three months and does not require any City, state or federal regulatory approval. It is the policy of the BWL to review all rates annually and to set such rates so that each respective utility (electric, water supply, steam and chilled water) is self-supporting. Rates are set on a cost-of-service basis. See "THE ELECTRIC UTILITY—Rates and Charges" for a discussion of the BWL's Power Supply Cost Recovery Adjustment for customers of the Electric Utility.

Bond Reserve Account

The Bond Resolution contains the following definition of "Reserve Requirement":

"Reserve Requirement" shall mean the following: (i) if the long-term unenhanced credit ratings of the Outstanding Bonds are in at least the "A/A2" category without regard to notching factors (or an equivalent rating in at least the third highest category of nationally recognized bond rating agencies), \$0, only upon the written direction of the Chief Financial Officer; or (ii) if the long-term unenhanced credit ratings of the Outstanding Bonds are reduced below the "A/A2" category without regard to notching factors (or an equivalent rating in at least the third highest category of nationally recognized bond rating agencies), the lesser of (1) 50% of the maximum annual debt service requirements on the Outstanding Bonds, (2) 62.5% of the average annual debt service requirements on the Outstanding Bonds, or (3) the total of 5% of the original aggregate face amount of each series of the Outstanding Bonds, reduced by the net original issue discount, if any; provided, however, that the Reserve Requirement shall not at any time exceed the amount allowed to be invested at an unrestricted yield pursuant to Treas. Reg. §1.148-2(f)(2) or any successor provision thereto applicable to the Bonds. For purposes of determining the Reserve Requirement, the long-term unenhanced credit ratings of the Outstanding Bonds shall be determined with regard only to the highest two long-term unenhanced ratings of such Bonds. Therefore, the foregoing section (ii) applies only if both such ratings are reduced below the "A/A2" category without regard to notching factors (or an equivalent rating as described above). The BWL may rely on the advice of its financial advisor as to which rating category or categories its ratings are within.

Pursuant to (i) above, the Chief Financial Officer has given written direction that the Reserve Requirement is \$0 as long as the long-term unenhanced credit ratings of the Outstanding Bonds are in at least the "A/A2" category without regard to notching factors (or an equivalent rating in at least the third highest category of nationally recognized bond rating agencies). Therefore, Bondholders should not expect moneys to be held in the Bond Reserve Account to secure the Bonds or any other Outstanding Bonds.

However, in the event the Reserve Requirement is increased above \$0 as a result of a reduction in the long-term unenhanced credit ratings of the Outstanding Bonds to a category below "A/A2" without regard to notching factors (or an equivalent rating in at least the third highest category of nationally recognized bond rating agencies) (a "Ratings Downgrade Event"), Section 18(B) of the Bond Resolution provides that the BWL must satisfy the Reserve Requirement either by: (i) transferring moneys to the Bond Reserve Account from an available source of funds (other than proceeds of Additional Bonds) in an amount equal to the Reserve Requirement in six (6) semi-annual installments beginning on the date which is 180 days of the Ratings Downgrade Event; (ii) obtaining a letter of credit, a surety bond, or an insurance policy within 180 days of the Ratings Downgrade Event; provided, however, the provider or issuer thereof shall be rated by any nationally recognized bond rating agency as high or higher than the Bond Reserve Account from proceeds of Additional Bonds within 180 days of the Ratings Downgrade Event. The BWL must adopt a plan to satisfy the Reserve Requirement within ninety (90) days of the Ratings Downgrade Event.

A Supplemental Resolution (as defined in the Bond Resolution) authorizing Additional Bonds may either (i) provide that the Additional Bonds are equally and ratably secured by the Bond Reserve Account funded according to the Reserve Requirement, or (ii) provide for the creation of a separate bond reserve account securing that series of Additional Bonds and a different reserve requirement, or state that no bond reserve account is required. See "Appendix D – BOND RESOLUTION CONSOLIDATED VERSION – Section 18. Funds and Accounts; Flow of Funds."

Flow of Funds

All Revenues of the System shall be set aside as collected and credited to the Receiving Fund. Periodically, out of the Revenues credited to the Receiving Fund there shall be first set aside in, or credited to, a fund designated Operation and Maintenance Fund, a sum sufficient to provide for the payment during the succeeding period of the next month's expenses of administration and operation of the System, including such current expenses for the maintenance thereof as may be necessary to preserve the same in good repair and working order.

After provision for the Operation and Maintenance Fund, there shall next be set aside, monthly, in the Bond and Interest Redemption Fund a sum proportionately sufficient to provide for the payment of the principal of, mandatory redemption requirements, if any, and interest on the Bonds and any Outstanding Bonds as and when the same become due and payable, subject to any credit therefor as provided in the Bond Ordinance. If there is any deficiency in the amount previously set aside, that deficiency shall be added to the requirements for the next succeeding month.

If at any time it shall be necessary to use moneys credited to the Bond Reserve Account for such payment, then the moneys so used shall be replaced from the Net Revenues first received thereafter which are not required for expenses of administration, operation and maintenance of the System or for current principal and interest requirements on any of the Bonds.

If the BWL issues Junior Lien Bonds or Junior Lien Notes, revenues remaining in the Receiving Fund, after provision has been made for the requirements of the Operation and Maintenance Fund and of the Bond and Interest Redemption Fund, shall be set aside, but not more often than monthly, in the Junior Lien Redemption Fund for the purpose of paying the principal of, redemption premium, if any, and interest on such Junior Lien Bonds or Junior Lien Notes as they come due, in accordance with the resolution authorizing the issuance of the Junior Lien Bonds or Junior Lien Notes. See "THE BONDS – Security."

Any Revenues in the Receiving Fund after satisfying all requirements of the Operation and Maintenance Fund, the Bond and Interest Redemption Fund, the Rebate Fund and the Junior Lien Redemption Fund shall be deemed to be surplus moneys and may be used for such purposes as the BWL deems to be for the best interests of the City.

If there should be any deficit in the Operation and Maintenance Fund, Bond and Interest Redemption Fund or the Rebate Fund on account of defaults in setting aside required amounts therein, then transfers shall be made from the moneys remaining in the Receiving Fund at the end of any operating year to those funds in the priority and order specified herein, to the extent of any deficit, before any other disposition is made of the moneys in the Receiving Fund at the end of any operating year.

For a complete description of the funds and accounts and flow of funds, see "Appendix D – BOND RESOLUTION CONSOLIDATED VERSION."

Outstanding Parity Bonds

The Bonds are being issued by the BWL on parity with its outstanding Utility System Revenue Refunding Bonds, Series 2013A (the "Outstanding 2013A Bonds"), Utility System Revenue Refunding Bonds, Series 2017A (the "Outstanding 2017A Bonds"), Utility System Revenue Bonds, Series 2019A (the "Outstanding 2019A Bonds"), Utility System Revenue Refunding Bonds, Series 2019B (Federally Taxable) (the "Outstanding 2019B Bonds"), Utility System Revenue Bonds, Series 2021A (the "Outstanding 2021A Bonds"), and the Utility System Revenue Bonds, Series 2021B (Mandatory Put Bonds) (the "Outstanding 2021B Bonds," and together with the Outstanding 2013A Bonds, the Outstanding 2017A Bonds, the Outstanding 2019A Bonds, and the Outstanding 2021A Bonds, the "Outstanding Bonds").

As of December 1, 2023, the BWL had the following Outstanding Bonds in the aggregate principal amounts with final maturities set forth below:

Table of Outstanding Bond	s ⁽¹⁾	
-	Par	Final
	Outstanding	Maturity
Utility System Revenue Refunding Bonds, Series 2013A	\$6,330,000	July 1, 2026
Utility System Revenue Refunding Bonds, Series 2017A	21,625,000	July 1, 2032
Utility System Revenue Bonds, Series 2019A	313,730,000	July 1, 2048
Utility System Revenue Refunding Bonds, Series 2019B	239,230,000	July 1, 2041
Utility System Revenue Bonds, Series 2021A	56,020,000	July 1, 2051
Utility System Revenue Bonds, Series 2021B (Mandatory Put Bonds)	70,875,000	July 1, 2051
Total	<u>\$707,810,000</u>	

⁽¹⁾ Certain of the Outstanding Bonds are subject to refunding and/or tender as more fully described herein.

For a description of the debt service on the Outstanding Bonds upon the issuance and sale of the Bonds, see "DEBT SERVICE REQUIREMENTS."

Additional Bonds

In determining whether Additional Bonds can be issued in compliance with the Bond Resolution, (i) if System rates, fees or charges shall be increased at or prior to the time of authorizing Additional Bonds, the Net Revenues may be augmented by an amount which in the opinion of the BWL's municipal advisor will reflect the effect of the increase had the System's billings during such time been at increased rates, and (ii) the actual Net Revenues may be augmented by the estimated increase in Net Revenues which in the opinion of the BWL's municipal advisor will accrue as a result of new customers which have not been serviced during the fiscal year described above or as a result of the acquisition of the repairs, extensions enlargements and improvements to the System which have been made during or subsequent to the fiscal year described above or which will be acquired in whole or in part from the proceeds of the Additional Bonds to be issued.

Additional Bonds also may be issued to refund a part of the Outstanding Bonds and to pay costs of issuing such Additional Bonds, if after giving effect to the refunding, the maximum amount of Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year prior to giving effect to the refunding.

Additional Bonds also may be issued without meeting any of the conditions and tests set forth above to pay the cost of acquisition and construction of any repairs, replacements, betterments, improvements, major renewals or corrections of any damage or loss to the System necessary, in the opinion of the Consulting Engineer (as defined in the Bond Resolution), to keep the System in good operating condition or to prevent a loss of revenues therefrom or to pay the cost of decommissioning, disposal or termination of the System.

For a complete description of the terms upon which Additional Bonds may be issued, see "Appendix D – BOND RESOLUTION CONSOLIDATED VERSION."

Book-Entry-Only System and Transfer Outside Book-Entry-Only System

DTC will act as securities depository for the Bonds. Additional information regarding DTC and the book-entry-only system is attached hereto as Appendix G. In the event the book-entry-only system is discontinued, the following provisions would apply to the Bonds. The Transfer Agent will act as transfer agent and bond registrar and shall keep the registration books for the Bonds (the "Bond Register") at its corporate trust office. Subject to the further conditions contained in the Bond Resolution, the Bonds may be transferred or exchanged for one or more Bonds in different authorized denominations upon surrender thereof at the corporate trust office of the Transfer Agent by the registered owners or their duly authorized attorneys; upon surrender of any Bonds to be transferred or exchanged, the Transfer Agent shall record the transfer or exchange in the Bond Register and shall authenticate replacement bonds in authorized denominations; during the 15 days immediately preceding the date of mailing of any notice of redemption or any time following the mailing of any notice of redemption, the Transfer Agent shall not be required to effect or register any transfer or exchange of any Bond which has been selected for such redemption, except the Bonds properly surrendered for partial redemption may be exchanged for new Bonds in authorized denominations equal in the aggregate to the unredeemed portion; the BWL and Transfer Agent shall be entitled to treat the registered owners of the Bonds, as their names appear in the Bond Register as of the appropriate dates, as the

owner of such Bonds for all purposes under the Bond Resolution. No transfer or exchange made other than as described above and in the Bond Resolution shall be valid or effective for any purposes under the Bond Resolution.

THE FINANCING

Purpose of the Bonds

The Bonds are being issued for the purpose of refunding certain Bonds to be Refunded (as described herein), paying costs to acquire and construct System improvements including the addition of natural gas reciprocating engines as well as the construction, improvement and renovation of transmission and distribution lines and related System facilities, including all equipment and any appurtenances and attachments thereto and any related site acquisition or improvements, and paying certain capitalized interest through July 1, 2026 and costs of issuance of the Bonds. Proceeds of the Bonds also will be used to pay the purchase price of the BWL bonds tendered for purchase pursuant to the BWL Tender Offer (as described herein) and accepted by the BWL. See "Appendix H – TENDERED BONDS."

Plan of Refunding

Description of the Bonds to be Refunded. A portion of the proceeds of the Bonds, together with certain other funds available under the Bond Resolution, will be used to provide funds to refund the Outstanding 2013A Bonds identified in the Table of Bonds to be Refunded set forth below (the "Bonds to be Refunded"). The Bonds to be Refunded were issued for the purposes of financing or refinancing all or a portion of the costs of acquiring and constructing the various facilities of the BWL.

Table of Bonds to be Refunded

The following Outstanding 2013A Bonds will be refunded from the proceeds of the Bonds in March of 2024.

	Principal Amount	CUSIP ¹
<u>Maturity</u>	to be Refunded	Base No. 516391
2025	\$2,105,000	BR9
2026	2,225,000	BS7

Refunding Plan. Pursuant to the terms of an Escrow Agreement (an "Escrow Agreement") to be entered into between the BWL and U.S. Bank Trust Company, National Association (the "Escrow Trustee"), the refunding of the Bonds to be Refunded will be effected by the BWL depositing with the Escrow Trustee into the escrow fund created under the Escrow Agreement (the "Escrow Fund"), certain proceeds of the Bonds and other amounts available for the Bonds to be Refunded, which will be used to purchase non-callable direct government obligations or held as cash.

The non-callable direct government obligations will bear interest at such rates, and will be scheduled to mature at such times and in such amounts so that, when paid in accordance with their respective terms, sufficient money will be available therefrom to pay, when due, the principal of, premium if any, and interest becoming due on the Bonds to be Refunded. Principal of and interest on the non-callable direct government obligations in the Escrow Fund will be held in trust and used solely for the payment of the principal, redemption premium and interest on the Bonds to be Refunded.

Verification Report. On or prior to the date of delivery of the Bonds, Robert Thomas, CPA LLC, independent certified public accountants, will deliver a report attesting to the mathematical accuracy of the computations contained in the schedules prepared by the Underwriters on behalf of the BWL relating to the adequacy of the government obligations and cash being deposited in the Escrow Fund.

¹ Registered trademark of American Bankers Association. CUSIP numbers are provided by S&P Global Ratings, a Standard & Poor's Financial Services LLC business. 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 BWL does not make any representation with respect to such number or undertake any responsibility for its 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.

The Tender Offer

On December 27, 2023, the BWL released an Invitation to Tender Bonds, as amended by the Notice of Amendment dated January 5, 2024 (as amended, the "Invitation"), inviting the beneficial owners of the maturities of BWL's Outstanding 2019B Bonds identified in the Invitation (the "Target Bonds") to tender their Target Bonds for purchase by the BWL on the terms and conditions set forth in the Invitation (the "BWL Tender Offer"). Pursuant to the Invitation, the owners of the Target Bonds may tender their Target Bonds, and the BWL may purchase some or all of the tendered Target Bonds at the purchase prices and subject to the other terms and conditions set forth in the Invitation, as supplemented or amended via pricing notice or otherwise. The tendered Target Bonds to be purchased will be cancelled on the date of issuance and delivery of the Bonds and will no longer be outstanding under the Bond Resolution. See "Appendix H – TENDERED BONDS."

The Target Bonds will be tendered to the BWL under the terms of the Invitation with the assistance of BofA Securities, Inc. ("BofA Securities"), in its capacity as the Dealer Manager of the BWL Tender Offer. BofA Securities will be reimbursed for any expenses it incurs as the Dealer Manager of the BWL Tender Offer. BofA Securities is also an Underwriter of the Bonds. See "UNDERWRITING" herein.

Based on the results of the BWL Tender Offer, some or all of the Target Bonds listed in the BWL Tender Offer may be (i) purchased with proceeds of the Bonds pursuant to the BWL Tender Offer, or (ii) remain outstanding. The BWL is not required to purchase any of the tendered Target Bonds. The BWL caused its Notice of Acceptance of Offers to be posted on EMMA (as defined below) on January 18, 2024. See "Appendix H – TENDERED BONDS."

This discussion is not intended to summarize the terms of the Invitation, or to solicit offers to tender Target Bonds, and reference is made to the Invitation for a complete discussion of the terms of the Invitation and the conditions for the settlement of the Target Bonds validly tendered and accepted for purchase. The BWL has filed the Invitation with the Municipal Securities Rulemaking Board ("MSRB") through its Electronic Municipal Market Access service ("EMMA").

ESTIMATED SOURCES AND USES OF FUNDS

The Bonds

Sources	
Principal Amount of the Bonds	\$364,625,000.00
Original Issue Premium	41,845,753.65
Other Available Funds	137,391.68
Total Sources	<u>\$406,608,145.33</u>
Uses	
Construction Fund	\$337,156,397.62
Escrow Fund Deposit	4,346,382.11
Purchase of Accepted Tendered Bonds	41,288,608.46
Capitalized Interest	21,735,426.32
Costs of Issuance ⁽¹⁾	800,853.08
Underwriters' Discount	1,280,477.74
Total Uses	\$406,608,145.33

⁽¹⁾ Includes legal, ratings, financial advisory and other costs of issuance, including costs associated with the BWL Tender Offer.

DEBT SERVICE REQUIREMENTS

The following table sets forth the debt service on the BWL's Outstanding Bonds, as well as the principal of, interest on, and annual debt service on the Bonds.

D 1	Outstanding	The Bonds			- T (1
Period <u>Ending</u>	Bonds Debt Service ⁽¹⁾	Principal	Interest ⁽²⁾	Debt Service	Total Debt Service
7/1/2024	\$41,859,344		\$7,725,642	\$7,725,642	\$49,584,987
7/1/2025	37,420,035	\$2,715,000	18,418,750	21,133,750	58,553,785
7/1/2026	37,619,261	2,645,000	18,283,000	20,928,000	58,547,261
7/1/2027	39,002,424	6,535,000	18,150,750	24,685,750	63,688,174
7/1/2028	41,876,263	3,985,000	17,824,000	21,809,000	63,685,263
7/1/2029	41,600,980	4,460,000	17,624,750	22,084,750	63,685,730
7/1/2030	38,737,331	7,550,000	17,401,750	24,951,750	63,689,081
7/1/2031	42,740,312	3,920,000	17,024,250	20,944,250	63,684,562
7/1/2032	39,151,203	7,705,000	16,828,250	24,533,250	63,684,453
7/1/2033	38,330,325	8,915,000	16,443,000	25,358,000	63,688,325
7/1/2034	42,734,454	4,955,000	15,997,250	20,952,250	63,686,704
7/1/2035	38,544,593	9,390,000	15,749,500	25,139,500	63,684,093
7/1/2036	26,508,208	21,900,000	15,280,000	37,180,000	63,688,208
7/1/2037	39,673,283	9,830,000	14,185,000	24,015,000	63,688,283
7/1/2038	43,807,439	6,185,000	13,693,500	19,878,500	63,685,939
7/1/2039	43,797,019	6,505,000	13,384,250	19,889,250	63,686,269
7/1/2040	43,786,744	6,840,000	13,059,000	19,899,000	63,685,744
7/1/2041	43,780,306	7,190,000	12,717,000	19,907,000	63,687,306
7/1/2042	46,046,075	5,285,000	12,357,500	17,642,500	63,688,575
7/1/2043	46,047,650	5,545,000	12,093,250	17,638,250	63,685,900
7/1/2044	46,046,475	5,825,000	11,816,000	17,641,000	63,687,475
7/1/2045	46,044,050	6,120,000	11,524,750	17,644,750	63,688,800
7/1/2046	46,041,625	6,425,000	11,218,750	17,643,750	63,685,375
7/1/2047	46,040,200	6,750,000	10,897,500	17,647,500	63,687,700
7/1/2048	46,040,525	7,085,000	10,560,000	17,645,000	63,685,525
7/1/2049	44,838,100	8,640,000	10,205,750	18,845,750	63,683,850
7/1/2050	44,840,050	9,075,000	9,773,750	18,848,750	63,688,800
7/1/2051	44,841,675	9,535,000	9,311,413	18,846,413	63,688,088
7/1/2052		54,860,000	8,825,625	63,685,625	63,685,625
7/1/2053		57,660,000	6,028,875	63,688,875	63,688,875
7/1/2054		60,595,000	3,089,300	63,684,300	63,684,300
Total	\$1,177,795,947	\$364,625,000	\$407,492,105	\$772,117,105	\$1,949,913,052

(1) Reflects debt service net of debt service on certain of the Outstanding Bonds that are subject to refunding and the BWL Tender Offer as more fully described herein. Due to rounding, values may not add up.

⁽²⁾ A portion of the interest on the Bonds in the amount of \$39,769,618.06 is capitalized to July 1, 2026.

THE LANSING BOARD OF WATER AND LIGHT

The City of Lansing

The City of Lansing, Counties of Ingham, Eaton and Clinton, is Michigan's state capital. Lansing's population of 107,977 people (U.S. Census 2018-2022 American Community Survey estimate) is distributed across an area of approximately 35 square miles. It is located approximately 85 miles northwest of Detroit and 65 miles southeast of Grand Rapids. It is estimated that the City of Lansing is within 90 miles of 90% of Michigan's population. Residential, commercial and industrial valuations account for approximately 54.3%, 32.5% and 5.9%, respectively, of the City's 2023 Taxable Valuation, as defined in Appendix A. The balance of the City's 2023 Taxable Valuation is personal property—primarily commercial and utility in nature. General Motors, the State of Michigan, and Michigan State University in adjacent East Lansing, are pillars of the local economy.

The Bonds are not a general obligation of the City, and neither the full faith and credit nor the taxing power of the City is pledged to the payment of the principal of and interest on the Bonds. The Bonds do not constitute an indebtedness of the City within any constitutional, statutory or charter limitation.

Organization and History

The BWL is a combined municipal utility system with over 100,000 customers. It provides electric, water, steam, and chilled water services to some or all parts of the City of Lansing, the City of East Lansing, and surrounding townships. The Charter provides that the BWL shall have full and exclusive management of the electric, water and steam utility services of the City and such other services as may be agreed upon by the BWL and the City. The City Charter provides that the BWL may fix just and reasonable rates as it deems necessary for the services it provides. It is the BWL's practice to review all rates annually and to set such rates so that each respective utility within the System (electric, water, steam, and chilled water) is self-supporting.

The BWL is governed by an eight-member Board of Commissioners. The City's mayor appoints the Commissioners for terms of four years. These appointments are confirmed by Lansing's City Council. The BWL has three additional non-voting commissioners who represent the utility customer communities outside Lansing's city limits; one member each from the City of East Lansing and Delta Township, each serving four-year terms, and one member representing the remaining municipalities, serving annually on a rotating basis.

The BWL was founded in 1885 by a vote of the City's electorate. Its original purpose was the provision of water for safe drinking and fire protection. In 1892, the BWL took control of a local power plant and began to provide street lighting. Steam service was added in 1919 with the acquisition of Michigan Heat and Power Company. The BWL further diversified revenues in 2001 when it began the sale of chilled water.

Strategic Plan

The BWL's 2021 Strategic Plan, approved by its Board of Commissioners, sets forth priorities for the organization's development for fiscal years 2021-2025 and emphasizes customers and community, workforce engagement and diversity, climate and environment, operational resiliency and continuous improvement, and financial stability. Looking ahead, a new strategic plan for FY26 is expected to be established in the first quarter of FY25. The planning process has already started with the evaluation of vendor partners scheduled for the second quarter of FY24. Complete details of the BWL's 2021 Strategic Plan are accessible at: https://www.lbwl.com/about-bwl/strategic-plan.

Clean Energy Program – An Update to the 2020 Integrated Resource Plan

Background. Utilities use integrated resource planning to compare their projected needs to those of their customers, and then they fill any gaps in a way that minimizes risks and costs to both parties. The process considers a variety of future electric generation scenarios, each with measurable impacts to cost, risk, reliability, operational flexibility and resilience, and environment and climate. The result is a document known as the Integrated Resource Plan ("IRP"), which makes recommendations for meeting future energy needs. While an IRP is considered by the Board of Commissioners in developing a strategic plan, including the 2021 Strategic Plan, an IRP is not formally approved or adopted by the Board of Commissioners.

The BWL's most recent IRP, published in 2020 (the "2020 IRP"), recommends increased investment in energy waste reduction* and renewable generation sources. It also called for the closure of Erickson Station on December 31, 2025, which BWL closed early to end its coal-fired generation operations. The 2020 IRP demonstrated that it is possible for the BWL to meet the goals set forth in the following table.

BWL's 2020 IRP			
Calendar Year End	Goal		
2030	50% Clean Energy†		
2040	Carbon Neutral		

Source: Lansing Board of Water and Light

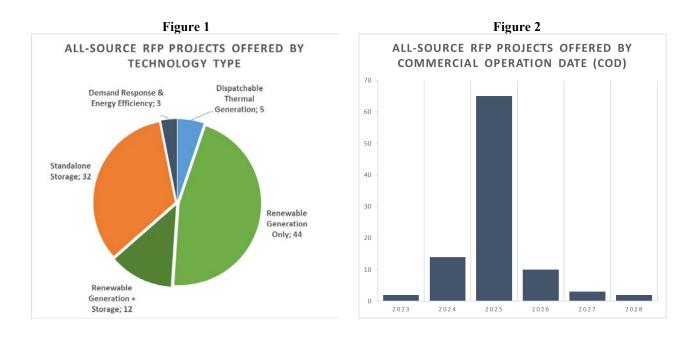
^{*} For a description of energy waste reduction, see "Environmental Initiatives – *Energy Waste Reduction & Renewable Portfolio Standard.*" † Clean energy includes renewable energy and cumulative energy waste reductions since 2009. Clean energy as of the end of fiscal year 2023 is 75%, which is composed of approximately 60% renewables (wind and solar) plus 15% energy waste reduction.

Since publishing the 2020 IRP, three significant assumptions have changed the BWL's expected capacity and energy needs that were identified in the 2020 IRP. First, the BWL accelerated the retirement date of the Erickson Station coal plant to November 2022 instead of the 2020 IRP recommendation of 2025. Its closure marks a significant milestone in the BWL's journey to carbon neutrality, as the BWL no longer burns coal to produce electricity at its owned generation facilities. Second, DTE's Belle River coal plant has announced its transition to natural gas in 2025 and 2026, eliminating coal from the BWL's portfolio five years earlier than anticipated in the 2020 IRP. Third, the BWL's retail load is expected to increase by approximately 35 percent as the announcement of the Ultium Cells LLC ("Ultium Cells") battery plant in the BWL's service territory has resulted in significant load growth. See "Load Growth" herein for more information.

This combination of events required the BWL to quickly evaluate the energy and capacity needs of its customers, identify solutions to meet these requirements, and execute the development of resources to meet capacity obligations, renewable targets, and carbon reduction goals. The action taken by the BWL was to conduct its first-ever All-Source RFP to meet these goals.

All-Source RFP. The All-Source RFP was launched on October 10, 2022, and sought competitive proposals to supply up to 475 MW of firm capacity to meet customer loads into the future and to meet the planning reserve requirements of the Mid-Continent Independent System Operator ("MISO"). An All-Source RFP meant the BWL considered any electric supply or demand-side resources that could meet all or part of the BWL's capacity and clean energy needs.

The All-Source RFP process funneled offers down to a shortlist of projects selected for the BWL's Clean Energy Program. Through the process, the BWL received 106 offers, 96 of which (from 32 unique sellers) were fully compliant with the All-Source RFP process. The 96 offers comprised 8,330 MW of nameplate capacity to consider. This included local projects and projects within the greater MISO Zone-7. Below **Figure 1** displays the various project types offered and **Figure 2** displays the commercial operation dates offered.



Source: Lansing Board of Water and Light

Source: Lansing Board of Water and Light

Upon completion of the economic analysis risk assessment, and review for strategic alignment, the BWL shortlisted 32 projects for further review. As a result of the further review and negotiations, the BWL announced its Clean Energy Program on July 19, 2023, which includes over 650 MW of electric generation from clean energy sources, including 160 MW of battery storage, 65 MW of local solar, 195 MW of additional solar outside of the Lansing region, 238 MW of wind outside of the Lansing region, continued growth in energy waste reduction, and development of demand response programs. Additionally, these projects are complimented with 110 MW of Reciprocating Internal Combustion Engines ("RICE") to provide continued reliability and capacity to the BWL's electric customers. This diverse portfolio will continue BWL's leadership in carbon reduction, renewable energy, and affordable energy for its customers. Some of these projects are further described in more detail below.

Project Dynamic. Project Dynamic will consist of six (6) 18.8 MW RICE fueled by natural gas and capable of burning up to 25% hydrogen gas blend, up to 10 MW of solar, and 40 MW of 4-hour Battery Energy Storage System. Project Dynamic will be built in Delta Township, at the site of the BWL's existing Delta Energy Park Natural Gas Plant and the closed coal-fired Erickson Station. The 90-acre plot is located eight miles from the BWL's REO Town Plant & Headquarters. Project Dynamic will be the BWL's first RICE natural gas plant coupled with an up to 10 MW solar and Battery Energy Storage System. The RICE units are expected to be commercially operational by September 2026. Project Dynamic follows in the footsteps of the BWL's Delta Energy Park Plant, which was completed within budget and on time in 2022.

The BWL was awarded a \$12 million Low-Carbon Infrastructure Grant from the Michigan Public Service Commission ("MPSC") to support the installation of 4 MW of photovoltaic cell ("PV") and 40 MW of 4-hour Battery Energy Storage Systems at the Delta Energy Park. The grant award date was July 3, 2023 and the scheduled completion date is February 1, 2026.

Project Dynamic's strategic location at the existing Delta Energy Park site, alongside the retired Erickson Station, positions the project to minimize the need for extensive transmission upgrades, which have been a common bottleneck delaying similar projects elsewhere.

Local Solar. The BWL is working with solar developers on five additional local sites within the BWL service territory to provide 39 MW of distributed solar to enhance its green energy portfolio and provide support to the System and local green energy commitments. The BWL will own, operate, and maintain the solar projects that are interconnected to its System. The five sited projects are expected to be completed and operational in 2025. The BWL is also working with a retail customer to install up to 16 MW of solar through its existing Distributed Generation Program.

Regional Solar and Wind. To meet the demand of large local customers who desire or are required to be 100 percent renewable energy, the BWL is working with regional solar and wind developers on purchase power agreements. These three projects will add 195 MW of solar and 238 MW of wind to the BWL green energy portfolio. Commercial operations are projected to start in the second quarter of 2025 and 2027 for the solar projects and the fourth quarter of 2025 for the wind project.

Customer Demand Response Program. The BWL has contracted with a third party to manage a customer demand response program. The program utilizes smart thermostats and incentives to allow for thermostat control on peak event days and times called by its operations and energy groups. Marketing to customers is scheduled to begin in the second quarter of 2024. The program will run for three years with target participation of 1,000 customers, which is expected to reduce customer energy usage by 1 MW in aggregate.

Future Battery Storage. The BWL is currently evaluating multiple sites within its System to site battery projects for a total of 120 MW of storage. The siting and size of installation will consider the need for distribution resiliency and load balancing. The project is expected to be completed by the end of calendar year 2027.

Operational Integration. The projects above will be dispatched economically and against the load requirements of the Midcontinent Independent System Operator Inc. ("MISO") market. Except where noted above, the BWL will register the new power plants as a behind-the-meter resource on the MISO market. See also "THE ELECTRIC UTILITY—Transmission Arrangements" herein.

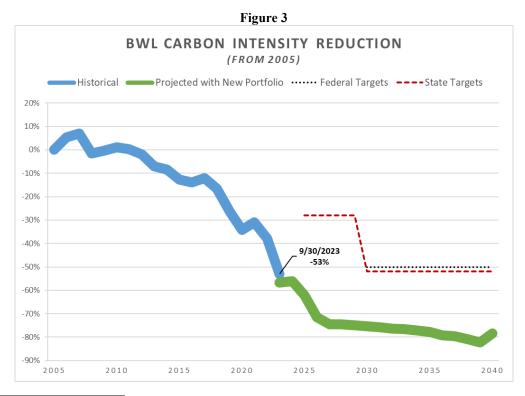
Portfolio Overview. The projects selected from the All-Source RFP result in an increasingly diverse portfolio of energy resources to serve customers with reliable, affordable, and clean energy. These projects build upon the BWL's leadership in clean energy, as the BWL was Michigan's first utility to adopt a renewable energy standard.^{*}

The selected portfolio furthers the BWL's reduction of its carbon emissions and can be shown by measuring the carbon intensity from its electric generation. Carbon intensity is the amount of carbon emissions released per megawatt hour of electricity produced. As of September 2023, BWL had reduced its carbon intensity by 53%[†] from 2005 levels. The BWL's success in reducing its emissions footprint is expected to exceed established targets by Michigan Governor Gretchen

^{*} In 2007, the BWL committed to sourcing 7% of retail electric sales from renewables by 2015. Also in 2007, the BWL embarked upon the development of a comprehensive energy waste reduction program. BWL has measured energy waste reduction savings since 2009. Both initiatives—renewable energy and energy waste reduction—have been effective in reducing BWL's consumption of fossil fuels.

 $[\]dagger$ 53% reduction in carbon intensity rate, measured as CO_2 emissions divided by total MWh.

Whitmer's MI Healthy Climate Plan and additional targets announced by the federal government. Figure 3 below displays the carbon intensity projection as a result of the selected portfolio of clean energy projects.



Source: Lansing Board of Water and Light

Continuing with this clean energy investment and moving away from coal has diversified the BWL's generation fleet. **Figure 4** below and **Figure 5** on the following page display the BWL's historical and projected nameplate capacity in MW and in percent distribution of the technology.

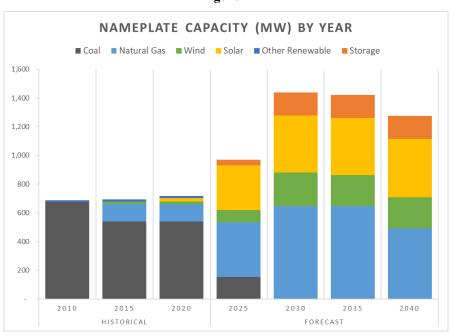
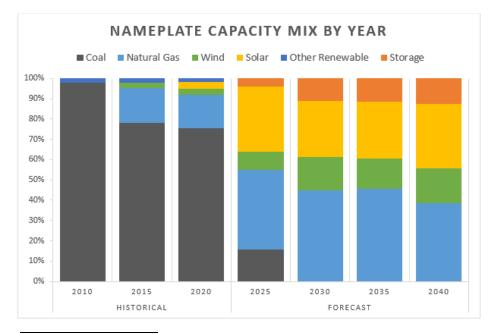


Figure 4

Source: Lansing Board of Water and Light

Figure 5



Source: Lansing Board of Water and Light

Environmental Initiatives

As a municipal utility, the BWL conducts business in a manner consistent with its commitments to the local communities it serves. In alignment with its values, the BWL believes that meeting or exceeding environmental standards will have a positive long-term impact on the economy and health of the greater Lansing region. Accordingly, the BWL prioritizes environmental stewardship and sustainability in each stage of planning and operations. In 2010, the BWL owned and operated fourteen coal-fired generation units.^{*} Just three years later, this number was cut in half[†] and today, the BWL has retired all of its owned coal-fired assets.

Energy Waste Reduction & Renewable Portfolio Standard. In 2007, the BWL began plans for a comprehensive energy waste reduction program. In 2008, the State promulgated renewable energy and energy waste reduction standards for all utilities providing natural gas or electric services within the State. Michigan Public Act 295 of 2008 required utilities to reach a standard of at least 10% renewable energy in 2015, and to implement energy efficiency to reduce retail electric consumption by 1% annually beginning in 2012. Michigan Public Act 295 of 2008 was amended in 2016 by Michigan Public Act 342 of 2016 ("Act 342") to increase the renewable energy standard to 12.5% in 2019 and 2020, and 15% in 2021. Act 342 left the 1% annual energy waste reduction goal for municipal utilities unchanged, however the compliance requirement with the MPSC sunset for municipal utilities after December 31, 2021.[‡] The BWL has measured energy waste reduction savings since 2009. For information on the BWL's future energy waste reduction goals, see "CERTAIN RISK FACTORS AFFECTING THE ELECTRIC UTILITY INDUSTRY — Renewable Energy and Energy Waste Reduction Standards."

The BWL has historically met or exceeded all statutory requirements related to energy waste reduction savings and renewables.

^{*} Ten of the fourteen units generated electricity. Four of the units were located at Moores Park and generated steam for the BWL customers in the City's downtown.

[†] Units that came offline between 2010 and 2013 were three electric generating units comprising half of Eckert Station and all four steam generating units at Moores Park.

[‡] As of the date of this Official Statement, Michigan Public Act 229 of 2023 has not taken effect. Under the new law, municipal utilities are expected to continue to administer their own energy waste reduction plans. The BWL is making plans to timely comply with any subsequent legal requirements.

Calendar	Actual Efficiency Savings as %
<u>Year</u>	of Retail Energy Sales
2009	0.35
2010	0.54
2011	0.81
2012	1.08
2013	1.25
2014	1.09
2015	1.42
2016	1.03
2017	1.31
2018	1.03
2017	1.31
2018	1.05
2019	1.19
2020	1.08
2021	1.05
2022	1.31

Source: Lansing Board of Water and Light

Dramatic Reductions in Coal Consumption and Air Emissions. With the growth of its renewable energy portfolio, continued investment in energy waste reduction programming, construction of additional gas-fired generation and the closure of its coal plants in 2020 and 2022, the BWL has charted a cleaner energy future. As previously stated, the BWL has reduced its carbon intensity by 53% from 2005 levels. Additionally, nitrogen oxide (NO_X) and sulfur dioxide (SO₂) emissions have decreased by 94% and 99.9%, respectively, from 2005 values. The BWL's efforts have already resulted in a dramatic reduction in coal consumption and air emissions. The table below shows BWL's coal consumption levels.

Calendar	Coal Consumed at BWL
Year	Facilities (Tons)
2010	1,550,294
2011	1,478,873
2012	1,135,099
2013	1,007,603
2014	939,861
2015	883,572
2016	888,795
2017	871,601
2018	748,651
2019	466,577
2020	362,336
2021	441,139
2022	496,071
2023	0

Source: Lansing Board of Water and Light

Coal-fired power plants are significant emitters of NO_x, SO₂, and the greenhouse gas CO₂. By transitioning to cleaner energy sources and renewables, the BWL has simultaneously reduced both its emissions and dependence on coal.

A Proactive Approach to Coal Combustion Residuals ("CCRs"). The BWL fueled its power plants with coal for over 100 years. The resulting disposal of coal ash has impacted several parcels of property in the Lansing area. While those disposal practices were commonplace in the industry and entirely lawful at the time, they are no longer compatible with the BWL's increased environmental consciousness. Therefore, in 2008 the BWL began a voluntary, five-year, \$15.7 million project to remove ash from two of its three legacy sites:

• <u>Erickson Station</u>—Excavation and removal of ash from Erickson's 33-acre impoundment was completed in 2013. Approximately 562,663 cubic yards of coal ash was removed and disposed in an offsite landfill. A new system was installed to decant the ash and transport it to an offsite licensed landfill. Since 2014, the majority of the ash generated was disposed offsite. The decant water was sent to a new 5-acre impoundment system

designed to clarify the process water to make it suitable for reuse in the plant until it closed in November 2022. BWL did not believe the new system was subject to the Coal Combustion Residuals Rule (effective in 2015) because the ash impoundment was removed. BWL later became aware that the new system, though effective in removing the vast majority of CCR, was allowing slightly more than a de minimis quantity of fine CCR to pass through to the existing impoundments. BWL then commenced its compliance program, but it was after several of the required dates had passed. BWL expects to enter to into a consent order with both EGLE and EPA to address these nonconformities. To date, ash has been removed and BWL is in the last phases of the verification process, which consists of testing the soil to confirm the ash has been removed. BWL has also installed a groundwater monitoring network as required by both the state and federal CCR rule. The BWL does not anticipate a material impact as a result of a final consent order.

- <u>Comfort Street</u>—Between 2009 and 2013, approximately 900,000 cubic yards of ash were excavated from this former landfill and disposed of in a licensed landfill. The entire site was backfilled with clean soil. Groundwater monitoring is underway in anticipation of obtaining approval for final site closure from the Michigan Department of Environment, Great Lakes and Energy.
- <u>North Lansing Landfill</u>—This former ash disposal site has been capped and contained. The BWL is meeting its remediation obligations by utilizing a slurry wall and four groundwater extraction wells. The wells discharge to the sanitary sewer system for treatment.

Eckert Station has never had an ash impoundment or landfill onsite.

Drinking Water Quality. In December 2016, the BWL completed a 12-year Lead Service Line Replacement ("LSLR") project at a cost of \$44.5 million. The BWL was the first utility in the State and the second in the United States to remove all its lead service lines. As a trailblazer in lead replacement, the BWL has been a go-to resource for utilities and regulatory authorities seeking to follow in the BWL's footsteps.

In 2018, the State promulgated a more stringent Lead and Copper Rule ("LCR"), effectively reducing the lead action level below the federal standard. The purpose of the LCR is to protect public health by minimizing lead and copper levels in drinking water. There are several revisions to the LCR that will continue to impact Michigan utilities which provide drinking water. Under the LCR, drinking water utilities must inventory all water system materials to determine how much of their distribution networks are composed of lead. Additionally, drinking water utilities must periodically collect water samples from customer taps to test for the presence of these metals.

The BWL is ahead of the curve with regard to Michigan's LCR regulations. Owing to its complete elimination of lead service lines, the BWL was able to complete the system materials inventory in short order. Also due to LSLR, the BWL can take advantage of cost savings associated with reduced water sampling requirements. Water utilities must periodically collect tap samples from several customers for testing. The BWL is only obligated to collect a single water sample every three years for each customer tested, while some other utilities with lead service lines must collect two different specimens per tested customer and do so annually.

In addition to lead, another water quality issue that has seen increased public awareness is the presence of per- and polyfluoroalkyl substances ("PFAS"). Instead of waiting on federal guidelines, Governor Gretchen Whitmer directed the Michigan Department of Environment, Great Lakes and Energy to begin developing drinking water standards for PFAS. PFAS regulations for Michigan were established on August 3, 2020, which require the BWL to monitor annually at both water conditioning plants. This is another instance where the BWL is positioned ahead of most utilities, as the BWL has been testing annually for PFAS since 2018. The BWL's finished water has had no PFAS compounds detected.

The BWL has a demonstrated history of providing customers with safe, clean and affordable drinking water. By continually monitoring for changes in water quality, the BWL meets or exceeds state and federal standards for drinking water purity. A link to the latest annual BWL Water Quality Report may be found at www.lbwl.com/water.

Sustainability and Pollution Prevention. The BWL issued its first ever Sustainability Report representing data for Fiscal Year 2022. The BWL remains committed to enhancing efforts towards its mission, vision and values while maintaining climate consciousness and leading in environmental stewardship. Since 2005, the BWL has been a member of the Michigan Business Pollution Prevention Program through the Michigan Department of Environment, Great Lakes and Energy. To remain in the program, businesses must establish, track and report goals annually to show persistent efforts to reduce their

impact on the environment and promote a more sustainable future. Much of this information will continue to be reported each year through the BWL's annual Sustainability Report.

The BWL's Corporate Sustainability program includes various climate response measures, practices, investments and tactics that incorporate greenhouse gas reductions and activities in alignment with its carbon neutrality goals. These include, but are not limited to:

- Eco-friendly vendors and materials
- Energy, water and material waste reduction
- Recycling materials, equipment and appliances
- Reducing paper usage
- Renewable energy programs for customers such as distributed generation
- Renewable energy purchasing programs
- Greenhouse gas emissions (GHG) measurement and analysis
- Beneficial electrification for transportation, buildings, and other equipment
- Usage of "Green" cleaning products and practices
- Live vegetation "Greenery" within facilities
- Energy efficiency education programs for local schools

In addition, the BWL has been named an American Public Power Association ("APPA") Smart Energy Provider, a national award given to public power utilities that show commitment to and proficiency in energy efficiency, distributed generation, renewable energy, and environmental initiatives.

Load Growth

Many utilities in the United States experienced flat or declining load growth for years. Underlying growth rates of 1% were historically offset by energy efficiency programs, which kept energy sales flat. The BWL has experienced this since 2010. However, recent industrial developments in the City have led, and are expected to continue to lead, to significant growth.

The Ultium Cells battery plant is under a long-term industrial electric load agreement that is in effect for twenty years. Ultium Cells is one of four planned battery cell manufacturing plants in the US by Ultium Cells LLC, a joint venture of General Motors and LG Energy Solution. The plants will supply Ultium Cells battery cells to GM's electric vehicles and utilizes an advanced and efficient battery cell manufacturing process. GM and LG's Ultium Cells Battery Manufacturing plant in Delta Township has been a catalyst for growth in the region. The plant is set to open in late 2024 and is expected to create 1,700 new jobs. Once the Ultium Cells facility is fully operational, the BWL's energy sales are expected to increase by 35 percent. The firm load under the agreement is expected to be 120 MW at full capacity. The contracted rate consists of fixed and variable components, and is subjected to the power supply cost recovery mechanism and other applicable surcharges. When fully operational, this project is expected to represent approximately 10-11% of electric retail revenue. Considerations have been made to address contingencies that might occur over the life of the contract.

Energy Risk Management

In 2013, the BWL formally adopted an Energy Risk Management Program. The Energy Risk Management Program is reviewed annually. The most recent revision was approved in November 2023.

The purpose of the BWL's Energy Risk Management Program is to secure power supply that is adequate to meet expected retail load while maintaining sufficient reserves and minimizing costs. Additionally, the program is responsible for helping the BWL achieve the following objectives:

- Minimizing risk of wholesale price volatility to better manage budget results
- Optimizing resources and the value of BWL assets
- Minimizing the risk of high energy input costs
- Minimizing BWL's operational and financial exposure

Under this program, the BWL has been able to consistently and significantly minimize its exposure to the volatile natural gas market while also generating significant fuel cost savings over time. This savings is largely attributable to key value- and time-based hedging triggers defined within the program. The value-based triggers allow for gas purchase

commitments to be made up to five years in advance of consumption in various quantities based on a comparison of current and historical market prices as well as the amount of time until the gas will be consumed. The time-based triggers ensure that the BWL always maintains at least a partially hedged position and is never fully exposed to the market. In compliance with the Energy Risk Management Program, coverage for total budgeted gas volumes for the following calendar years are:

<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
80%	57%	45%	10%	5%

Source: Lansing Board of Water and Light

Critical Infrastructure and Digital Security

The BWL, like many other public and private entities, relies on computer and other digital networks and systems to conduct its operations. As a recipient and provider of personal, private or other sensitive electronic information, the BWL is potentially subject to multiple cyber threats, including, without limitation hacking, viruses, ransomware, malware and other attacks. United States government agencies have in the past issued warnings indicating that critical infrastructure sectors such as electric systems may be specific targets of cybersecurity threats. The BWL has implemented industry best practices, engineering and procedures and has made the necessary investment to protect against and mitigate the adverse effects of cyberattacks, including steps to harden its cybersecurity and provide training for employees in cyber awareness and the use of the BWL's digital networks and systems. No assurance can be given that the BWL's efforts to manage cyber threats and attacks will be successful in all cases, or that any such attack will not materially impact the operations or finances of the City or disrupt the operation of the Electric System. However, the cyber security controls put in place over the last three years have led to a decrease in cyber insurance premiums, which is a rarity.

The BWL operates in multiple critical infrastructure sectors, sectors, and as such, the BWL business practices place continued emphasis on digital security and resilience. Accordingly, the BWL continues to reinforce and create redundancy among network infrastructures for both operations and information technology. Current operational technology initiatives include substation modernization to support smart grid enhancements, the BWL-owned fiber WAN upgrades enabling improved physical security controls, and continued network hardening to comply with North American Electric Reliability Corporation, Critical Infrastructure Protection ("NERC-CIP") requirements. Recently completed information technology initiatives include a network hardware lifecycle refresh, the addition of redundant wide-area network connections between data centers using AT&T switched ethernet for failover from the BWL's private fiber ring, and in-process network transformation to include more network segmentation and routing for increased stability and performance. The BWL's SSD-based storage area network ("SAN") synchronizing data between the two data centers for improved resilience.

The BWL is aware of accelerated efforts by domestic and international actors seeking unauthorized access to utility industry networks and systems. In 2016, BWL information systems were interrupted by a ransomware attacker. The BWL was able to continue providing electric, water, steam, and chilled water utility services to all customers during the incident. Ultimately, BWL's digital security posture emerged from the breach more robust than ever. Since 2016, the BWL has not identified any successful, notable instances of malicious cyber-intrusion in either OT or IT networks. The BWL maintains cyber security insurance.

The BWL uses the following techniques and cutting-edge tools to defend against threats that could compromise utility services, trade secrets, financial performance, or customer information:*

- Installation of Next-Generation firewalls with automated threat feeds, anti-malware, and IPS/IDS functionality
- Implementation of Microsoft Advanced Threat Protection, Safe Links and Safe Attachments for email
- DMARC domain protection and anti-spam
- Multi-factor authentication configured for remote and Office 365 users.

^{*} Since the BWL operates in multiple critical infrastructure sectors, the BWL considers its records and information related to its security software and hardware technology, including, but not limited to its organizational information system infrastructure, hardware, software, information systems, and any information systems or otherwise designed to protect ongoing security measures for BWL as a public utility, as confidential and exempt from disclosure pursuant to Michigan Compiled Laws 15.243(y) and (z).

- Enterprise implementation of next-generation anti-virus and end-point detection and response tool with third-party 24/7 monitoring and remediation of threats
- Installation of server application white-listing tool
- Ransomware-resistant, encrypted backup technology with regular offsite cloud backup
- Participation in Department of Homeland Security (DHS) penetration testing and vulnerability scanning programs
- Continuous operating system and network patching
- End-user phish reporting and remediation tool
- Refresh of the vendor cyber security process to incorporate requirements for NERC CIP supply chain risk management
- Network segmentation between operational and information technologies

Cash Management

The Board first adopted a minimum cash reserve requirement policy in 2018. By defining BWL's minimum cash reserve requirement, the policy bolsters financial strength, situational resilience, fiscal responsibility, and credit quality. This policy was developed through a systematic examination of the operating and economic risks facing the BWL and relied on best practices from credit rating agencies, utility experts, and other municipal utilities.

The policy states that the minimum cash reserve requirement will be calculated annually for each year of the sixyear budget and forecast period. The current policy (FY 2024-29) has calculated a minimum cash reserve requirement ranging from 157-161 days cash.

For the fiscal year ended June 30, 2023, BWL exceeded its minimum cash reserve requirement with 166 days cash on hand. See "SYSTEM FINANCIAL INFORMATION—Historical and Projected Operating Cash Flows and Debt Service Coverage" herein.

Capital Improvement Plan

The BWL has a six-year capital improvement plan that is updated and adopted annually (the "Plan"). The Plan addresses current and future capital needs of the System to reliably meet existing and projected demand for the BWL services. As demonstrated in **Figure 6**, below, the current plan covering the next six years (FY 2024-2029) was adopted in May 2023 and consists of approximately \$479.8 million in capital expenditures not including the clean energy portfolio projects shown in **Figure 7**, on the following page. The BWL expects approximately 58% of these expenditures to be funded with internally generated funds to maximize incentives under the IRA. It is currently estimated that approximately \$40 million of this clean energy investment will be recoverable as an investment tax credit following commercial operation. This anticipated cost recovery is not included in the figures below.

Lansing Board of Water and Light Capital Improvement Plan by Utility Fiscal Years 2024-2029

Figure 6	Fiscal Year Ended June 30					
	2024	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	2029
Electric	\$46,759,615	\$54,127,573	\$45,714,365	\$49,020,494	\$39,040,608	\$44,287,542
Water	22,787,739	16,672,861	22,133,586	19,301,586	19,851,586	22,005,586
Steam	4,680,365	10,919,007	5,336,713	2,632,478	2,646,689	3,611,645
Chilled Water	953,045	674,636	56,275	57,964	59,703	61,494
Common	<u>8,889,521</u>	<u>7,372,830</u>	<u>6,397,717</u>	<u>6,620,632</u>	<u>7,854,434</u>	<u>9,235,431</u>
Total	<u>\$84,070,285</u>	<u>\$89,766,907</u>	<u>\$79,638,656</u>	<u>\$77,633,154</u>	<u>\$69,453,020</u>	<u>\$79,201,698</u>

Source: Lansing Board of Water and Light

Lansing Board of Water and Light
Capital Improvement Plan for the Clean Energy Projects
Fiscal Years 2024-2026

Figure 7	Fiscal Year Ended June 30					
	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>Total</u>		
Natural Gas Reciprocating Engine	\$53,469,128	\$63,144,494	\$43,386,378	\$160,000,000		
Solar Energy	19,424,429	85,617,712	(38,742,141) ⁽¹⁾	66,300,000		
Battery Storage	-	<u>34,000,000</u>	<u>86,000,000</u>	<u>120,000,000</u>		
Total	<u>\$72,893,557</u>	<u>\$182,762,206</u>	<u>\$90,644,237</u>	<u>\$346,300,000</u>		

⁽¹⁾ Negative capital spend is due to projected grant proceeds and investment tax credits, see also "CERTAIN RISK FACTORS AFFECTING THE ELECTRIC UTILITY INDUSTRY – Inflation Reduction Act and Infrastructure Investment And Jobs Act." Source: Lansing Board of Water and Light

Board of Water and Light Administrators

Richard Peffley joined the BWL in 1976, was named General Manger by the BWL Board of Commissioners on September 22, 2015. He previously served as Interim General Manager in 2006-2007 and January to September 2015. Peffley also serves as a board member for the Michigan Municipal Electric Association ("MMEA"). Peffley's leadership over the BWL, Michigan's largest publicly owned utility with approximately 100,000 electric customers and 58,000 water customers, is paving the way to a coal-free cleaner energy future with commitments to an expanded renewable energy portfolio and carbon neutrality. Peffley's experience at the BWL is extensive, having served in many capacities in the electric and water utilities. In January 2022, he oversaw contract negotiations between General Motors and Ultium Cells for the BWL to provide power for a new battery cell manufacturing plant, a transformational \$2.6 billion investment that will support electric vehicle production in the City for the next generation. He oversaw the development and construction of the \$500 million natural gasfired Delta Energy Park, and in 2021, successfully renegotiated a coal contract which resulted in \$52 million of savings over two years. Peffley was the project manager for the \$182 million natural gas-fired REO Cogeneration Plant and Headquarters which came in on time and on budget in 2013. He was the project manager for the \$23 million repair and refurbishment of the Wise Road Water Conditioning Plant following a chemical accident. Peffley oversaw the completion to remove all lead water service lines in 2016, the second utility in the country to do so, and led the Water Department's efforts that distributed a record-breaking 1 billion gallons of water in a single month to customers during the heat wave in July 2013. Peffley was also the project manager for the \$20 million Chilled Water Plant, which came in on time and on budget, named after his father, the BWL retiree Roy E. Peffley. He previously served as Executive Director of Operations and was Plant Manager at the Erickson Power Station and Eckert Power Station.

Heather Shawa joined the BWL in 2015 as the Chief Financial Officer and is responsible for the BWL's financial and treasury operations including accounting, finance and planning, internal controls, supply chain, and information technology. Since joining, Shawa served as the executive sponsor for a \$70 million corporate technology program called BSmart. The program replaced and added major utility technology platforms, including replacement of the BWL's 40-year legacy customer information system, new outage management system, advanced metering infrastructure, as well as a geographical information system. These technologies will provide operational efficiencies and customer enhancements for years to come. In addition, she oversaw a multi-phased bond issuance to secure funding for Delta Energy Park, a \$500 million natural gas-fired highly efficient plant, as well as advanced refunding strategies which resulted in ratepayer savings of \$40 million. Ms. Shawa has significant expertise in accounting, private and municipal finance, acquisitions, strategic planning, and plant operations in both public and private sectors within multiple industries. Ms. Shawa serves as Vice President on the board of Peckham, Inc., and Big Brothers Big Sisters (Michigan Capital Region) Board.

Dave Bolan joined the BWL in 1987 and has been the Chief Operations Officer since 2015. Mr. Bolan is responsible for electric generation, transmission, and distribution; water production and distribution; customer projects; project engineering; market operations. Mr. Bolan's previous titles at the BWL include Director of Transmission and Distribution and Manager of Bulk Power. Prior to joining the BWL, Mr. Bolan was part of the Electric Systems Division at Houston Lighting and Power.

Mark Matus joined the Board of Water and Light in 2011 and has served as General Counsel since 2019. Mr. Matus advises the Board of Commissioners and executive management on legal, environmental and reliability compliance, risk, and energy waste reduction matters. Mr. Matus may advise on transactional and compliance matters related to fuel supply and transportation agreements, construction, power sales and purchases, consulting, development transactions and employment matters. Additionally, Mr. Matus manages both in-house and external legal counsel and also serves as a liaison to the Lansing City Attorney's office.

Michael Flowers joined the BWL in 2008 and has served in various capacities throughout the organization and currently serves as Executive Director of Human Resources. Mr. Flowers is responsible for human resources activities, including recruitment, compensation, benefits, payroll, collective bargaining negotiations, labor and employee relations, training & development and organization change management. He also oversees safety and health and wellness, as well as corporate physical security. Prior to joining the BWL, Mr. Flowers worked in Human Resources leadership roles at Accident Fund Insurance Company of America and Sparrow Health System. Additionally, he teaches human resources at Lansing Community College, is the immediate Past Chair of Lansing Community College Foundation Board of Directors, current Vice President of the Board of Directors of Peckham, Inc., is a member of the Board of Education for Ingham Intermediate School District, is a Commissioner for the Martin Luther King Jr., Board of Commissioners. Mr. Flowers is also a past president and current member of the advisory board for the Labor and Employment Relations Association of Mid-Michigan.

Stephen Serkaian joined the Board of Water and Light in 2012 and has served as Executive Director of Customer Operations & Communications since 2015. Mr. Serkaian is responsible for internal and external communications, media relations, customer services including BWL call center, and governmental and community relations for the BWL. Previously, Mr. Serkaian worked for Detroit Mayor Dave Bing, the Lansing School District, Lansing Mayor David Hollister, the Michigan House of Representatives, and U.S. Senator Carl Levin. He sits on the board of the Arts Council of Greater Lansing.

Roberto Hodge joined the BWL in 2008 and is currently serving as the Director of Electric, Steam, Chilled Water Production, and the General Construction Lead for the Clean Energy Program. Mr. Hodge most recently served as the Delta Energy Park Project Director beginning in 2018 until commercial operations began in May 2021. Mr. Hodge is responsible for overseeing the design, construction, and engineering teams for the program. Mr. Hodge is a veteran of the United States Navy whose previous roles at the BWL include Director of Electric Production, Manager at REO Town Plant, Startup & Commissioning Lead at REO Town Plant, Operations Supervisor, and Senior Control Room Operator.

Labor Relations and Personnel Matters

As of June 30, 2023, the BWL employed 746 people, 455 of whom were considered general System employees. The balance of utility-specific employees included 206, 81, and 4 persons serving the electric, combined water, and steam utilities, respectively.

The International Brotherhood of Electric Workers, AFL-CIO, Local Union 352, represents approximately 408 of the BWL's employees. Remaining employees of the BWL are not represented by a union.

Collection and Enforcement

The BWL's metered customers are billed monthly. Depending upon credit history, new customers may be required to submit a refundable deposit to establish services. Bills are due twenty-one days after distribution. Customers who do not pay in full by the due date incur a 5 percent late fee monthly on the late charges. Services may be eligible to be disconnected when the unpaid balance is 28 days past due. Many community resources, including programs funded partly by the BWL, are available to low-income customers and those who have trouble paying their utility bills. Closed accounts over 60 days past due are sent to an external collection agency. Uncollectable customer debts accounted for 0.44 percent of revenues during fiscal year 2022, compared to 0.47 percent in fiscal year 2023. Unmetered or non-traditional customers, including pole attachments, traffic signals, and water supply for fire hydrants, accounted for an immaterial share of the BWL's revenues during fiscal year 2023. Unmetered services are budgeted to account for less than 1 percent of revenues during fiscal year 2024.

Insurance

The BWL maintains multiple property and casualty insurance policies to protect against possible financial losses arising from various risks. The deductibles, scope and limits of coverage vary from time to time depending on such factors as pricing and availability.

Current BWL coverage for property loss is limited to \$600 million, most of which is insured on a replacement-cost basis. With the exception of turbine generators, all policy deductibles range from \$250,000 to \$2,000,000. Combined liability coverages total \$36 million for each occurrence and \$70 million general aggregate for certain bodily injury and property damage claims. The BWL also carries cyber insurance. See "Critical Infrastructure and Digital Security," above.

THE ELECTRIC UTILITY

General

The BWL's Electric Utility (the "Electric Utility") has provided services for over 120 years. It is the largest municipally-owned electric utility in Michigan with more than 99,000 customers. The BWL serves the greater Lansing area with a combination of generated and purchased power. Electric rates and charges have historically accounted for approximately 82% of gross System revenues. A map of the Electric Utility's service area appears in Appendix B.

Owned Electric Generation

The Electric Utility's primary generating assets are two natural gas generating facilities. One plant is a cogeneration facility and the other is a combined-cycle plant with a simple cycle combustion turbine. The newest generation asset the BWL owns is the Delta Energy Park, which has been in service since March 16, 2022. Delta Energy Park's construction was completed on time and within budget. Delta Energy Park replaced the aging, coal-fired Eckert Power Station which was retired in 2020.

Delta Energy Park is a 260.3 MW combined-cycle facility fueled by natural gas and coupled with a 138-kilovolt ("kV") switchyard. The highly efficient plant is powered by two natural gas combustion turbines capable of combined or simple-cycle operation in a three-step process to produce electricity. First, a gas turbine burns natural gas to directly power an electric generator. Second, hot exhaust from the gas turbine is captured and used to produce steam in a Heat Recovery Steam Generator. Third, the steam produced is sent through a Steam Turbine Generator to produce additional electricity. There is also a simple cycle unit used for peak generation. Delta Energy Park was built in Delta Township, at the site of the BWL's closed Erickson Station.

The REO Town Plant is a combined-cycle cogeneration facility fueled by natural gas that was put in service in 2013. The plant generates steam and electricity (119.7 MW nameplate capacity) in a two-step process. First, a gas turbine burns natural gas to directly power an electric generator. Second, hot exhaust from the gas turbine is captured and used to produce steam in a once-through steam generator. The steam produced can be utilized by steam-heating customers or for turning a second electric generator. REO Town Plant can meet the BWL's projected maximum steam demand capacity of 300,000 pounds per hour even if one steam production unit is out of service.

The Electric Utility owns multiple solar generation sites in the City, including the Cedar Street Solar Array, which came online in 2011. At the time the array was constructed in 2009, it was the largest solar site in Michigan. These BWL-owned solar panels generate less than 1 MW in total.

Joint Action Agency Participation

The Michigan Public Power Agency ("MPPA") is an alliance of electric system owner-operators established in the late 1970's under Michigan Public Act 448 of 1976, as amended. MPPA's purpose is to help member utilities share the benefits of joint action in planning, development, acquisition, and management of energy assets and services. Subject to approval of a municipality's governing body and that of existing MPPA members, any Michigan municipality engaged in the generation, transmission, or distribution of electricity is eligible to join MPPA.

The BWL joined MPPA in 1992. Including the BWL, MPPA consists of 22 member utilities. Six additional utilities participate in MPPA as associate members. The BWL participates in two MPPA projects—transmission and Belle River. The Belle River project is discussed in detail below. See "Purchased Power" herein. In 2006, the BWL along with 12 other municipalities purchased a bulk interest in certain transmission lines. This purchase allows participating members to receive

power from other entities without having to pay additional transportation costs to use the electric power grid. Additional information regarding MPPA and details about its members are available at www.mpower.org.

Purchased Power

Located in St. Clair County, Michigan, DTE Energy Company's ("DTE") "Belle River" coal-fired generating Units 1 and 2 have a combined nameplate capacity rating of 1,260 MW. Belle River commenced commercial operation in July 1985. MPPA, through its purchase agreements with DTE, owns 18.61 percent of Belle River Units 1 and 2. Through its participation in MPPA, the BWL has purchased a capacity and energy entitlement of 150.8 MW, or 64.29 percent of MPPA's share. The BWL is entitled to its proportionate share of the capacity and energy from Belle River. The BWL utilizes its full capacity and energy entitlement from Belle River.

The Belle River plant operated by DTE was slated to be decommissioned by 2028, but instead filed an IRP with the MPSC to convert the coal-fired plant to natural gas, which was approved. As a result, the Belle River plant will be converted from coal to natural gas starting with unit 1 in 2025, followed by unit 2 in 2026. The plant will become a peaking plant and will run until the end of 2039.

Through its participation in the MPPA project, the BWL will likely be responsible for a percentage of the resulting debt service associated with the transition of Belle River as well as other operating expenses. This percentage is expected to be commensurate with MPPA's 18.61 percent ownership in Belle River Units 1 and 2 and the BWL's 64.29 percent participation in the MPPA's Belle River project. The current estimates for the cost of transitioning Belle River to natural gas are not final. Additionally, the underlying cost structure is also a work-in-progress given the change from baseload to peaking. The BWL expects to have finalized estimates around the first quarter of calendar year 2024. While costs have not been finalized, the Michigan Public Service Commission has preapproved recovery of certain costs related to the transition estimated at approximately \$135 million.*

BWL has two current contracts with MPPA related to Belle River—one for power sales and one for project support. Under the terms of the power sales contract, BWL is required to pay MPPA for BWL's proportionate share of Belle River operation and maintenance expenses so long as power is available. These charges are an operating expense of the Electric Utility and, as such, have priority over the lien securing the Bonds.

BWL is contractually bound to assume a pro rata share of the obligations of a defaulting Belle River participant should any of the other ten participants default, to an extent that does not exceed 25 percent of BWL's original obligation. In this scenario, the BWL would also become entitled to the pro rata share of capacity and energy previously allotted to the defaulted participant. To date, MPPA has not experienced any default among Belle River participants.

Under the terms of the project support contract, BWL's obligations are unconditional; payment must be made regardless of whether Belle River is in operation and notwithstanding the suspension or curtailment Belle River output. The obligations of the BWL under the project support contract are not an operating expense of the Electric Utility, and therefore, are made after payment of operating expenses of the Electric Utility and after payment of debt service on the Bonds and certain other bonds of the BWL issued pursuant to Act 94.

^{*} See Michigan Public Service Commission Order Approving Settlement Agreement in U-21193, July 26, 2023.

Belle River power cost during the fiscal year ending 2023 was 4.84 cents per kilowatt hour. Excluding possible transmission losses, the following table projects the Belle River power cost per kilowatt hour ("kWh") at 80 percent availability from 2024 through 2028.

Lansing Board of Water and Light Electric Utility Projected Belle River Power Costs per kWh as of December 2023 Fiscal Years Ended or Ending June 30, 2024 through 2028

	Cents
Year	<u>Per kWh</u>
2024	6.90
2025	7.35
2026	8.08
2027	7.98
2028	7.89

Source: Lansing Board of Water and Light

The BWL has a 20-year power purchase agreement with Beebe 1B Renewable Energy LLC ("Beebe"). Beebe's Gratiot County, Michigan site has been generating 19.2 MW of wind power for the BWL since 2014.

The BWL has 25-year power purchase agreements with Delta Solar I LLC and Delta Solar II LLC (together, "Delta Solar"). Delta Solar is a subsidiary of CMS Energy Corporation. Delta Solar's Delta Township, Michigan sites have been generating a total 24 MW of solar power for the BWL since 2018.

The BWL has a 20-year power purchase agreement with NextEra Energy Marketing LLC ("Pegasus Wind"). Pegasus Wind's Tuscola County, Michigan site has been generating 68 MW of wind power for the BWL since August 2020.

The BWL has a power purchase agreement with Community Energy Options, LLC for 0.345 MW of solar power generated from a site in East Lansing, Michigan. This arrangement gives the BWL electric customers a chance to participate in the leasing of solar panels. The site went live in 2018 under a 25-year agreement.

The BWL has a 25-year power purchase agreement with Invenergy's Solar Development North America LLC ("Calhoun Solar Energy Center"). Calhoun Solar Energy Center's Calhoun County, Michigan site has been generating 10 MW of solar power for the BWL since 2023.

The BWL has two 25-year power purchase agreements with Assembly Solar LLC ("Ranger Assembly") for 10 MW and 70 MW of solar power. Ranger Assembly's Shiawassee County, Michigan site has been generating 80 MW of solar power for the BWL since 2021.

Transmission Arrangements

In addition to its generating facilities, the Electric Utility maintains 56 miles of transmission lines, 14 substations, 2,093 miles of overhead distribution lines and 908 miles of underground distribution lines. The 138 kV transmission lines loop through the 99 square mile service area and connect with transmission facilities owned by Michigan Electric Transmission Company ("METC"), an operating subsidiary of the International Transmission Company (the "ITC"), at two locations. The bulk of the BWL's distribution lines are operated at 13.2 kV. The balance are operated at 4.16 kV and are in the process of conversion to 13.2 kV.

ITC is the principal transmission owner in the lower peninsula of Michigan and a member of the MISO organization. ITC has turned operation of its transmission facilities over to MISO and operates under MISO's Open Access Transmission, Energy, and Operating Reserve Tariff ("Midwest Market").

In December 2012, the BWL became a non-transmission-owning member of MISO. Although the BWL owns transmission facilities, becoming a transmission-owning member of MISO would require the Electric Utility to reconfigure its generation and transmission assets within the Midwest Market. The BWL has assessed possibilities for this asset reconfiguration and determined that such a plan is unlikely to produce a net financial benefit to the Electric Utility due to the Midwest Market transactional costs.

Unlike the BWL, transmission-owning MISO participants have experienced increased transmission charges due to MISO's transmission investments and overhead costs. Without sufficient behind-the-meter generation, it may be necessary for the BWL to become a transmission-owning MISO member. See "THE FINANCING – Lansing Energy Tomorrow— Operational Integration" for a discussion of behind-the-meter generation projects planned for the BWL.

The BWL's 138 kV transmission system interconnects with the ITC system and is governed by the MISO Tariff. Prior to 2016, the BWL had two interconnection ties with the ITC system, one at the Davis substation and the other at the Enterprise substation, with an import capability of 480 mega volt amps ("MVA"). In 2016, to cover the contingency requirements of NERC reliability standards, BWL installed two additional lines at the Enterprise Substation. This increased total interconnections to four and total import capability to 960 MVA.

Through its non-transmission-owning MISO membership, the BWL's Electric Utility has secured entitlement to 12.5 MW of network transmission service and 150 MW of firm network transmission service through its membership in various MPPA projects. The 150 MW of network entitlement is a grandfathered transmission agreement ("GFA"). The Electric Utility does purchase additional point-to-point transmission from MISO during instances which are financially advantageous or to accommodate generation outages.

In September 2004, the Federal Energy Regulatory Commission ("FERC") issued an order addressing the treatment of GFAs within the Midwest Market. The order included MPPA transmission agreements relating to the Belle River Project, which were designated as GFAs and thus "carved out" of the Midwest Market. The GFA designation exempts the BWL from various Midwest Market charges and market congestion costs for the energy delivered from the Belle River Plant to the Electric Utility. The BWL does not anticipate any changes from FERC that will impact this exemption.

Operating Statistics

The following tables show the gross generation, net generation, availability factor and net capacity factor for the REO Town Plant and Delta Energy Park during the fiscal years ending June 30, 2019 through 2023.

	Gross	Net		
FY Ended	Generation	Generation	Availability	Net Capacity
<u>06/30</u>	<u>(MWh)</u>	<u>(MWh)</u>	<u>Factor (%)</u>	<u>Factor (%)</u>
2019	586,254	556,582	91.49%	66.71%
2020	589,120	558,872	93.46%	66.79%
2021	676,131	644,898	93.61%	77.29%
2022	671,498	639,226	88.67%	76.61%
2023	558,910	529,692	72.17%	43.59%

REO Town Plant

Delta Energy Park

	Gross	Net		
FY Ended	Generation	Generation	Availability	Net Capacity
<u>06/30</u>	<u>(MWh)</u>	<u>(MWh)</u>	<u>Factor (%)</u>	<u>Factor (%)</u>
2022	174,412	166,565	43.77%	24.00%
2023	774,908	744,739	68.91%	35.67%

Source: Lansing Board of Water and Light

The following table shows nameplate capacity and energy mix by fuel type for the fiscal year ended June 30, 2023 for major generating contributors to the Electric Utility.

Lansing Board of Water and Light Electric Utility Nameplate Capacity and Energy Mix by Fuel Type Fiscal Year Ending June 30, 2023

		Nameplate	Capacity Credit	Annual Energy
Name	Fuel	Capacity (MW)	<u>(MW)</u>	<u>(KWh)</u>
REO Town	Gas	119.7	77	531,422,607
Delta Energy Park	Gas	260.3	219	744,348,385
Belle River	Coal	154	134	813,209,707
Beebe 1b	Wind	19.2	3	48,312,600
Pegasus	Wind	68	15	201,087,900
Delta Solar I & II	Solar	24	13	40,482,850
Ranger Assembly Solar I & II	Solar	80	32	168,717,800
Calhoun Solar Energy Center	Solar	10	3	4,531,600
Erickson*	Coal	162	0^*	<u>328,011,877</u> *
				2,880,125,326

* Erickson was closed in November 2022, hence there was no capacity credit. Annual Energy (KWh) for Erickson reflects the period until operations ended.

Source: Lansing Board of Water and Light

Fuel Supply and Delivery

The BWL is a transportation customer on the Consumers Energy Company natural gas system and has firm delivery service from Consumers Energy Company to provide natural gas to both the REO Town Plant and Delta Energy Park. The BWL has contracted with StoneX to provide natural gas procurement services. Forward purchases of natural gas are made in accordance with the BWL's Energy Risk Management Program. For additional information on the BWL's Energy Risk Management Program, see "THE LANSING BOARD OF WATER AND LIGHT – Energy Risk Management."

To protect the BWL's natural gas-fired generation facilities against market volatility and to minimize the risk of high energy input costs, the BWL employs a disciplined approach to hedging natural gas consumption. The hedge strategy incorporates multiple components designed to identify historical value opportunities and to implement protective measures based on time when value is not attainable. This is accomplished by making strategic hedge deals when forward natural gas pricing hits a designated value trigger. Hedges are made up to five years in advance.

Power Requirements

During the fiscal years ended June 30 from 2019 through 2023, the Electric Utility produced between approximately 52.42 percent to 58.84 percent of the total MWh available. Nearly all of the Electric Utility's remaining power requirements are met by way of the BWL's energy entitlement from Belle River. The following table sets forth the Electric Utility's total power requirements, sales and losses in MWh for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light Electric Utility Power Availability, Sales and Losses in MWh⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30					
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	
MWh Generated ⁽²⁾	1,274,229	1,304,359	1,361,409	1,669,652	1,603,924	
MWh Purchased ⁽³⁾	1,156,711	912,317	1,202,588	1,261,381	1,337,891	
Total MWh Available	2,430,939	2,216,676	2,563,999	2,931,033	2,941,815	
Less MWh Sold ⁽⁴⁾ Transmission and	2,367,654	2,143,807	2,509,388	2,802,336	2,882,669	
Distribution Losses Losses as % of MWh	63,285	72,869	54,611	128,697	59,146	
Available	2.60%	3.30%	2.13%	4.39%	2.01%	

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾ See "Owned Electric Generation" herein.

⁽³⁾ Primarily from Belle River. See "Purchased Power" herein.

⁽⁴⁾ Includes wholesale sales.

Source: Lansing Board of Water and Light

The following table sets forth the Electric Utility's peak demand, total power requirements and load factor for the fiscal years ended June 30, 2019 through 2023. Peak demand is measured by MW and total power requirements are measured in MWh. Peak demand represents the highest sixty-minute interval of continuous demand during the fiscal year. Load Factor is the percentage of total power requirements to annualized peak demand.

Lansing Board of Water and Light Electric Utility Peak Demand, Total Power Requirement and Load Factor Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30				
	<u>2019</u>	<u>2020</u>	<u>2021</u>	2022	<u>2023</u>
Peak Demand MW	439.730	432.544	439.283	443.290	418.817
% Change Peak					
Demand	-0.90%	-1.60%	1.56%	0.91%	-5.52%
Total Power					
Requirement MWh	2,154,852	2,045,852	2,084,403	2,113,992	2,073,867
% Change Power					
Requirement	-0.90%	-5.00%	1.88%	1.42%	-1.90%
Load Factor %	55.90%	54.00%	54.17%	54.44%	56.53%

Source: Lansing Board of Water and Light

Environmental Regulations

Cross State Air Pollution Rule ("CSAPR"). The Cross-State Air Pollution Rule took effect in 2015 to address NOx and SO2 emissions from upwind states that cross state lines and affect air quality in downwind states. The rule establishes a pollution limit (emissions budget) for each state that is subject, including Michigan. Since permanent shutdown of the BWL's last coal-fired power plant in 2022, compliance with CSAPR is maintained through use of clean fuels (i.e., natural gas) and efficient technology (combined-cycle turbines).

U.S. Climate Change Regulations. On August 3, 2015, the United States Environmental Protection Agency ("EPA") finalized standards for greenhouse emissions from electric generation facilities. The BWL's Delta Energy Park is subject to the requirements of the rule, which includes complying with an output-based emission standard of 1,000 pounds CO2 per MWh, achievable through operating efficient natural gas combined-cycle technology, and operating under reduced hours in simple cycle mode. Currently, there are no standards applicable to existing natural gas turbine facilities and therefore there are no requirements for the REO Town Cogeneration Plant.

CCR Rule. The CCR rule became effective October 14, 2015, and established new requirements for the disposal of CCR in landfills and surface impoundments. Prior to the effective date of the rule, the BWL minimized the impact of the CCR rule by excavating CCR from two sites and modifying its bottom ash disposal practices at Erickson Station. See "THE LANSING BOARD OF WATER AND LIGHT – Environmental Initiatives" for information about the BWL's excavation of CCRs and its practice modifications. To comply with CCR rule requirements, the BWL has installed a groundwater monitoring network and is actively removing the remaining ash. Eckert Station has never had an ash impoundment or landfill onsite and is therefore not impacted by this rule.

New Source Review ("NSR") & State Air Permits. The Clean Air Act ("CAA") requires that a permit be obtained from the appropriate regulatory authority, in this case the Michigan Department of Environment, Great Lakes, and Energy ("EGLE"), when work performed at a facility constitutes a modification that results in a significant increase in air pollution emissions. To that end, the BWL conducts a thorough review and associated documentation regarding periodic maintenance conducted at its natural gas turbine plants to ensure NSR requirements are met when applicable.

General. The evolving nature of environmental regulations means that practices that once met regulations may now no longer comply with new standards. Occasionally, this requires remediation programs. To separately identify and recover the cost of these programs and new environmental compliance related costs, the BWL has adopted an environmental surcharge. The surcharge is levied on a kWh basis and is currently \$.0020/kWh.

Service Area

The Electric Utility provides electric service to the City and Lansing Township, most of the City of East Lansing and Delta Township, and portions of Meridian, Watertown, Windsor, Delhi and DeWitt Townships. Michigan State University, which is located in the City of East Lansing, generates its own electricity and is not serviced by the Electric Utility. BWL uses a Geographic Information System ("GIS") to monitor data across the Electric Utility's network, whose primary distribution lines cover approximately 99 square miles. The estimated population in the Greater Lansing Area is 541,297. By comparison, the City encompasses an area of approximately 35 square miles and has a 2022 estimated population of approximately 112,644. Electric service outside of the Electric Utility's service area is provided by Consumers Energy Company.

Franchises

Article VII, Section 29 of the Michigan Constitution of 1963 provides that a utility must have a franchise to render service within a local governmental unit. A description of the Electric Utility's existing franchises is included in the table on the following page.

Lansing Board of Water and Light Electric Utility Electric Franchises

Municipality	Franchise Period	Effective Date ⁽¹⁾	Expiration Date
City of East Lansing	30 Years	06/14/2017	06/13/2047
Delhi Township	30 Years	10/28/2021	10/27/2051
Delta Township	30 Years	01/08/2018	01/01/2048
DeWitt Township	30 Years	06/30/2020	06/29/2050
Lansing Township	30 Years	04/09/2012	04/08/2042
Meridian Township	30 Years	02/04/1988	02/03/2018 ⁽²⁾
Watertown Township	20 Years	05/23/1989	$05/22/2009^{(2)}$
Windsor Township	30 Years	01/26/2019	02/05/2049

⁽¹⁾ Effective date does not necessarily reflect the beginning of an agreement's term. Depending upon the agreement, the term may be considered to commence on the date of BWL's acceptance of the agreement. Therefore, franchise expiration date does not necessarily equal effective date plus term.

⁽²⁾ The BWL is pursuing updates to the agreements. BWL continues to provide service under the terms of the prior agreements until they are terminated or renewed.

Source: Lansing Board of Water and Light

Customers

The Electric Utility currently serves over 99,000 customers within its service area. The following tables set forth the number and percent of customers by location and classification for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light Electric Utility Average Number and Percent of Customers by Location⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30				
<u>Location</u>	2019	2020	2021	2022	<u>2023</u>
City	59,986	60,304	60,942	60,611	60,584
Outside of City	<u>37,843</u>	<u>38,542</u>	38,591	<u>38,547</u>	<u>38,553</u>
Total	97,830	<u>98,846</u>	99,533	99,158	<u>99,137</u>
City	61.32%	61.01%	61.23%	61.13%	61.11%
Outside of City	<u>38.68</u>	<u>38.99</u>	<u>38.77</u>	<u>38.87</u>	<u>38.89</u>
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate. Source: Lansing Board of Water and Light

Lansing Board of Water and Light				
Electric Utility				
Average Number and Percent of Customers by Classification ⁽¹⁾				
Fiscal Years Ended June 30, 2019 through 2023				

_	Fiscal Year Ended June 30				
Classification	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential	84,905	85,943	86,662	86,814	86,769
Commercial	12,698	12,692	12,670	12,096	12,222
Industrial	<u>227</u>	<u>211</u>	201	<u>248</u>	<u>146</u> ⁽²⁾
Total	<u>97,830</u>	<u>98,846</u>	<u>99,533</u>	<u>99,158</u>	<u>99,137</u>
Classification					
Residential	86.79%	86.95%	87.07%	87.55%	87.52%
Commercial	12.98	12.84	12.73	12.20	12.33
Industrial	0.23	0.21	<u>0.20</u>	<u>0.25</u>	0.15
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate. ⁽²⁾ During fiscal year 2023, the BWL implemented a new rate structure that better aligned customer rates with the BWL's expense projections and industry standards. This resulted in customer reclassifications between commercial and industrial classes.

Source: Lansing Board of Water and Light

Ten Largest Customers

The following table sets forth the ten largest customers of the Electric Utility by revenue and kWh used for the fiscal year ended June 30, 2020.

Lansing Board of Water and Light Electric Utility Ten Largest Customers⁽¹⁾ Fiscal Year Ended June 30, 2023

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			Electric		% Total
<u>Name</u>	<u>Industry</u>	Revenue ⁽²⁾	Revenue ⁽³⁾	<u>kWh</u>	$\underline{kWh}^{(4)}$
	Automotive				
General Motors	Manufacturing	\$27,996,164	7.39%	253,622,515	8.80%
City of Lansing	Municipal Government	8,726,473	2.30	23,434,699	0.81
Sparrow Hospital	Health Care	7,492,046	1.98	67,687,388	2.35
State of Michigan	State Government	6,941,126	1.83	56,273,842	1.95
Meijer, Inc.	Retail & Warehouse	6,725,090	1.78	63,256,277	2.19
McLaren-Greater Lansing	Health Care	3,405,431	0.90	29,946,057	1.04
Jackson National Life	Insurance	3,241,794	0.86	30,384,195	1.05
City of East Lansing	Municipal Government	2,806,728	0.74	12,880,856	0.45
Liquid Web Inc.	Web Hosting	2,625,963	0.69	28,225,399	0.98
Lansing School District	Education	2,549,865	0.67	18,527,873	0.64
Total		<u>\$72,510,680</u>	<u>19.14%</u>	<u>584,239,101</u>	<u>20.27%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾City of Lansing and State of Michigan revenues include Street Lighting and Traffic Signal billings.

⁽³⁾Based on total revenues of \$378,791,716 for the fiscal year ended June 30, 2023.

⁽⁴⁾Based on total sales of 2,882,668,906 KWH for the fiscal year ended June 30, 2023.

Source: Lansing Board of Water and Light

Rates and Charges

The Charter provides that the BWL shall have full and exclusive management of the water, heat, steam and electric utility services of the City and such other services as may be agreed upon by the BWL and the City. The Charter also provides that the BWL may, with proper notice and hearing, fix just and reasonable rates as it deems necessary for such services. The implementation of new rates takes approximately three months and does not require any local, state or federal regulatory approval. It is the policy of the BWL to review all rates annually and to set such rates so that each utility is self-supporting. Rates are set on a cost of service basis.

In 2022, the BWL Board of Commissioners approved a two-year rate strategy which took effect November 1, 2022. The two-year plan implemented gradual increases in customer and commodity charges annually on November 1 during the years 2022 and 2023. The revised rate strategy better aligned customer rates with the BWL's expense projections, industry standards and provided more complete coverage of fixed costs.

The BWL currently offers the following specialty electric rates:

- Time-of-use rates for the following customers:
 - o Residential
 - o Commercial
 - \circ Industrial
 - o High Load Factor
 - Economic Development
 - Electric Vehicles ("EVs") with separate metering or time of use rate enrollment The BWL encourages the adoption of EVs by offering lower rates for charging during off-peak hours. This allows customers of the BWL to reduce the environmental impact of their transportation choices, while also saving money and reducing impacts to the grid during times of higher energy usage.
- GreenWise Power Customers can purchase some or all of their power from 100% renewable sources for a premium of 1.3 cents per kWh.
- Renewable Energy Distributed Generation Customers who have installed solar at their property and have been approved through the BWL's interconnection process are compensated for excess electrical energy sent back to the grid through a market rate credit based on the on-peak energy prices for the billing month, including capacity, energy, and renewable energy credits ("RECs") generated.

Customers of the Electric Utility pay basic service and capacity charges based on customer classification and an energy charge based on kWh used. All energy charges per kWh are subject to a power supply cost recovery ("PSCR") adjustment (previously known as "Energy Cost Adjustment") on a monthly basis for the cost of fuel used in supplying electricity. Customers are billed monthly.

PSCR adjustments permit the monthly adjustment of rates for the costs incurred in the supplying of electricity. All electric rates with a kWh billing determinant are subjected to the PSCR adjustment and eligible rates are detailed in the Company's PSCR tariff. The costs incurred in supplying electricity include, but are not limited to, fuel burned and fuel related costs, fuel transportation, pre and post combustion fuel additives, fuel procurement, environmental allowances, costs of power purchase agreements, market energy, capacity, and ancillary service costs, and transmission costs.

Historical electric rate increases are set forth in the table below. These rate adjustments represent average system increases or increase in base-rate revenue. As such, rate adjustments by rate class or rate component may deviate from these percentages. BWL has not yet approved any rate adjustments beyond November 1, 2023. Any additional rate adjustments will be subject to the Board's rate approval process.

Lansing Board of Water and Light Electric Utility Historical System Average Electric Rate Increases

Effective Date	2/1/2019	2/1/2020	11/1/2021	<u>11/1/2022</u>	11/1/2023
Rate Increase	3.00%	3.00%	0.00%	2.05%	2.05%

Source: Lansing Board of Water and Light

Historical and existing rates and charges by customer classification are set forth in the table on the following pages.

Lansing Board of Water and Light Electric Utility Historical and Existing Rates by Customer Classifications

Savie Service Charge/month \$13.00 \$16.00 \$19.00 \$19.75 \$20.50 Commodity charge/kWh simmer Months (kne-Oct) \$0.1230 \$0.1235 \$0.1242 \$0.1295 I * 500 kWh \$0.1285 \$0.1235 \$0.1242 \$0.1295 June through September per On-Peak kWh \$0.1215 \$0.1237 \$0.1330 Winter Months (Nor-May) \$0.1235 \$0.1277 \$0.1330 1 * 500 kWh \$0.1265 \$0.1237 \$0.1300 Subber through May per On-Peak kWh \$0.0006 \$0.0006 \$0.0006 Subber through May per On-Peak kWh \$0.0007 \$0.0006 \$0.000 \$0.000 Sterrie Charge/month \$0.0007 \$0.0006 \$0.000 \$0.000 \$0.000 Standard Small Commercial Service \$218/018 \$21/2019 \$21/2020 \$11/1/2022 \$11/1/2023 Summer Months (June-Serp) \$0.1410 \$0.1443 \$0.1478 \$0.1478 Summer Months (June-Serp) \$0.1410 \$0.1443 \$0.1478 \$0.1478 Summer Months (June-Serp) \$0.1410 \$0.1478	Standard Residential Electric Service (Prev. Rate No. 1 – Residential service)	2/18/2018	2/1/2019	2/1/2020	11/1/2022	11/1/202
ummer Months (June-Oct) 1: 500 kWh Sunce through September per On-Peak kWh Sunce through May per On-Peak kWh Sunce through Mus per On-Peak kWh Sunce through Chore-May) Sunce through Chore-May)		\$13.00	\$16.00	\$19.00	\$19.75	\$20.50
Simmer Months (June-Cer) S0.1235 S0.1242 S0.1295 S0.1295 1 - 500 KWh S0.1235 S0.1297 S0.1350 S0.1297 S0.1350 June through September per On-Peak KWh S0.1235 S0.1295 S0.1297 S0.1350 1 ' 500 KWh S0.1235 S0.1242 S0.1295 S0.1295 S0.1295 1 ' 500 KWh S0.1235 S0.1242 S0.1295 S0.1295 S0.1295 1 ' 500 KWh S0.1235 S0.1277 S0.1295 S0.1495 Stocher through May per Off-Peak KWh S0.002 S0.0006 S0.0000 S0.002 Stocher through May per Off-Peak KWh S0.002/578 S0.004099 S0.00 S0.000 Standard Snall Commercial Secrice Z18/2018 Z1/2019 Z1/2020 11/1/2022 11/1/2022 Standard Snall Commercial Secrice S0.1410 S0.1443 S0.1478 S0.1478 S0.1478 Standard Snall Commercial Service S0.1410 S0.1478 S0.1478 S0.1478 Standard Snall Commercial Service S0.00 S0.0006 S0.0006 <td>Commodity charge/kWh</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Commodity charge/kWh					
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over 500 kWh June through September per On-Peak kWh \$0.1285 \$0.1290 \$0.1297 \$0.1350 Winter Months (Nor-May) 1*500 kWh \$0.1230 \$0.1235 \$0.1245 \$0.1245 \$0.1297 \$0.1330 Unit Monty September per Of-Peak kWh \$0.1230 \$0.1235 \$0.1245 \$0.1277 \$0.1330 Stocher through May per On-Peak kWh \$0.000 \$0.0006		\$0.1230	\$0.1235	\$0.1242	\$0.1295	
June through September per OR-Peak kWh \$0.1445 Winter Months (Nor-May) \$0.1230 \$0.1235 \$0.1242 \$0.1330 Version Months (Nor-May) \$0.1255 \$0.1235 \$0.1242 \$0.1235 Stober through May per On-Peak kWh \$0.0265 \$0.0278 \$0.0006 \$0.0006 \$0.0006 \$0.0000 \$0.0020<					4 · · · ·	
une through September per Off-Peak kWh \$0.1230 \$0.1235 \$0.1242 \$0.1295 1*500 kWh \$0.1250 \$0.1255 \$0.1277 \$0.1330 2*500 kWh \$0.000 \$0.0005 \$0.0006 \$0.0005 Stober through May per On-Peak kWh \$0.000 \$0.0005 \$0.0006 \$0.0006 Stober through May per On-Peak kWh \$0.000 \$0.000 \$0.000 \$0.000 Stoper Must Reduction Surcharge/Wh \$0.000 \$0.000 \$0.000 \$0.000 Stoper Must Reduction Surcharge/Wh \$0.000 \$0.000 \$0.000 \$0.000 Standard Small Commercial Service \$218/018 \$21/2019 \$21/2020 \$11/1/2022 Standard Small Commercial Service \$0.1410 \$0.1413 \$0.1478 \$0.1478 Summer Months (Lanc-Cer) \$0.1410 \$0.1443 \$0.1478 \$0.1478 Summer Months (Lanc-Cer) \$0.1410 \$0.1443 \$0.1478 \$0.1478 Summer Months (Lanc-Cer) \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 Summer Months (Lanc-Cer)		\$0.1285	\$0.1290	\$0.1297	\$0.1550	0 1445
Winter Months (Nov-May) 1*300 kWh ver 500 kWh Stober through May per On-Peak kWh Schober through May per Off-Peak kWh Schober through May per Off Peak kWh Schober through May p						
1* 506 kWh S0.1230 S0.1235 S0.1242 S0.1295 Derbort through May per On-Peak kWh S0.1265 S0.1270 S0.1277 S0.1330 Detober through May per On-Peak kWh S0.0006 S0.0006 S0.0006 S0.0006 S0.0006 S0.000 S0.1478	lune through September per Off-Peak kWh					\$0.1314
Nor-500 kVh, Detober through May per On-Peak kWh S0.1265 S0.1270 S0.1277 S0.1330 Electric Environmental charge/kWh S0.000 S0.0006 S0.0006 S0.0002 Renewable Energy Vata Reduction Surcharge/kWh S0.002678 S0.00278 S0.0004099 S0.00 S0.00 Standard Small Commercial Service Prev. Rate No. 2-General Secondary Voltage Service) 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2022 Standard Small Commercial Service Prev. Rate No. 2-General Secondary Voltage Service) 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2022 Standard Small Commercial Service Summer Months (Uner-Set) S0.1410 S0.1443 S0.1478 S0.1478 Winter Months (Uner-Set) S0.1371 S0.1404 S0.1478 S0.1478 Winter Months (Oct-May) S0.00 S0.000 S0.000 S0.000 S0.000 S0.000 S0.002 S0.000 S0.000 S0.000 S0.000 S0.000 S0.000 S0.01478 S0.01478 S0.01478 S0.01478 S0.01478 S0.01478 Winter Months (Oct-May)						
Detober through May per On-Peak kWh \$0.1445 Detober through May per On-Peak kWh \$0.000 \$0.0006 \$0.0006 \$0.0006 Detober through May per On-Peak kWh \$0.002678 \$0.000678 \$0.000678 \$0.000678 \$0.00099 \$0.00 \$0.00 Reaewable Energy Plan Surcharge/Mvh \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Standard Small Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Basic Service Charge/month \$28.00 \$32.00 \$36.00 \$36.00 \$36.00 Summer Months (June-Sept) \$0.1410 \$0.1443 \$0.1478 \$0.1478 Winter Months (June-Sept) \$0.140 \$0.1433 \$0.1478 \$0.1478 Winter Months (June-Sept) \$0.00 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000	1 st 500 kWh	\$0.1230	\$0.1235	\$0.1242	\$0.1295	
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Detober through May per Off-Peak kWh \$0.1314 \$0.1314 Electric Environmental charge/kWh \$0.002678 \$0.0006 \$0.0000 \$0.000 Renewable Energy Plan Surcharge/Month \$0.002678 \$0.002678 \$0.004099 \$0.00 \$0.00 Standard Small Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2022 Standard Small Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2022 Standard Small Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2022 Standard Kune-Cott) \$0.1410 \$0.1443 \$0.1478 \$0.1478 \$0.1478 Stmmer Months (June-Sept) \$0.1371 \$0.1404 \$0.1439 \$0.1439 \$0.1439 Standard Midsize Commercial Service \$0.00 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 Standard Midsize Commercial Service \$1/18/2018 \$2/1/2019 \$2/1/2020 \$11/1/2022 \$1/1/2022 Standard Midsize Commercial Service \$2/18/2018 \$2/1/2019 \$2/1/2020	October through May per On-Peak kWh					\$0,1445
Energy Waste Reduction Surcharge/Wonth \$0.002678 \$0.002678 \$0.004099 \$0.00 \$0.00 Standard Small Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Saix Service Charge/month \$28.00 \$32.00 \$36.00						
Energy Waste Reduction Surcharge/Wonth \$0.002678 \$0.002678 \$0.004099 \$0.00 \$0.00 Standard Small Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Saix Service Charge/month \$28.00 \$32.00 \$36.00	Fleetric Environmental charge/kWh	\$0.00	\$0,0006	\$0,0006	\$0,0006	\$0.0020
Renewable Energy Plan Surcharge/Month \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Standard Small Commercial Service Prev, Rat Ro. 3-General Secondary Voltage Service) \$2/18/2018 \$2/1/2019 \$2/1/2020 \$1/1/1/2022 \$11/1/2023 Sasic Service Charge/month \$28.00 \$32.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$36.00 \$30.1478 \$0.1420 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Standard Smill Commercial Service Prev. Rate No. 3-General Secondary Voltage Service) Saic Service Charge/month 2/18/2018 S22.00 2/1/2019 S32.00 2/1/2020 S36.00 11/1/2022 S36.00 11/1/2022 S36.00 Commodity charge/RWh Summer Months (Une-Oct) S0.1410 S0.1413 S0.1478 S0.1439 S0.1478 S0.000 S0.000 S0.001 S0.00171 S0.0913 S0.0913 S0.0913 S0.0913				4	4 · · ·	
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Prev. Rate No. 3-Ceneral Secondary Voltage Service) S28.00 \$32.00 \$36.00 \$36.00 \$36.00 Commodity charge/kWh Sunmer Months (June-Sept) \$0.1410 \$0.1443 \$0.1478 \$0.1478 Summer Months (June-Sept) \$0.1371 \$0.1404 \$0.1478 \$0.1478 \$0.1478 Winter Months (Cot-May) \$0.000 \$0.0006 \$0.0006 \$0.0006 \$0.00020 Renergy Waste Reduction Surcharge/month \$0.51 \$9.51 \$9.51 \$0.000 \$0.000 \$0.000 \$0.000 Renewable Energy Plan Surcharge/Month \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Standard Midsize Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2022 Stasic Service Charge/month \$10.000 \$150.00 \$200.00 \$12.0.0 \$12.0.0 Standard Midsize Commercial Service 2/18/2018 \$2/1/2019 \$2/1/2020 \$11/1/2022 \$11/1/2022 Summer Months (June-Cet) \$0.0861 \$0.0789 \$0.0717 \$0.0913 \$0.0938 Reactive Power/kvar \$0.0106 \$0.0006 \$0.0006		2/18/2018	2/1/2019	2/1/2020	11/1/2022	11/1/2023
Commodity charge/kWh Summer Months (June-Oct) S0.1410 S0.1413 S0.1478 S0.1478 Summer Months (June-Oct) S0.1371 S0.1404 S0.1439 S0.1478 Winter Months (June-Oct) S0.1478 S0.1478 S0.1478 Winter Months (June-Sept) S0.000 S0.0006 S0.0006 S0.0006 Bergy Wast Reduction Surcharge/month S0.51 S9.51 S9.51 S0.000 S0.000 S0.000 Renewable Energy Plan Surcharge/Month S0.00 S0.000 S0.000 S0.000 S120.00 S0.0977 S0.0913 S0.0938 S0.0917 S0.0913 S0.0913 S0.0938 S0.0016 S0.0006 S0.0006 S0.0006 S0.0006 S0.0006 S0.0006 S0.0020 S0.0913 S0.0913 S0.0913	• • • •					
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Summer Months (June-Cert) \$0.1410 \$0.1443 \$0.1478 Winter Months (Nov-May) \$0.1371 \$0.1404 \$0.1478 Winter Months (Oue-Sept) \$0.1478 \$0.1439 Summer Months (Une-Sept) \$0.1478 \$0.1439 Summer Months (Cet-May) \$0.000 \$0.0006 \$0.0006 \$0.0006 Senergy Waste Reduction Surcharge/month \$9.51 \$9.51 \$11.70 \$0.0000 \$0.000 Renewable Energy Plan Surcharge/Month \$0.00 \$0.00 \$0.00 \$0.000 \$0.000 \$0.000 Sais Service Charge/month \$100.00 \$150.00 \$200.00 \$120.00 \$120.00 Sais Service Charge/month \$100.00 \$150.00 \$200.00 \$120.00 \$120.00 Cammodity charge/kWh \$0.0861 \$0.0789 \$0.0717 \$0.0952 \$0.0977 Summer Months (Une-Sept) \$0.0861 \$0.0106 \$0.0006 \$0.0006 \$0.0006 \$0.0938 Reactive Power/kvar \$0.0106 \$0.0106 \$0.0016 \$0.0016 \$0.00952 \$0.0973 <tr< td=""><td>Commodity charge/kWh</td><td></td><td></td><td></td><td></td><td></td></tr<>	Commodity charge/kWh					
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Electric Environmental charge/kWh S0.00 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0000 \$0.0000 Renewable Energy Plan Surcharge/Month \$0.00 \$0.00 \$0.00 \$0.00 \$0.001 \$0.001 \$						
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Renewable Energy Plan Surcharge/Month \$0.00 \$12.00 \$12.00 \$12.00 \$12.00 \$12.01	Electric Environmental charge/kWh					
Sindard Midsze Commercial Secondary Voltage) 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Basic Service Charge/month S100.00 \$150.00 \$200.00 \$120.01 \$100.00 \$120.01 \$100.00 \$100.07 \$00.0717 \$00.0913 \$00.0952 \$0.0977 \$00.0913 \$0.0938 \$00.0938 \$00.006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0020 \$00.008 \$0.0006 \$0.0006 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Prev. Rate No. 4-Large General Secondary Voltage) 2/18/2018 2/12/2019 2/1/2020 11/1/2022 11/1/2022 Basic Service Charge/month \$100.00 \$150.00 \$200.00 \$120.00 \$120.00 Capacity Charge / kW of max Demand \$14.00 \$17.25 \$20.50 \$12.01 \$12.01 Commodity charge/kWh Summer Months (June-Cet) \$0.0861 \$0.0789 \$0.0717 Winter Months (June-Cet) \$0.0861 \$0.0744 \$0.0672 \$0.0952 \$0.0977 Winter Months (Oute-Sept) \$0.0861 \$0.0106 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.000 \$0.00	Renewable Energy Plan Surcharge/Month	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Prev. Rate No. 4-Large General Secondary Voltage) \$100.00 \$150.00 \$200.00 \$120.00 \$120.00 Capacity Charge / kW of max Demand \$14.00 \$17.25 \$20.50 \$12.01 \$12.01 Commodity charge / kW of max Demand \$0.0861 \$0.0789 \$0.0717 \$12.01 \$12.01 Commodity charge / kW of max Demand \$0.0861 \$0.0789 \$0.0717 \$0.0952 \$0.0977 Winter Months (Nov-May) \$0.0861 \$0.0744 \$0.0672 \$0.0913 \$0.0913 \$0.0913 Summer Months (Oct-May) \$0.0106 \$0.0106 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0020 Electric Environmental charge/month \$95.05 \$95.05 \$116.95 \$0.00 \$0.00 Reacetive Power/kvar \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Reactive Dower/kvar \$0.00 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 Reactive Dower/kvar \$0.00 \$0.000 \$0.000 \$0.000 \$0.000 \$0.000 Standard Large Commercial Service \$2/18/2018 \$2/1/2019 \$2/1/2020 <td< td=""><td>Standard Midsize Commercial Service</td><td>2/10/2010</td><td>2/1/2010</td><td>2/1/2020</td><td>11/1/2022</td><td>11/1/2022</td></td<>	Standard Midsize Commercial Service	2/10/2010	2/1/2010	2/1/2020	11/1/2022	11/1/2022
Basic Service Charge/month \$100.00 \$150.00 \$220.00 \$120.00 \$120.00 Capacity Charge / kW of max Demand \$14.00 \$17.25 \$20.50 \$12.01 \$12.01 Commodity charge/kWh \$0.0861 \$0.0789 \$0.0717 \$12.01 \$12.01 Summer Months (lune-Oct) \$0.0861 \$0.0744 \$0.0672 \$0.0952 \$0.0977 Summer Months (Oct-May) \$0.0106 \$0.0106 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0020 Reactive Power/kvar \$0.0106 \$0.0106 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.00020 Energy Waste Reduction Surcharge/month \$95.05 \$95.05 \$116.95 \$0.00 \$0.00 Standard Large Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Standard Large Commercial Service \$190.00 \$255.00 \$320.00 \$320.00 \$320.00 Standard Large Commercial Service \$190.00 \$255.00 \$320.00 \$320.00 \$320.00 Standard Large Commercial Service \$190.00 \$255.00 \$320.00 \$320.00 \$32	(Prev. Rate No. 4-Large General Secondary Voltage)	2/10/2018	2/1/2019	2/1/2020	11/1/2022	11/1/2023
Capacity Charge / kW of max Demand \$14.00 \$17.25 \$20.50 \$12.01 \$12.01 Commodity charge/kWh Summer Months (June-Oct) \$0.0861 \$0.0789 \$0.0717 \$0.0952 \$0.0977 Winter Months (June-Oct) \$0.0861 \$0.0744 \$0.0672 \$0.0913 \$0.0938 Reactive Power/kvar \$0.0106 \$0.0106 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.000 <td< td=""><td></td><td>\$100.00</td><td>\$150.00</td><td>\$200.00</td><td>\$120.00</td><td>\$120.00</td></td<>		\$100.00	\$150.00	\$200.00	\$120.00	\$120.00
Summer Months (June-Oct) \$0.0861 \$0.0789 \$0.0717 Winter Months (Nov-May) \$0.0861 \$0.0744 \$0.0672 Summer Months (Une-Sept) \$0.0952 \$0.0977 Winter Months (Oct-May) \$0.0106 \$0.0106 Electric Environmental charge/kWh \$0.000 \$0.0006 \$0.0006 \$0.0006 Energy Waste Reduction Surcharge per kWh \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Renewable Energy Plan Surcharge per kWh \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Standard Large Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Standard Large Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Standard Large Commercial Service 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Standard Large Commercial Service \$190.00 \$2255.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00	Capacity Charge / kW of max Demand					
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Summer Months (June-Sept) \$0.0952 \$0.0977 Winter Months (Oct-May) \$0.0106 \$0.0106 \$0.0913 \$0.0938 Reactive Power/kvar \$0.0106 \$0.0106 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.0006 \$0.000 \$0.00 \$0.00 \$0.000 \$0.00						
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Electric Environmental charge/kWh \$0.00 \$0.0006 \$0.000	Winter Months (Oct-May)				\$0.0913	\$0.0938
Energy Waste Reduction Surcharge/month Renewable Energy Plan Surcharge per kWh \$95.05 \$0.00 \$95.05 \$0.00 \$116.95 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Standard Large Commercial Service Prev. Rate No. 5 Primary Service) Basic Service Charge/month 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Basic Service Charge/month \$190.00 \$255.00 \$320.00 \$320.00 \$320.00 Capacity Charge ************************************	Reactive Power/kvar	\$0.0106	\$0.0106	\$0.0106		
Energy Waste Reduction Surcharge/month Renewable Energy Plan Surcharge per kWh \$95.05 \$0.00 \$95.05 \$0.00 \$116.95 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Standard Large Commercial Service Prev. Rate No. 5 Primary Service) Basic Service Charge/month 2/18/2018 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Basic Service Charge/month \$190.00 \$255.00 \$320.00 \$320.00 \$320.00 Capacity Charge ************************************	Electric Environmental charge/kWh	\$0.00	\$0.0006	\$0.0006	\$0.0006	\$0.0020
Renewable Energy Plan Surcharge per kWh \$0.00	Energy Waste Reduction Surcharge/month		\$95.05	\$116.95		
Prev. Rate No. 5 Primary Service) 2/16/2013 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Basic Service Charge/month \$190.00 \$255.00 \$320.00 \$320.00 \$320.00 Capacity Charge \$11.50 \$13.70 \$16.25 \$15.25 \$15.25 Per kW on maximum Demand \$4.50 \$5.50 \$6.20 \$6.52 \$6.52 Commodity charge/kWh \$0.0782 \$0.0730 \$0.0678 \$0.0678 \$0.0793 \$0.0718 Summer Months (June-Oct) \$0.0738 \$0.0686 \$0.0634 \$0.0718 \$0.0703 \$0.0718 On peak \$0.0738 \$0.0766 \$0.0659 \$0.0718 On peak \$0.0758 \$0.0706 \$0.0654 \$0.0758		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Prev. Rate No. 5 Primary Service) 2/16/2013 2/1/2019 2/1/2020 11/1/2022 11/1/2023 Basic Service Charge/month \$190.00 \$255.00 \$320.00 \$320.00 \$320.00 Capacity Charge \$11.50 \$13.70 \$16.25 \$15.25 \$15.25 Per kW on maximum Demand \$4.50 \$5.50 \$6.20 \$6.52 \$6.52 Commodity charge/kWh \$0.0782 \$0.0730 \$0.0678 \$0.0678 \$0.0793 \$0.0718 Summer Months (June-Oct) \$0.0738 \$0.0686 \$0.0634 \$0.0718 \$0.0703 \$0.0718 On peak \$0.0738 \$0.0766 \$0.0659 \$0.0718 On peak \$0.0758 \$0.0706 \$0.0654 \$0.0758	Standard Large Commercial Service	0/10/0010	A 14 10 1 4 10	A 11 /A A A A	11/1/2022	11/1/20
Basic Service Charge/month \$190.00 \$255.00 \$320.00 \$320.00 \$320.00 Capacity Charge \$11.50 \$13.70 \$16.25 \$15.25 \$15.25 Per kW on peak Billing Demand \$4.50 \$5.50 \$6.20 \$6.52 \$6.52 Per kW on maximum Demand \$4.50 \$5.50 \$6.20 \$6.52 \$6.52 Commodity charge/kWh \$0.0782 \$0.0730 \$0.0678 \$6.52 \$6.52 Commodity charge/kWh \$0.0738 \$0.0686 \$0.0634 \$0.0718 \$0.0703 \$0.0718 Summer Months (June-Sept) On peak \$0.0738 \$0.0686 \$0.0659 \$0.0674 Winter Months (Nov-May) \$0.0758 \$0.0706 \$0.0654 \$0.0654		2/18/2018	2/1/2019	2/1/2020	11/1/2022	11/1/2023
Capacity Charge \$11.50 \$13.70 \$16.25 \$15.25 \$15.25 Per kW on maximum Demand \$4.50 \$5.50 \$6.20 \$6.52 \$6.52 Commodity charge/kWh Summer Months (June-Oct) \$0.0782 \$0.0730 \$0.0678 \$0.0678 On peak \$0.0738 \$0.0686 \$0.0634 \$0.0718 \$0.0703 \$0.0718 Summer Months (June-Sept) On peak \$0.0703 \$0.0679 \$0.0674 Winter Months (Nov-May) \$0.0758 \$0.0706 \$0.0654		\$190.00	\$255.00	\$320.00	\$320.00	\$320.00
Per kW on peak Billing Demand \$11.50 \$13.70 \$16.25 \$15.25 \$15.25 Per kW on maximum Demand \$4.50 \$5.50 \$6.20 \$6.52 \$6.52 Commodity charge/kWh Summer Months (June-Oct) \$0.0782 \$0.0730 \$0.0678 \$0.0678 On peak \$0.0738 \$0.0686 \$0.0634 \$0.0718 \$0.0703 \$0.0718 Summer Months (June-Sept) On peak \$0.0703 \$0.0679 \$0.0674 Winter Months (Nov-May) \$0.0758 \$0.0706 \$0.0654	0					
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Commodity charge/kWh \$0.0782 \$0.0730 \$0.0678 Summer Months (June-Oct) \$0.0782 \$0.0730 \$0.0678 Off-peak \$0.0738 \$0.0686 \$0.0634 Summer Months (June-Sept) \$0.0798 \$0.0686 \$0.0703 \$0.0718 Off-peak \$0.0703 \$0.0718 \$0.0659 \$0.0674						
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On peak Off-peak \$0.0782 \$0.0738 \$0.0730 \$0.0686 \$0.0678 \$0.0634 Summer Months (June-Sept) On peak Off-peak \$0.0738 \$0.0686 \$0.0634 Winter Months (Nov-May) On peak \$0.0758 \$0.0706 \$0.0654						
Off-peak \$0.0738 \$0.0686 \$0.0634 Summer Months (June-Sept) On peak \$0.0703 \$0.0718 Off-peak \$0.0659 \$0.0674 Winter Months (Nov-May) \$0.0758 \$0.0706 \$0.0654		\$0.0782	\$0.0730	\$0.0678		
Summer Months (June-Sept) \$0.0703 \$0.0718 On peak \$0.0659 \$0.0674 Winter Months (Nov-May) \$0.0758 \$0.0706 \$0.0654						
On peak Off-peak \$0.0703 \$0.0659 \$0.0718 \$0.0659 Winter Months (Nov-May) On peak \$0.0758 \$0.0706 \$0.0654		φ 0.0730	\$0.0000	φ0.003 4		
Off-peak \$0.0659 \$0.0674 Winter Months (Nov-May) \$0.0758 \$0.0706 \$0.0654					¢0.0702	¢0.0710
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Dn peak \$0.0758 \$0.0706 \$0.0654	Off-peak				\$0.0659	\$0.0674
Dn peak \$0.0758 \$0.0706 \$0.0654	Winter Months (Nov-May)					
	• • •	\$0.0758	\$0.0706	\$0.0654		
	Dff-peak	\$0.0738	\$0.0686	\$0.0634		

Winter Months (Oct-May) On peak Off-peak				\$0.0679 \$0.0659	\$0.0694 \$0.0674
Reactive Power/kvar Electric Environmental charge/kWh Energy Waste Reduction Surcharge/delivery point Renewable Energy Plan Surcharge/delivery point	\$0.0106 \$0.00 \$666.43 \$0.00	\$0.0106 \$0.0006 \$666.43 \$0.00	\$0.0106 \$0.0006 \$819.95 \$0.00	\$0.0006 \$0.00 \$0.00	\$0.0020 \$0.00 \$0.00
Standard Extra Large Commercial Service (Prev. Rate No. 8 Primary Service)	2/18/2018	2/1/2019	2/1/2020	11/1/2022	11/1/2023
Basic Service Charge/month	\$430.00	\$460.00	\$490.00	\$500.00	\$500.00
Capacity Charge					
Per kW on peak Billing Demand	\$13.00	\$15.00	\$17.00	\$17.00	\$17.00
Per kW on maximum Demand	\$2.25	\$2.50	\$2.75	\$2.75	\$2.75
Commodity charge/kWh					
Summer Months (June-Sept)					
On peak	\$0.0763	\$0.0753	\$0.0745	\$0.0745	\$0.0745
Off-peak	\$0.0707	\$0.0697	\$0.0689	\$0.0689	\$0.0689
Winter Months (Oct-May)					
On peak	\$0.0747	\$0.0737	\$0.0729	\$0.0729	\$0.0729
Off-peak	\$0.0707	\$0.0697	\$0.0689	\$0.0689	\$0.0689
Reactive Power/kvar Electric Environmental charge/kWh Energy Waste Reduction Surcharge/delivery point Renewable Energy Plan Surcharge/delivery point	\$0.0106 \$0.00 \$666.43 \$0.00	\$0.0106 \$0.0006 \$666.43 \$0.00	\$0.0106 \$0.0006 \$819.95 \$0.00	\$0.0006 \$0.00 \$0.00	\$0.0020 \$0.00 \$0.00

Source: Lansing Board of Water and Light

In addition to the above rates and charges, the Electric Utility has separate rate schedules for large capacity service, primary high load factor service, traffic lights, street lighting, security lighting, municipal water pumping, and electric space heating.

Based on rates and charges currently in effect, the following table provides an estimate of the total monthly payments a residential customer of the Electric Utility would make at various usage levels.

Lansing Board of Water and Light Electric Utility Estimated Monthly Residential Bill As of June 2023

	As of June 20	23	
<u>kWh Usage Per Month</u>	Basic Service Charge	Energy Charge	Total Estimated Monthly Billing
250	\$19.75	\$33.21	\$52.96
500	\$19.75	\$66.41	\$86.16
750	\$19.75	\$100.99	\$120.74
1,000	\$19.75	\$135.57	\$155.32

Source: Lansing Board of Water and Light

Electric Sales

The following table sets forth the sales and percent of sales by customer classification for the fiscal years ended June 30, 2019 through 2023. Sales are shown in MWh.

Lansing Board of Water and Light Electric Utility Amount in MWh and Percent of Sales by Customer Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

_		Fiscal Yea	r Ended June 30		
Classification	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u> ⁽²⁾
Residential	567,018	558,325	598,936	600,198	557,741
Commercial	1,130,767	1,072,909	1,034,198	1,100,022	999,304
Industrial	361,288	300,147	340,760	300,906	432,286
Wholesale	278,334	184,261	510,072(3)	775,332(3)	870,478 ⁽³⁾
Other	30,248	28,165	25,422	25,876	22,859
Total	<u>2,367,654</u>	<u>2,143,808</u>	<u>2,509,388</u>	<u>2,802,335</u>	<u>2,882,668</u>
Classification					
Residential	23.95%	26.04%	23.87%	21.42%	19.35%
Commercial	47.76	50.05	41.21	39.25	34.67
Industrial	15.26	14.00	13.58	10.74	15.00
Wholesale	11.76	8.60	20.33(3)	27.67(3)	30.20(3)
Other	<u>1.28</u>	<u>1.31</u>	<u>1.01</u>	0.92	<u>0.79</u>
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾ During fiscal year 2023, the BWL implemented a new rate structure that better aligned customer rates with the BWL's expense projections and industry standards. This resulted in customer reclassifications between commercial and industrial classes.

⁽³⁾ Wholesale MWh volume increases are attributed to Belle River and Delta Energy Park.

Source: Lansing Board of Water and Light

Electric Revenues

Electric rates and charges have historically accounted for approximately 83% of gross System revenues. The following table sets forth amount and percent of electric revenues by customer classification for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light Electric Utility Amount and Percent of Revenues by Customer Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023 Eiscal Year Ended June 30

		Fi	scal Year Ended Ju	ne 30	
Classification	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u> ⁽²⁾
Residential	\$85,761,565	\$94,425,309	\$97,892,018	\$94,566,901	\$96,971,867
Commercial	141,927,117	146,975,035	141,962,168	141,042,598	141,927,435
Industrial	38,569,678	36,925,959	39,973,133	36,581,944	54,409,018
Wholesale	13,487,713	6,832,535	16,678,280	43,085,379	62,951,601
Other	14,354,534	14,792,836	15,438,193	14,776,087	22,531,795
Total	<u>\$294,100,606</u>	<u>\$299,951,673</u>	<u>\$311,943,793</u>	<u>\$330,052,908</u>	<u>\$378,791,716</u>
<u>Classification</u> Residential Commercial Industrial	29.16% 48.26 13.11	31.48% 49.00 12.31	31.38% 45.51 12.81	28.65% 42.73 11.08	25.60% 37.47 14.36
Wholesale	4.59	2.28	5.35	13.05	16.62
Other	4.88	<u>4.93</u>	<u>4.95</u>	<u>4.48</u>	<u>5.95</u>
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾ During fiscal year 2023, the BWL implemented a new rate structure that better aligned customer rates with the BWL's expense projections and industry standards. This resulted in customer reclassifications between commercial and industrial classes.

Source: Lansing Board of Water and Light

THE WATER UTILITY

General

The Water Utility component of the System was established in 1885 and currently serves more than 57,000 customers. Water sales have historically accounted for approximately 12% of gross System Revenues. Water is obtained from 123 wells averaging 400 feet in depth with a total hydraulic capacity of approximately 68.3 million gallons per day ("MGD"). During the fiscal year ending June 30, 2023, the average and maximum daily flows were approximately 19.01 MGD and 30.6 MGD, respectively. The Water Utility has two water conditioning plants that soften water in a process that reduces hardness from about 450 parts per million to 85-100 parts per million. The two conditioning plants are interconnected and have a combined capacity of 50 MGD. Water is fluoridated and virtually all water is supplied through meters. The distribution system has 807 miles of mains, most of which are six inches or more in diameter. The Water Utility has four covered reservoirs with a combined capacity of 24 million gallons.

Lead Service Replacement and Regulation

The BWL began a project to remove all 13,500 lead service lines (approximate) from its distribution system in 2004. The BWL completed the removal of all active lead service lines in December of 2016.

In June of 2018, the State of Michigan promulgated a new Lead and Copper Rule. This rule reduces the acceptable level of lead in the State of Michigan from 15 ppb to 12 ppb by 2024. It further requires the replacement of all lead service lines within 20 years and changed requirements for lead sampling and reporting.

The BWL is in full compliance and will continue to be in full compliance with the new rule. BWL conducts sampling for lead and copper every three (3) years as required by the state and federal rules. Results of the testing indicate that BWL water consistently exhibits lead and copper concentrations well below (and far safer than) the limits provided by all state and federal public health standards.

Service Area and Customer Base

Appendix B and the table below illustrate the BWL retail and wholesale service territory in addition to jurisdictional boundaries that are served. The BWL has contracts set up with jurisdictions outside of the City of Lansing to serve water on either a retail or wholesale basis.

Lansing Board of Water and Light Water Utility Water Supply Contracts

		Expiration
Municipality	Service Type	Year
City of Lansing	Retail	NA
Bath Township	Retail	2028
DeWitt Township	Retail	2025
City of DeWitt	Retail	2030
Watertown Township	Retail	2026
Windsor Township	Retail	2031
Delhi Township	Retail	2043
Alaiedon Township	Retail	2029
Lansing Township	Retail	2032
Lansing Township West Side Water	Wholesale	2049
Delta Township	Wholesale	2034
ELMWSA (Meridian Township, south pressure zone)	Wholesale	2025

Source: Lansing Board of Water and Light

The following tables set forth the average number and percent of water customers by customer classification, meter size and location for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light Water Utility Average Number and Percent of Water Customers by Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30						
Classification	2019	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u> ⁽²⁾		
Residential	50,023	50,315	50,739	50,606	50,560		
Commercial	6,782	6,816	6,883	6,856	7,017		
Industrial	<u>95</u>	<u>96</u>	<u>95</u>	<u>97</u>	<u>82</u>		
Total	<u>56,900</u>	<u>57,227</u>	<u>57,717</u>	<u>57,559</u>	<u>57,659</u>		
<u>Classification</u>							
Residential	87.91%	87.92%	87.91%	87.92%	87.69%		
Commercial	11.92	11.91	11.93	11.91	12.17		
Industrial	<u>0.17</u>	<u>0.17</u>	<u>0.16</u>	<u>0.17</u>	<u>0.14</u>		
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>		

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾ During fiscal year 2023, the BWL implemented a new rate structure that better aligned customer rates with the BWL's expense projections and industry standards. This resulted in customer reclassifications between commercial and industrial classes.

Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Average Number and Percent of Water Customers by Location⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30						
Location	<u>2019</u>	2020	<u>2021</u>	2022	2023		
Inside of City	40,770	40,933	41,228	40,959	40,903		
Outside of City	<u>16,130</u>	<u>16,294</u>	<u>16,489</u>	<u>16,600</u>	<u>16,756</u>		
Total	<u>56,900</u>	<u>57,227</u>	<u>57,717</u>	<u>57,559</u>	<u>57,659</u>		
Location							
Inside of City	71.65%	71.53%	71.43%	71.16%	70.94%		
Outside of City	28.35	28.47	28.57	28.84	29.06		
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>		

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

Source: Lansing Board of Water and Light

Ten Largest Customers

The following sets forth the principal product or service as well as the water revenues and volume as billed for the ten largest customers of the Water Utility for the fiscal year ended June 30, 2023.

Lansing Board of Water and Light Water Utility Ten Largest Water Customers⁽¹⁾ Fiscal Year Ended June 30, 2023

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		% of Total			% of Total	
<u>Name</u>	Principal Product or Service	Revenue	Revenue ⁽²⁾	<u>100 CF</u>	100 CF ⁽³⁾	
City of Lansing	Municipal Government	\$712,988	1.41%	150,118	1.83%	
State of Michigan	State Government	664,285	1.31	58,581	0.71	
Sparrow Hospital	Healthcare	663,851	1.31	119,773	1.46	
General Motors Corp	Automotive Manufacturing	567,305	1.12	116,810	1.42	
Lansing School District	Education	303,490	0.60	24,572	0.30	
Emergent Bio Solutions	Pharmaceutical	274,227	0.54	61,799	0.75	
DTN Management	Property Management	232,965	0.46	28,004	0.34	
Trappers Cove	Apartment Rental	218,934	0.43	48,491	0.59	
McLaren-Greater Lansing	Healthcare	201,063	0.40	17,600	0.21	
Maurers Textile Rental Service	Laundry Service	<u>180,847</u>	<u>0.36</u>	<u>45,735</u>	<u>0.56</u>	
Total		\$4,019,957	7.94%	671,483	8.19%	

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾ Based on total revenues of \$50,683,766.32 for the fiscal year ended June 30, 2023.

⁽³⁾ Based on total sales of 8,198,580 CCF for the fiscal year ended June 30, 2023.

Source: Lansing Board of Water and Light

Rates and Charges

The Charter provides that the BWL shall have full and exclusive management of the water, heat, steam and electric services of the City and such other services as may be agreed upon by the BWL and the City. The Charter also provides that the BWL may, with proper notice and hearing, fix just and reasonable rates as it deems necessary for such services. The implementation of new rates takes approximately three months and does not require any local, state or federal regulatory approval. It is the policy of the BWL to review all rates annually and to set such rates so that each utility is self-supporting. Rates are set on a cost of service basis.

In 2022, the BWL Board of Commissioners approved a two-year rate strategy which took effect November 1, 2022. The two-year plan implemented gradual increases in customer and commodity charges annually on November 1 during the years 2022 and 2023. The goal of the revised rate strategy is to better align customer rates with the BWL's expense projections, industry standards and to provide more complete coverage of fixed costs. The BWL attempts to implement rate adjustments in a manner that minimizes customer impact. The approved rate strategy provides all residential water customers a tiered rate structure that offers a discounted first 2 CCF's (1,500 gallons) per month. The tiered rate structure helps ensure water affordability, allows low usage water customers on average to benefit, and encourages water conservation.

Retail customers of the Water Utility pay basic service and water commodity charges. Basic service charges are based on water meter size. Water commodity charges are based on metered water usage. Water usage is measured in cubic feet ("cf") and 100 CF ("ccf"). All retail customers are subject to a power and chemical cost adjustment ("Power and Chemical Adjustment"). The Power and Chemical Adjustment permits the monthly increase or decrease in the water commodity charge based on the cost of power and chemicals required to deliver treated water to customers. Customers are billed monthly.

Historic rate increases are set forth in the table on the following page. These rate increases represent average system increases or increase in base-rate revenue. As such, rate adjustments by rate class or rate component may deviate from these percentages. BWL has not yet approved any rate adjustments beyond November 1, 2023. Any additional rate adjustments will be subject to the Board's rate approval process.

Lansing Board of Water and Light Water Utility Historical System Average Water Rate Increases

Effective Date	2/1/2019	2/1/2020	11/1/2021	11/1/2022	11/1/2023
Rate Increase	7.50%	7.50%	0%	9.50%	9.50%

Source: Lansing Board of Water and Light

The following tables set forth historical and current Water Utility basic service and water commodity charges as well as an estimate of the monthly bill for a residential customer at various usage levels.

Lansing Board of Water and Light Water Utility Monthly Basic Service Charge by Water Meter Size

Effective Date

Meter Size	2/18/2018	2/1/2019	2/1/2020	<u>11/1/2022</u>	<u>11/1/2023</u>
5/8"	\$13.72	\$14.75	\$15.86	\$16.36	\$16.86
3/4"	13.72	14.75	15.86	16.36	16.86
1"	33.51	36.02	38.72	38.72	38.72
1 1/4" or 1 1/2"	74.72	80.32	86.35	86.35	86.35
2"	131.37	141.22	151.81	151.81	151.81
3"	296.23	318.45	342.33	342.33	342.33
4"	528.08	567.69	610.26	610.26	610.26
6"	1,187.43	1,276.49	1,372.22	1,372.22	1,372.22
8"	2,109.73	2,267.96	2,438.06	2,438.06	2,438.06
10"	3,297.27	3,544.57	3,810.41	3,810.41	3,810.41

Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Residential Monthly Water Commodity Charge per ccf of Metered Usage

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Effective Date	Charge Per ccf
February 1, 2018	\$2.94
February 1, 2019	\$3.16
February 1, 2020	\$3.40
November 1, 2022	
Block 1 - For first 2 CCF of water	\$3.40
Block 2 - All CCF over 2 CCF	\$4.35
November 1, 2023	
Block 1 - For first 2 CCF of water	\$3.40
Block 2 - All CCF over 2 CCF	\$5.42

Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Estimated Monthly Residential Bill - Meter Size 5/8" or 3/4" As of June 2023

CCF Usage Per Month	Basic Service Charge	Water Charge	Total Estimated Monthly Billing
2 CCF	\$16.36	\$7.36	\$23.72
4 CCF	\$16.36	\$16.63	\$32.99
6 CCF	\$16.36	\$25.89	\$42.25
8 CCF	\$16.36	\$35.16	\$51.52

Source: Lansing Board of Water and Light

The tiered rate structure ensures water affordability, and allows low usage water customers on average to benefit while also encouraging water conservation.

Water Volume

Water volume is measured in ccf. There are 748 gallons of water in 1 ccf. The following tables set forth information regarding total, average and peak water volume as pumped and/or billed by customer classification and location for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light Water Utility Total Water Volume in ccf as Billed Fiscal Years Ended June 30, 2019 through 2023

Fiscal Year Ended June 30	Water Sales (ccf)	% Increase (Decrease)
2019	8,675,617	(1.56)%
2020	8,255,445	(4.84)%
2021	8,750,346	5.99%
2022	7,909,676	(9.61)%
2023	8,198,580	3.65%

Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Total Water Volume in ccf as Pumped and Billed Fiscal Years Ended June 30, 2019 through 2023

-	Fiscal Year Ended June 30					
<u>Water Volume</u> Pumped	<u>2019</u> 9,407,526	<u>2020</u> 9,118,874	<u>2021</u> 9,494,017	<u>2022</u> 8,884,693	<u>2023</u> 9,283,880	
Billed	8,675,617	8,255,445	8,750,346	7,909,676	8,198,580	
Unaccounted ⁽¹⁾ Unaccounted as a	731,909	863,429	743,671	975,017	1,085,300	
Percent of Pumped	7.78%	9.47%	7.83%	10.97%	11.70%	

⁽¹⁾ Unaccounted water volume is due primarily to the flushing of lines, fire flows, pressure releases during routine maintenance, line loss and slow meters. As part of its quality control efforts, the Water Utility routinely flushes transmission lines. Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Average and Peak Daily Water Volume in MGD as Pumped Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30					
Water Volume	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	2023	
Average Daily	19.28	18.63	19.45	18.2	19.03	
Peak Daily	31.16	28.5	31.8	27.8	30.55	
Peak as a Percent of Average	161.62%	152.98%	163.50%	152.75%	160.54%	

Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Amount and Percent of Water Volume in ccf as Billed by Customer Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30					
Classification:	<u>2019</u>	<u>2020</u>	<u>2021</u>	2022	<u>2023</u> ⁽³⁾	
Residential	2,777,178	2,745,129	3,004,414	2,753,583	2,785,911	
Commercial	3,001,349	2,778,406	2,766,135	2,811,726	2,848,814	
Industrial Sales for	594,182	514,890	615,626	309,823	264,549	
Resale ⁽²⁾	2,190,264	2,104,376	2,251,527	1,921,900	2,186,662	
Other	<u>112,644</u>	<u>112,644</u>	<u>112,644</u>	<u>112,644</u>	<u>112,644</u>	
Total	<u>8,675,617</u>	<u>8,255,445</u>	<u>8,750,346</u>	<u>7,909,676</u>	<u>8,198,580</u>	
Classification:						
Residential	32.00%	33.25%	34.33%	34.81%	33.98%	
Commercial	34.6	33.66	31.61	35.55	34.75	
Industrial Sales for	6.85	6.24	7.04	3.92	3.23	
Resale ⁽²⁾	25.25	25.49	25.73	24.30	26.67	
Other	<u>1.3</u>	<u>1.36</u>	<u>1.29</u>	<u>1.42</u>	<u>1.37</u>	
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate. ⁽²⁾ Includes the wholesale sales to Delta Township, Lansing Township and the East Lansing-Meridian Water and Sewer Authority. ⁽³⁾ During fiscal year 2023, the BWL implemented a new rate structure that better aligned customer rates with the BWL's expense projections and industry standards. This resulted in customer reclassifications between commercial and industrial classes. Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Amount and Percent of Water Volume in ccf as Billed by Location Fiscal Years Ended June 30, 2019 through 2023

-	Fiscal Year Ended June 30					
Location	2019	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	
Inside of City	4,632,235	4,411,312	4,594,121	4,176,232	4,098,485	
Outside of City ⁽¹⁾	<u>4,043,382</u>	<u>3,844,133</u>	<u>4,156,225</u>	<u>3,733,444</u>	<u>4,100,095</u>	
Total	<u>8,675,617</u>	<u>8,255,445</u>	<u>8,750,346</u>	<u>7,909,676</u>	<u>8,198,580</u>	
Location						
Inside of City	53.39%	53.44%	52.50%	52.80%	49.99%	
Outside of City ⁽¹⁾	46.61	46.56	<u>47.50</u>	47.20	<u>50.01</u>	
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	100.00%	<u>100.00%</u>	

(1) Includes the wholesale sales to Delta Township, Lansing Township and the East Lansing-Meridian Water and Sewer Authority. Source: Lansing Board of Water and Light

Water Revenues

Water sales have historically accounted for approximately 13% of gross System Revenues. The following tables set forth the amount and percent of water sales by customer classification and location for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light Water Utility Amount and Percent of Water Sales by Customer Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

		Fi	iscal Year Ended June 3	80	
Classification	2019	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u> ⁽³⁾
Residential	\$16,492,464	\$18,546,508	\$20,278,263	\$18,711,422	\$21,056,591
Commercial	14,384,673	14,876,484	15,626,938	20,836,719	18,383,670
Industrial	2,184,421	2,064,510	3,017,521	967,335	1,687,103
Sales for Resale ⁽²⁾	3,419,968	3,552,640	4,002,606	3,633,209	4,420,717
Other	<u>6,369,873</u>	<u>6,883,466</u>	7,105,137	4,879,801	5,135,685
Total	<u>\$42,851,399</u>	<u>\$45,923,608</u>	<u>\$50,030,466</u>	<u>\$49,028,486</u>	<u>\$50,683,766</u>
Classification					
Residential	38.49%	40.39%	40.53%	38.16%	41.55%
Commercial	33.57	32.39	31.23	42.50	36.27
Industrial	5.10	4.50	6.03	1.97	3.33
Sales for Resale ⁽²⁾	7.98	7.74	8.00	7.41	8.72
Other	14.87	14.99	14.20	9.95	10.13
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾ Represents the wholesale sales to Delta Township, Lansing Township and the East Lansing-Meridian Water and Sewer Authority.

⁽³⁾ During fiscal year 2023, the BWL implemented a new rate structure that better aligned customer rates with the BWL's expense projections and industry standards. This resulted in customer reclassifications between commercial and industrial classes

Source: Lansing Board of Water and Light

Lansing Board of Water and Light Water Utility Amount and Percent of Water Revenues by Location Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30					
Location	<u>2019</u>	<u>2020</u>	<u>2021</u>	2022	2023	
Inside of City	\$27,453,667 \$29,698,912 \$		\$31,490,660	\$31,802,961	\$31,993,266	
Outside of City ⁽¹⁾	<u>15,397,732</u>	16,224,696	<u>18,539,806</u>	<u>17,225,524</u>	18,690,500	
Total	<u>\$42,851,399</u>	<u>\$45,923,608</u>	<u>\$50,030,466</u>	<u>\$49,028,486</u>	<u>\$50,683,766</u>	
Location						
Inside of City	64.07%	64.67%	62.94%	64.87%	63.12%	
Outside of City ⁽¹⁾	<u>35.93</u>	<u>35.33</u>	<u>37.06</u>	<u>35.13</u>	<u>36.88</u>	
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	

⁽¹⁾ Includes the wholesale sales to Delta Township, Lansing Township and the East Lansing-Meridian Water and Sewer Authority. Source: Lansing Board of Water and Light

THE STEAM UTILITY

General

The Steam Utility component of the System was established in the early 1900's when the Michigan Heat and Power Company was purchased by the BWL. Steam is currently supplied to approximately 80 square blocks in the City's downtown business district as well as a GM plant in the City. In addition to heat, some downtown buildings use steam in absorption units to provide air conditioning and GM utilizes steam for processing. Steam sales have historically accounted for approximately 3% of gross System Revenues.

During the fiscal year ended June 30, 2023, the Steam Utility served approximately 156 customers. The following table sets forth average number and percent of steam customers by classification for the fiscal years ended June 30, 2019 through 2023.

Average Number and Percent of Customers by Classification Fiscal Years Ended June 30, 2019 through 2023						
_		Fiscal	Year Ended Jur	ne 30		
Classification	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	
Residential	5	5	4	6	6	
Commercial	161	155	150	148	149	
Industrial	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
Total	<u>167</u>	<u>161</u>	<u>155</u>	<u>155</u>	<u>156</u>	
Classification						
Residential	2.99%	3.11%	2.58%	3.87%	3.85%	
Commercial	96.41	96.27	96.77	95.48	95.51	
Industrial	<u>0.60</u>	<u>0.62</u>	<u>0.65</u>	<u>0.65</u>	<u>0.64</u>	
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	

Lansing Board of Water and Light Steam Utility Average Number and Percent of Customers by Classification Fiscal Years Ended June 30, 2019 through 2023

Source: Lansing Board of Water and Light

Steam Generation

BWL produces steam and electricity at its REO Town Plant through the combustion of natural gas. The simultaneous production of steam and electricity is known as cogeneration. To generate steam, the REO Town Plant utilizes two, once-through heat recovery generators and a single auxiliary boiler. Each generator can produce 175,000 pounds of steam per hour. Though the generators normally run simultaneously, the REO Town Plant can meet maximum demand capacity of 300,000 pounds per hour even if one generator fails. When steam production exceeds demand, the excess steam is routed to the electric generation cycle, where it results in increased efficiency.

With the closure of Eckert Station, BWL constructed a back-up ("Emergency Boiler Infrastructure") to the REO Town Plant. The Emergency Boiler Infrastructure provides redundancy to the steam utility by adding two 75,000 pounds of steam per hour back-up steam units. The two units are equal to one of the REO Town units and could maintain pressure and steam production if the REO Town Plant had an interruption of service.

Rates and Charges

The Charter provides that the BWL shall have full and exclusive management of the water, heat, steam and electric services of the City and such other services as may be agreed upon by the BWL and the City. The Charter also provides that the BWL may, with proper notice and hearing, fix just and reasonable rates as it deems necessary for such services. The implementation of new rates takes approximately three months and does not require any local, state or federal regulatory

approval. It is the policy of the BWL to review all rates annually and to set such rates so that each utility is self-supporting. Rates are set on a cost of service basis.

In 2022, the BWL Board of Commissioners approved a two-year rate strategy which took effect November 1, 2022. The two-year plan implemented gradual increases in customer and commodity charges annually on November 1 during the years 2022 and 2023. The revised rate strategy better aligned customer rates with BWL's expense projections, industry standards and provided more complete coverage of fixed costs. BWL attempts to implement rate adjustments gradually, in a manner that minimizes customer impacts.

Customers of the Steam Utility pay a steam commodity charge as well as a basic service charge or a demand charge. The steam commodity charge is based on metered steam usage that is measured in thousand pounds ("Mlbs"). The basic service charge is based on a maximum gauge pressure of 15 pounds per square inch ("psi"). The demand charge replaces the customer charge for large industrial users. The demand charge is based on contracted hours of use. All customers are subject to a Fuel Cost Adjustment. The Fuel Cost Adjustment permits the monthly increase or decrease in steam commodity charges for the cost of fuel used in supplying steam. In addition, customers are subject to a monthly environmental charge. Customers are billed monthly.

Historical rate increases are set forth in the table below. These rate increases represent average system increases in base-rate revenue. As such, rate adjustments by rate class or rate component may deviate from these percentages. BWL has not yet approved any rate adjustments beyond November 1, 2023. Any additional rate adjustments will be subject to the Board's rate approval process.

Lansing Board of Water and Light Steam Utility Historical System Average Steam Rate Increases

Effective Date	<u>2/1/2019</u>	2/1/2020	<u>11/1/2021</u>	<u>11/1/2022</u>	<u>11/1/2023</u>
Rate Increase	7.50%	7.50%	0.00%	9.95%	9.95%

Source: Lansing Board of Water and Light

The table on the following page sets forth a history of the Steam Utility's customer, demand and commodity charges.

Effective Date	2/1/18	2/1/19	2/1/20	11/1/22	11/1/23
Basic Service charge	\$14.31	\$15.38	\$16.54	\$18.54	\$20.54
Commodity Charge per Mlbs					
Summer Months (June-Nov.)					
First 200,000 lbs	\$16.32	\$17.54	\$18.86	\$21.05	\$23.46
Over 200,000 lbs	\$17.13	\$18.41	\$19.80	\$22.10	\$24.62
Winter Months (DecMay)					
First 200,000 lbs	\$16.51	\$17.75	\$19.08	\$21.27	\$23.68
Over 200,000 lbs	\$17.34	\$18.64	\$20.04	\$22.34	\$24.87
Environmental Charge (Per Mlb)	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30
Rate No. 2-Industrial Steam Service					
Effective Date	2/1/18	2/1/19	2/1/20	11/1/22	11/1/23
Monthly Rate:					
Demand Charge per lb per hour					
Lbs per hour of Contract Demand	\$1.65	\$1.77	\$1.91	\$2.10	\$2.31
Lbs per hour over Contract Demand	\$1.42	\$1.53	\$1.64	\$1.80	\$1.98
Commodity Charge per Mlbs	\$10.04	\$10.79	\$11.60	\$12.75	\$14.02
Environmental Charge (Per Mlb)	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30
Rate No. 5-Residential Steam Service					
Effective Date	2/1/18	2/1/19	2/1/20	11/1/22	11/1/23
Basic Service charge	\$10.60	\$11.40	\$12.25	\$14.25	\$16.25
Commodity Charge per Mlbs					
Summer Months (June-Nov.)					
First 200,000 lbs	\$12.64	\$13.59	\$14.61	\$16.34	\$18.26
Over 200,000 lbs	\$13.23	\$14.22	\$15.29	\$17.10	\$19.11
Winter Months (DecMay)					
First 200,000 lbs	\$12.79	\$13.75	\$14.78	\$16.51	\$18.43
Over 200,000 lbs	\$13.39	\$14.39	\$15.47	\$17.28	\$19.29
Environmental Charge (Per Mlb)	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30

Lansing Board of Water and Light Steam Utility Historical and Existing Rates by Customer Classification

Source: Lansing Board of Water and Light

Steam Volume

Steam volume is measured in Mlbs. The following table sets forth the amount and percent of steam as billed by customer classification for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light **Steam Utility** Amount and Percent of Steam as Billed in Mlbs by Customer Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

		Fis	scal Year Ended June	30	
Classification	2019	2020	<u>2021</u>	2022	2023
Residential	1,209	1,263	1,153	1,267	1,015
Commercial	468,635	418,737	411,168	384,384	385,379
Industrial	173,754	177,304	188,607	161,009	147,432
Other	74,641	70,790	70,439	1,407	2,234
Total	718,239	668,094	671,367	548,067	536,060
Classification					
Residential	0.17%	0.18%	0.17%	0.23%	0.19%
Commercial	65.25	58.30	61.24	70.13	71.89
Industrial	24.19	24.69	28.09	29.38	27.50
Other	10.39	9.86	10.49	0.26	0.42
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate. Source: Lansing Board of Water and Light

Steam Revenues

Steam sales have historically accounted for approximately 3% of gross System Revenues. The following table sets forth amount and percent of steam revenue as billed by customer classification for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light **Steam Utility** Amount and Percent of Steam Revenues as Billed by Customer Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30							
Classification	2019	2020	2021	<u>2022</u>	2023			
Residential	\$18,275	\$19,343	\$17,074	\$24,713	\$20,779			
Commercial	9,068,363	8,089,900	8,181,477	9,005,889	9,483,848			
Industrial	3,094,832	2,820,639	2,779,708	2,734,843	2,948,163			
Other	<u>1,558,649</u>	<u>1,596,617</u>	<u>1,590,572</u>	<u>169,071</u>	208,478			
Total	<u>\$13,740,119</u>	<u>\$12,526,499</u>	<u>\$12,568,830</u>	<u>\$11,934,516</u>	\$12,661,267			
Classification								
Residential	0.13%	0.15%	0.14%	0.21%	0.16%			
Commercial	66.00	64.58	65.09	75.46	74.90			
Industrial	22.52	22.52	22.12	22.92	23.28			
Other	11.34	12.75	12.65	1.42	1.65			
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>			

⁽¹⁾ Due to rounding, values may not add to totals or percentages may not precisely calculate.

Source: Lansing Board of Water and Light

Ten Largest Customers

The following sets forth the principal product or service as well as the steam revenues and volume as billed for the ten largest customers of the Steam Utility for the fiscal year ended June 30, 2023.

Lansing Board of Water and Light Steam Utility Ten Largest Steam Customers⁽¹⁾ Fiscal Year Ended June 30, 2023

			% of		% of
Name	Product /Service	Revenue	Revenues ⁽²⁾	Mlbs	<u>Mlbs</u> ⁽³⁾
State of Michigan	State Government	\$4,377,848.75	34.60%	198,773	37.08%
General Motors Corp	Automotive Manufacturing	2,632,091.43	20.80	154,635	28.85
Lansing Community College	Education	710,317.17	5.60	32,615	6.08
Spirit of Downtown Lansing LLC	Real Estate Management	509,884.29	4.00	23,162	4.32
City of Lansing	Municipal Government	366,913.46	2.90	16,562	3.09
LEPFA	Entertainment	343,330.33	2.70	15,771	2.94
Boji Group	Real Estate Management	268,515.60	2.10	12,196	2.28
Blue Cross/Blue Shield	Insurance	247,544.04	2.00	11,311	2.11
Ingham County	Municipal Government	244,891.05	1.90	11,372	2.12
Gentilozzi Real Estate Inc	Real Estate Management	<u>121,527.77</u>	<u>1.00</u>	<u>5,551</u>	1.04
Total		\$9,822,863.89	<u>77.58%</u>	<u>481,948</u>	<u>89.91%</u>

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate.

⁽²⁾ Based on total revenues of \$12,661,267.44 for the fiscal year ended June 30, 2023.

⁽³⁾ Based on total sales of 536,060.00 MLB for the fiscal year ended June 30, 2023.

Source: Lansing Board of Water and Light

THE CHILLED WATER UTILITY

General

In June of 2001, the Chilled Water Utility component of the System commenced operations upon completion of its chilled water production and distribution facilities. Beginning with the fiscal year ended June 30, 2006, the Chilled Water Utility was separated from the Steam Utility. Chilled water sales have historically accounted for approximately 2% of gross System Revenues. The BWL's 8,000 ton hour chilled water production facility was completed in 2009.

Service Area and Customer Base

During the fiscal year ended June 30, 2023, the Chilled Water Utility served 19 commercial accounts in the City's downtown business district. At this time the Utility does not serve any residential, industrial or other type of customer besides these 19 commercial accounts. The following table sets forth the number of service leads and chilled water volume for the fiscal years ended June 30, 2019 through 2023. Chilled water sales are measured in thousand ton hours ("Thrs").

Lansing Board of Water and Light Chilled Water Utility Number of Service Leads and Volume in MThrs* by Classification Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30					
	2019	<u>2020</u>	<u>2021</u>	<u>2022</u>	2023	
Commercial Customers	19	19	19	19	19	
Sales	10,103	9,481	9,058	9,555	9,055	

*1 MThr. equals 1,000 ton-hours.

Source: Lansing Board of Water and Light

Rates and Charges

The Charter provides that the BWL shall have full and exclusive management of the water, heat, steam and electric services of the City and such other services as may be agreed upon by the BWL and the City, such as chilled water. The Charter also provides that the BWL may, with proper notice and hearing, fix just and reasonable rates as it deems necessary for such services. The implementation of new rates takes approximately three months and does not require any local, state or federal regulatory approval. It is the policy of the BWL to review all rates annually and to set such rates so that each utility is self-supporting. Rates are set on a cost of service basis.

In 2022, the BWL Board of Commissioners approved a two-year rate strategy which took effect November 1, 2022. The two-year plan implemented gradual increases in customer and commodity charges annually on November 1 during the years 2022 and 2023. The revised rate strategy better aligned customer rates with the BWL's expense projections, industry standards and provided more complete coverage of fixed costs. The BWL attempts to implement rate adjustments gradually, in a manner that minimizes customer impacts.

Customers of the Chilled Water Utility pay capacity and commodity charges. Capacity charges are based on contracted tons of use. Chilled water commodity charges are based on metered usage measured in Thrs. Customers are billed monthly.

Historical rate adjustments are set forth in the table below. These rate adjustments represent average system increases or increase in base-rate revenue. As such, adjustments by rate class or rate component may deviate from these percentages. BWL has not yet approved any rate adjustments after November 1, 2023. Any additional rate adjustments will be subject to the Board's rate approval process.

Lansing Board of Water and Light Chilled Water Utility Historical System Average Water Rate Increases

Effective Date	<u>2/1/2019</u>	<u>2/1/2020</u>	<u>11/1/2021</u>	<u>11/1/2022</u>	<u>11/1/2023</u>
Rate Increase	0.00%	0.00%	0.00%	4.00%	4.00%

Source: Lansing Board of Water and Light

The following table sets forth a history of the Chilled Water Utility's capacity and commodity charges.

Lansing Board of Water and Light Chilled Water Utility Historical and Existing Rates

<u>1/2009</u> <u>3/1/2</u>	<u>011</u> <u>11/1/2014</u>	<u>4 11/1/2022</u>	<u>11/1/2023</u>
41.66 \$43.	\$45.05	\$47.22	\$49.49
58.32 \$61.	24 \$63.08	\$66.12	\$69.30
0.118 \$0.1	24 \$0.128	\$0.130	\$0.132
	41.66 \$43. 58.32 \$61.	41.66 \$43.74 \$45.05 58.32 \$61.24 \$63.08	41.66 \$43.74 \$45.05 \$47.22 58.32 \$61.24 \$63.08 \$66.12

Source: Lansing Board of Water and Light

Chilled Water Revenues

Chilled water sales have historically accounted for approximately 2% of gross System Revenues. The following table sets forth amount and percent of chilled water revenue as billed by customer classification for the fiscal years ended June 30, 2019 through 2023.

Lansing Board of Water and Light Chilled Water Utility Chilled Water Revenues by Classification⁽¹⁾ Fiscal Years Ended June 30, 2019 through 2023

	Fiscal Year Ended June 30						
Customer Classification	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	2023		
Residential	\$0	\$0	\$0	\$0	\$0		
Commercial	6,191,942	6,210,769	6,032,513	6,126,022	6,721,332		
Industrial	-	-	-	-	-		
Other	<u>455</u>	<u>406</u>	<u>957</u>	7,232	<u>18,678</u>		
Total	\$6,192,397	\$6,211,175	\$6,035,559	\$6,133,254	\$6,740,010		

⁽¹⁾ Includes billed and accrued, unbilled revenues.

Source: Lansing Board of Water and Light

Chilled Water Customers by Volume and Revenues

The following sets forth the principal product or service as well as the chilled water revenues and volume as billed for the customers of the Chilled Water Utility for the fiscal year ended June 30, 2023.

Lansing Board of Water and Light Chilled Water Utility Five Largest Chilled Water Customers by Volume and Revenues^(a) Fiscal Year Ended June 30, 2023

			% Total Chilled		% Total
Name	<u>Industry</u>	Revenue	Water Revenue ^(b)	Thrs	Thrs ^(c)
State of Michigan (DTMB) ^(d)	Government	\$4,760,682.46	70.6%	6,309,373.00	69.7%
Accident Fund (BCBS)	Insurance	427,832.09	6.3	752,707.00	8.3
Grand Tower	Real Estate Office	386,302.25	5.7	768,665.00	8.5
River St. Triangle	Property Management	221,718.93	3.3	160,276.00	1.8
Eyde	Property Management	<u>202,897.03</u>	<u>3.0</u>	<u>305,950.00</u>	<u>3.4</u>
Total		<u>\$5,999,432.76</u>	<u>89.0%</u>	<u>8,296,971.00</u>	<u>91.6%</u>

^(a) Due to rounding, values may not add up or percentages may not precisely calculate.

^(b) Based on total chilled water revenues of \$6,740,010.35 for the fiscal year ended June 30, 2023.

^(c) Based on total chilled water sales of 9,055 MThrs for the fiscal year ended June 30, 2023.

^(d) The State of Michigan has multiple service leads.

Source: Lansing Board of Water and Light

SYSTEM FINANCIAL INFORMATION

Historical and Projected Operating Cash Flows and Debt Service Coverage

The following tables set forth the historical operating cash flow and debt service coverage for the fiscal years ended June 30, 2019 through 2023, as well as the projected operating cash flow and debt service coverage of the System, including the Bonds described herein, for the fiscal years ending June 30, 2024 through 2029. The projections and assumptions are subject in all respects to unforeseen forces and events beyond the control of the BWL. Such projections and assumptions, while believed by the BWL to be reasonable, may not be realized. Investors should form their own judgment as to the reasonableness of the assumptions and accuracy of the projections.

Lansing Board of Water and Light Historical Operating Cash Flow and Debt Service Coverage Fiscal Years Ended June 30, 2019 through 2023

	2019	2020	2021	2022	2023
Operating Revenues					
Water	\$42,851,399	\$45,923,606	\$50,030,466	\$49,028,486	\$50,683,766
Electric	294,100,606	299,951,673	311,943,793	330,052,908	378,791,716
Steam	13,740,119	12,526,501	12,568,831	11,934,516	12,661,267
Chilled Water	6,192,397	6,211,174	6,035,559	6,133,254	6,740,010
Total Operating Revenues	\$356,884,521	\$364,612,954	\$380,578,649	\$397,149,164	\$448,876,759
Operating Expenses					
Production	144,276,591	142,923,305	139,681,752	163,647,135	190,744,813
Transmission and distribution	29,875,256	29,072,031	27,674,460	27,355,472	31,259,753
Administrative and general	70,664,307	72,827,369	59,408,186	75,850,273	87,448,518
Return on equity ⁽¹⁾	21,110,884	23,100,000	25,000,000	25,000,000	26,428,992
Depreciation	46,123,865	50,618,741	48,428,670	56,503,061	70,371,305
Total Operating Expenses	\$312,050,903	\$318,541,446	\$300,193,068	\$348,355,940	\$406,253,381
Non-Operating Revenues (Expenses)					
Investment income	5,464,438	11,006,985	218,186	(5,372,203)	3,682,036
Other (Expense) Income	(2,373,022)	(1,096,805)	(2,563,980)	(4,949,145)	(3,840,612)
Bonded debt interest expense	(15,443,098)	(26,208,473)	(25,277,445)	(26,862,101)	(26,376,856)
Other interest expense	(78,810)	(91,671)	(29,007)	(20,721)	(39,109)
Net Income (Loss)	\$32,403,126	\$29,681,544	\$52,733,335	\$11,589,054	\$16,048,837
Add:					
Depreciation and impairment	46,123,865	50,618,741	48,428,670	56,503,061	70,371,305
Interest on long-term debt-revenue bonds	15,443,098	26,208,473	25,277,445	26,862,101	26,376,856
Total Additions/Deductions	61,566,963	76,827,214	73,706,115	83,365,162	96,748,161
NET INCOME AVAILABLE FOR DEBT	\$93,970,089	\$106,508,758	\$126,439,450	\$94,954,216	\$112,796,998
SERVICE					
Debt Service Requirements					
2011A Bonds	16,438,600	9,751,502	4,163,250		
2013A Bonds	2,320,900	2,327,500	2,324,750	2,323,000	2,322,000
2017A Bonds	3,123,250	3,113,000	3,094,250	3,087,250	3,076,250
2019A Bonds				14,990,162	18,993,800
2019B Bonds		4,132,435	7,748,315	14,063,315	14,075,046
2021A Bonds				2,100,750	2,801,000
2021B Bonds				1,063,125	1,417,500
Total Existing Revenue Bond Debt Service ⁽²⁾	21,882,750	19,324,437	17,330,565	37,627,603	42,685,596
Senior Lien Debt Service Coverage	4.29x	5.51x	7.30x	2.52x	2.64x
Total Debt Service Coverage	4.29x	5.51x	7.30x	2.52x	2.64x
Unrestricted Cash Balance ⁽³⁾	\$129,178,530	\$155,623,370	\$190,202,811	\$207,216,540	\$152,336,451
Days Cash on Hand	177	212	276	259	166

(1) Payment in lieu of taxes is now reflected as Return on equity.
 (2) Net of capitalized interest.
 (3) Unrestricted Cash includes the Operating Fund and Unrestricted Cash Investments. Source: Lansing Board of Water and Light

Lansing Board of Water and Light Projected Operating Cash Flow and Debt Service Coverage Fiscal Years Ended June 30, 2024 through 2029

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>
Operating Revenues						
Water	\$52,153,976	\$57,052,064	\$62,643,933	\$68,334,007	\$74,063,693	\$77,218,220
Electric	363,553,868	393,895,101	433,224,848	500,268,272	531,932,771	553,050,332
Steam	13,458,890	14,172,025	15,330,842	16,880,332	17,364,598	17,235,703
Chilled Water	6,449,879	6,480,543	6,647,675	6,802,259	6,955,548	7,116,515
Total Operating Revenues	\$435,616,613	\$471,599,733	\$517,847,298	\$592,284,870	\$630,316,609	\$654,620,770
Operating Expenses						
Production	188,226,353	196,769,277	217,914,323	269,386,590	291,654,350	302,042,177
Transmission and distribution	35,166,200	32,408,411	33,910,081	34,373,108	38,256,372	41,260,505
Administrative and general	98,376,723	90,661,865	94,862,757	96,158,066	107,021,417	115,425,417
Return on equity	25,647,116	27,845,984	30,620,838	35,087,092	37,368,997	38,827,246
Depreciation	63,449,453	65,497,141	71,899,090	75,217,164	76,320,355	75,994,860
Total Operating Expenses	\$410,865,845	\$413,182,677	\$449,207,090	\$510,222,021	\$550,621,491	\$573,550,205
Operating Income (Loss)	\$24,750,768	\$58,417,056	\$68,640,208	\$82,062,849	\$79,695,119	\$81,070,565
Non-Operating Revenues						
(Expenses)	¢11 775 000	¢14.567.604	\$0.010.407	<i>6</i> (5 (0) 10 7	¢ (700 40 (¢< 0.40 1.60
Investment Income Gain / (Loss) on Disposal of	\$11,775,892	\$14,567,624	\$8,819,427	\$6,549,427	\$6,789,426	\$6,948,169
Fixed Assets	(2,030,674)	(2,047,185)	(2,088,052)	(2,127,920)	(2,169,816)	(2,213,876)
Bonded Debt Interest	(2,050,071)	(2,017,105)	(2,000,002)	(2,127,520)	(2,10),010)	(2,213,070)
Expense	(32,110,220)	(41,039,288)	(40,495,433)	(41,314,466)	(40,581,851)	(38,808,739)
Other	1,012,009	1,117,353	1,122,034	1,126,610	1,131,096	1,135,483
Net Income (Loss)	\$3,397,775	\$31,015,561	\$35,998,184	\$46,296,499	\$44,863,974	\$48,131,602
Add:		****		4.0,_, 0, 0, 0, 0	4,0000,00	+,
Depreciation and impairment	\$63,449,453	\$65,497,141	\$71,899,090	\$75,217,164	\$76,320,355	\$75,994,860
Interest on long-term debt-						
revenue bonds	32,110,220	41,039,288	40,495,433	41,314,466	40,581,851	38,808,739
Total Additions/Deductions	\$95,559,673	\$106,536,429	\$112,394,523	\$116,531,630	\$116,902,206	\$114,803,599
Net Income Available for Debt						
Service	\$98,957,448	\$137,551,990	\$148,392,708	\$162,828,130	\$161,766,180	\$162,935,201
Bonded Debt Service	+ <i>y</i> 0, <i>y</i> 0, <i>y</i> 1,0			+	+	+
Requirements						
2013A Bonds ⁽¹⁾	\$2,316,500	\$2,321,500	\$2,336,250			
2017A Bonds	3,071,250	3,061,750	3,052,750	3,044,000	3,040,250	3,031,000
2019A Bonds	18,991,300	18,991,050	18,992,550	18,480,300	18,484,550	18,485,300
2019B Bonds ⁽¹⁾	14,086,144	14,090,935	14,082,330	16,940,094	16,943,335	16,950,191
2021A Bonds	2,801,000	2,951,000	2,943,500	2,936,000	2,928,500	2,921,000
2021B Bonds	1,417,500	1,417,500	1,422,500	2,485,450	2,485,275	2,485,100
2024A Bonds ⁽¹⁾				19,880,000	19,883,500	19,892,750
2026A Bonds ⁽¹⁾				1,491,591	1,491,591	1,491,591
Total Existing Revenue Bond	¢ 40 (00 (04	¢ 40,000,705	¢ 42,020,000	<i>()</i>	ACE 057 001	<i>(())</i>
Debt Service ⁽¹⁾ Total Bonded Debt Service	\$42,683,694	\$42,833,735	\$42,829,880	\$65,257,435	\$65,257,001	\$65,256,932
Lotal Bonded Debt Service Coverage ⁽¹⁾⁽²⁾	2.32x	3.21x	3.46x	2.50x	2.48x	2.50x
Unrestricted Cash Balance ⁽³⁾	2.32x \$146,944,390	\$169,242,259	3.46x \$170,842,784	\$183,720,048	\$228,100,772	\$252,365,262
Davs Cash on Hand	\$140,944,390 157	\$109,242,239 178	\$170,842,784 165	\$185,720,048 154	\$228,100,772	\$252,505,202 185
Eujo Cash on Hanu	1.57	170	105	1.54	170	105

(1) Includes the projected Bonds, and includes bonds subject to the BWL Tender Offer, and includes the Bonds to be Refunded, net of capitalized interest.
 (2) Debt service on 2026A Bonds is included for projection purposes. No 2026A Bonds have been authorized by the Board.
 (3) Unrestricted cash includes the Operating Funds and all other unrestricted cash and investments.
 Source: Lansing Board of Water and Light

Recent Financial Performance

The following table compares the BWL's budgeted financial performance with its actual financial performance for the first quarter of fiscal year ending June 30, 2024.

Lansing Board of Water and Light Comparison of Actual and Budgeted Financial Performance First Quarter of Fiscal Year Ending June 30, 2024

	Budget	Actual	Variance	Variance (%)
Water - CCF	\$13,978,063	\$14,754,993	\$776,930	5.56%
Electric Retail - MWh	82,552,730	83,037,815	485,085	0.59
Electric Wholesale - MWh	13,989,454	9,428,714	(4, 560, 740)	-32.60
Steam - MLB	1,404,317	1,520,688	116,371	8.29
Chilled Water - MTHR	1,443,118	1,624,173	181,055	12.55
Total Operating Revenue	113,367,682	110,366,384	(3,001,298)	-2.65
Total Operating Expenses	(96,868,022)	(100,116,258)	3,248,237	3.35
Operating Income	16,499,661	10,250,126	(6,249,535)	-37.88
Non-Operating Revenue (Expenses)	(4,438,874)	(5,314,895)	876,021	19.74
Net Income (Loss)	\$12,060,786	\$4,935,231	(\$7,125,555)	-59.08%

Source: Lansing Board of Water and Light

The variance in BWL's Net Income was primarily the result of major storm restoration in fall 2023 with costs of \$4.2 million and a \$1.1 million decrease in the fair market value of investments due to increases in interest rates. Storm expenses have been submitted to FEMA for eligible recovery following the state issued declaration of emergency. The shortfall in electric wholesale sales was primarily due to lower than budgeted market prices.

PENSION AND RETIREMENT SYSTEMS

The BWL sponsors three types of retirement plans for the exclusive benefit of employees, retirees, and their dependents:

- 1. The Lansing Board of Water and Light Defined Benefit Plan & Trust for Employees' Pensions (the "Defined Benefit Plan and Trust"): A tax-qualified, single-employer, noncontributory, pension plan for public employees.
- 2. The Lansing Board of Water and Light Defined Contribution Plan and Trust 1 (the "Defined Contribution Plan and Trust"): A tax-qualified, single-employer, noncontributory, participant-directed, retirement savings plan.
- 3. The Post-Retirement Benefit Plan and Trust for Eligible Employees of the Lansing Board of Water and Light (the "Retiree Benefit Plan and Trust): A tax-qualified, single-employer, defined-benefit plan to administer and fund retiree healthcare benefits.

Defined Benefit Plan and Trust

The Defined Benefit Plan and Trust was established by the BWL in 1939 under Section 5-203 of the City Charter and has been revised several times. The latest revision took effect on July 1, 2010.

The Defined Benefit Plan and Trust was closed to employees hired after December 31, 1996. At that time, participants were required to make an irrevocable choice to either remain in this plan or move to the newly established defined contribution plan. Of 760 employees required to make this choice, 602 elected to convert their retirement benefits and received a lump-sum distribution that was rolled into the newly established defined contribution plan. As a result of this action, effective December 1, 1997, the Board of Commissioners transferred \$75,116,470 to the newly established Defined Contribution Plan and Trust.

The Defined Benefit Plan and Trust provides retirement, early retirement, disability, termination, and death benefits. The Plan provides for an annual benefit upon normal retirement age equal to the product of the total number of years of credited service multiplied by a percentage equal to 1.80% of the highest annual pay during the last 10 years of service, paid in equal monthly installments.

Payments will be non-increasing or increasing only as follows: (i) by an annual percentage increase that does not exceed the annual percentage increase in a cost-of-living index that is based on prices of all items and issued by the Bureau of Labor Statistics; (ii) to the extent of the reduction in the amount of the employee's payments to provide for a survivor benefit upon death, but only if the beneficiary dies or is no longer the employee's beneficiary; (iii) to provide cash refunds of employee contributions upon the employee's death; or (iv) to pay increased benefits that result from a plan amendment.

Article 9, Section 24 of the State of Michigan Constitution requires that financial benefits arising on account of employee service rendered in each year be funded during that year. Accordingly, the BWL Pension Board retains an independent actuary to determine the annual contribution. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. There was no contribution needed for the fiscal years ended June 30, 2022 and 2023.

Net Pension Liability – The components of the net pension liability of the BWL at June 30, 2022 and June 30, 2023 were as follows (in thousands):⁽¹⁾

	<u>2022</u>	<u>2023</u>
Total pension liability	\$47,887	\$44,514
Plan fiduciary net position	\$50,659	\$49,523
Plan's net pension liability	<u>(\$2,772)</u>	<u>(\$5,009)</u>
Funded Status	105.79%	111.25%

⁽¹⁾ Due to rounding, values may not add up or percentages may not precisely calculate. Source: Lansing Board of Water and Light

Actuarial Assumptions – The total pension liability in the June 30, 2023 actuarial valuation was determined using the following actuarial assumptions applied to each annual period included in the measurement: inflation, 2.25%; salary increases, 3.50%; investment rate of return, 6.00%; discount rate, 6.00%. Mortality rates were based on the Pre and Post retirement – PUB-2010 General Employees Mortality Table, Male and Female, projected generationally using the MP-2021 improvement scale.

Defined Contribution Plan and Trust

The Defined Contribution Plan and Trust was established by the BWL in 1997 under Section 5-203 of the City Charter. The Defined Contribution Plan covers substantially all full-time employees hired after December 31, 1996. In addition, 602 employees hired before January 1, 1997 elected to convert their retirement benefits from the Defined Benefit Plan effective December 1, 1997.

The Defined Contribution Plan operates as a money purchase pension plan and meets the requirements of Section 401(a) and 501(a) of the IRC of 1986, as amended from time to time.

For employees hired before January 1, 1997, the BWL is required to contribute 15.0% of the employees' compensation. For employees hired after January 1, 1997, the BWL is required to contribute 9.5% of the employees' compensation. In addition, the BWL is required to contribute 3.0% of the employees' compensation for all employees who are not eligible to receive overtime pay and 0.5% of the employees' compensation for all non-bargaining employees.

During the years ended June 30, 2022 and 2023, the BWL contributed \$11,134,555 and \$11,648,704, respectively.

Retiree Benefit Plan and Trust

The Retiree Benefit Plan and Trust (the "Plan") is a single-employer defined benefit healthcare plan. In October 1999, the BWL established the Plan as a Voluntary Employee Beneficiary Association ("VEBA") under Section 501(c)(9) of the Internal Revenue Code of 1986, as amended. The Plan provides medical, dental, and life insurance benefits in accordance with Section 5-203 of the City Charter. Substantially all BWL employees may become eligible for lifetime healthcare benefits and life insurance benefits if they reach normal retirement age while working for the BWL. There were 753 participants eligible to receive benefits as of June 30, 2023.

The purpose of the associated trust is to accumulate assets sufficient to fund retiree healthcare insurance costs in future years. During the years ended June 30, 2022 and 2023, the cost to the BWL of maintaining the Plan was \$13,492,757 and \$68,076, respectively. The BWL establishes its minimum contribution based on the actuarially determined rate.

Funding status and funding progress trend information is as follows:

Market Value <u>Of Assets</u>	Total OPEB <u>Liability</u>	Net <u>OPEB Liability</u>	Funded <u>Status</u>	Covered Payroll	Net OPEB Liability as a % of <u>Covered Payroll</u>
\$195,158,575	\$148,549,677	(\$46,608,898)	131.38%	\$56,785,166	-82.08%
198,804,802	154,602,686	(44,202,116)	128.59	58,198,143	-75.95
247,743,227	147,644,491	(100,098,736)	167.80	60,269,205	-166.09
228,140,094	156,408,876	(71,731,218)	145.86	62,975,762	-113.90
238,470,571	163,828,911	(74,641,660)	145.56	69,744,202	-107.02
	<u>Of Assets</u> \$195,158,575 198,804,802 247,743,227 228,140,094	Of AssetsLiability\$195,158,575\$148,549,677198,804,802154,602,686247,743,227147,644,491228,140,094156,408,876	Of AssetsLiabilityOPEB Liability\$195,158,575\$148,549,677(\$46,608,898)198,804,802154,602,686(44,202,116)247,743,227147,644,491(100,098,736)228,140,094156,408,876(71,731,218)	Of AssetsLiabilityOPEB LiabilityStatus\$195,158,575\$148,549,677(\$46,608,898)131.38%198,804,802154,602,686(44,202,116)128.59247,743,227147,644,491(100,098,736)167.80228,140,094156,408,876(71,731,218)145.86	Of AssetsLiabilityOPEB LiabilityStatusCovered Payroll\$195,158,575\$148,549,677(\$46,608,898)131.38%\$56,785,166198,804,802154,602,686(44,202,116)128.5958,198,143247,743,227147,644,491(100,098,736)167.8060,269,205228,140,094156,408,876(71,731,218)145.8662,975,762

Source: Lansing Board of Water and Light

Actuarial Assumptions – The total OPEB liability in the June 30, 2023 actuarial valuation was determined using the following actuarial assumptions applied to all periods included in the measurement: inflation, 2.25% annually; projected healthcare trend rates ranging from 4.00-7.25% annually; amortization method, level dollar over a 27-year period; investment rate of return, 6.50% annually; discount rate, 6.50% annually. Mortality rates were based on the Pre and Post retirement – [PUBH-2010] General Employees Mortality Table, Male and Female, projected generationally using the MP-2021 improvement scale.

RETURN ON CITY EQUITY

The City and BWL have been parties to a return on equity agreement since 1992. The agreement requires BWL to pay a portion of those BWL revenues derived from the retail and wholesale sales of electricity, steam, water, and chilled water to the City annually.

Effective July 1, 2022, the parties amended the agreement as follows. The BWL agreed to pay a flat percentage of 6% on all operating revenues, excluding inter-utility sales from providing retail water, electric, steam, and chilled water services. This amended agreement is valid for two years, through June 30, 2024.

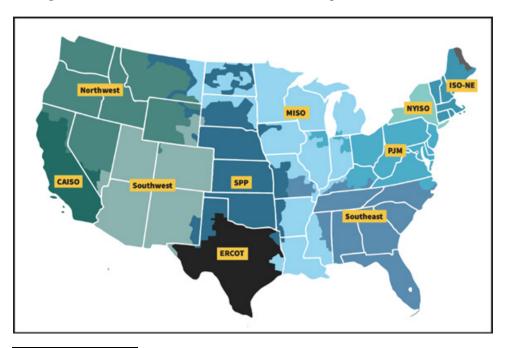
Fiscal Year Ended June 30	Payment to City
2019	\$21,110,884
2020	23,100,000
2021	25,000,000
2022	25,000,000
2023	26,428,992

Source: Lansing Board of Water and Light

CERTAIN RISK FACTORS AFFECTING THE ELECTRIC UTILITY INDUSTRY

The Electric Utility Industry Generally

The electric utility industry has been, and in the future may be, affected by a number of factors which could affect the financial condition of electric utilities, such as the Electric Utility. Such factors include, among others, (i) effects of compliance with rapidly changing environmental, safety, licensing, regulatory and legislative requirements, (ii) changes resulting from energy waste reduction and demand-side management programs on the timing and use of electric energy, (iii) other federal and state legislative changes particularly with respect to renewable energy requirements, (iv) "self-generation" and distributed generation by customers, (v) issues relating to the ability to issue tax-exempt obligations, (vi) restrictions on the ability to sell electricity from generation projects financed with outstanding tax-exempt obligations to non-governmental entities, (vii) changes from projected future load requirements, (viii) increases in costs, (ix) shifts in the availability and relative costs of different fuels, (x) restructuring of the electric industry, (xi) supply chain constraints, (xii) cybersecurity and physical security threats, and (xiii) extreme weather. Some of these factors are discussed in greater detail below.



Regional Transmission Organization, Midwest Market, and Wholesale Competition

Source: Federal Energy Regulatory Commission, Lansing Board of Water and Light

General. Traditional wholesale electricity markets exist primarily in the Southeast, Southwest and Northwest where utilities are responsible for system operations and management, and, typically, for providing power to retail consumers. Utilities in these markets are frequently vertically integrated – they own the generation, transmission and distribution systems used to serve electricity consumers. They may also include federal systems, such as the Bonneville Power Administration, the Tennessee Valley Authority and the Western Area Power Administration. Wholesale physical power trade typically occurs through bilateral transactions, and while the industry had historically traded electricity through bilateral transactions and power pool agreements, FERC Order No. 888 promoted the concept of independent system operators (ISOs).

Along with facilitating open-access to transmission, ISOs operate the transmission system independently of, and foster competition for electricity generation among, wholesale market participants. Several groups of transmission owners formed ISOs, some from existing power pools. In FERC Order No. 2000, the Commission encouraged utilities to join regional transmission organizations (RTOs) which, like an ISO, would operate the transmission systems and develop innovative procedures to manage transmission equitably. Each of the ISOs and RTOs have energy and ancillary services markets in which buyers and sellers could bid for or offer generation. The ISOs and RTOs use bid-based markets to determine economic dispatch. While major sections of the country operate under more traditional market structures, two-thirds of the nation's electricity load is served in RTO regions.

Exposure to Dealings with Third Parties. The BWL manages all trading with 3rd parties in accordance with its Risk Management Program. All forward trading is limited to hedging exposure of physical assets. Forward trading involves fuel purchasing for power plant use, power purchases as necessary for retail load requirements and power sales when excess generation is available and economic. The BWL does have several long-term power purchase agreements for its renewable portfolio. The BWL believes that its exposure to these agreements is negligible.

FERC Initiatives. On July 20, 2006, FERC issued Order No. 679, which adopted incentive based rate treatment for transmission of electricity in interstate commerce by public utilities. This final rule is intended to encourage transmission infrastructure investment. The ITC has approval to automatically adjust transmission rates based on a forward looking test year, which will make it more likely transmission rates will increase. It has also received approval to collect incentive rates for transmission service. This could increase transmission costs for the Electric Utility. However, BWL currently has point to point customers and only buys transmission when resources are not available.

The FERC has approved a MISO tariff request to create a new category of transmission projects referred to as Multi Value Projects ("MVP"). The MISO Tariff requires annual review of all approved MVP portfolios for a period of six years after approval. These reviews provide an updated view into the projected economic, public policy and qualitative benefits of

the approved MVP Portfolio to identify potential modifications to the project criteria and cost allocation methodologies for projects to be approved at a future date. MVP reviews do not impact the existing MVP Portfolio approval status or cost allocation. MISO's rate request results in the cost of these projects being charged to all transmission customers regardless of where the project occurs in the MISO footprint or to whom the benefits may accrue. In the future, MVP transmission related rate increases could be significant to most transmission customers. Because of its GFA carve-out and generation connected to its system, the BWL does not anticipate that the MVP rate treatment will have a significant impact on its electric transmission costs or its financial condition.



Midcontinent (MISO)

Source: Federal Energy Regulatory Commission, Lansing Board of Water and Light

The Midcontinent Independent System Operator. MISO, which was originally created under FERC's jurisdiction to assure open and non-discriminatory access to the bulk transmission system, has substantially expanded its activities. MISO has effectively implemented a version of FERC's Standard Market Design which is known as the "Midwest Market Initiative" (Midwest Market) and "MISO Day 2." Under the Midwest Market arrangements, MISO has significantly changed wholesale electric purchases, sales, and operations within its footprint. The Electric Utility is a market participant of and is affected by the Midwest Market.

MISO performs the following services for the Midwest Market:

- 1. MISO performs scheduling and dispatching of most of the electric generating units in the MISO footprint. The goal of this is to achieve lower cost energy through a more efficient dispatch of resources than can be obtained by utilities making separate generation scheduling and dispatching decisions.
- 2. MISO has replaced traditional transmission congestion management where transmission transactions were interrupted to relieve congestion with an arrangement that uses generation re-dispatch and energy pricing signals to encourage transmission users to avoid transactions that cause transmission congestion. Under this arrangement, MISO will use generation re-dispatch as much as possible to relieve transmission congestion, and only interrupt transactions as a last resort.
- 3. MISO operates day-ahead and real time energy and ancillary services markets based on the Locational Marginal Price ("LMP") at the various injection and withdrawal points on the transmission grid. LMP is calculated by MISO as the cost to supply the next increment of load using the bids that have been made by market participants to either supply additional energy or reduce energy usage.

4. MISO implemented its ancillary services and operating reserves market in January 2009. Ancillary services include regulation and operating reserves that market participants can self-supply or purchase from the MISO. Suppliers can sell these services to other market participants.

Beginning in January 2011, the BWL became a market participant with a load and a generation asset in the Midwest Market. The BWL has placed Delta Energy Park and the REO Town Plant "behind the meter" and uses its GFA from Belle River to serve retail customers. This configuration allows the Electric Utility to minimize transmission costs, participate in the Midwest Market, and maintain reliability.

In the future, the BWL may consider placing part or all of its generation "in front of the meter" should that configuration produce economic benefits or improved reliability.

Participation in the Midwest Market has had a net positive impact on the BWL's electric operations. The BWL sells excess generation into wholesales markets on an hourly basis at LMP prices and to third parties for durations ranging from one day up to three years. In addition, the BWL sells excess capacity used by third parties for compliance with MISO's Planning Reserve Margin requirements on an annual basis consistent with MISO's planning year.

The BWL's wholesale portfolio consists of seasonal and opportunity sales. Aside from day-ahead sales into the Midwest Market, all of the Electric Utility's sales are system firm, and the Electric Utility is not obligated to provide electric energy in the event units are unavailable. The Electric Utility has used the system firm sale structure for the past twelve years.

Retail Wheeling. The State of Michigan enacted the "Customer Choice and Electric Reliability Act" ("PA 141") in 2000 as a means to promote electric competition in Michigan. The Electric Utility was subject to PA 141 until October of 2008. Between 2000 and 2008, the Electric Utility did not lose any customers to alternate electric suppliers. In October 2008, the Michigan Legislature adopted major changes to the electric utility industry in Michigan through PA 295 of 2008 and PA 141 as amended by PA 286 of 2008. Most of the changes affected utilities under the jurisdiction of the MPSC, which are investor-owned utilities and certain electric cooperative utilities. Since municipal utilities are not under the jurisdiction of the MPSC, many of the changes did not affect the Electric Utility. However two provisions in the legislation were applicable to the Electric Utility. The first required all electric utilities to meet certain renewable energy and energy waste reduction standards. The second changed the scope of Michigan's retail customer choice program, relieving municipal utilities of any obligation to offer retail customer choice in their service territories. With this change, the Electric Utility is no longer subject to retail electric competition within its service territory. It remains subject to competition with neighboring utilities for new customers that locate in areas served by both the neighboring utilities and the Electric Utility, except within the Lansing city boundaries within which only the Electric Utility can serve.

Renewable Energy and Energy Waste Reduction Standards

In October 2008, the Michigan Legislature adopted Public Act 295 ("PA 295"), which required all Michigan electric utilities to meet certain renewable energy and energy efficiency (now known as energy waste reduction) targets. Starting in 2012, the renewable energy standards were phased-in over four years and required each utility to purchase or generate a growing percentage of the power used to serve its retail customers from a qualifying renewable energy facility (as defined by the State). Each megawatt hour ("MWh") produced by a qualifying renewable energy facility creates one REC that can be used to meet the renewable energy standard. Incentive renewable energy credits are provided for Michigan-made sources that meet certain characteristics. Utilities comply with the requirements by either generating electric energy from qualifying facilities, or by purchasing RECs from third-party facilities that have already generated the electricity and have a surplus of RECs. The current renewable energy standard is 15%, which the BWL achieved by the compliance deadline of 2021 and continues to achieve on an annual basis through the production of its power purchase agreements with Michigan solar and wind facilities.

PA 295 also required each Michigan electric utility to meet energy efficiency (i.e., energy waste reduction) targets. The goal of the energy waste reduction standard is to reduce electric energy consumption by retail customers through deployment of energy efficient appliances and devices. Each year after 2012, PA 295 required electric utilities to save 1% of retail energy sales through energy waste reduction programs.

Updates passed by the Michigan legislature in 2016 lifted the mandate for energy waste reduction goals for municipal utilities after 2021. Despite no longer being required to report energy waste reduction goals and achievements to the state of Michigan, the BWL has made a commitment to its energy waste reduction programs for customers and continues to increase its targets, with a goal to save 1.5% of retail energy sales beginning in year 2024 and every year thereafter.

The BWL's most recent Strategic Plan ensures that the BWL has reached the target set forth in its 2016 Strategic Plan to of 30% electric retail sales from clean energy by the end of 2020. "Clean energy" is combined cumulative energy waste reduction savings and renewable energy generation the BWL's next strategic target is to generate 50% electric retail sales from clean energy by 2050 and is well on track to meet that target. With the addition of the Clean Energy Projects announced as part of the All-Source RFP, the BWL would exceed targets set forth in the MI Healthy Climate Plan for renewable energy and battery storage specifically.

Collectively, the renewable energy and energy efficiency programs have provided environmental compliance and generation planning benefits to the Electric Utility and have been popular with customers of the BWL. These programs will continue to grow and add additional resources to the Electric Utility's portfolio while contributing to the goal of carbon neutrality by 2040.

Inflation Reduction Act and Infrastructure Investment And Jobs Act

On January 27, 2021, President Biden signed executive actions that make climate change both a domestic and foreign policy goal for the United States. The executive actions, among other things, directed the Secretary of Interior to pause on entering new oil and natural gas leases on public lands or offshore waters. The executive actions also describe a plan to achieve a carbon-free electricity sector by 2035 and nationwide net-zero emissions by 2050. There have also been multiple federal legislative proposals to reduce GHG emissions and to provide for increased usage of alternative and clean energy. Congress introduced two historic bills: the Infrastructure Investment and Jobs Act of 2021 ("IIJA") and the Inflation Reduction Act of 2022 ("IRA"). The IIJA has allocated \$1.2 trillion for infrastructure spending, with \$550 billion designated for new investments and programs. Meanwhile, the IRA offers tax credits and other incentives to promote investment in infrastructure initiatives, reducing the cost of construction and spurring job growth.

In recognition of the unprecedented opportunity created through the IIJA and IRA, the BWL established a dedicated staff position focused on Grant Acquisition, Grant Management and elective pay opportunities made possible by the IRA. Given the magnitude, complexity and evolving nature of these programs and inherent time constraints, the BWL engaged with Baker Tilly, a top ten advisory tax and assurance firm, to provide additional expertise and support to the BWL's efforts under these historic Acts. To date, grant awards are over \$60 million and anticipated elective pay for planned clean energy projects are expected to provide \$40 million in capital cost offsets. The BWL is actively scanning the grant landscape at the federal, state, and local levels to grow BWL's grant and electric pay revenue streams.

United Auto Workers Strike

On September 29, 2023, the United Auto Workers ("UAW") at GM's Lansing Delta Plant went on strike. The strike only impacted one of the two Lansing area assembly plants and the UAW and GM came to a tentative agreement within roughly 30 days. As a result, the financial impact to the BWL was minimal, particularly given that a portion of revenues from GM are fixed in nature and the BWL has the ability to sell any excess generation to the wholesale market.

LITIGATION

There is no litigation pending or, to the knowledge of the BWL, threatened in any court (either state or federal) restraining or enjoining the issuance or delivery of the Bonds, or questioning (i) the proceedings under which the Bonds are to be issued, (ii) the validity of the Bonds, (iii) the pledge by the BWL of the moneys and other property pledged under the Bond Resolution, or (iv) the legal existence of the BWL or the City or the title to office of the present officials of the BWL or the City.

BOND RATINGS

Moody's Investors Service and S&P Global Ratings, a Standard & Poor's Financial Services LLC business, have assigned their ratings of "Aa3" (stable outlook) and "AA-" (stable outlook) respectively, to the Bonds. No application was made to any other rating agency for the purpose of obtaining an additional rating on the Bonds. The BWL has furnished to the rating agencies certain information to be considered in evaluating the Bonds. The above ratings reflect the independent judgments of the rating agencies and there is no assurance that such ratings will prevail for any given period of time or that they will not be revised or withdrawn entirely by such rating agency, if, in the judgment of such rating agency, circumstances so warrant. Any such revision or withdrawal of such ratings may have an effect on the market price of the Bonds. A securities rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time.

MUNICIPAL FINANCE QUALIFYING STATEMENT

The BWL has filed a Qualifying Statement for the fiscal year ended June 30, 2023. The Michigan Department of Treasury has determined that the BWL is in material compliance with the criteria identified in Act 34 of the Public Acts of Michigan 2001, as amended.

TAX MATTERS

In the opinion of Miller, Canfield, Paddock and Stone, P.L.C., Bond Counsel to the Board, under existing law, the interest on the Bonds is excludable from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax. Bond Counsel is also of the opinion that, under existing law, the Bonds and the interest thereon are exempt from all taxation by the State of Michigan or by any taxing authority within the State of Michigan, except estate taxes and taxes on gains realized from the sale, payment or other disposition thereof. Bond Counsel will express no opinion regarding any other federal or state tax consequences arising with respect to the Bonds and the interest thereon.

The opinion on federal tax matters is based on the accuracy of certain representations and certifications, and continuing compliance with certain covenants, of the Board contained in the transcript of proceedings and which are intended to evidence and assure the foregoing, including that the Bonds are and will remain obligations the interest on which is excludable from gross income for federal income tax purposes. The Board has covenanted to take the actions required of it for the interest on the Bonds to be and to remain excludable from gross income for federal income tax purposes, and not to take any actions that would adversely affect that exclusion. Bond Counsel's opinion assumes the accuracy of the Board's certifications and representations and the continuing compliance with the Board's covenants. Noncompliance with these covenants by the Board may cause the interest on the Bonds to be included in gross income for federal income tax purposes retroactively to the date of issuance of the Bonds. After the date of issuance of the Bonds, Bond Counsel will not undertake to determine (or to so inform any person) whether any actions taken or not taken, or any events occurring or not occurring, or any other matters coming to Bond Counsel's attention, may adversely affect the exclusion from gross income for federal income for federal income tax purposes income for federal income tax purposes.

The opinion of Bond Counsel is based on current legal authority and covers certain matters not directly addressed by such authority. It represents Bond Counsel's legal judgment as to the excludability of interest on the Bonds from gross income for federal and State of Michigan income tax purposes but is not a guarantee of that conclusion. The opinion is not binding on the Internal Revenue Service ("IRS") or any court. Bond Counsel cannot give and has not given any opinion or assurance about the effect of future changes in the Internal Revenue Code of 1986, as amended (the "Code"), the applicable regulations, the interpretations thereof or the enforcement thereof by the IRS.

Ownership of the Bonds may result in collateral federal income tax consequences to certain taxpayers, including, without limitation, corporations subject to the branch profits tax, corporations (as defined in Section 59(k) of the Code) subject to the alternative minimum tax, financial institutions, certain insurance companies, certain S corporations, individual recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred (or continued) indebtedness to purchase or carry the Bonds. Bond Counsel will express no opinion regarding any such consequences.

Tax Treatment of Accruals on Original Issue Discount Bonds

Under existing law, if the initial public offering price to the public (excluding bond houses and brokers) of a Bond is less than the stated redemption price of such Bonds at maturity, then such Bond is considered to have "original issue discount" equal to the difference between such initial offering price and the amount payable at maturity (such Bonds are referred to as "OID Bonds"). Such discount is treated as interest excludable from federal gross income to the extent properly allocable to each registered owner thereof. The original issue discount accrues over the term to maturity of each such OID Bonds on the basis of a constant interest rate compounded at the end of each six-month period (or shorter period) from the date of original issue with straight-line interpolations between compounding dates. The amount of original issue discount accruing during each period is added to the adjusted basis of such OID Bonds to determine taxable gain upon disposition (including sale, redemption or payment on maturity) of such OID Bonds.

The Code contains certain provisions relating to the accrual of original issue discount in the case of purchasers of OID Bonds who purchase such OID Bonds after the initial offering of a substantial amount thereof. Owners who do not

purchase such OID Bonds in the initial offering at the initial offering prices should consult their own tax advisors with respect to the tax consequences of ownership of such OID Bonds.

All holders of the OID Bonds should consult their own tax advisors with respect to the allowance of a deduction for any loss on a sale or other disposition of an OID Bond to the extent such loss is attributable to accrued original issue discount.

Amortizable Bond Premium

For federal income tax purposes, the excess of the initial offering price to the public (excluding bond houses and brokers) at which a Bond is sold over the amount payable at maturity thereof constitutes for the original purchasers of such Bonds (collectively, the "Original Premium Bonds") an amortizable bond premium. Bonds other than Original Premium Bonds may also be subject to an amortizable bond premium determined generally with regard to the taxpayer's basis (for purposes of determining loss on a sale or exchange) and the amount payable on maturity or, in certain cases, on an earlier call date (such bonds being referred to herein collectively with the Original Premium Bonds as the "Premium Bonds"). Such amortizable bond premium is not deductible from gross income. The amount of amortizable bond premium allocable to each taxable year is generally determined on the basis of the taxpayer's yield to maturity determined by using the taxpayer's basis (for purposes of determining loss on sale or exchange) of such Premium Bonds and compounding at the close of each sixmonth accrual period. The amount of amortizable bond premium allocable to maturity or adjusted basis of such Premium Bonds to determine taxable gain upon disposition (including sale, redemption or payment at maturity) of such Premium Bonds.

All holders of the Premium Bonds should consult with their own tax advisors as to the amount and effect of the amortizable bond premium.

Market Discount

The "market discount rules" of the Code apply to the Bonds. Accordingly, holders acquiring their Bonds subsequent to the initial issuance of the Bonds will generally be required to treat market discount recognized under the provisions of the Code as ordinary taxable income (as opposed to capital gain income). Holders should consult their own tax advisors regarding the application of the market discount provisions of the Code and the advisability of making any of the elections relating to market discount allowed by the Code.

Information Reporting and Backup Withholding

Information reporting requirements apply to interest paid after March 31, 2007 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 unless the recipient is one of a limited class of exempt recipients, including corporations. 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 the Bonds through a brokerage account has executed a Form W-9 in connection with the establishment of such account 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 IRS.

Future Developments

Bond Counsel's engagement with respect to the Bonds ends with the issuance of the Bonds and, unless separately engaged, Bond Counsel is not obligated to defend the Board in the event of an audit examination by the IRS. The IRS has a program to audit tax-exempt obligations to determine whether the interest thereon is includible in gross income for federal income tax purposes. If the IRS does audit the Bonds, under current IRS procedures, the IRS will treat the Board as the taxpayer and the beneficial owners of the Bonds will have only limited rights, if any, to obtain and participate in judicial review of such audit.

No assurance can be given that any future legislation or clarifications or amendments to the Code, if enacted into law, will not contain proposals which could cause the interest on the Bonds to be subject directly or indirectly to federal or State of Michigan income taxation or otherwise prevent the holders from realizing the full current benefit of the status of the interest thereon. In addition, such legislation, whether currently proposed, proposed in the future or enacted, could adversely affect the market price or marketability of the Bonds. Bond Counsel expresses no opinion regarding any pending or proposed federal or State of Michigan tax legislation.

Further, no assurance can be given that any actions of the IRS, including, but not limited to, selection of the Bonds for audit examination, or the course or result of any examination of the Bonds, or other bonds which present similar tax issues, will not affect the market price of the Bonds.

Investors should consult with their tax advisors as to the tax consequences of their acquisition, holding or disposition of the Bonds, including the impact of any pending or proposed federal or State of Michigan tax legislation.

LEGAL MATTERS

Legal matters incident to the authorization, issuance and sale of the Bonds are subject to the approval of Miller, Canfield, Paddock and Stone, P.L.C., Lansing and Detroit, Michigan, Bond Counsel. A copy of the opinion of Bond Counsel will be delivered with the Bonds, which opinion will be substantially in the form as set forth in Appendix E. The fees of Miller, Canfield, Paddock and Stone, P.L.C. for services rendered in connection with their approving opinion are expected to be paid from the proceeds of the Bonds. Certain matters will be passed on for the Underwriters by their counsel, Dykema Gossett PLLC, Lansing, Michigan.

Miller, Canfield, Paddock and Stone, P.L.C. is presently representing BofA Securities Inc., the representative of the Underwriters, in connection with matters unrelated to the issuance of the Bonds. Miller, Canfield, Paddock and Stone, P.L.C. has not, and will not, represent the Underwriters with respect to any matters relating to the issuance or sale of the Bonds.

Dykema Gossett PLLC has represented the BWL in connection with matters unrelated to the issuance of the Bonds. Dykema Gossett PLLC has not, and will not, represent the BWL with respect to any matters relating to the issuance or sale of the Bonds.

UNDERWRITING

The Bonds are being purchased from the BWL, subject to certain conditions, by BofA Securities, on behalf of itself and the other Underwriters for the Bonds listed on the cover page of this Official Statement comprising a syndicate for the purchase of the Bonds (collectively, the "Underwriters"). The Bond Purchase Agreement provides for the Underwriters to purchase all of the Bonds, if any are purchased, at a purchase price of \$405,190,275.91, representing the \$364,625,000.00 principal amount of the Bonds, plus premium of \$41,845,753.65, less an underwriters' discount of \$1,280,477.74.

The Bond Purchase Agreement provides that the obligations of the Underwriters are subject to certain conditions, including, among other things, that the market price of the Bonds or their marketability shall not have been materially adversely affected by the occurrence of certain events.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the BWL for which they received and will receive customary fees and expenses.

BofA Securities, as an underwriter of the Bonds, has entered into a distribution agreement with its affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S"). As part of this arrangement, BofA Securities may distribute securities to MLPF&S, which may in turn distribute such securities to investors through the financial advisor network of MLPF&S. As part of this arrangement, BofA Securities may compensate MLPF&S as a dealer for their selling efforts with respect to the Bonds.

J.P. Morgan Securities LLC ("JPMS"), one of the Underwriters of the Bonds, has entered into negotiated dealer agreements (each, a "Dealer Agreement") with each of Charles Schwab & Co., Inc. ("CS&Co.") and LPL Financial LLC ("LPL") for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer

Agreement, each of CS&Co. and LPL may purchase Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any Bonds that such firm sells.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the BWL.

Certain of the Underwriters have entered into distribution agreements with other broker-dealers for the distribution of the Bonds at the initial public offering prices. Such agreements generally provide that the relevant Underwriter will share a portion of its underwriting compensation or selling concession with such broker-dealers.

MUNICIPAL ADVISOR TO THE BWL

PFM Financial Advisors LLC, has served as municipal advisor (the "Municipal Advisor") to the BWL with respect to the issuance of the Bonds. The BWL has retained PFM Financial Advisors LLC as Municipal Advisor in connection with various matters relating to the delivery of the Bonds. The Municipal Advisor assumes no responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement. The Municipal Advisor is an independent advisory firm and is not engaged in the underwriting or distribution of securities.

CONTINUING DISCLOSURE UNDERTAKING

Prior to delivery of the Bonds, the BWL will execute a Continuing Disclosure Undertaking (the "Undertaking") for the benefit of Beneficial Owners (as defined in the Undertaking) of the Bonds to cause certain annually updated information and notice of certain events to be filed with the MSRB by electronic transmission through the Electronic Municipal Market Access Dataport of the MSRB, pursuant to the requirements of Section (b)(5) of Rule 15c2-12 (the "Rule") adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended. The information to be provided on an annual basis, the events which will be noticed on an occurrence basis and the other terms of the Undertaking are as set forth in "Appendix F – FORM OF CONTINUING DISCLOSURE UNDERTAKING" to this Official Statement.

A failure by the BWL to comply with the Undertaking will not constitute an event of default under the Bond Resolution and Beneficial Owners of the Bonds are limited to the remedies described in the Undertaking.

The BWL has not failed to comply with the requirements as described in Section (b)(5) of the Rule of any undertaking made by the BWL for the previous five years.

A failure by the BWL to comply with the undertaking must be reported by the BWL in accordance with the Rule and must be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the Bonds in the secondary market. Consequently, such failure may adversely affect the transferability and liquidity of the Bonds and their market price.

THE BWL'S DISCLOSURE DISSEMINATION AGENT

In order to provide continuing disclosure with respect to the Bonds, the BWL has entered into a Disclosure Dissemination Agent Agreement ("Disclosure Dissemination Agreement") with Digital Assurance Certification, LLC ("DAC"), under which the BWL has designated DAC as Disclosure Dissemination Agent.

The Disclosure Dissemination Agent has only the duties specifically set forth in the Disclosure Dissemination Agreement. The Disclosure Dissemination Agreement is limited to the extent the BWL has provided such information to the Disclosure Dissemination Agreement is limited to the extent the BWL has provided such information to the Disclosure Dissemination Agreement. The Disclosure Dissemination Agent has no duty or obligation to review or verify any information in the Annual Financial Information, Audited Financial Statements, notice of the occurrence of reportable events or voluntary disclosures, or any other information, disclosures or notices provided to it by the BWL and shall not be deemed to be acting in any fiduciary capacity for the BWL, the Bondholders or any other party. The Disclosure Dissemination Agent has no responsibility for the BWL is failure to report to the Disclosure Dissemination Agent a Notice Event or a duty to determine the materiality thereof. The Disclosure Dissemination Agent shall have no duty to determine or liability for failing to determine whether the BWL has complied with the Disclosure Dissemination Agreement. The Disclosure Dissemination Agreement.

MISCELLANEOUS

All information contained in this Official Statement is subject, in all respects, to the complete body of information contained in the original source thereof and no guaranty, warranty or other representation is made concerning the accuracy or completeness of such information. In particular, no opinion or representation is rendered as to whether any projection will approximate actual results, and all opinions, estimates and assumptions, whether or not expressly identified as such, should not be considered statements of fact.

The execution and delivery of this Official Statement by the BWL's Chief Financial Officer have been duly authorized by the BWL.

Lansing Board of Water and Light

By: /s/ Heather Shawa

Heather Shawa

Its: Chief Financial Officer

Appendix A

GENERAL INFORMATION REGARDING THE CITY OF LANSING

The following information on the City of Lansing, Counties of Ingham and Eaton, State of Michigan (the "City") is provided for informational purposes only. The Bonds are payable solely from the Net Revenues of the System. See "THE BONDS." The Bonds are not a general obligation of the City, and neither the full faith and credit nor the taxing power of the City is pledged to the payment of the principal of and interest on the Bonds. The Bonds do not constitute an indebtedness of the City within any constitutional, statutory or charter limitation. [THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX A

CITY OF LANSING GENERAL FINANCIAL, ECONOMIC & STATISTICAL INFORMATION

Description

The City of Lansing, Counties of Ingham, Eaton and Clinton, State of Michigan (the "City"), the capital of the State of Michigan (the "State"), encompasses an area of approximately 35 square miles in the northwestern corner of Ingham County, the northeastern corner of Eaton County, and along the southern border of Clinton County.

The City is located the following distances from these commercial and industrial areas:

63 miles northwest of Ann Arbor65 miles southeast of Grand Rapids73 miles northeast of Kalamazoo85 miles northwest of Detroit

Property Valuations

Article IX, Section 3, of the Michigan Constitution provides that the proportion of true cash value at which property shall be assessed shall not exceed 50% of true cash value. The Michigan Legislature by statute has provided that property shall be assessed at 50% of its true cash value, except as described below. The Michigan Legislature or the electorate may at some future time reduce the percentage below 50% of true cash value.

On March 15, 1994, the electors of the State approved an amendment to the Michigan Constitution permitting the Legislature to authorize ad valorem taxes on a non-uniform basis. The legislation implementing this constitutional amendment added a new measure of property value known as "Taxable Value." Beginning in 1995, taxable property has two valuations -- State Equalized Valuation ("SEV") and Taxable Value. Property taxes are levied on Taxable Value. Generally, Taxable Value of property is the lesser of (a) the Taxable Value of the property in the immediately preceding year, adjusted for losses, multiplied by the lesser of the inflation rate or 5%, plus additions, or (b) the property's current SEV. Under certain circumstances, therefore, the Taxable Value of property may be different from the same property's SEV.

When property is sold or transferred, Taxable Value is adjusted to the SEV, which under existing law is 50% of the current true cash value. The Taxable Value of new construction is equal to current SEV. Taxable Value and SEV of existing property are also adjusted annually for additions and losses.

Responsibility for assessing taxable property rests with the local assessing officer of each township and city. Any property owner may appeal the assessment to the local assessor, to the local board of review and ultimately to the Michigan Tax Tribunal. The Michigan Constitution also mandates a system of equalization for assessments. Although the assessors for each local unit of government within a county are responsible for actually assessing at 50% of true cash value, adjusted for Taxable Value purposes, the final SEV and Taxable Value are arrived at through several steps. Assessments are established initially by the municipal assessor. Municipal assessments are then equalized to the 50% levels as determined by the county's department of equalization. Thereafter, the State equalizes the various counties in relation to each other. SEV is important, aside from its use in determining Taxable Value for the purpose of levying ad valorem property taxes, because its role in the spreading of taxes between overlapping jurisdictions, the distribution of various State aid programs, State revenue sharing and in the calculation of debt limits.

Property that is exempt from property taxes are: churches, government property, and public schools, and are not included in the SEV and Taxable Value data in the Official Statement. Property granted tax abatements under either Act 198, Public Acts of Michigan, 1974, as amended ("Act 198"), or Act 255, Public Acts of Michigan, 1978, as amended, is recorded on separate tax rolls while subject to tax abatement. The valuation of tax abated property is based upon SEV but is not included in either the SEV or Taxable Value data in the Official Statement except as noted. Under limited circumstances, other State laws permit the partial abatement of certain taxes for other types of property for periods of up to 12 years.

Historical Valuation

Table 1 - Equalized and Taxable Valuation

Tax Year	Fiscal Year Ending June 30	Real Property SEV	Personal Property SEV	Total Assessed (SEV) Valuation	Taxable Valuation
2023	2024	\$3,353,016,852	\$201,680,300	\$3,554,697,152	\$2,800,610,224
2022	2023	3,120,077,143	172,959,000	3,293,036,143	2,661,453,483
2021	2022	2,885,888,700	171,927,400	3,057,816,100	2,498,510,833
2020	2021	2,680,302,476	157,132,900	2,837,435,376	2,327,970,320
2019	2020	2,423,395,000	143,567,100	2,566,962,100	2,177,263,492
2018	2019	2,218,070,700	131,924,900	2,349,995,600	2,078,506,415
2017	2018	2,123,515,400	144,076,700	2,267,592,100	2,022,923,906

Source: Equalization Departments of Clinton, Eaton, and Ingham County

2023 Ad Valorem Taxable Valuation	\$2,800,610,224
Plus: 2023 IFT Equivalent Taxable Value ⁽¹⁾	18,505,479
Total 2023 Ad Valorem Taxable & IFT Valuation:	\$2,819,115,703

⁽¹⁾ See "Industrial Facilities Tax" herein.

Table Per Capita Valuation

Using the City's 2020 Census population of 112,644, the table below provides the per capita valuation by type of valuation.

Table 2 - Per Capita Valuation

2023 Per Capita Taxable Valuation	\$24,862.49
2023 Per Capita State Equalized Valuation	\$31,556.92
2023 Total Taxable & IFT Valuation	\$25,026.77

Source: U.S. Census Bureau

Industrial Facilities Tax

Act 198 provides significant property tax incentives to renovate and expand aging industrial facilities and to build new industrial facilities in Michigan. Under the provisions of Act 198, qualifying cities, villages, and townships may establish districts in which industrial firms are offered certain property tax incentives to encourage restoration or replacement of obsolete industrial facilities and to attract new industrial facilities.

Property tax owners situated in such districts pay an Industrial Facility Tax ("IFT") in lieu of ad valorem taxes on the facility and equipment for a period of up to 12 years. For rehabilitated plant and equipment, the IFT is determined by calculating the product of the TV of the obsolete industrial property in the year before the effective date of the Act 198 abatement certificate multiplied by the total mills levied by all taxing units within which the facility and equipment is situated in the current year. New plants and equipment receiving their abatement certificate prior to January 1, 1994, are taxed at one-half the total mills levied by all taxing units, other than mills levied for local and intermediate school district operating purposes or under the State Education Tax Act, plus one-half of the number of mills levied for school operating purposes in 1993. For new facility abatements granted after 1993, new plants and equipment are taxed at one-half of the total mills levied as ad valorem property taxes by all taxing units within which the facility abatements granted after 1993, new plants and equipment are taxed at one-half of the total mills levied as ad valorem property taxes by all taxing units within which the facility and equipment is situated except mills levied under the State Education Tax Act. For new facility abatements granted after 1993, the State Treasurer may permit abatement of all, none or one-half of the mills levied under the State Education Tax Act. It must be emphasized, however, that ad valorem property taxes on land are not reduced in any way since land is specifically excluded under Act 198.

There are several Act 198 abatements within the City's boundaries. The tax year 2023 equivalent taxable value for all Act 198 abated property within the City's boundaries is \$18,505,479.

Tax Increment Finance Authority ("TIFA")

A TIFA was established within the City in 1981, under the authority of Act 450, Public Acts of Michigan, 1980, commonly referred to as the TIFA Act. The TIFA Act gave the City the authority to designate certain districts within its city limits as TIFA Districts (defined below). The purpose of the TIFA is to create and execute plans for public improvements, economic development, historic preservation, and avoidance of deterioration in property values within these districts through implementing finance and development plans. The TIFA Act also allowed the TIFA to issue debt and finance public infrastructure and facilities by capturing certain taxes levied by other local units of government within the TIFA District.

In 2018, the TIFA Act was repealed and recodified as part of the Recodified Tax Increment Financing Act, Act 57, Public Acts of Michigan, 2018 ("Act 57"), which authorizes the designation of specific districts known as Tax Increment Finance Authority ("TIFA") Districts, Downtown Development Authority ("DDA") Districts, and Local Development Finance Authority ("LDFA") Districts. Act 381 of the Public Act of Michigan, 1996, as amended (the "Brownfield Act") authorizes the designation of specific districts known as Brownfield Redevelopment Authority ("BRDA") Districts. Each of these four types of districts is referred to as a "TIF District". These two acts authorize the formulation of tax increment financing plans for public improvements, economic development, neighborhood revitalization, historic preservation, and environmental cleanup within the TIF Districts.

Tax increment financing permits a TIFA, DDA, LDFA, or BRDA to capture tax revenues attributable to increases in taxable value ("TIF Captured Value") of real and personal property located within an approved development area while any tax increment financing plans by an established TIF District are in place. Subject to an executed reimbursement agreement, up to 100% of these captured revenues are used by the TIF District and portions of the captured tax increment revenues are not passed through to the local taxing authorities.

The table below provides the TIFA's historical, audited Tax Increment Revenue for the fiscal years ending 2018 through 2022.

Fiscal Year	Total Tax Increment	Percent Change in Total
Ending	Revenue	Tax Increment Revenue
2022	\$4,570,190	14.00%
2021	4,009,038	17.27
2020	3,418,580	18.72
2019	2,879,420	-2.40
2018	2,950,103	11.93
	Ending 2022 2021 2020 2019	EndingRevenue2022\$4,570,19020214,009,03820203,418,58020192,879,420

Table 3 - TIFA Historical Tax Increment Revenue

Source: Audited financial statements of the TIFA

Michigan Property Tax Reform

The voters of the State approved enactment of Acts 153 and 154, Public Acts of Michigan, 2013 and Acts 80 and 86 through 93, Public Acts of Michigan, 2014 by referendum on August 5, 2014 (collectively, the "PPT Reform Acts"), which significantly reformed personal property tax in Michigan.

Under the PPT Reform Acts, owners of certain industrial and commercial personal property may file an affidavit claiming a personal property tax exemption. To be eligible for the exemption, all of the commercial or industrial personal property within a city or township that is owned by, leased to, or controlled by the claimant must have an accumulated true cash value of \$80,000 or less. Beginning in calendar year 2016, owners of certain manufacturing personal property that was either purchased after December 31, 2012, or that is at least 10 years old may claim an exemption from personal property tax. In 2022, all eligible manufacturing personal property would be at least 10 years old if purchased after December 31, 2012, and so could be exempted from personal property tax.

To replace personal property tax revenues lost by local governments, including cities, the PPT Reform Acts divided the existing state use tax into two components, a "state share tax" and a "local community stabilization share tax," and established the Local Community Stabilization Authority (the "LCSA") to administer distribution of the local community stabilization share. The Michigan Department of Treasury collects the local community stabilization share tax on behalf of LCSA. The local community stabilization share tax revenues are not subject to the annual appropriations process and are provided to the LCSA for distribution pursuant to a statutory formula. The statutory formula is anticipated to provide 100% reimbursement to local governments for losses due to the new personal property tax exemptions. The LCSA began distributions of the local community stabilization share tax to local governments, including cities, on November 21, 2016. The City received \$1,759,864.79 from the LCSA to replace personal property tax revenue lost during fiscal year ending 2023, per Michigan Department of Treasury.

The ultimate nature, extent and impact of any other future amendments to Michigan's property tax laws on a local unit's finances cannot be predicted. Purchasers of the Bonds should consult with their legal

counsel and financial advisors as to the consequences of any such legislation on the market price or marketability of the Bonds, the security therefore and the operations of the City.

Major Taxpayers

The top ten taxpayers in the City and their tax year 2023 Taxable Valuations and equivalent Industrial Facilities Tax Valuations are as follows:

Table 4 - Top Ten Taxpayers

Taxpayer	Product/Service	Ad Valorem Taxable Valuation	Equivalent IFT Valuation	Total Valuation
Consumers Energy	Utility	\$91,596,560		\$91,596,560
General Motors Corp.	Automotive	54,771,123	\$16,856,950	71,628,073
Jackson National Life ⁽¹⁾	Insurance	42,991,846	-	42,991,846
Accident Fund	Insurance/Corporate Office	30,071,400	-	30,071,400
Lansing Properties I LLC	Student Housing	26,009,500	-	26,009,500
Continental/Ferguson Lansing LLC	Real Estate Development	14,540,618	-	14,540,618
Lansing MI Multifamily DST	Housing	13,964,100	-	13,964,100
Lansing Retail Center LLC	Shopping Center	13,668,158	-	13,668,158
Emergent BioSolutions	Research/Industrial	12,654,199	-	12,654,199
Hunter Towne Properties	Apartments	11,154,753		11,154,753
TOTAL		\$311,422,257	\$16,856,950	\$328,279,207

⁽¹⁾ As of December 13, 2023, Jackson National Life has a tax appeal withing the City of Lansing, Ingham County for tax year 2023. This tax appeal could potentially decrease the 2023 taxable value of three parcels owned by Jackson National Life by \$1,889,040.

Source: City of Lansing and the Equalization Departments of Ingham, Eaton, and Clinton Counties

The Total Valuation of the above taxpayers represents 11.64% of the City's tax year 2023 Ad Valorem Taxable Valuation & equivalent IFT Valuation of \$2,819,115,703.

Employment Characteristics

The following companies located in the Lansing region offer employment opportunities for residents.

Table 5 - Employment Characteristics

		Approx. No.
Lansing Region (500 or more employed)	Product/Service	Employed
State of Michigan	Government	13,880
Michigan State University	Higher Education	10,253
Sparrow Health System	Healthcare	9,000
General Motors	Manufacturing / Auto Assembly	4,274
McLaren Health	Healthcare	3,000
Auto Owners Insurance (HQ)	Insurance	2,720
Jackson National Life Insurance	Insurance	2,439
Peckham Industries	Textiles, Auto Parts	2,200
Dart Container Corp.	Manufacturing / Containers	2,000
Lansing Community College	Higher Education	1,957
Meijer Distribution Center	Logistics	1,500
Lansing School District	Education	1,082
Dean Transportation	Transportation Equipment	800
Delta Dental	Insurance	800
MSUFCU	Financial Services	800
Michigan Farm Bureau Family of Companies	Insurance	750
Quality Dairy	Food Processing	730
Spartan Motors Chassis	Automotive	730
Dakkota Integrated Systems	Automotive	670
Multi-packaging Solutions (John Henry)	Logistics	600
Neogen Corp	Biotech	550
Bridgewater Interiors (Johnson Controls)	Automotive	500
Orchid Orthopedic Solutions	Medical Device	500
Pratt & Whitney	Aerospace	500
PNC Bank	Financial Services	500

The approximate number of employees listed above is as reported in the sources indicated below. Because of reporting time lags and other factors inherent in collecting and reporting such information, the numbers may not reflect recent changes in employment levels, if any.

Source: Lansing Economic Area Partnership, via purelansing.com

Employment Breakdown

The U.S. Census 2018-2022 American Community Survey estimates the occupational breakdown of persons 16 years and over in the County of Ingham is as follows:

Table 6 - Employment by Occupation

	Number	Percent
PERSONS BY OCCUPATION	141,130	100.0%
Professional Specialty Occupations	60,870	43.1
Service Occupations	25,290	17.9
Sales & Office Occupations	28,587	20.3
Construction & Maintenance Occupations	7,778	5.5
Transportation & Material Moving Occupations	18,605	13.2

Source: American Community Survey via U.S. Census Bureau

The U.S. Census 2018-2022 American Community Survey estimates the breakdown by industry for persons 16 years and over in the County of Ingham is as follows:

	Number	Percent
PERSONS BY INDUSTRY	141,130	100.0%
Agriculture, Forestry, Fishing, Hunting & Mining	887	0.6
Construction	5,608	4.0
Manufacturing	13,251	9.3
Wholesale Trade	2,304	1.6
Retail Trade	14,183	10.0
Transportation	5,622	4.0
Information	1,876	1.3
Finance, Insurance, & Real Estate	10,996	7.8
Professional & Management Services	14,264	10.1
Educational, Health & Social Services	42,365	30.0
Arts, Entertainment, Recreation & Food Services	12,985	9.2
Other Professional and Related Services	6,594	4.7
Public Administration	10,195	7.2

Table 7 - Employment by Industry

Source: American Community Survey via U.S. Census Bureau

Unemployment

The Michigan Department of Technology, Management & Budget, Bureau of Labor Market Information and Strategic Initiatives, reports unadjusted unemployment averages for the City and the State of Michigan is as follows:

	Lansing City	State of Michigan
2023 (October) - Preliminary	5.8%	4.2%
2022 Annual Average	6.3	4.2
2021 Annual Average	7.9	5.8
2020 Annual Average	10.9	10.0
2019 Annual Average	5.1	4.1
2018 Annual Average	5.2	4.2

Table 8 - Unemployment

Source: Michigan Department of Technology, Management & Budget – Michigan Labor Market Information via milmi.org

Population by Age

The U.S. Census 2018-2022 American Community Survey estimates of population by age for the City is as follows:

Table 9 - Population by Age

	Number	Percent
Total Population	107,977	100.00%
0 through 19 years	26,225	24.29
20 through 64 years	68,142	63.11
65 years and over	13,610	12.60
Median Age	32.9 years	

Source: American Community Survey via U.S. Census Bureau

Income

The U.S. Census 2018-2022 American Community Survey estimates of household income for County of Ingham is as follows:

Table 10 - Household Income

	Number	Percent
HOUSEHOLDS BY INCOME	115,648	100.0%
Less than \$10,000	7,498	6.5
\$10,000 to \$14,999	5,665	4.9
\$15,000 to \$24,999	9,466	8.2
\$25,000 to \$34,999	9,740	8.4
\$35,000 to \$49,999	14,630	12.7
\$50,000 to \$74,999	20,405	17.6
\$75,000 to \$99,999	14,830	12.8
\$100,000 to \$149,999	17,681	15.3
\$150,000 to \$199,999	7,765	6.7
\$200,000 or more	7,968	6.9
Median Household Income		\$62,548

Source: American Community Survey via U.S. Census Bureau

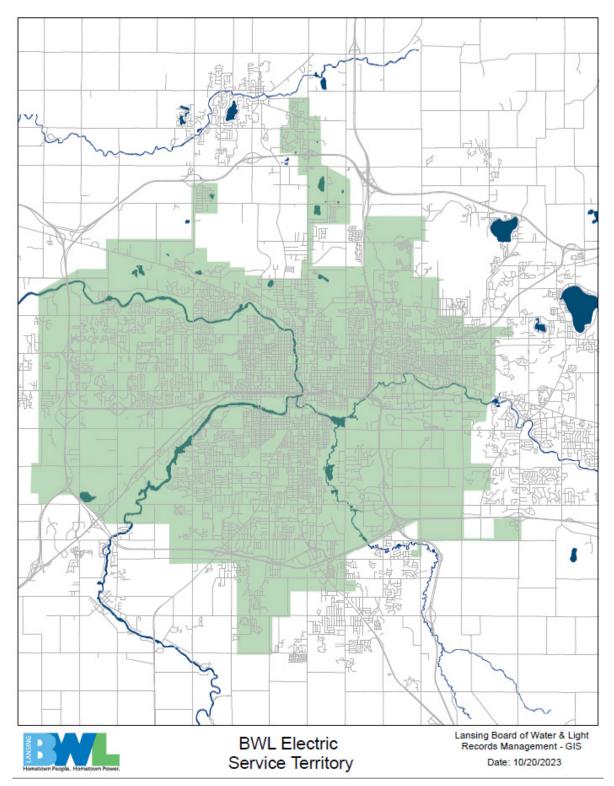
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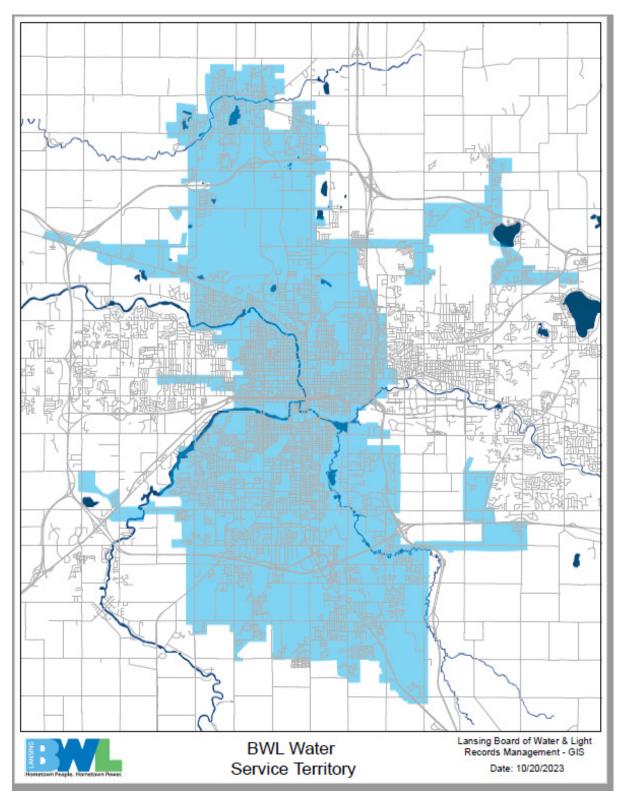
Appendix B

SERVICE AREA MAPS FOR THE ELECTRIC, WATER, STEAM, AND CHILLED WATER UTILITIES

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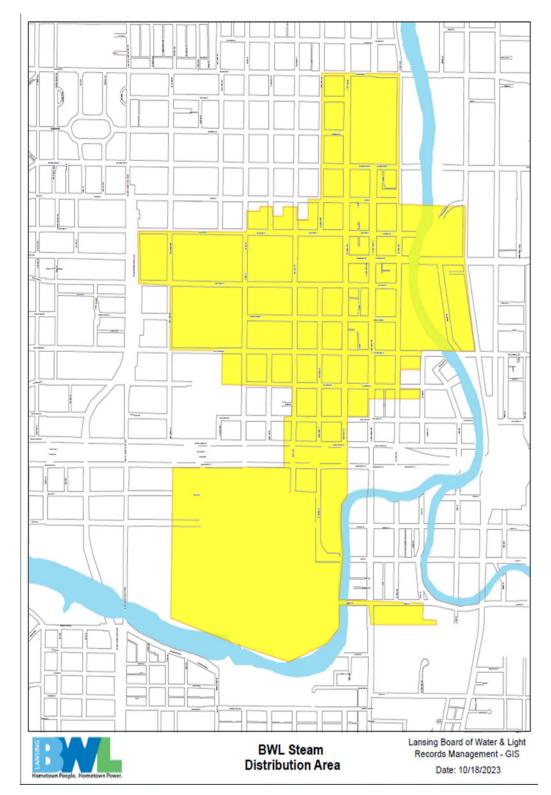
ELECTRIC SERVICE AREA



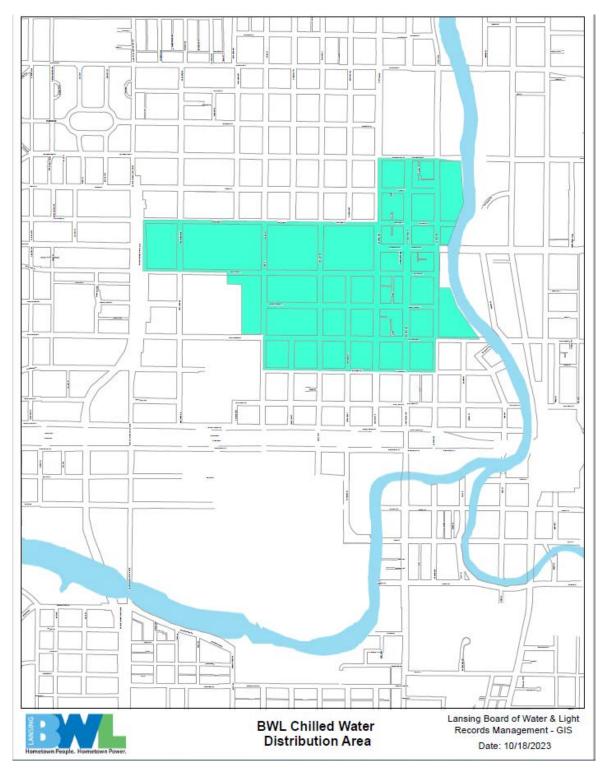


WATER SERVICE AREA

STEAM SERVICE AREA



CHILLED WATER SERVICE AREA



Appendix C

FINANCIAL STATEMENTS AND RELATED NOTES

This Appendix contains the audited financial statements of the BWL for the fiscal years ended June 30, 2023 and 2022. Baker Tilly Virchow Krause, LLP, BWL's independent auditor, has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on the financial statements addressed in that report. Baker Tilly Virchow Krause, LLP, has also not performed any procedures relating to this Official Statement.

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Lansing Board of Water & Light – City of Lansing, Michigan

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Independent Auditors' Report

To the Honorable Mayor, Members of the City Council, and Commissioners of the Lansing Board of Water & Light

Opinions

We have audited the accompanying financial statements of the business-type activities and fiduciary activities of Lansing Board of Water & Light (BWL), as of and for the years ended June 30, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the BWL's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and fiduciary activities of the BWL as of June 30, 2023 and 2022 and the respective changes in financial position and, where applicable, cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of BWL and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that rise substantial doubt about the BWL's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the BWL's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the BWL's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information, as listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audits were conducted for the purpose of forming opinions on the financial taken as a whole. The identified accompanying supplementary information as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated in all material respects, in relation to the financial statements as a whole.

Baker Tilly US, LLP

Madison, Wisconsin September 22, 2023

Management's Discussion and Analysis June 30, 2023 and 2022

This section explains the general financial condition and results of operations for the Lansing Board of Water & Light (BWL). The BWL includes the consolidated operations of the electric, water, steam and chilled water utilities. The notes to financial statements following this section are essential reading for a complete understanding of the financial and operational results for the years ended June 30, 2022 and 2023.

Overview of Business

The BWL owns and operates an electric system which generates, purchases and distributes electric energy to approximately 99,100 retail customers in the greater Lansing area, and wholesale customers through participation in the Midcontinent Independent System Operator, Inc. (MISO), which is BWL's regional electric grid. The BWL generated 56 percent of its retail and wholesale sales from existing generation assets. Additional electric generation was supplied through BWL's membership in the Michigan Public Power Agency, which includes BWL's partial ownership of Detroit Edison's Belle River Plant, through MISO, and renewable energy purchase power agreements. The BWL maintains a diversified generation portfolio which includes wind and solar. The combination of renewable energy generation and energy efficiency programs support BWL's adopted plan to provide 50% clean energy by 2030 and carbon neutrality by 2040.

The BWL owns and operates water wells, a raw water transmission system, water conditioning facilities and an extensive water distribution system serving potable water to approximately 57,600 residential, commercial and industrial customers in the greater Lansing area.

The BWL owns and operates steam generation boilers, a steam transmission and distribution system serving 156 customers. BWL's chilled water facility and distribution system serves 19 customers in the City of Lansing.

Capital Expenditures

Capital expenditures are driven by the need to replace, expand, or maintain the generation, transmission and distribution systems of the BWL to meet customer utility needs and to maintain a high level of service reliability. The BWL invests essentially all revenues not paid out for operations and maintenance expense, nonoperating expenses, or debt service back into capital improvements for its water, electric, steam and chilled water systems. Gross capital expenditures were \$112.2 million in fiscal year 2023, \$121.7 million in fiscal year 2022 and \$227.7 million in fiscal year 2021.

The BWL generally pays the cost of its capital improvements from internally generated funds; however, revenue bonds are issued from time to time to support large projects or special needs such as construction of generation facilities.

Detailed financial information for the separate utilities of water, electric, steam and chilled water can be found in the Additional Information section of this financial report.

Management's Discussion and Analysis June 30, 2023 and 2022

		As of June 30				% Change		% Change	
	 2023		2022	2021		2022 to 2023		2021 to 2022	
Assets									
Utility plant	\$ 1,183.3	\$	1,165.7	\$	1,116.7	%	1.5	%	4.4
Current assets	306.2		348.2		328.5		(12.1)		6.0
Other assets	 167.0		132.2		261.1		26.3		(49.0)
Total assets	1,656.5		1,646.1		1,706.3		0.6		(3.5)
Deferred Outflow of Resources	26.8		36.2		14.4		(26.0)		151.4
Liabilities									
Long-term liabilities	824.4		843.2		848.6		(2.2)		(0.6)
Other liabilities	 113.9		93.4		96.0		21.9		(2.7)
Total liabilities	938.3		936.6		944.6		0.2		(0.8)
Deferred Inflow of Resources	 32.1		48.9		90.8		(34.4)		(46.1)
Net Position									
Net investment in capital assets	381.4		347.0		382.4		9.9		(9.3)
Restricted for debt service	48.1		42.9		39.4		12.1		8.9
Restricted for pension	5.0		2.8		13.2		78.6		(78.8)
Restricted for OPEB	74.6		71.7		100.1		4.0		(28.4)
Unrestricted	 203.7		232.5		150.2		(12.4)		54.8
Net position	\$ 712.9	\$	696.9	\$	685.3	%	2.3	%	1.7

Condensed Financial Information (Dollars in Millions)

Capital expenditures in FY2023 exceeded depreciation, impairments and retirements thereby increasing Utility plant assets by \$17.6 million. Current Assets decreased by \$42 million primarily due to higher cash outflows associated with fuel and environmental remediation costs. Other Assets increased by \$34.8 million primarily due to increases in recoverable energy and environmental remediation assets. Deferred Outflows decreased by \$9.4 million primarily due to higher current liabilities related to capital projects. Deferred Inflows decreased by \$16.8 million primarily due to amortization of prior changes within the OPEB retirement plan.

Capital expenditures in FY2022 exceeded depreciation, impairments and retirements thereby increasing Utility plant assets by \$49 million. Other assets decreased by \$128.9 million primarily due to cash being used to pay for the constriction of Delta Energy Park. Deferred Outflows increased by \$21.8 million because of increased long-term pension costs associated with recent weak investment market performance. Total liabilities decreased by \$8 million driven by long-term debt pay off. Deferred Inflows decreased by \$41.9 million primarily due to changes in OPEB retirement plan.

	85	Fort	he Ye	ear Ended Ju	ine 3	30	% (Change	%0	hange
	_	2023	_	2022	_	2021	2022	to 2023	2021	to 2022
Result of Operations										
Operating Revenue	\$	448.9	\$	397.2	\$	380.6	%	13.0	%	4.4
Operating Expense		406.2		348.4		300.2		16.6		16.1
Nonoperating expense - Net		(26.6)	_	(37.2)	_	(27.7)		(28.5)		34.3
Changes in Net Position	\$	16.1	\$	11.6	\$	52.7	%	38.8	%	(78.0)

Management's Discussion and Analysis June 30, 2023 and 2022

The \$51.7 million increase in FY2023 operating revenue is primarily driven by increases in electric wholesale as a result of increased market prices and recovery of increased fuel costs. The \$57.8 million increase in FY2023 operating expense is attributable primarily to increased fuel costs of \$23.6 million, increased administrative and general costs of \$11.6 million and increased depreciation costs of \$13.9 million.

The \$16.6 million increase in FY2022 operating revenue is primarily driven by stronger electric wholesale as a result of additional production capacity provided by the new Delta Energy Park Plant. The \$48.2 million increase in FY2022 operating expense is attributable primarily to increased fuel costs (\$21.7million), increased administrative and general costs (\$16.8 million) and increased depreciation costs (\$8.1 million). The decrease in net income is primarily due to the increased operating expense and weak investment performance.

Budget

The BWL Commissioners approved a \$292.4 million operating expense budget (excluding depreciation and Return on Equity) for FY2023. Actual expenses (excluding depreciation and Return on Equity) were \$309.5 million. The capital improvement budget, net of customer contributions in aid of construction, was \$71.8 million for FY2023, and actual net capital expenditures were \$90.5 million. The difference between the capital budget and actual spend is due to carry over from FY2022 and inflationary cost increases.

Financing Activities

In January of 2021, \$126,895,000 of Utility System Revenue Bonds, Series 2021A and 2021B were issued for the purposes of paying costs to acquire and construct a natural gas combined cycle facility (Delta Energy Park), other system improvements and paying costs of issuance of the Series 2021A and 2021B Bonds. Delta Energy Park began operation in FY2022.

Contacting the Plan's Management

The financial report is intended to provide a general overview of the Plan's finances and to demonstrate accountability for the funds it administers. Questions about this report should be submitted to Lansing Board of Water and Light, P.O. Box 13007, Lansing, Michigan 48901-3007.

Board of Water & Light - City of Lansing, Michigan

Statements of Net Position June 30, 2023 and 2022

	2023	2022
Assets		
Current Assets		
Restricted cash and investments (Notes 2 and 3)	\$ 62,772,401	\$ 57,811,015
Cash and investments (Notes 1 and 2)	67,108,994	116,820,869
Designated cash and investments (Notes 1 and 2)	85,227,457	90,395,671
Accounts receivable, net (Note 1)	43,111,657	34,547,239
Estimated unbilled accounts receivable (Note 1)	22,368,141	18,401,799
Inventories (Note 1)	19,725,090	24,563,413
Prepayments (Note 1)	5,929,758	5,699,286
Total current assets	306,243,498	348,239,292
Other Assets		
Restricted assets:		
Net pension asset (Note 8)	5,009,098	2,772,080
Net OPEB asset (Note 8)	74,641,660	71,731,218
Recoverable environmental remediation (Note 6)	19,939,958	10,926,545
Recoverable energy asset (Note 6)	33,810,383	9,100,838
Special deposit (Note 1)	31,334,023	35,321,165
Other (Note 1)	2,261,914	2,305,930
Total other assets	166,997,036	132,157,776
Utility Plant (Notes 1 and 4)		
Water	367,082,687	352,112,157
Electric	1,246,833,576	1,221,755,100
Steam	96,662,683	95,083,252
Chilled water	34,105,305	34,099,039
Common facilities	123,933,055	123,793,139
Total	1,868,617,306	1,826,842,687
Less accumulated depreciation	731,121,625	684,169,705
Net	1,137,495,681	1,142,672,982
Construction in progress	45,813,286	23,067,588
Total utility plant	1,183,308,967	1,165,740,570
Total assets	1,656,549,501	1,646,137,638
Deferred Outflows of Resources		
Bond refunding loss being amortized (Note 1)	7,256,405	7,761,184
Pension deferred outflows (Note 8)	1,636,061	3,219,778
OPEB deferred outflows (Note 8)	17,913,026	25,258,227
Total deferred outflows of resources	26,805,492	36,239,189

See notes to financial statements

Board of Water & Light - City of Lansing, Michigan

Statements of Net Position

June 30, 2023 and 2022

	2023	2022
Liabilities and Net Position		
Current Liabilities		
Accounts payable	\$ 69,132,076	\$ 51,164,510
Accrued payroll and related taxes	4,434,300	3,829,254
Customer deposits	5,623,094	4,414,682
Accrued compensated absences (Note 1)	5,786,414	5,285,286
Accrued interest	63,276	70,492
Current liabilities payable from restricted assets:		
Current portion of long-term debt (Note 5)	14,229,635	13,758,537
Accrued interest	14,637,798	14,865,308
Total current liabilities	113,906,593	93,388,069
Compensated Absences, Less Current Portion (Note 1)	7,644,878	7,876,408
Other Long-Term Liabilities		
Workers' compensation (Note 12)	2,200,000	2,200,000
Environmental remediation liability (Note 9)	15,192,215	16,751,328
Other	4,423,149	3,578,875
Total other long-term liabilities	21,815,364	22,530,203
Long-Term Debt, Less Current Portion (Note 5)	794,911,441	812,761,597
Total liabilities	938,278,276	936,556,277
Deferred Inflows of Resources		
Revenue intended to cover future costs (Note 6)	8,014,598	9,576,810
OPEB deferred inflows (Note 8)	24,108,346	39,338,804
Total deferred inflows of resources	32,122,944	48,915,614
Net Position (Note 1)		
Net investment in capital assets	381,424,296	346,981,620
Restricted for debt service	48,134,603	42,945,707
Restricted for pension	5,009,098	2,772,080
Restricted for OPEB	74,641,660	71,731,218
Unrestricted	203,744,116	232,474,311
Total net position	\$ 712,953,773	\$ 696,904,936

Board of Water & Light - City of Lansing, Michigan Statements of Revenues, Expenses and Changes in Net Position

Years Ended June 30, 2023 and 2022

	2023	2022
Operating Revenues (Note 1)		
Water	\$ 50,683,766	\$ 49,028,486
Electric	378,791,716	330,052,908
Steam	12,661,267	11,934,516
Chilled water	6,740,010	6,133,254
Total operating revenues	448,876,759	397,149,164
Operating Expenses Production:		
Fuel, purchased power and other operating expenses	172,700,755	149,112,738
Maintenance	18,044,058	14,534,397
Transmission and distribution:		
Operating expenses	8,872,835	8,314,546
Maintenance	22,386,918	19,040,926
Administrative and general	87,448,518	75,850,273
Return on equity (Note 7)	26,428,992	25,000,000
Depreciation (Note 1)	70,371,305	56,503,060
Total operating expenses	406,253,381	348,355,940
Operating income	42,623,378	48,793,224
Nonoperating Income (Expenses)		
Investment income (loss)	3,682,036	(5,372,203)
Other expense	(3,840,612) (4,949,145)
Bonded debt interest expense	(26,376,856) (26,862,101)
Other interest expense	(39,109	(20,721)
Total nonoperating income (expenses), net	(26,574,541) (37,204,170)
Net income (changes in net position)	16,048,837	11,589,054
Net Position, Beginning	696,904,936	685,315,882
Net Position, Ending	\$ 712,953,773	\$ 696,904,936

Board of Water & Light - City of Lansing, Michigan

Statements of Cash Flows

Years Ended June 30, 2023 and 2022

	2023		 2022
Cash Flows From Operating Activities			
Cash received from customers	\$	406,233,630	\$ 391,147,612
Cash paid to suppliers		(232,958,122)	(219,455,255)
Cash paid to employees		(73,760,320)	(70,225,674)
Return on equity (Note 7)		(26,428,992)	(25,000,000)
Cash from customer deposits		1,208,412	1,246,105
Interest on customer deposits	. <u> </u>	(39,109)	 (20,721)
Net cash flows from operating activities		74,255,499	 77,692,067
Cash Flows From Capital and Related Financing Activities			
Planned, bonded, and annual construction		(84,370,376)	(109,323,551)
Principal payments on debt		(13,758,538)	(8,247,081)
Interest on debt		(29,727,324)	 (29,874,522)
Net cash flows from capital and related financing activities		(127,856,238)	 (147,445,154)
Cash Flows From Investing Activities			
Proceeds from the sale and maturity of investments		56,702,619	72,970,360
Interest received		3,816,534	577,541
Purchase of investments		(51,589,605)	 (40,612,570)
Net cash flows from investing activities		8,929,548	 32,935,331
Net change in cash and cash equivalents		(44,671,191)	(36,817,756)
Cash and Cash Equivalents, Beginning		137,814,424	 174,632,180
Cash and Cash Equivalents, Ending	\$	93,143,233	\$ 137,814,424

Board of Water & Light - City of Lansing, Michigan

Statements of Cash Flows

Years Ended June 30, 2023 and 2022

	2023			2022
Reconciliation of Cash and Cash Equivalents to				
Statement of Net Position				
Restricted cash and investments	\$	62,772,401	\$	57,811,015
Cash and investments	Ψ	67,108,994	Ψ	116,820,869
Designated cash and investments		85,227,457		90,395,671
Total cash and investments		215,108,852		265,027,555
Less noncash investments		(121,965,619)		(127,213,131)
Cash and cash equivalents, ending	\$	93,143,233	\$	137,814,424
Reconciliation of Operating Income to Net Cash				
From Operating Activities				
Operating income	\$	42,623,378	\$	48,793,224
Adjustments to reconcile operating income to net cash from				
operating activities:				
Other nonoperating		(4,466,415)		(5,956,664)
Depreciation		70,371,305		56,503,060
Sewerage collection fees		1,182,244		1,007,519
Interest on customer deposits		(39,109)		(20,721)
Decrease (increase) in assets:				
Accounts receivable (Note 1)		(8,564,418)		2,679,625
Unbilled accounts receivable (Note 1)		(3,966,342)		3,550,243
Inventories		4,838,323		(5,125,105)
Other postemployment benefits asset and deferrals		(10,795,699)		(25,924,639)
Special deposit		3,987,142		11,000,000
Net pension asset		(2,237,018)		10,442,195
Other		(9,199,869)		(11,226,274)
(Decrease) increase in liabilities and deferred outflows/inflows of resources:				
Accounts payable and other accrued expenses		13,287,481		4,993,673
Customer deposits		1,208,412		1,246,105
Net pension asset deferrals		1,583,717		(8,326,213)
Other		(25,557,633)		(5,943,961)
Total adjustments		31,632,121		28,898,843
Net cash provided by operating activities	\$	74,255,499	\$	77,692,067
Noncash Capital and Financing Activities				
Increase (decrease) in noncash investment valuations	\$	(134,498)	\$	(5,949,744)
Amortization of bond premium	\$	3,115,742	\$	3,115,745
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Board of Water & Light - City of Lansing, Michigan Statements of Fiduciary Net Position -

Statements of Fiduciary Net Position -Pension and OPEB Trust Funds June 30, 2023 and 2022

	2023			2022
Assets				
Receivable, investment interest receivable	\$	14,872	\$	4,262
Trade receivable, due from broker		-		500,000
Participant notes receivable		3,439,525		3,302,591
Cash and cash equivalents		1,979,158		3,928,017
Investments at fair value:				
Mutual funds		336,469,912		307,794,773
Stable value		27,332,984		29,720,419
Common collective funds		54,889,857		56,534,561
Real estate trust investment		46,403,500		51,016,434
Self-directed brokerage account:				
Equities		9,997,083		8,979,962
Fixed income		349,683		-
Mutual funds		454,285		515,714
Total assets		481,330,859		462,296,733
Liabilities				
Trade payable, due to broker/other		2,380,543		14,328
Net position, held in trust for pension and other employee benefits	\$	478,950,316	\$	462,282,405

Board of Water & Light - City of Lansing, Michigan Statements of Changes in Fiduciary Net Position -

Statements of Changes in Fiduciary Net Position Pension and OPEB Trust Funds Year Ended June 30, 2023 and 2022

	2023			2022
Increases				
Investment income:				
Net appreciation in fair value of investments	\$	32,812,234	\$	-
Interest and dividend income		10,601,969		12,639,775
Net investment income		43,414,203		12,639,775
Employer contributions		11,716,780		24,627,312
Interest from participant notes receivable		131,862		729,619
Other		84,494		-
Total increases		55,347,339		37,996,706
Decreases				
Net depreciation in fair value of investments		-		54,945,742
Retiree benefits paid		37,670,444		39,519,468
Loan defaults		396,895		577,197
Participants' note and administrative fees		612,089		639,400
Total decreases		38,679,428		95,681,807
Change in net position held in trust		16,667,911		(57,685,101)
Net Position Held in Trust for Pension and Other Employee Benefits				
Beginning		462,282,405		519,967,506
Ending	\$	478,950,316	\$	462,282,405

Notes to Financial Statements June 30, 2023 and 2022

1. Significant Accounting Policies

The following is a summary of the significant accounting policies used by the Lansing Board of Water & Light (BWL):

Reporting Entity

The BWL, a related organization of the City of Lansing, Michigan (City), is an administrative board established by the City Charter. The City Charter grants the BWL full and exclusive management of the electric, water, steam, and chilled water services of the City. The commissioners of the governing board are appointed by the mayor with approval of the City Council. The BWL provides water, steam, chilled water, and electric services to the City and surrounding townships. The governing board (Board of Commissioners) has the exclusive authority to set rates for the services provided. The financial statements include the financial activities of the electric, water, steam, and chilled water operations of the BWL. The financial statements also include the financial activities of the BWL Pension and OPEB Trust Funds. The BWL is exempt from taxes on income because it is a municipal entity.

Fund Accounting

The BWL accounts for its activities in two different fund types. In order to demonstrate accountability for how it has spent certain resources, separate funds allow the BWL to show the particular expenditures that specific revenues were used for. The funds are aggregated into two fund types:

Enterprise funds provide goods or services to users in exchange for charges or fees.

Fiduciary funds:

- 1. The Lansing Board of Water and Light Defined Contribution Plan and Trust 1 and Lansing Board of Water and Light Defined Benefit Plan and Trust for Employee Pensions, which accumulate resources for benefit payments to participants.
- The Post-Retirement Benefit Plan and Trust for Eligible Employees of Lansing Board of Water and Light, a Voluntary Employees' Beneficiary Association (VEBA), which accumulates funds for future payment of retiree benefits.

Basis of Accounting

Enterprise funds and fiduciary funds use the economic resources measurement focus and the full accrual basis of accounting. Revenue is recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. In addition, the utilities meet the criteria and, accordingly, on July 1, 2012, the BWL adopted the accounting and reporting requirements of GASB 62, paragraphs 476-500.

The BWL follows the accounting and reporting requirements of GASB 62, paragraphs 476-500, which require that the effects of the ratemaking process be recorded in the financial statements. Such effects primarily concern the time at which various items enter into the determination of net income in order to follow the principle of matching costs and revenues. Accordingly, the BWL records various regulatory assets, liabilities and deferred inflows of resources to reflect the regulator's actions (see Note 6). Management believes that the BWL meets the criteria for continued application of GASB 62 paragraphs 476-500, but will continue to evaluate its applicability based on changes in the regulatory and competitive environment.

System of Accounts

The BWL's accounts are maintained substantially in accordance with the Uniform Systems of Accounts of the Federal Energy Regulatory Commission for its electric and steam systems and in accordance with the Uniform Systems of Accounts of the National Association of Regulatory Utility Commissioners for the water and chilled water systems. The chart of accounts dictates how the BWL classifies revenue and expense items in the statement of revenues, expenses, and changes in net position as operating and nonoperating.

Rate Matters

Rates charged to customers are established solely by the governing board. The BWL has agreed to set rates sufficient to meet certain requirements of the bond resolutions for the outstanding revenue bonds.

Operating Classification

Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the principal ongoing operations. The principal operating revenues are charges to customers for sales and services. Operating expenses include the cost of sales and services, administrative expenses, return on equity, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Report Presentation

This report includes the fund-based statements of the BWL. In accordance with government accounting principles, a government-wide presentation with program and general revenues is not applicable to special purpose governments engaged only in business-type activities.

Specific Balances and Transactions

Cash and Cash Equivalents

The BWL considers demand deposits and current restricted funds, which consist of cash and highly liquid investments with an original maturity of 90 days or less, as cash and cash equivalents for financial statement purposes.

Investments are stated at fair value, which is the amount at which an investment could be exchanged in a current transaction between two willing parties. Fair values are based on methods and inputs as discussed in Note 2. Adjustments necessary to record investments at fair value are recorded in the operating statement as increases or decreases in investment income. Fair values may have changed significantly after year end.

Investments

The BWL has established special purpose funds designated to meet anticipated operating requirements. In addition, BWL management has established a future construction fund designated to meet future construction requirements. These funds consist principally of securities issued or backed by the government of the United States or its agencies, including but not limited to treasury notes and bonds, and are segregated as follows:

	Carrying Value					
		2023		2022		
Designated purpose: Coal inventory fluctuation Litigation, environmental and uninsured losses Future water facilities		- 19,939,802 4,019,823	\$	4,941,326 19,980,153 4,028,141		
Subtotal		23,959,625		28,949,620		
Special purpose, future construction		61,267,832		61,446,051		
Total	\$	85,227,457	\$	90,395,671		

Accounts Receivable

Accounts receivable are stated at net invoice amounts. A general valuation allowance is established based on an analysis of the aged receivables and historical loss experience. All amounts deemed to be uncollectible are charged to expense in the period that determination is made. Accounts receivables are not deemed uncollectible until they are approximately 425 days past due and have remained completely unpaid throughout the BWL's collection policy. The components of accounts receivable for 2023 and 2022 are as follows:

	2023			2022
Customer receivables	\$	26,598,190	\$	24,497,260
Sewerage collections		2,879,959		3,757,329
Wholesale sales receivables		2,778,199		3,593,854
Grant receivables		7,171,247		-
Miscellaneous		6,684,062		5,298,796
Less allowance for doubtful accounts		(3,000,000)		(2,600,000)
				<u>.</u>
Net	\$	43,111,657	\$	34,547,239

Unbilled Accounts Receivable and Revenue

Unbilled accounts receivable at June 30, 2023 and 2022 represents the estimated amount of accounts receivable for services that have not been billed as of the statement of net position date. The amounts are a result of a timing difference between the end of the financial statement cycle (month end) and the billing cycle (various dates within the month for each billing period). Accordingly, the current year revenue from customers whose billing period ends after June 30 for services rendered prior to July 1 will be recognized in the current period.

Special Deposit

In 2018, the BWL contracted with Consumer's Energy to install a new gas pipeline. Under the terms of the contract, the BWL was expected to make installment payments totaling up to \$52,000,000 throughout the construction period. Based on usage of the new pipeline, the BWL is eligible to recover all but \$10,000 of the installment payments. The BWL has made installment payments totaling \$46,280,000. During 2023 and 2022, the BWL received \$3,987,142 and \$11,000,000, respectively, back due to pipeline usage and lower than expected construction costs. The BWL estimates it will recover the remaining installment payments based on expected usage. The long-term other asset for the Consumer's Energy deposit recorded was \$31,292,858 in 2023 and \$35,280,000 in 2022. The BWL has \$41,165 of miscellaneous other deposits as of June 30, 2023 and 2022.

Inventories

Inventories are stated at weighted average cost and consist of the following at June 30:

		2022		
Coal	\$	-	\$	6,736,960
Gas		2,233,398		2,349,152
Materials and supplies		17,358,060		12,439,239
Emissions allowances		133,632		3,038,062
Total	\$	19,725,090	\$	24,563,413

Prepayments

Prepayments relate to advanced payments on goods or services that will be consumed in future periods.

Utility Plant

The utility plant is stated on the basis of cost, which includes expenditures for new facilities and those which extend the useful lives of existing facilities and equipment. Expenditures for normal repairs and maintenance are charged to maintenance expense as incurred. Capital assets are generally defined as assets with an initial, individual cost of more than \$5,000 and an estimated life in excess of one year.

Depreciation

Depreciation of the utility plant is computed using the straight-line method based on estimated useful lives. The resulting provisions for depreciation in 2023 and 2022, expressed as a percentage of the average depreciable cost of the related assets, are as follows:

		Average Rate (Percent)				
	2023	2022				
Classification of utility plant:						
Water	4-100	1.9	1.9			
Electric	4-50	4.1	3.6			
Steam	5-50	3.5	3.5			
Chilled water	5-50	3.4	3.4			
Common facilities	2-50	8.0	8.0			

When units of property are retired, their costs are removed from the utility plant and charged to accumulated depreciation.

Accrued Compensated Absences

The BWL records a liability for estimated compensated absences that are attributable to services already rendered and that are not contingent on a specific event that is outside the control of the BWL and its employees. This liability is accrued as employees earn the rights to such benefits. The BWL estimates the total current and noncurrent portions of the liability to be \$13,431,292 and \$13,161,694 as of June 30, 2023 and 2022, respectively.

Capital Contributions

Capital contributions represent nonrefundable amounts received for the purpose of construction for the utility plant. These contributions are from third parties, including amounts from customers, grant programs, and insurance proceeds from damage. Electric, water, and steam contributions are credited against the related assets or recorded as a separate regulatory deferred inflow of resources and will offset the depreciation of the related assets over the estimated useful lives. This treatment is consistent with the BWL's ratemaking policy and is thus permitted under GASB 62 paragraphs 476-500.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period and so will not be recognized as an outflow of resources (expense/expenditure) until then. The BWL has three items that qualify for reporting in this category. The deferred outflows of resources relate to deferred losses on refunding, pension related deferrals under GASB 68, OPEB related deferrals under GASB 75.

In addition to liabilities, the statement of net position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The BWL has the following items that qualify for reporting in this category: the deferred inflows of resources related to costs that have been recovered from customers and will be applied to customers in the future related to the renewable energy plan and energy optimization, chiller plant and Wise Road items described in Note 6, pension related deferrals under GASB 68 and OPEB related deferrals under GASB 75.

Net Position

Equity is classified as net position and displayed in three components:

- Net Investment in Capital Assets Consists of capital assets, net of accumulated depreciation, and reduced by the outstanding balances of any bonds that are attributable to the acquisition, construction, or improvement of those assets.
- **Restricted for Debt Service** Consists of net position with constraints placed on their use by revenue bond resolution.
- **Restricted for Pension and OPEB** Consists of net position with constraints placed on their use as this balance must be used to fund employee benefits.
- **Unrestricted** All other net position that does not meet the definition of "restricted" or "net investment in capital assets."

Net Position Flow Assumption

Sometimes the BWL will fund outlays for a particular purpose from both restricted (e.g., restricted bond) and unrestricted resources. In order to calculate the amounts to report as restricted net position and unrestricted net position in the enterprise fund financial statements, a flow assumption must be made about the order in which the resources are considered to be applied. It is the BWL's policy to consider restricted net position to have been depleted before unrestricted net position is applied.

Net Pension Asset

A net pension asset is recorded in accordance with GASB Statement No. 68. The asset is the difference between the actuarial total pension liability and the Plan's fiduciary net position as of the measurement date. See Note 8 for additional information.

Other Assets

Other assets consists of a deposit held with the Michigan Public Power Agency (MPPA) related to the Belle River project.

Long-Term Obligations

Long-term debt and other obligations are reported as liabilities. Bond premiums and discounts are amortized over the life of the bonds using the straight-line method. Gains or losses on prior refundings are amortized over the remaining life of the old debt or the life of the new debt, whichever is shorter. The balance at year end for premiums and discounts is shown as an increase or decrease in the liability section of the statement of net position. The balance at year end for the loss on refunding is shown as a deferred outflow on the statements of net position.

Postemployment Benefits Other Than Pensions (OPEB)

For purposes of measuring the net OPEB asset, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Post-Retirement Benefit Plan and Trust for Eligible Employees of Lansing Board of Water and Light (Plan), a fiduciary fund of the BWL, and additions to/deductions from the Plan fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for money market investments and participating interest-earning investment contracts that have a maturity at the time of purchase of one year or less, which are reported at cost.

Inter-Utility Transactions

The water, electric, steam, and chilled water operations of the BWL bill each other for services provided and these services are reported as revenue to the generating operation and expense to the consuming operation. Such internal billings aggregated \$8,045,764 and \$7,374,184 in 2023 and 2022, respectively, and are not eliminated in the statement of revenues, expenses, and changes in net position.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Certain amounts presented in the prior year data may have been reclassified in order to be consistent with the current year's presentation.

2. Cash, Investments and Fair Value Disclosure

Michigan Compiled Laws Section 129.91 (Public Act 20 of 1943, as amended) authorizes local governmental units to make deposits and invest in the accounts of federally insured banks, credit unions, and savings and loan associations that have offices in Michigan. A local unit is allowed to invest in bonds, securities, and other direct obligations of the United States or any agency or instrumentality of the United States; certificates of deposit, savings accounts, deposit accounts, or depository receipts of an eligible financial institution; repurchase agreements; bankers' acceptances of United States banks; commercial paper rated within the two highest classifications, which matures not more than 270 days after the date of purchase; obligations of the State of Michigan or its political subdivisions, which are rated as investment grade; and mutual funds composed of investment vehicles that are legal for direct investment by local units of government in Michigan.

The operating cash investment policy adopted by the BWL in accordance with Public Act 20, as amended, and the Lansing City Charter has authorized investment in bonds and securities of the United States government, certificates of deposit, time deposits, and bankers' acceptances of qualified financial institutions, commercial paper rated A1 by Standard & Poor's and P1 by Moody's, repurchase agreements using bonds, securities, and other obligations of the United States or an agency or instrumentality of the United States, and liquid asset accounts managed by a qualified financial institution using any of these securities. The BWL's deposits and investment policies are in accordance with statutory authority.

Michigan Cooperative Liquid Assets Securities System (MI CLASS) reports the fair value of its underlying assets annually. Participants in the MI CLASS have the right to withdraw their funds in total on one day's notice. At June 30, 2023 and 2022, the fair value of the MI CLASS' assets were substantially equal to the BWL's share. MI CLASS is rated AAAm by Standard and Poor's. The BWL also has cash and investments with Governments of Michigan Investing Cooperatively (GovMIC). The GovMIC cash and investments are recorded at amortized cost which approximates fair value.

The BWL's cash and investments are subject to several types of risk, which are examined in more detail below:

BWL's Cash and Investments (Exclusive of Fiduciary Funds)

Custodial Credit Risk of Bank Deposits

Custodial credit risk is the risk that in the event of a bank failure, the BWL's deposits may not be returned to it. The BWL requires that financial institutions must meet minimum criteria to offer adequate safety to the BWL. At June 30, 2023 and 2022, the BWL had \$16,123,652 and \$21,768,427, respectively, of bank deposits that were uninsured and uncollateralized. The BWL evaluates each financial institution with which it deposits funds and only those institutions meeting minimum established criteria are used as depositories.

Custodial Credit Risk of Investments

Custodial credit risk is the risk that, in the event of the failure of the counterparty, the BWL will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The BWL does not have a policy for custodial credit risk.

At June 30, 2023, the following investment securities were uninsured and unregistered, with

securities held by the counterparty or by its trust department or agent, but not in the BWL's name: Type of Investment Fair Value How Held

U.S. government or agency bond or notes	\$ 120,069,341	Counterparty
State and local bonds	1,896,278	Counterparty

At June 30, 2022, the following investment securities were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent, but not in the BWL's name:

Type of Investment	Fair Value	How Held		
U.S. government or agency bond or notes State and local bonds	\$ 111,071,862 2,710,446	Counterparty Counterparty		

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of investments. The BWL's investment policy restricts investments to a maximum weighted average life of five years unless matched to a specific cash flow.

At June 30, 2023, the average maturities of investments are as follows:

Investment		Fair Value		Less Than 1 Year		1-5 Years	6+ Years		
Pooled investment funds	\$	41,984,644	\$	41,984,644	\$	-	\$	-	
U.S. treasury bonds		68,762,729		9,214,874		59,547,855		-	
State and local bonds		1,896,278		1,364,428		531,850		-	
U.S. Agency bonds/notes		45,871,269		3,706,722		27,646,909		14,517,638	
Supra national agency bonds		5,435,343		3,401,512		2,033,831		-	
Commercial paper		3,872,539		3,872,539		-		-	
Total	\$	167,822,802	\$	63,544,719	\$	89,760,445	\$	14,517,638	

At June 30, 2022, the average maturities of investments are as follows:

Investment	Fair Value		Less Than 1 Year		 1-5 Years	6+ Years		
Pooled investment funds	\$	89,968,380	\$	89,968,380	\$ 	\$	-	
U.S. treasury bonds		80,161,262		6,820,535	73,340,727		-	
State and local bonds U.S. Agency bonds/notes		2,710,446 23,690,132		733,413 8.253	1,977,033 14,298,417		- 9,383,462	
Supra national agency bonds		7,220,468		1,801,906	 5,418,562		9,303,402	
Total	\$	203,750,688	\$	99,332,487	\$ 95,034,739	\$	9,383,462	

Credit Risk

State law limits investments in commercial paper to the top two ratings issued by nationally recognized statistical rating organizations.

As of June 30, 2023, the credit quality ratings of debt securities are as follows:

 Fair Value	Rating	Rating Organization
\$ 41,984,644	AAAm	S&P
68,762,729	AA+ (Aaa)	S&P (Moody's)
45,871,269	AA+ (Aaa)	S&P (Moody's)
5,435,343	AAA+ (Aaa)	S&P (Moody's)
1,896,278	AA/ÀA1 Ó	S&P (Moody's)
2,270,803	AAAm	S&P
3,872,539	A-1/P-1	S&P
	68,762,729 45,871,269 5,435,343 1,896,278 2,270,803	\$ 41,984,644 AAAm 68,762,729 AA+ (Aaa) 45,871,269 AA+ (Aaa) 5,435,343 AAA+ (Aaa) 1,896,278 AA/AA1 2,270,803 AAAm

As of June 30, 2022, the credit quality ratings of debt securities are as follows:

Investment		r Value	Rating	Rating Organization
Pooled investment funds	\$ 8	9,968,380	AAAm	S&P
U.S. treasury bonds	8	0,161,262	AA+ (Aaa)	S&P (Moody's)
U.S. agency bonds/notes	2	3,690,132	AA+ (Aaa)	S&P (Moody's)
Supra national agency bonds		7,220,468	AA+ (Aaa)	S&P (Moody's)
State and local bonds		2,710,446	AA+ (Aaa)	S&P (Moody's)
Money markets		1,158,357	AAÀm ´	S&P

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributable to the magnitude of a government's investment in a single issuer. The Board's policy limits the amount of investments with an individual issuer, with the exception of the US government. As of June 30, 2023 and 2022, the BWL's investment portfolio was concentrated as follows:

Investment	2023		2022	
Fannie Mae Freddie Mac FHLB	7 21 7	%	12 20	%

Fair Value

The BWL categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

Board of Water & Light - City of Lansing, Michigan

Notes to Financial Statements

June 30, 2023 and 2022

	June 30, 2023							
	Lev	vel 1		Level 2	Lev	el 3		Total
U.S. treasury bonds Supra national agency bonds Federal agency mortgage-	\$	- -	\$	68,762,729 5,435,343	\$	-	\$	68,762,729 5,435,343
backed security Federal agency collateralized		-		23,679,729		-		23,679,729
mortgage obligation		-		2,880,482		-		2,880,482
State and local bonds		-		1,896,278		-		1,896,278
Federal agency bond/note		-		19,311,057		-		19,311,057
Commercial paper		-		3,872,539		-		3,872,539
Total investments at fair value level	\$		\$	125,838,157	\$		\$	125,838,157
				June 3	0, 2022			
	Lev	vel 1		Level 2	Lev	el 3		Total
U.S. treasury bonds Supra national agency bonds Federal agency mortgage-	\$	- -	\$	80,161,262 7,220,468	\$	-	\$	80,161,262 7,220,468
backed security Federal agency collateralized		-		7,033,035		-		7,033,035
mortgage obligation		-		2,358,680		-		2,358,680
State and local bonds		-		2,710,446		-		2,710,446
Federal agency bond/note		-		14,298,417		-		14,298,417
Total investments at	•		•		<u>^</u>		•	440 700 000
fair value level	\$	-	\$	113,782,308	\$	-	\$	113,782,308

The following investments are recorded at fair value using the Matrix Pricing Technique.

Fiduciary Fund Investments

Interest Rate Risk - Pension and OPEB Trust Funds

Interest rate risk is the risk that the value of investments will decrease as a result of a rise in interest rates. The Plans investment policy does not restrict investment maturities.

At June 30, 2023, the average maturities of investments subject to interest rate risk are as follows:

Investment		Fair Value	Weighted Average Maturity (in Years)
Mutual fund, bonds	\$	48,798,860	6.9
Common collective fund		54,889,857	0.1

At June 30, 2022, the average maturities of investments subject to interest rate risk are as follows:

Investment	Fa	Fair Value		
Mutual fund, bonds		56,245,087	6.7	
Common collective fund		56,534,561	0.1	

Credit Risk - Pension and OPEB Trust Funds

State law limits investments in commercial paper to the top two ratings issued by nationally recognized statistical rating organizations. The Plans have no investment policy that would further limit its investment choices. As of June 30, 2023, the credit quality ratings of debt securities (other than the U.S. government) subject to credit risk are as follows:

Investment	 Fair Value	Rating	Rating Organization
Mutual funds, bonds	\$ 48,798,860	Not rated	Not rated
Common collective fund	54,889,857	Not rated	Not rated

As of June 30, 2022, the credit quality ratings of debt securities (other than the U.S. government) are as follows:

Investment	Fair Value	Rating	Rating Organization
Mutual funds, bonds	\$ 56,245,087	Not rated	Not rated
Common collective fund	56,534,561	Not rated	Not rated

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. The Plans have no investments subject to concentration of credit risk as of June 30, 2023 and June 30, 2022.

Fair Value - Pension Trust Funds

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy under authoritative guidance are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted market prices for identical assets in active markets that the Plan has the ability to access.

Level 2 - Inputs to the valuation methodology include:

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;

- inputs other than quoted prices that are observable for the asset or liability; and
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 - Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observables and minimize the use of unobservable inputs.

The following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at June 30, 2023 and 2022:

Common Stock, Corporate Bonds and Notes, U.S. Government Obligations and Fixed Income Securities - Valued at the most recent closing price reported on the market on which individual securities are traded.

Mutual Funds - Valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-end mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily NAV and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Stable Value Fund - Seeks safety of principal, adequate liquidity, and returns superior to shorter maturity alternatives by actively managing a diversified portfolio of assets issued by highly rated financial institutions and corporations as well as obligations of the U.S. government or its agencies.

Self-Directed Brokerage Account - Participants meeting minimum balance and transaction requirements may transfer funds to a self-directed brokerage account providing access to additional investment options including a large selection of mutual funds.

Real estate fund investment - Valued by a certified independent appraiser and an internal expert group. There is also another level of verification by an independent valuation advisor to audit and review both the external and internal valuations performed.

The preceding methods may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Board of Water & Light – City of Lansing, Michigan

Notes to Financial Statements

June 30, 2023 and 2022

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of June 30, 2023 and 2022:

	June 30, 2023							
Investment Type	Level 1	Level 3	Total					
Mutual funds Common collective funds Real estate investment trust Self-directed brokerage	\$ 236,220,887 46,403,494	\$ 100,249,025 54,889,857 -	\$ - - -	\$ 336,469,912 54,889,857 46,403,494				
account	10,451,368			10,451,368				
Total investments by fair value level	\$ 293,075,749	\$ 155,477,012	\$-	\$ 448,214,637				
Investments measured at the net asset value (NAV): Stable value Fixed income Total investments				27,332,984 				
Total investments				\$ 475,697,504				
		June 3	0, 2022					
Investment Type	Level 1	Level 2	Level 3	Total				
Mutual funds Common collective funds Real estate investment trust Self-directed brokerage account	\$ 174,413,986 - 51,016,434 9,495,676	\$ 133,380,787 56,534,561 -	\$ - - -	\$ 307,794,773 56,534,561 51,016,434 9,495,676				
Total investments by fair value level	\$ 234,926,096	\$ 190,872,357	<u>\$ -</u>	\$ 424,841,444				
Investments measured at the net asset value (NAV): Stable value				29,720,419				
Total investments				\$ 454,561,863				

Investments Measured Using NAV Per Share Practical Expedient - The stable value fund uses NAV per share as a practical expedient to measuring fair value. The stable value fund had a fair value of \$27,332,984 and \$29,720,419 as of June 30, 2023 and 2022, respectively. This fund has no unfunded commitments, the redemption frequency is daily, and there is no redemption notice period.

3. Restricted Assets

Restricted assets are required under the , 2013A, 2017A, 2018A, 2019A, 2019B, 2021A and 2021B Revenue Bond resolutions and the related Nonarbitrage and Tax Compliance Certificates. These assets are segregated into the following funds:

		Carrying Value				
				2022		
Operations and maintenance fund Bond and interest redemption fund	\$	30,537,525 32,234,876	\$	29,973,800 27,837,215		
Total	\$	62,772,401	\$	57,811,015		

The carrying value in excess of the required value for the current portion is reported as cash and cash equivalents or investments for the years ended 2023 and 2022.

The restrictions of the various funds required per the bond resolutions are as follows:

Operations and Maintenance Fund - By the end of each month, this fund shall include sufficient funds to provide for payment of the succeeding month's expenses.

Bond and Interest Redemption Fund - Restricted for payment of the current portion of bond principal and interest on the 2013A, 2017A, 2018A, 2019A, 2019B, 2021A and 2021B Revenue Bonds.

In addition, restricted assets have been reported in connection with the net pension and OPEB asset balances since this balance must be used to fund employee benefits.

4. Utility Plant

The tables below reflect the capital asset activity of the utility plant categories for the years ended June 30, 2023 and 2022:

	Capital Assets FY Start	Transfers	Acquisition	Retirement	Capital Assets FY End
Water	\$ 352,112,157	\$ 15,768,003	\$-	\$ (797,473)	\$ 367,082,687
Electric	1,221,755,100	42,209,597	-	(17,131,121)	1,246,833,576
Steam	95,083,252	5,022,080	-	(3,442,649)	96,662,683
Chilled	34,099,039	6,266	-	-	34,105,305
Common	123,793,139	4,277,454	1,672,935	(5,810,473)	123,933,055
AUC	23,067,588	(67,283,400)	90,029,098		45,813,286
Total	\$ 1,849,910,275	<u>\$-</u>	<u>\$ 91,702,033</u>	<u>\$ (27,181,716)</u>	\$ 1,914,430,592

Capital Asset Activity for Year Ended June 30, 2023

Notes to Financial Statements

June 30, 2023 and 2022

	Accumulated Depreciation FY Start	Depreciation Transfers	Depreciation / Amortization and Impairment for Year	Depreciation Retirement	Accumulated Depreciation FY End
Water	\$ (128,799,223	\$ 157,406	\$ (7,845,441)	\$ 492,096	\$ (135,995,162)
Electric	(438,098,343	(65,428)	(50,595,965)	17,554,039	(471,205,697)
Steam	(31,087,552	-	(3,364,815)	3,110,380	(31,341,987)
Chilled	(17,287,736		(1,163,798)	-	(18,451,534)
Common	(68,896,851	(91,978)	(10,396,764)	5,258,348	(74,127,245)
Total	\$ (684,169,705	<u>\$</u> -	\$ (73,366,783)	\$ 26,414,863	\$ (731,121,625)

Accumulated Depreciation for Year Ended June 30, 2023

Nondepreciable Assets - Included in the table above are non-depreciable assets of \$1,194,869 for water, \$17,571,123 for electric, \$124,098 for steam, \$412,339 for common facilities and \$45,813,286 for AUC.

Capital Asset Activity for Year Ended June 30, 2022

	Capital Assets FY Start	Transfers	Acquisition	Retirement	Capital Assets FY End
Water	\$ 342,755,610	\$ 6,813,770	\$ 4,473,979	\$ (1,931,202)	\$ 352,112,157
Electric	767,218,396	374,909,747	84,410,804	(4,783,847)	1,221,755,100
Steam	93,813,398	901,607	704,281	(336,034)	95,083,252
Chilled	34,099,039	-	-	-	34,099,039
Common	121,006,776	1,382,160	5,405,777	(4,001,574)	123,793,139
AUC	389,971,984	(479,002,125)	112,359,884	(262,155)	23,067,588
Total	\$ 1,748,865,203	\$ (94,994,841)	\$ 207,354,725	\$ (11,314,812)	\$ 1,849,910,275

Accumulated Depreciation for Year Ended June 30, 2022

	Accumulated Depreciation FY Start	preciation ransfers	A	epreciation / Amortization and npairment for Year	epreciation Retirement	-	Accumulated Depreciation FY End
Water	\$ (123,549,399)	\$ 769,475	\$	(7,660,769)	\$ 1,641,470	\$	(128,799,223)
Electric	(402,437,990)	44,822		(36,959,559)	1,254,384		(438,098,343)
Steam	(27,821,940)	27,723		(3,308,014)	14,679		(31,087,552)
Chilled	(16,118,783)	-		(1,168,953)	-		(17,287,736)
Common	 (62,201,550)	 (842,020)		(9,844,802)	 3,991,521		(68,896,851)
Total	\$ (632,129,662)	\$ -	\$	(58,942,097)	\$ 6,902,054	\$	(684,169,705)

Nondepreciable Assets - Included in the table above are non-depreciable assets of \$1,194,869 for water, \$14,749,322 for electric, \$124,098 for steam, \$412,339 for common facilities and \$23,067,588 of AUC.

Erickson Power Station Impairment

In 2017, the BWL agreed to close the Erickson Power Station by 2025 as a result of a settlement with the Sierra Club in support of BWL's strategic plan. As a result, BWL recorded an impairment of \$9,337,129 in 2017 using the service units approach to measure the impairment. In 2021, the estimated date of closure was re-examined and determined to be May 2023. Asset cost and accelerated depreciation were adjusted from the initial impairment and an additional impairment loss of \$4,304,965 was recognized in 2021. In 2022, the estimated date of closure was re-examined and determined to be November 2022. Accelerated depreciation was adjusted from the previous impairment adjustment and additional impairment loss of \$1,456,410 was recognized in fiscal year 2022. The plant was retired in fiscal year 2023.

5. Long-Term Debt

Long-term debt as of June 30 consists of the following:

	2023	2022
Water Supply, Steam, Chilled Water, and Electric Utility System Revenue Taxable Bonds, Series 2021A, due in annual principal installments beginning July 1, 2025 and continuing through July 1, 2051, plus interest at a rate of 5.00%. Original amount of issue \$56,020,000.	\$ 56,020,000	\$ 56,020,000
Water Supply, Steam, Chilled Water, and Electric Utility System Revenue Taxable Bonds, Series 2021B, due in annual principal installments beginning July 1, 2026 and continuing through July 1, 2051, initial term rate is 2%, with an assumed interest rate of 3.5% following the mandatory tender in 2026. Original amount of issue \$70,875,000	70,875,000	70,875,000
Water Supply, Steam, Chilled Water, and Electric Utility System Revenue Refunding Taxable Bonds, Series 2019B, due in annual principal installments beginning July 1, 2022 and continuing through July 1, 2041, plus interest at rates ranging from 1.95% to 3.53%. Original amount of issue \$251,995,000.	245,680,000	251,995,000
Water Supply, Steam, Chilled Water, and Electric Utility System Revenue Refunding Bonds, Series 2019A, due in annual principal installments beginning July 1, 2022 and continuing through July 1, 2048, plus interest at rates ranging from 4.00% to 5.00%. Original amount of issue \$319,875,000.	316,880,000	319,875,000
Water Supply, Steam, Chilled Water and Electric Utility System Revenue Refunding Bonds, Series 2017A, due in annual principal installments beginning July 1, 2019 and continuing through July 1, 2032, plus interest at a rate of 5.00%. Original amount of issue \$30,365,000.	23,525,000	25,345,000
Water Supply, Steam, Chilled Water, and Electric Utility System Revenue Refunding Bonds, Series 2013A, due in annual principal installments beginning July 1, 2014 through July 1, 2026, plus interest at rates ranging from 2.00% to 5.00%. Original amount of issue \$21,085,000.	8,240,000	10,060,000

Board of Water & Light - City of Lansing, Michigan

Notes to Financial Statements

June 30, 2023 and 2022

	 2023	2022	
Promissory note, due to the City of Lansing in semi-annual installments through October 1, 2024, plus interest at a rate of 2.50%. Original amount of issue \$13,225,385.	\$ 4,062,093*	\$	4,744,325*
Charter Township of Lansing Special Assessment pertaining to the Groesbeck II Park Drain. Due in annual installments ranging from \$132,000 to \$291,000 with final payment in 2044.	 2,778,718*		2,905,023*
Total	728,060,811		741,819,348
Less current portion Plus unamortized premium	 (14,229,635) 81,080,265		(13,758,537) 84,700,786
Total	\$ 794,911,441	\$	812,761,597

The unamortized premium and deferral on refunded bonds is being amortized over the life of the bonds, using the straight-line method.

* The debt noted is directly placed with a third party.

Aggregate principal and interest payments applicable to revenue debt are as follows:

	Principal	Interest	Total
2024	\$ 13,410,000	\$ 29,180,346	\$ 42,590,346
2025	13,890,000	28,693,944	42,583,944
2026	14,545,000	28,184,110	42,729,110
2027	15,085,000	27,634,880	42,719,880
2028	15,655,000	28,173,969	43,828,969
2029-2033	86,780,000	132,221,051	219,001,051
2034-2038	103,450,000	115,683,670	219,133,670
2039-2043	126,715,000	94,502,579	221,217,579
2044-2048	168,650,000	61,570,000	230,220,000
2049-2052	163,040,000	17,520,350	180,560,350
Total	\$ 721,220,000	\$ 563,364,899	\$ 1,284,584,899

Aggregate principal and interest payments applicable to direct placement debt are as follows:

	 Principal		Interest		Total
2024	\$ 819,635	\$	204,237	\$	1,023,872
2025	777,438		184,669		962,107
2026	766,153		165,789		931,942
2027	712,205		147,609		859,814
2028	658,251		130,396		788,647
2029-2033	1,591,472		458,021		2,049,493
2034-2038	631,525		283,963		915,488
2039-2043	631,525		141,981		773,506
2044-2045	 252,607		17,038		269,644
Total	\$ 6,840,811	\$	1,733,703	\$	8,574,513

All Water Supply and Electric Utility System Revenue Bonds were issued by authority of the BWL. All bonds were issued on a parity basis and are payable solely from the net revenue of the combined water, electric, chilled water, and steam operations of the BWL.

The 2021A Bonds are payable in annual installments in the years 2025 through 2051, inclusive, and shall not be subject to optional redemption prior to maturity. The bonds maturing on or after July 1, 2031 shall be subject to redemption at the option of the BWL in such order of maturity as the BWL shall determine, and within a single maturity by lot, on any date on or after July 1, 2031 at par plus accrued interest to the fixed date for redemption.

The 2021B Bonds are payable in annual installments in the years 2026 through 2051, inclusive, and are subject to optional and mandatory redemption prior to maturity. The put bonds maturing on or after January 1, 2026 shall be subject to redemption at the option of the BWL in such order of maturity as the BWL shall determine, and within a single maturity by lot, on any date on or after January 1, 2026 at par plus accrued interest to the fixed date for redemption. The mandatory tender for purchase date of the Bonds is July 1, 2026—the first business day following the last day of the Initial Term Interest Rate Period. In the event not all the Bonds are purchased on or before the Purchase Date, a Delayed Remarketing Period shall commence during which the Bonds will bear interest at a Stepped Interest Rate. Additional information is available in the Official Statement for the Series 2021B Bonds.

The 2019B Bonds are payable in annual installments in the years 2022 through 2041, inclusive, and shall not be subject to optional redemption prior to maturity. The bonds maturing on or after July 1, 2030 shall be subject to redemption at the option of the BWL in such order of maturity as the BWL shall determine, and within a single maturity by lot, on any date on or after July 1, 2029 at par plus accrued interest to the fixed date for redemption.

The 2019A Bonds are payable in annual installments in the years 2022 through 2048, inclusive, and shall not be subject to optional redemption prior to maturity. The bonds maturing on or after July 1, 2028 shall be subject to redemption at the option of the BWL in such order of maturity as the BWL shall determine, and within a single maturity by lot, on any date on or after July 1, 2028 at par plus accrued interest to the fixed date for redemption.

The 2017A Bonds are payable in annual installments in the years 2019 through 2027, inclusive, and shall not be subject to optional redemption prior to maturity. The bonds, or portions of the bonds in multiples of \$5,000 maturing or subject to mandatory redemption in the years 2028 and thereafter, shall be subject to redemption at the option of the BWL in such order of maturity as the BWL shall determine, and within a single maturity by lot, on any date on or after July 1, 2027 at par plus accrued interest to the fixed date for redemption.

The 2013A Bonds are payable in annual installments in the years 2014 to 2024, inclusive, and shall not be subject to optional redemption prior to maturity. The bonds maturing on or after July 1, 2024 shall be subject to redemption at the option of the BWL on or after July 1, 2023 as a whole or in part at any time and by lot within a maturity at par plus accrued interest to the redemption date.

The Series 2011A Bonds are payable in annual installments in the years 2015 to 2022, inclusive, and shall not be subject to optional redemption prior to maturity. The bonds maturing on or after July 1, 2022 shall be subject to redemption at the option of the BWL on or after July 1, 2021 as a whole or in part at any time and by lot within a maturity at par plus interest accrued to the redemption date. These bonds were part of an advanced refunding with the issuance of the 2019B Revenue bonds. The final maturity for these bonds was on July 1, 2022.

The long-term debt activity for the year ended June 30, 2023 is as follows:

	ι	venue Bonds (Net of Jnamortized Premiums)	0	ther Notes	 Total
Beginning balance	\$	818,870,786	\$	7,649,347	\$ 826,520,134
Additions Reductions		- (16,570,520)		- (808,538)	 - (17,379,058)
Ending balance	\$	802,300,266	\$	6,840,809	\$ 809,141,076
Due with-in one year	\$	13,410,000	\$	819,635	\$ 14,229,635

The BWL has pledged substantially all revenue, net of operating expenses, to repay the revenue bonds. Proceeds from the bonds provided financing for the construction of the utility plant. The bonds are payable solely from the net revenues of the BWL. In fiscal year 2023, the remaining principal and interest to be paid on the bonds total \$1,284,584,899. During fiscal year 2023, net revenues of the BWL were \$112,994,683 compared to the annual debt requirements of \$42,589,615. In fiscal year 2022, the remaining principal and interest to be paid on the bonds total \$1,327,174,514. During fiscal year 2022, net revenues of the BWL were \$94,975,000 compared to the annual debt requirements of \$42,681,000.

The long-term debt activity for the year ended June 30, 2022 is as follows:

	Revenue Bonds (Net of Unamortized Premiums)	Ot	ther Notes	Total
Beginning balance	\$ 829,931,309	\$	8,456,428	\$ 838,387,737
Additions Reductions	- (11,060,523)		- (807,081)	- (11,867,603)
Ending balance	\$ 818,870,786	\$	7,649,347	\$ 826,520,134
Due with-in one year	\$ 12,950,000	\$	808,537	\$ 13,758,537

6. Costs/Credits Recoverable in Future Years

Environmental Remediation

During the fiscal year ended June 30, 2006, the GASB 49 environmental remediation liability related to a second landfill was approved for regulated entity accounting under GASB 62. The balance of the regulatory asset at June 30, 2023 and 2022 was \$4,069 and \$120,003, respectively. The BWL reviews the adequacy of its rates to recover its cost of service on an annual basis. During the year ended June 30, 2009, regulatory accounting as per GASB 62 was authorized by the Board of Commissioners to collect rates for all environmental remediation sites. The balance as of June 30, 2023 and 2022 for additional sites was \$19,935,889 and \$10,806,542 respectively.

Recoverable Cost Adjustments

During the year ended June 30, 2005, the Board of Commissioners approved the use of regulatory accounting as per GASB 62 in accounting for the BWL's power supply cost recovery (PSCR) adjustment, power chemical adjustment (PCA), fuel cost adjustment (FCA).), and chilled water fuel cost adjustment (CWFCA). These affect the amount to be billed to retail electric, water, steam and chilled water customers to reflect the difference between the BWL's actual material costs and the amounts incorporated into rates. This resulted in recoverable assets of \$33,810,383 and \$9,100,838 at June 30, 2023 and 2022, respectively. This amount represents costs to be billed (credited) to customers in future years because actual costs of providing utilities were higher (lower) than the costs incorporated into the BWL's rates.

Renewable Energy Plan (REP) and Energy Optimization (EO)

During the year ended June 30, 2010, the Board of Commissioners approved the implementation of regulatory accounting as per GASB 62 to account for Public Act 295 of 2008 (PA. 295). PA. 295 set forth requirements for all Michigan utilities to meet the new renewable energy standards and undertake energy optimization programs. As a municipally owned electric utility, the BWL was required to file a proposed energy plan with the Michigan Public Service Commission (MPSC) and this plan was approved on July 1, 2009. These changes will affect the amount to be billed to electric customers. This resulted in deferred inflow of resources of \$1,760,188 and \$2,119,504 as of June 30, 2023 and 2022, respectively.

Chiller Plant

During the year ended June 30, 2010, the BWL chose to use regulatory accounting as per GASB 62 to recognize the contribution in aid of construction (CIAC) for the development of a new chilled water plant. The remaining recoverable inflow of resources of \$440,543 and \$660,814 as of June 30, 2023 and 2022, respectively. The BWL will recognize this as revenue monthly over the life of the new chilled water plant to offset depreciation expense.

Wise Road

During the year ended June 30, 2012, the BWL chose to use regulatory accounting as per GASB 62 to recognize the insurance proceeds for the damaged equipment at the Wise Road Water Conditioning Plant (see Note 13). The remaining recoverable inflow of resources as of June 30, 2023 and 2022 was \$5,813,867 and \$6,796,492, respectively.

7. Transactions With the City of Lansing, Michigan

Operations

The BWL recognized revenue of \$9,806,375 and \$9,374,544 in 2023 and 2022, respectively, for water, electric, and steam services provided to the City. The BWL incurred expenses for sewerage services purchased from the City of \$764,394 and \$307,005 in 2023 and 2022, respectively.

Additionally, the BWL bills and collects sewerage fees for the City. In connection with these services, the BWL received sewerage collection fees of \$1,182,244 and \$1,007,519 in 2023 and 2022, respectively, included in other income.

Return on Equity

Effective July 1, 1992, the BWL entered into an agreement with the City to provide payment of a return on equity in accordance with a formula based on net billed retail sales from its water, steam heat, and electric utilities for the preceding 12-month period ending May 31 of each year. Effective March 1, 2002, the formula to calculate the amount owed to the City was modified to include wholesale revenue generated from the BWL's electric, water, steam, and chilled water utilities for the preceding 12-month period ending May 31 of each year. Subject to the provisions of Act 94 Public Acts of 1933, as amended, and the BWL's various bond covenants, this amount is payable to the City in semi-annual installments. Effective July 1, 2020, the BWL and the City agreed to pay a flat amount for fiscal years 2021 through 2022. Beginning in fiscal year 2023, a flat percentage of 6% is applied to reported operating revenues, excluding inter-utility sales from providing retail water, electric, steam and chilled water services. Under terms of these agreements, the BWL paid to the City \$26,428,992 and \$25,000,000 for 2023 and 2022, respectively, of operational cash flow in excess of debt service requirements.

8. Retirement Plans

The BWL has three retirement plans. The BWL administers a tax-qualified, single-employer, noncontributory, defined benefit public employee retirement pension plan (Defined Benefit Plan), and the BWL has a tax-qualified, single-employer, noncontributory, defined contribution public employee retirement pension plan (Defined Contribution Plan). The BWL also has a tax-qualified, single-employer, retiree benefit plan to administer and fund retiree benefits (Retiree Benefit Plan and Trust).

Defined Benefit Plan

Plan Description - The BWL administers the Lansing Board of Water and Light Defined Benefit Plan and Trust for Employees' Pensions (Defined Benefit Plan) - a noncontributory single-employer defined benefit pension plan for employees of the BWL. The benefit terms were established by the BWL and may be amended by future BWL actions.

The Defined Benefit Plan issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained by writing to the Lansing Board of Water and Light Defined Benefit Plan and Trust for Employees' Pensions, Attn: Retirement Plan Committee, P.O. Box 13007, Lansing, Michigan 48901-3007.

Effective July 1, 1999, the Defined Benefit Plan was amended to include a medical benefit component, in addition to the normal retirement benefits, to fund a portion of the postretirement obligations for certain retirees and their beneficiaries. The funding of the medical benefit component is limited to the amount of excess pension plan assets available for transfer, as determined by the actuary. No medical benefits were paid by the Defined Benefit Plan during the years ended June 30, 2023 and 2022.

Employees Covered by Benefit Terms - At February 28, 2023 and February 28, 2022 (the most recent actuarial valuation for funding purposes), Defined Benefit Plan membership consisted of the following:

	2023	2022
Inactive plan members or beneficiaries currently receiving		
benefits	265	284
Inactive plan members entitled to but not yet receiving benefits	1	2
Active plan members	3	3
Total	269	289

The Defined Benefit Plan, by resolution of the Board of Commissioners, was closed to employees hired subsequent to December 31, 1996, and a defined contribution retirement savings plan was established for employees hired after December 31, 1996. Effective December 1, 1997, all active participants in this plan were required to make an irrevocable choice to either remain in this plan (defined benefit) or move to the newly established defined contribution plan. Those participants who elected to move to the defined contribution plan received lump-sum distributions from this plan that were rolled into their accounts in the newly established defined contribution plan. Of the 760 employees who were required to make this election, 602 elected to convert their retirement benefits to the newly established defined contribution plan. As a result of this action, effective December 1, 1997, the Board of Commissioners transferred \$75,116,470 to the newly established defined contribution plan, reflecting the plan participants' accumulated benefits as of said date.

Benefits Provided - The Defined Benefit Plan provides retirement, early retirement, disability, termination, and death benefits. The Plan provides for an annual benefit upon normal retirement age equal to the product of the total number of years of credited service multiplied by a percentage equal to 1.80% of the highest annual pay during the last 10 years of service, paid in equal monthly installments.

Payments will either be non-increasing or increase only as follows: (a) By an annual percentage increase that does not exceed the annual percentage increase in a cost-of-living index that is based on prices of all items and issued by the Bureau of Labor Statistics; (b) To the extent of the reduction in the amount of the employee's payments to provide for a survivor benefit upon death, but only if the beneficiary whose life was being used to determine the distribution period described in Subsection 8 dies or is no longer the employee's beneficiary pursuant to a qualified domestic relations order within the meaning of Internal Revenue Code Section 414(p); (c) To provide cash refunds of employee contributions upon the employee's death; or (d) To pay increased benefits that result from a plan amendment.

Contributions - Article 9, Section 24 of the State of Michigan constitution requires that financial benefits arising on account of employee service rendered in each year be funded during that year. Accordingly, the BWL retains an independent, external actuary to determine the annual contribution. The actuarially determined contribution is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. There was no contribution required for the years ended June 30, 2022 and 2023. Plan documents do not require participant contributions.

Net Pension Asset - The components of the net pension asset of the BWL at June 30, 2023 and June 30, 2022 were as follows (in thousands):

	 2023	2022
Total pension liability Plan fiduciary net pension	\$ 44,514 49,523	\$ 47,887 50,659
Total	\$ (5,009)	\$ (2,772)

Plan fiduciary net position, as a percentage of the total pension liability

111.25 % 105.79 %

The BWL has chosen to use June 30, 2023 as its measurement date for fiscal year 2023. The June 30, 2023 reported net pension asset was determined using a measure of the total pension liability and the pension net position as of June 30, 2023. The June 30, 2023 total pension liability was determined by an actuarial valuation as of February 28, 2023, which used update procedures to roll forward the estimated liability to June 30, 2023.

The BWL has chosen to use June 30, 2022 as its measurement date for fiscal year 2022. The June 30, 2022 reported net pension asset was determined using a measure of the total pension liability and the pension net position as of June 30, 2022. The June 30, 2022 total pension liability was determined by an actuarial valuation as of February 28, 2022, which used update procedures to roll forward the estimated liability to June 30, 2022.

Changes in the net pension asset during the measurement years were as follows:

			In Tł	nousands	
	Total Pension Liability		Plan Fiduciary Net Position		 Pension Asset
Balance, June 30, 2021	\$	48,444	\$	61,658	\$ (13,214)
Changes for the year:					
Service cost		26		-	26
Interest		2,974		-	2,974
Differences between expected and actual					
experience		179		-	179
Changes in assumptions		1,730		-	1,730
Net investment income		-		(5,399)	5,399
Benefit payments, including refunds		(5,466)		(5,466)	-
Administrative expenses		-		(134)	134
Miscellaneous other charges		-		-	 -
Net changes		(557)		(10,999)	 (10,442)
Balances, June 30, 2022		47,887		50,659	 (2,772)
Changes for the year:					
Service cost		29		_	29
Interest		2,721		_	2,721
Differences between expected and actual		2,721			2,121
experience		(981)		-	(981)
Changes in assumptions		(001)		-	(001)
Net investment income		-		(4,134)	4,134
Benefit payments, including refunds		(5,142)		(5,142)	-
Administrative expenses		-		(127)	127
Miscellaneous other charges		-		-	
Net changes		(3,373)		(1,136)	 (2,237)
Balance, June 30, 2023	\$	44,514	\$	49,523	\$ (5,009)

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - For the year ended June 30, 2023, the BWL recognized pension expense of \$(653,301). At 2023, the BWL reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	O	Deferred utflows of esources	 l Inflows ources
Net difference between projected and actual earnings on pension plan investments	\$	1,636,061	\$ -

For the year ended June 30, 2022, the BWL recognized pension expense of \$2,115,982. At June 30, 2022, the BWL reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	0	Deferred utflows of esources	Deferred of Res	
Net difference between projected and actual earnings on pension plan investments	\$	3,219,778	\$	-

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

Years ending June 30:	
2024	\$ 380,154
2025	(89,488)
2026	1,595,415
2027	(250,020)
Total	\$ 1,636,061

Actuarial Assumptions - The total pension liability in the June 30, 2023 and June 30, 2022 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2023	2022
Inflation	2.25 %	2.25 %
Salary increases	3.50	3.50
Investment rate of return	6.00	6.00

Mortality rates were based on the PUB-2010 General Mortality Table with MP-2021 Improvement Scale for the June 30, 2023 valuation. The June 30, 2022 valuation used the PUB-2010 General Employees Mortality Table and projected using the MP-2020 scale.

The most recent experience review was completed in 2014. Since the Defined Benefit Plan covered 3 active participants in fiscal year 2023 and fiscal year 2022, assumptions like termination, retirement, and disability have an immaterial impact on the results and have not been changed.

Discount Rate - The discount rate used to measure the total pension liability was 6.00% in 2023 and 2022. The projection of cash flows used to determine the discount rate assumed that BWL contributions will be made at rates equal to the actuarially determined contribution rates.

Projected Cash Flows

Based on those assumptions, the Defined Benefit Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on the Defined Benefit Plan investments was applied to all periods of projected benefit payments to determine the total pension asset.

The long-term expected rate of return on Defined Benefit Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return as of June 30, 2023 and 2022 for each major asset class included in the Defined Benefit Plan's target asset allocation, as disclosed in the Defined Benefit Plan's financial statements, are summarized in the following table:

Asset Class	2023 Long- Term Expected Real Rate of Return	2022 Long- Term Expected Real Rate of Return
Core bonds	2.58 %	2.58 %
Multi-sector	3.54	3.53
Liquid absolute return	3.25	3.25
U.S. large cap equity	7.17	7.13
U.S. small cap equity	8.61	8.53
Non-U.S. equity	8.29	8.22
Core real estate	6.54	6.60

Sensitivity of the Net Pension Asset to Changes in the Discount Rate - The following presents the net pension asset of the BWL at June 30, 2023, calculated using the discount rate of 6.00%, as well as what the BWL's net pension asset would be if it were calculated using a discount rate that is 1-percentage point lower (5.00%) or 1-percentage-point higher (7.00%) than the current rate:

	1% Decrease (5.00%)		Current Discount Rate (6.00%)		1% Increase (7.00%)	
Net pension liability (asset) of the BWL	\$	(836,993)	\$	(5,009,098)	\$	(7,108,925)

The following presents the net pension asset of the BWL at June 30, 2022, calculated using the discount rate of 6.00%, as well as what the BWL's net pension asset would be if it were calculated using a discount rate that is 1-percentage-point lower (5.00%) or 1-percentage-point higher (7.5%) than the current rate:

	 b Decrease (5.00%)	Dis	scount Rate (6.00%)	19	% Increase (7.00%)
Net pension liability (asset) of the BWL	\$ 1,749,379	\$	(2,772,080)	\$	(5,093,794)

Defined Benefit Plan Fiduciary Net Position - Detailed information about the Defined Benefit Plan's fiduciary net position is available in the separately issued financial report. For the purpose of measuring the net pension asset, deferred outflows of resources, and deferred inflows or resources related to pension and pension expense, information about the Defined Benefit Plan's fiduciary net position and addition to/deduction from fiduciary net position have been determined on the same basis as they are reported by the Defined Benefit Plan. The Defined Benefit Plan uses the economic resources measurement focus and the full accrual basis of accounting. Investments are stated at fair value. Contribution revenue is recorded as contributions are due, pursuant to legal requirements. Benefit payments and refunds of employee contributions are recognized as expense when due and payable in accordance with the benefit terms.

Defined Contribution Plan

The Lansing Board of Water and Light Defined Contribution Plan and Trust 1 (Defined Contribution Plan) was established by the BWL in 1997 under Section 5-203.10 of the City Charter. The Defined Contribution Plan covers substantially all full-time employees hired after December 31, 1996. In addition, 602 employees hired before January 1, 1997 elected to convert their retirement benefits from the Defined Benefit Plan effective December 1, 1997.

The Defined Contribution Plan issues a publicly available financial report. That report may be obtained by writing to the Lansing Board of Water and Light Defined Contribution Plan and Trust 1, Attn: Retirement Plan Committee, P.O. Box 13007, Lansing, Michigan 48901-3007.

The Defined Contribution Plan operates as a money purchase pension plan and meets the requirements of Sections 401(a) and 501(a) of the IRC of 1986, as amended from time to time.

For employees hired before January 1, 1997, the BWL is required to contribute 15.0% of the employees' compensation. For employees hired after January 1, 1997, the BWL is required to contribute 9.5% of the employees' compensation. In addition, the BWL is required to contribute 3.0% of the employees' compensation for all employees who are not eligible to receive overtime pay and 0.5% of the employees' compensation for all non-bargaining employees. No participant contributions are required.

During the years ended June 30, 2023 and 2022, the BWL contributed \$11,648,704 and \$11,134,555, respectively. The BWL's contributions are recognized in the period that the contributions are due.

Basis of Accounting - The Defined Contribution Plan's financial statements are prepared using the accrual method of accounting in accordance with Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans*.

Valuation of Investments and Income Recognition - The Defined Contribution Plan investments are stated at fair market value based on closing sales prices reported on recognized securities exchanges on the last business day of the year, or, for listed securities having no sales reported and for unlisted securities, upon the last reported bid prices on that date. The mutual funds are valued at quoted market prices, which represent the net asset values of shares held by the Defined Contribution Plan at year end.

Purchases and sales of investments are recorded on a trade-date basis. Interest income is accrued when earned. Dividend income is recorded on the ex-dividend date.

Regulatory Status - The Defined Contribution Plan is not subject to the reporting requirements of the Employee Retirement Income Security Act of 1974 (ERISA) as it has been established for the benefit of a governmental unit.

Retiree Benefit Plan and Trust (OPEB)

Plan Description - The Post-Retirement Benefit Plan and Trust for Eligible Employees of Lansing Board of Water and Light (Retiree Benefit Plan and Trust) is a single-employer retiree benefit plan. The Plan provides medical, dental, and life insurance benefits in accordance with Section 5-203 of the City Charter. Substantially all of the BWL's employees may become eligible for healthcare benefits and life insurance benefits if they reach normal retirement age while actively employed fulltime by working for the BWL. There were 753 participants eligible to receive benefits at June 30, 2023 and 761 participants eligible at June 30, 2022.

In October 1999, the BWL formed a Voluntary Employee Benefit Administration (VEBA) trust for the purpose of accumulating assets sufficient to fund retiree healthcare insurance costs in future years. During the years ended June 30, 2023 and 2022, the cost to BWL of maintaining the Retiree Benefit Plan and Trust was \$68,076 and \$13,492,757, of which respectively, was incurred as direct costs of benefits.

The Retiree Benefit Plan and Trust issues a publicly available financial report. That report may be obtained by writing to the Post-Retirement Benefit Plan and Trust for Eligible Employees of Lansing Board of Water and Light, Attn: Retirement Plan Committee, P.O. Box 13007, Lansing, Michigan 48901-3007.

Benefits Provided - The Plan provides medical, dental, and life insurance benefits in accordance with Section 5-203 of the City Charter. Benefits are provided through third-party insurers carriers. The plan coverage includes payment of deductibles and co-pays for health services to all employees hired before January 1, 2009. All employees hired after that date must pay a percentage of their health premium.

Employees covered by benefit terms. At June 30, 2023, the following employees were covered by the benefit terms:

Active plan members (not eligible to receive benefits)	731
Disabled participants	69
Retired participants	534
Surviving spouses	150
Total	1,484

At June 30, 2022, the following employees were covered by the benefit terms:

Active plan members (not eligible to receive benefits)	696
Disabled participants	71
Retired participants	537
Surviving spouses	153
Total	1,457

Contributions - Section 5-203 of the City Charter grants the authority to establish and amend the contribution requirement to the BWL. The BWL establishes its minimum contribution based on an actuarially determined rate. For the years ended June 30, 2023 and 2022, the actual contribution rates of the BWL were 0.1% and 21.4% of covered-employee payroll, respectively.

Net OPEB Liability (Asset) - The BWL has chosen to use June 30, 2023 as its measurement date for fiscal year 2023. The June 30, 2023 reported net OPEB liability (asset) was determined using a measure of the total OPEB liability and the OPEB net position as of June 30, 2023. The June 30, 2023 total OPEB liability was determined by an actuarial valuation as of February 28, 2023, which used update procedures to roll forward the estimated liability to June 30, 2023.

The BWL has chosen to use June 30, 2022 as its measurement date for fiscal year 2022. The June 30, 2022 reported net OPEB liability was determined using a measure of the total OPEB liability and the OPEB net position as of June 30, 2022. The June 30, 2022 total OPEB liability was determined by an actuarial valuation as of February 28, 2022, which used update procedures to roll forward the estimated liability to June 30, 2022.

Actuarial Assumptions - The total OPEB liability in the June 30, 2023 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurements, unless otherwise specified:

Payroll Growth:

2.25%

9.0% growth at age 25 and decreases to 5.3% for ages 60+. This percentage includes general wage inflation and merit/productivity increases.

Investment rate of return:

6.5%, net of OPEB plan investment expense, including inflation

Healthcare cost trend rates:		Medica			
<u> </u>	FYE	Pre-65	Post-65	Part B	Dental
	2023	7.25%	5.50%	3.75%	4.25%
	2024	7.00	5.25	4.00	4.00
	2025	6.75	5.00	4.25	4.00
	2026	6.50	4.75	4.50	4.00
	2027	6.25	4.50	4.75	4.00
	2028	6.00	4.50	5.00	4.00
	2029	5.75	4.50	5.00	4.00
	2030	5.50	4.50	5.00	4.00
	2031	5.25	4.50	5.00	4.00
	2032	5.00	4.50	5.00	4.00
	2033	4.75	4.50	5.00	4.00
	2034+	4.50	4.50	5.00	4.00

The total OPEB liability in the June 30, 2022 actuarial valuation were determined using the following actuarial assumptions, applied to all periods included in the measurements, unless otherwise specified:

Inflation:

2.25%

Payroll Growth:

Investment rate of return:

Healthcare cost trend rates:

9.0% growth at age 25 and decreases to 5.3% for ages 60+. This percentage includes general wage inflation and merit/productivity increases.

6.5%, net of OPEB plan investment expense, including inflation

	Medica	al / RX		
FYE	Pre-65	Post-65	Part B	Dental
2022	7.25%	5.50%	3.75%	4.25%
2023	7.00	5.25	4.00	4.00
2024	6.75	5.00	4.25	4.00
2025	6.50	4.75	4.50	4.00
2026	6.25	4.50	4.75	4.00
2027	6.00	4.50	5.00	4.00
2028	5.75	4.50	5.00	4.00
2029	5.50	4.50	5.00	4.00
2030	5.25	4.50	5.00	4.00
2031	5.00	4.50	5.00	4.00
2032	4.75	4.50	5.00	4.00
2033	4.50	4.50	5.00	4.00

2023 Mortality rates were based on the PUBH-2010 General Employee Mortality Table fully generational using Scale MP-2021.

2022 Mortality rates were based on the PUBH-2010 General Employee Mortality Table fully generational using Scale MP-2020.

Best actuarial practices call for a periodic assumption review and BWL completed an experience study in 2022.

BWL's policy in regard to the allocation of invested assets is established and may be amended by the BWL by a majority vote of the Board of Commissioners. It is the policy of the BWL 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 adopted asset allocation policy as of June 30, 2023 and 2022:

Asset Class	2023 Target Allocation	2022 Target Allocation
Cons hands		45.00.0/
Core bonds	15.00 %	15.00 %
Multi-sector	5.00	5.00
Liquid absolute return	5.00	5.00
U.S. large cap equity	30.00	30.00
U.S. small cap equity	10.00	10.00
Non-U.S. equity	20.00	20.00
Core real estate	8.00	8.00
Value add real estate	7.00	7.00

The long-term expected rate of return on OPEB plan investments was determined using a buildingblock method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The best estimates of arithmetic real rates of return for each major asset class as of June 30, 2023 and June 30, 2022 are summarized in the following table:

Asset Class	2023 Long- Term Expected Real Rate of Return	2022 Long- Term Expected Real Rate of Return
Core bonds	2.58 %	2.58 %
Multi-sector	3.54	3.53
Liquid absolute return	3.25	3.25
U.S. large cap equity	7.17	7.13
U.S. small cap equity	8.61	8.53
Non-U.S. equity	8.29	8.22
Core real estate	6.54	6.60
Value add real estate	8.04	8.10

For the June 30, 2023 valuation, the long-term expected rate of return was 6.50%. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments was selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown. The final equivalent single discount rate used for the June 30, 2023 valuation was 6.50% with the expectation that BWL will continue contributing the actuarially determined contribution and/or paying for the pay-go cost.

	Long-Term Expected Real Rate of
Asset Class	Return
Fidelity 20-year GO Municipal Bond Index	2.82 %
Actual Discount Rate Used	6.50

Discount Rate - The discount rate used to measure the total OPEB liability was 6.5% for June 30, 2023 and 2022. The projection of cash flows used to determine the discount rate assumed that BWL contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected OPEB payments for current active and inactive employees. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

			In T	housands		
		Total Pension Liability (a)		Plan Fiduciary Net Position (b)		et OPEB lity (Asset) (a)-(b)
Balance, June 30, 2022	\$	156,410	\$	228,142	\$	(71,731)
Changes for the year:						
Service cost		3,452		-		3,452
Interest		9,827		-		9,827
Change in benefit terms		-		-		-
Differences between expected and actual						
experience		4,770		-		4,770
Changes in assumptions		-		-		-
Contributions, employer		-		68		(68)
Contributions, employee		-		-		-
Net investment income		-		21,226		(21,226)
Benefit payments		(10,628)		(10,628)		-
Administrative expenses		-		(336)		336
Net changes		7,421		10,330		(2,909)
Balance, June 30, 2023	\$	163,831	\$	238,472	\$	(74,641)

Board of Water & Light – City of Lansing, Michigan

Notes to Financial Statements June 30, 2023 and 2022

	In Thousands					
	Total Pension Liability (a)		Plan Fiduciary Net Position (b)		v Net OPEB Liability (Asse (a)-(b)	
Balance, June 30, 2021	\$	147,644	\$	247,743	\$	(100,099)
Changes for the year:						
Service cost		3,300		-		3,300
Interest		9,871		-		9,871
Change in benefit terms		-		-		-
Differences between expected and actual						
experience		(1,084)		-		(1,084)
Changes in assumptions		10,173		-		10,173
Contributions, employer		-		13,493		(13,493)
Contributions, employee		-		-		-
Net investment income		-		(19,427)		19,427
Benefit payments		(13,493)		(13,493)		-
Administrative expenses		-		(354)		354
Net changes		8,767		(19,601)		28,368
Balance, June 30, 2022	\$	156,410	\$	228,142	\$	(71,731)

Sensitivity of the Net OPEB Liability (Asset) to Changes in the Discount Rate - The following presents the net OPEB liability (asset) of BWL, as well as what BWL's net OPEB liability (asset) would be if it were calculated using a discount rate that is 1 percentage point lower (5.5%) or 1-percentage-point higher (7.5%) than the current discount rate (6.5%) as of June 30, 2023:

			Jı	une 30, 2023		
	1% Decrease			Current scount Rate	1% Increase	
NET OPEB liability (asset)	\$	(56,244,193)	\$	(74,641,660)	\$	(90,173,785)

Sensitivity of the Net OPEB Liability (Asset) to Changes in the Discount Rate - The following presents the net OPEB liability (asset) of BWL, as well as what BWL's net OPEB liability (asset) would be if it were calculated using a discount rate that is 1 percentage point lower (5.5%) or 1-percentage-point higher (7.5%) than the current discount rate (6.5%) as of June 30, 2022:

		June 30, 2022		
	1% Decrease	Current Discount Rate	1% Increase	
NET OPEB liability (asset)	\$ (53,297,418)	\$ (71,731,218)	\$ (87,189,127)	

Sensitivity of the Net OPEB Liability (Asset) to Changes in the Healthcare Cost Trend Rates - The following presents the net OPEB liability (asset) of BWL, as well as what BWL's net OPEB liability (asset) would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates as of June 30,

2023: June 30, 2023 Healthcare Cost 1% Decrease Trend Rates 1% Increase

Net OPEB liability (asset)	\$ (91,718,544)	\$ (74,641,660)	\$	(53,961,790)
3 ()			•	

Sensitivity of the Net OPEB Liability (Asset) to Changes in the Healthcare Cost Trent Rates - The following presents the net OPEB liability (asset) of BWL, as well as what BWL's net OPEB liability (asset) would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates as of June 30, 2022:

		June 30, 2022		
	1% Decrease	Healthcare Cost Trend Rates	1% Increase	
Net OPEB liability (asset)	\$ (88,432,330)	\$ (71,731,218)	\$ (51,458,308)	

OPEB Plan Fiduciary Net Position - Detailed information about the OPEB plan's fiduciary net position is available in the separately issued Post-Retirement Benefit Plan and Trust for Eligible Employees of Lansing Board of Water and Light June 30, 2023 GASB 74/75 Report, issued July 19, 2023.

For the year ended June 30, 2023, the Plan recognized OPEB expense of \$(10,727,623). At June 30, 2023, the Plan reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	0	Deferred outflows of Resources	Deferred Inflows of Resources			
Differences between expected and actual experience Changes of assumptions Net difference between projected and actual earnings on	\$	4,013,128 9,452,248	\$	9,327,630 14,780,716		
OPEB plan investments Total	\$	4,447,650	\$	- 24,108,346		

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

Years ending June 30:	
2024	\$ (9,401,901)
2025	(4,281,628)
2026	6,311,103
2027	34,534
2028	912,129
Thereafter	230,443

For the year ended June 30, 2022, the Plan recognized OPEB expense of \$(12,431,882). At June 30, 2022, the Plan reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	C	Deferred outflows of Resources	 Deferred Inflows of Resources		
Differences between expected and actual experience Changes of assumptions Net difference between projected and actual earnings on	\$	406,196 12,279,164	\$ 14,216,180 25,122,624		
OPEB plan investments		12,572,867	 		
Total	\$	25,258,227	\$ 39,338,804		

Other Post-Retirement Benefits

The BWL offers its employees a deferred compensation plan, created in accordance with IRC 457. The BWL makes contributions of \$1,000 annually for the employees as of January 1 of each year, during the month of January. The BWL also will match employee contributions at one dollar for every one dollar up to \$1,500 in a calendar year.

9. Commitments and Contingencies

At June 30, 2023, and 2022, the BWL has two letters of credit in the amounts of \$817,000 and \$1,000,000 issued to the Michigan Department of Natural Resources. The letters of credit were issued to satisfy requirements of the Michigan Department of Natural Resources to provide financial assurance to the State of Michigan for the cost of closure and post closure monitoring and maintenance of a landfill site operated by the BWL.

Through monitoring tests performed on the landfill sites operated by the BWL, it has been discovered that the sites are contaminating the groundwater. The contamination does not pose a significant health risk but does lower the quality of the groundwater. The BWL received landfill closure approval as well as interim remediation approval. The BWL has estimated the total cost for remediation, including closure and post closure cost of the landfills, and has recorded a liability of \$5,578,615 and \$6,002,869 for the years ended June 30, 2023 and 2022, respectively. Certain remediation activities have commenced and are in progress. The landfill sites are no longer receiving waste products. Landfill closure and post closure costs of these landfill sites are not expected to exceed \$380,000 annually and are included in the liability above. Estimates will be revised as approvals are received from the State. In accordance with the regulatory basis of accounting as per GASB 62 (see Note 1), the BWL recorded a corresponding regulatory asset (see Note 6).

The BWL is subject to various laws and regulations with respect to environmental matters such as air and water quality, soil contamination, solid waste disposal, handling of hazardous materials, and other similar matters. Compliance with these various laws and regulations could result in substantial expenditures. The BWL has established a Designated Purpose Fund (see Note 1), of which one of the purposes of the fund is to meet extraordinary expenditures resulting from responsibilities under environmental laws and regulations. Management believes that all known or expected responsibilities to these various laws and regulations by the BWL will be sufficiently covered by the Designated Purpose Fund and the environmental remediation liability.

The BWL is involved in various other legal actions which have arisen in the normal course of business. Such actions are usually brought for claims in excess of possible settlement or awards, if any, that may result. After taking into consideration legal counsel's evaluation of pending actions, management has recorded an adequate reserve as of June 30, 2023 and 2022 in regard to specific pending legal cases.

Construction in progress consists of projects for expansion or additions to the utility plant. The estimated additional cost to complete various projects is approximately \$213,216,141 and \$244,965,107 at June 30, 2023 and 2022, respectively. These projects will be funded through operational cash flow, revenue bonds and grant funding, including the project funds reported as other assets.

10. Power Supply Purchase

In 1983, the BWL entered into power supply and project support contracts with MPPA, of which the BWL is a member. Under the agreement, the BWL has the ability to purchase power from MPPA, will sell power to MPPA at an agreed-upon rate, and will purchase 64.29% of the energy generated by MPPA's 37.22% ownership in Detroit Edison's Belle River Plant (Belle River), which became operational in August 1984.

Under the terms of its contract, the BWL must make minimum annual payments equal to its share of capital and its share of the fixed operating costs of Belle River. The estimated required payments presented below assume no early calls or refinancing of existing revenue bonds and a 3.0% annual inflation of fixed operating costs, which include expected major maintenance projects.

Years	 Capital	 imated Fixed erating Costs	Total Required		
2024 2025 2026	\$ 16,072,500 11,572,200 3,857,400	\$ 19,947,031 23,138,324 20,304,857	\$	36,019,531 34,710,524 24,162,257	
2027 2028	1,928,700 1,285,800	14,863,808 15,567,746		16,792,508 16,853,546	

In addition to the above required payments, the BWL must pay for fuel, other operating costs, and transmission costs related to any kilowatt hours (KWHs) purchased under these contracts.

The BWL recognized expenses for 2023 and 2022 of \$53,183,185 and \$42,244,891, respectively, to purchase power under the terms of this contract. The price of this power was calculated on a basis, as specified in the contracts, to enable MPPA to recover its production, transmission, and capital costs.

11. Estimated Liability for Excess Earnings on Water Supply and Electric Utility System Revenue Bonds

In accordance with Section 148(f)(2) of the IRC of 1986, as amended, the BWL is required on each anniversary date (July 1) of the Water Supply, Electric Utility, and Steam Utility System Revenue Bonds, Series 2013A, 2017A, 2019A, 2021A and 2021B to compute amounts representing the cumulative excess earnings on such bonds. That amount essentially represents a defined portion of any excess of interest earned on funds borrowed over the interest cost of the tax-exempt borrowings. Expense is charged (credited) annually in an amount equal to the estimated increase (decrease) in the cumulative excess earnings for the year. On every fifth anniversary date and upon final maturity of the bonds, the BWL is required to remit to the Internal Revenue Service the amount of any cumulative excess earnings computed on the date of such maturity plus an amount equal to estimated interest earned on previous years' segregated funds. The estimated liability for excess earnings was \$0 at 2023 and 2022. In accordance with the requirements of the bond indenture, the BWL is required to set aside any current year additions to this estimated liability in a rebate fund within 60 days of the anniversary date of the bonds.

12. Risk Management and Insurance

The BWL is exposed to various risks of loss related to property loss, torts, errors and omissions, and employee injuries (workers' compensation), as well as medical benefits provided to employees. The BWL has purchased commercial insurance for certain general liability, business auto, excess liability, property and boiler and machinery, public officials and employee liability claims, specific excess health insurance claims, and specific excess workers' compensation claims, subject to policy terms, limits, limitations, and deductibles. The BWL is self-insured for most workers' compensation and health insurance claims. Settled claims relating to the commercial insurance have not exceeded the amount of insurance coverage in any of the past three fiscal years.

The BWL estimates the liability for self-insured workers' compensation and health insurance claims that have been incurred through the end of the fiscal year, including claims that have been reported as well as those that have not yet been reported. Changes in the estimated liability for the past three fiscal years were as follows:

	Workers' Compensation				Health Insurance							
		2023		2022	2021		2023			2022		2021
Unpaid claims, beginning Incurred claims, including claims incurred but not	\$	2,200,000	\$	2,200,000	\$	2,200,000	\$	1,773,595	\$	1,334,297	\$	1,317,540
reported		24,127		75,737		360,798		20,178,663		16,793,719		13,401,747
Claim payments		(24,127)		(75,737)		(360,798)		(20,265,535)		(16,354,421)		(13,384,990)
Unpaid claims, ending	\$	2,200,000	\$	2,200,000	\$	2,200,000	\$	1,686,723	\$	1,773,595	\$	1,334,297

The liability for health insurance is included with accounts payable on the statement of net position.

13. Upcoming Pronouncements

GASB has approved Statement No. 99, *Omnibus 2022*, Statement No. 100, *Accounting Changes and Error Corrections – an amendment of GASB Statement No.* 62, and Statement No. 101, *Compensated Absences*. When they become effective, application of these standards may restate portions of these financial statements.

14. Subsequent Events

The Board evaluated subsequent events through September 22, 2023, the date that the financial statements were available to be issued, for events requiring recording or disclosure in the financial statements. The Board has issued a \$32.22 million Junior Lien Revenue Bond in connection with the Michigan Department of Environment, Great Lakes and Energy Drinking Water State Revolving Fund loan program, under which the Board has been awarded for \$20 million in principal loan forgiveness. There have been no proceeds received as of September 22, 2023.

REQUIRED SUPPLEMENTARY INFORMATION

Lansing Board of Water and Light Defined Benefit Plan and Trust for Employees' Pensions

Required Supplemental Information (Unaudited) Schedule of Changes in the BWL's Net Pension Asset and Related Ratios Last Ten Fiscal Years

(in thousands)

		2023	 2022	 2021	 2020	 2019	 2018		2017	2016		2015		 2014
Total Pension Liability				 			 							
Service cost	\$	29	\$ 26	\$ 26	\$ 42	\$ 60	\$ 50	\$	113	\$	223	\$	274	\$ 349
Interest		2,721	2,974	3,212	3,566	3,691	4,031		4,317		4,625		4,919	4,751
Changes in benefit terms		-	-	-	-	-	-		-		-		-	-
Differences between expected and actual experience		(981)	179	(968)	(919)	(743)	(230)		(383)		299		(1,093)	964
Changes in assumptions		-	1,730	(366)	1,555	1,210	1,419		(857)		(1,468)		-	4,538
Benefit payments, including refunds		(5,142)	 (5,466)	 (5,658)	 (5,872)	 (6,143)	 (6,414)		(7,473)		(7,896)		(8,046)	 (8,541)
Net change in total pension liability		(3,373)	(557)	(3,754)	(1,628)	(1,925)	(1,144)		(4,283)		(4,217)		(3,946)	2,061
Total Pension Liability - Beginning of year		47,887	 48,444	 52,198	 53,826	 55,751	 56,895		61,178		65,395		69,341	 67,280
Total Pension Liability - End of year		44,514	47,887	48,444	52,198	53,826	55,751		56,895		61,178		65,395	69,341
Plan Net Position														
Contributions, Employer		-	-	-	-	-	-		-		-		-	-
Contributions, Member		-	-	-	-	-	-		-		-		-	-
Net investment income		4,134	(5,399)	11,853	1,658	4,381	3,112		8,272		47		1,771	14,243
Benefit payments, including refunds		(127)	(5,466)	(5,658)	(5,872)	(6,143)	(6,414)		(7,473)		(7,896)		(8,045)	(8,541)
Administrative expenses		(5,143)	(134)	(123)	(145)	(183)	(255)		(317)		(388)		(576)	(596)
Other		-	 -	 -	 (477)	 -	 -		-		-		-	 -
Net change in net position held in trust		(1,136)	(10,999)	6,072	(4,836)	(1,945)	(3,557)		482		(8,237)		(6,850)	5,106
Net Position Restricted for Pensions, Beginning		50,659	 61,658	 55,586	 60,422	 62,367	 65,924		65,442		73,679		80,529	 75,424
Net Position Restricted for Pensions, Ending		49,523	 50,659	 61,658	 55,586	 60,422	 62,367		65,924		65,442		73,679	 80,530
BWL Net Pension Asset, Ending	\$	(5,009)	\$ (2,772)	\$ (13,214)	\$ (3,388)	\$ (6,596)	\$ (6,616)	\$	(9,029)	\$	(4,264)	\$	(8,284)	\$ (11,189)
Plan Net Position as a % of Total Pension Liability		111%	106%	127%	106%	112%	112%		116%		107%		113%	116%
Covered Employee Payroll BWL's Net Pension Asset as a % of Covered Employee	\$ F	248 (2,020%)	\$ 238 (1,165%)	\$ 237 (5,576%)	\$ 240 (1,412%)	\$ 406 (1,625%)	\$ 603 (1,097%)	\$	586 (1,541%)	\$	772 (552%)	\$	1,018 (814%)	\$ 1,225 (913%)

See notes to required supplementary information

Lansing Board of Water and Light Defined Benefit Plan and Trust for Employees' Pensions

Required Supplemental Information (Unaudited) Schedule of Employer Contributions Last Ten Fiscal Years (in thousands)

	2	023	2	2022	2	021	2	2020	2	2019	2	2018	2	017	20	16	2	2015	2	014
Actuarially determined contribution Contributions in relation to the actuarially determined contribution	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Contribution deficiency (excess)	<u>\$</u>		\$		\$		\$		\$		\$		\$		\$		\$		\$	<u> </u>
Covered employee payroll Contributions as a Percentage of Covered Employee Payroll	\$	248 0%	\$	238 0%	•	237 0%	\$	240 0%	\$	406 0%	\$	603 0%	\$	586 0%	\$	772 0%	\$	1,018 0%	\$	1,225 0%

Lansing Board of Water and Light Post-Retirement Benefit Plan and Trust for Eligible Employees

Required Supplemental Information (Unaudited) Schedule of Changes in BWL's Net OPEB Liability (Asset) and Related Ratios Last Ten Fiscal Years (in thousands)

		2023		2022	2	021	 2020	2	019	2	018	2017	201	6*	201	5*	2014	4*
Total OPEB Liability							 											
Service cost	\$	3,451	\$	3,299	\$	3,396	\$ 3,245		,	\$	4,827	\$ 3,130	\$	-	\$	-	\$	-
Interest		9,827		9,871		10,535	10,804	1	4,920		15,039	14,226		-		-		-
Changes in benefit terms		-		-		-	-	,	(415)		-	-		-		-		-
Differences between expected and actual experience		4,770		(1,084)		(8,794)	(6,093)	,	5,231)		(9,880)	,		-		-		-
Changes in assumptions		-		10,173		(3,752)	7,254		9,336)		(1,728)			-		-		-
Benefit payments, including refunds		(10,628)		(13,493)		(8,344)	 (9,157)	(9,278)		<u>10,395</u>)	(9,574)				-		
Net change in total OPEB liability		7,420		8,766		(6,959)	6,053	(5	4,937)		(2,137)	11,036		-		-		-
Total OPEB Liability, Beginning		156,410		147,644	1	54,603	 148,550	20	3,487	2	05,624	194,588						
Total OPEB Liability, Ending		163,830		156,410	1	47,644	154,603	14	8,550	2	03,487	205,624		-		-		-
Trust Net Position																		
Contributions, Employer		68		13,493		8,344	9,157		9,278		10,395	9,574		-		-		-
Contributions, Member		-		-		-	-		-		-	-		-		-		-
Net investment income		21,225		(19,247)		49,387	4,158	1	1,688		11,039	18,040		-		-		-
Administrative expenses		(336)		(355)		(449)	(512)		(569)		(634)	(705)		-		-		-
Benefit payments, including refunds		(10,628)		(13,493)		(8,344)	(9,157)	(9,278)	(10,395)	(9,574)		-		-		-
Other							 				-			-		-		
Net change in net position held in trust		10,329		(19,602)		48,938	3,646	1	1,119		10,405	17,335		-		-		-
Trust fiduciary net position, Beginning		228,141		247,743	1	98,805	 195,159	18	4,040	1	73,635	156,300		-		-		
Trust fiduciary net position, Ending		238,470		228,141	2	47,743	 198,805	19	5,159	18	34,040	173,635						_
had haddaly not position, inang																		
BWL Net OPEB Liability (Asset), Ending	\$	(74,640)	\$	(71,731)	\$ (1	00,099)	\$ (44,202)	\$ (4	6,609)	\$	19,447	\$ 31,989	\$	-	\$	-	\$	-
Trust Fiduciary Net Position as a % of Total OPEB Liability (Asset)		145.56%		145.86%	16	67.80%	128.59%	131	1.38%	9	0.44%	84.44%	-	%	-	%	-	%
Covered Employee Payroll BWL's Net OPEB Liability (Asset) as a % of Covered Employee Payrol	\$ (69,744 107.02%)	\$ (62,976 (113.90%)		60,269 66.09%)	\$ 58,198 (75.95%)		6,785 2.08%)	•	55,650 4.95%	\$ 54,383 58.82%	\$ -	- %	\$ -	- %	\$ -	- %

*GASB Statement No. 74 was implemented as of June 30, 2017. Information from 2014 - 2016 is not available and this schedule will be presented on a prospective basis.

Post-Retirement Benefit Plan and Trust for Eligible Employees of Lansing Board of Water and Light Required Supplemental Information (Unaudited)

Required Supplemental Information (Unaudited Schedule of Employer Contributions Last Ten Fiscal Years (in thousands)

		Employer C	ontrib	utions		erence of uired to	~	overed	Percentage of Actual
Fiscal Year Ended	Re	equired		Actual	A	ctual	Er	nployee Payroll	Contributions to
6/30/2014	\$	9,200	\$	9,268	\$	68	\$	46,971	20%
6/30/2015		5,762		9,671		3,909		50,885	19%
6/30/2016		5,788		9,423		3,635		53,893	17%
6/30/2017		7,508		9,574		2,066		54,383	18%
6/30/2018		7,535		10,395		2,860		55,650	19%
6/30/2019		7,031		9,278		2,247		56,785	16%
6/30/2020		-		9,157		9,157		58,198	16%
6/30/2021		220		8,344		8,124		60,269	14%
6/30/2022		-		13,493		13,493		62,976	21%
6/30/2023		-		68		68		69,744	0%

Board of Water & Light – City of Lansing, Michigan

Notes to Required Supplementary Information (Unaudited) Years Ended June 30, 2023 and 2022

1. Defined Benefit Plan

Actuarial valuation information relative to the determination of contributions:

Valuation date	June 30, 2023, based on roll-forward of February 28, 2023 valuation
Methods and assumptions used to determine	ne contribution rates:
Actuarial cost method	Entry age method
Amortization method	Level dollar over a 15-year period
Remaining amortization period	15 years
Asset valuation method	Market value of the assets
Inflation	2.25%
Salary increases	3.5% per year
Investment rate of return	6.0% per year compounded annually
Mortality	PUB-2010 General Mortality Table with MP-2021 Improvement Scale

Changes to assumptions: No changes in assumptions.

Actuarial valuation information relative to the determination of contributions:

Valuation date	June 30, 2022, based on roll-forward of February 28, 2022
	valuation

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age method
Amortization method	Level dollar over a 15-year period
Remaining amortization period	15 years
Asset valuation method	Market value of the assets
Inflation	2.25%
Salary increases	3.5% per year
Investment rate of return	6.0% per year compounded annually
Mortality	PUB-2010 General Mortality Table with MP-2021 Improvement Scale
Changes to assumptions:	The mortality improvement scale was updated to the MP-2021 improvement scale. The discount rate was decreased from 7.00% to 6.50%.

Board of Water & Light – City of Lansing, Michigan

Notes to Required Supplementary Information (Unaudited) Years Ended June 30, 2023 and 2022

Significant Changes

June 30, 2023

- Difference between actual and expected experience The \$981K actuarial gain on the Total Pension Liability for the fiscal year ending June 30, 2023 is primarily attributable to participant deaths.
- Assumption change None.

June 30, 2022

- Difference between actual and expected experience The \$179K actuarial gain on the Total Pension Liability for the fiscal year ending June 30, 2022 is primarily attributable to the difference between actual experience and demographic assumptions.
- Assumption change The plan experienced a \$1.73MM actuarial loss due to the change in the mortality improvement scale and the decrease in the discount rate from 6.50% to 6.00%. Updating the mortality improvement scale to the MP-2021 scale resulted in a \$120K actuarial loss and decreasing the discount rate resulted in a \$1.61MM actuarial loss. The combination of these two changes resulted in an overall actuarial loss of \$1.73MM.

June 30, 2021

- Difference between actual and expected experience The \$968K actuarial gain on the Total Pension Liability for the fiscal year ending June 30, 2021 is primarily attributable to participant deaths.
- Assumption change The plan experienced a \$366K actuarial gain due to the change in the mortality improvement scale.

June 30, 2020

- Difference between actual and expected experience The \$.92MM actuarial gain on the Total Pension Liability for the fiscal year ending June 30, 2020 is primarily attributable to participant deaths.
- Assumption change The plan experienced a \$1.55MM actuarial loss due to the change in the mortality improvement scale and the decrease the discount rate from 7.00% to 6.50%. Updating the mortality improvement scale to the MP-2019 scale resulted in a \$.22MM actuarial gain and decreasing the discount rate resulted in a \$1.77MM actuarial loss. The combination of these two changes resulted in an overall actuarial loss of \$1.55MM.

June 30, 2019

- Difference between actual and expected experience The \$.74MM gain on the Total Pension Liability for the fiscal year ending June 30, 2019 is primarily attributable to participant deaths.
- Assumption change The plan experienced a \$1.21MM loss due to the change of the mortality assumption from the RP-2014 Total Dataset Mortality adjusted to 2006 and projected generationally using the MP-2017 improvement scale to the PUB-2010 General Employees Mortality, projected generationally using the MP-2018 improvement scale.

Notes to Required Supplementary Information (Unaudited) Years Ended June 30, 2023 and 2022

June 30, 2018

- Difference between actual and expected experience The \$230,000 gain on the Total Pension Liability for the fiscal year ending June 30, 2018 is primarily attributable to participant deaths.
- Assumption change Assumptions for the discount rate and expected return on assets were decreased from 7.50% to 7.00% to reflect the expected long term rate of return on the trust.

June 30, 2017

- Difference between actual and expected experience The \$383,000 gain on the Total Pension Liability for the fiscal year ending June 30, 2017 is primarily attributable to participant deaths.
- Assumption change The plan experienced a \$.86MM gain due to the change of the mortality assumption from the RP-2014 table projected generationally with Scale MP-2014 with MP-2016 Improvement Scale.

June 30, 2016

- Difference between actual and expected experience The \$299,000 loss on the Total Pension Liability for the fiscal year ending June 30, 2016 is primarily attributable to participant deaths.
- Assumption change The plan experienced a \$1.47MM gain due to the change of the mortality assumption from the RP-2014 table projected generationally with Scale MP-2014 with MP-2015 Improvement Scale.

June 30, 2015

- Difference between actual and expected experience The \$1.01MM gain on the Total Pension Liability for the fiscal year ending June 30, 2015 is primarily attributable to participant deaths.
- Assumption change There were no impacts associated with assumption changes.

June 30, 2014

- Difference between actual and expected experience The \$964,000 loss on the Total Pension Liability for the fiscal year ending June 30, 2014 is primarily attributable to participant deaths.
- Assumption change The plan experienced a \$4.54MM loss due to the change of the mortality assumption from the RP2000CH table projected to 2018 with Scale AA to the RP-2014 table projected generationally with Scale MP-2014.

Board of Water & Light – City of Lansing, Michigan

Notes to Required Supplementary Information (Unaudited) Years Ended June 30, 2023 and 2022

2. Post-Retirement Benefit Plan

Actuarial valuation information relative to the determination of contributions:

Valuation date	June 30, 2023, based on roll-forward of February 28, 2023 valuation
Methods and assumptions used to determi	ne contribution rates:
Actuarial cost method	Entry age normal level % of salary method
Amortization method	Level dollar over a 30-year closed period
Remaining amortization period	25 years
Inflation	2.25%
Salary increases	9.0% growth at age 25 and decreases to 5.3% for ages 60+. This percentage includes general wage inflation and merit / productivity increases.
Investment rate of return	6.5% per year compounded annually
Mortality	PUBH-2010 General Employees Mortality Table projected generationally using MP-2021 scale
Actuarial valuation information relative to the	ne determination of contributions:
Valuation date	June 30, 2022, based on roll-forward of February 28, 2022 valuation
Methods and assumptions used to determi	ne contribution rates:
Actuarial cost method	Entry age normal level % of salary method
Amortization method	Level dollar over a 30-year closed period
Remaining amortization period	26 years
Inflation	2.25%
Salary increases	9.0% growth at age 25 and decreases to 5.3% for ages 60+. This percentage includes general wage inflation and merit / productivity increases.
Investment rate of return	6.5% per year compounded annually
Mortality	PUBH-2010 General Employees Mortality Table projected generationally using MP-2021 scale

Board of Water & Light – City of Lansing, Michigan

Notes to Required Supplementary Information (Unaudited) Years Ended June 30, 2023 and 2022

Significant Changes:

June 30, 2023

- Difference between actual and expected experience The \$4.77M actuarial loss on the Total OPEB Liability for the fiscal year ending June 30, 2023 is attributable to the combination of unfavorable demographic experience and unfavorable claims experience for the pre-Medicare retirees. \$1.86M of the actuarial loss is associated with demographic experience. The remaining \$2.91M of the actuarial loss is due to higher than expected 2023 per capita claims cost.
- Assumption change None.
- Investment gain The \$6.75M investment gain during the fiscal year ending June 30, 2023 is attributable an actual return on assets of 9.52% vs. an expected return of 6.50%.

June 30, 2022

- Difference between actual and expected experience The \$1.08MM actuarial gain on the Total OPEB Liability for the fiscal year ending June 30, 2022 is attributable to favorable demographic experience. The favorable demographic experience is mainly attributable to deaths (25 participants), termination of active participants and changes in coverage elections.
- Assumption change The \$10.17MM actuarial loss on the Total OPEB liability for the fiscal year ending June 30, 2022 is attributable to updating the mortality improvement scale to the MP-2021 scale, updating the demographic assumptions to reflect the results of the 2022 experience analysis and decreasing the discount rate from 7.0% to 6.5%. Updating the mortality improvement scale resulted in a \$.38MM actuarial loss. Updating the demographic assumptions resulted in a \$1.73MM actuarial loss. The remaining \$8.06MM of actuarial loss is attributable to decreasing the discount rate from 7.0% to 6.5%.

June 30, 2021

- Difference between actual and expected experience The \$8.79MM actuarial gain on the Total OPEB Liability for the fiscal year ending June 30, 2021 is attributable to the combination of favorable demographic experience and lower than expected 2021 per capita claims cost.
 \$3.94MM of the actuarial gain is associated with demographic experience and is mainly attributable to deaths (37 participants), termination of active participants and changes in coverage elections. The remaining \$4.85MM of the actuarial gain is due to less than expected 2021 per capita claims cost. The 2021 Humana premiums are slightly lower than what was expected for 2021 (\$321.92 per month vs. \$347.80 per month)
- Assumption change The \$3.75MM actuarial gain on the Total OPEB liability for the fiscal year ending June 30, 2021 is attributable to updating the mortality improvement scale to the MP-2020 scale and reflecting the updated healthcare trend assumptions set forth in the Michigan Uniform Assumptions memo for the 2021 fiscal year. Updating the mortality improvement scale resulted in a \$1.18MM actuarial gain. The remaining \$2.57MM of the actuarial gain is attributable to reflecting the updated trend assumptions.

Notes to Required Supplementary Information (Unaudited) Years Ended June 30, 2023 and 2022

June 30, 2020

- Difference between actual and expected experience The \$6.09MM gain on the Total OPEB Liability for the fiscal year ending June 30, 2020 is attributable to the combination of unfavorable demographic experience and a reduction in the per capita claims cost used in the June 30, 2020 valuation. The \$1.13MM loss associated with demographic experience is mainly attributable to active participant retirements. The \$7.22MM gain due to a reduction in per capita claims cost is attributable a decrease in the Pre-65 medical and prescription drug premiums for 2021. The 2020 Pre-65 medical and Rx monthly premium for a retiree was \$1,073.13. For 2020, the Pre-65 medical and Rx monthly premium for a retiree is \$957.99. An 11% reduction in monthly premium. The combination of the demographic loss and the reduction in monthly premiums resulted in the overall \$6.09MM actuarial gain.
- Assumption change The \$7.25MM loss on the Total OPEB liability for the fiscal year ending June30, 2020 is attributable to updating the mortality improvement scale to the MP-2019 scale and decreasing the discount rate from 7.50% to 7.00%. Updating the mortality improvement scale resulted in a \$.53MM actuarial gain. Whereas, decreasing the discount rate resulted in a \$7.78MM actuarial loss. The combination of these changes resulted in the overall \$7.25MM actuarial loss.

June 30, 2019

- Difference between actual and expected experience The \$5.2 million gain on the Total OPEB Liability for the fiscal year ending June 30, 2019 is primarily due to favorable demographic experience. The favorable experience is mainly attributable to terminations of active participants and deaths of participants with and without beneficiaries.
- Assumption changes (1) The plan experienced a \$54.4 million gain on the Total OPEB Liability due to a change of the assumed per capita claims cost. The Board changed the Plan's insurance provider for Medicare eligible participants from The Hartford and Envision Insurance to Humana. Doing so resulted in a dramatic decrease in both the medical and prescription drug monthly premiums from the prior fiscal year (\$98.99 per month vs. \$219.54 per month for medical coverage and \$213.47 per month vs. \$305.00 per month for prescription drug coverage); (2) The Plan experienced a \$3.8 million loss on the mortality assumption change. The mortality assumption was updated from the RPH-2014 Total Dataset mortality, adjusted to2006 and projected generationally using the MP-2017 improvement scale to the PUBH-2010 General Employees mortality, projected generationally using the MP-2018 improvement scale; and (3) The Plan experienced a \$8.7 million gain on a change to the medical and prescription drug trend assumptions. The trend assumptions were changed to those prescribed under the Michigan Uniform Assumptions for the 2019 fiscal year.
- Change in benefit terms The Plan experienced a \$.4 million gain due to an expected increase in the retiree contribution percentage for employees hired on or after January 1, 2009. The expected contribution percentage was increased from 14% to 20% of the premium charged to active employees.

June 30, 2018

- Difference between actual and expected experience The \$9.9 million gain on the Total OPEB Liability for the fiscal year ending June 30, 2018, is attributable to a reduction in the per capita claims cost used in the June 30, 2018 valuation. Better than expected claims experience during the fiscal year resulted in a decrease in the projected claims when compared to those used in the June 30, 2017, valuation.
- Assumption change The mortality improvement scale was updated to the MP-2017 scale.

SUPPLEMENTARY INFORMATION

Board of Water & Light - City of Lansing, Michigan Income Available for Revenue Bond Debt Retirement

Years Ended June 30, 2023 and 2022

	 2023	 2022
Income, Before Capital Contributions Per Statement of Revenues, Expenses and Changes in Net Position	\$ 16,048,837	\$ 11,589,054
Adjustments to Income		
Depreciation	70,371,305	56,503,060
Interest on long-term debt:		
Notes	39,109	20,721
Revenue bonds	 26,376,856	26,862,101
Total additional income	 96,787,270	 83,385,882
Income Available for Revenue Bonds and Interest Redemption	 112,836,107	 94,974,936
Debt Retirement Pertaining to Revenue Bonds		
Principal	13,410,000	12,950,000
Interest	 29,113,395	29,639,615
Total	 42,523,395	 42,589,615
Percent Coverage of Revenue Bonds and Interest Requirements	\$ 265	\$ 223

Board of Water & Light - City of Lansing, Michigan Detail of Statements of Revenues and Expenses Years Ended June 30, 2023 and 2022

	Com	bine	d	Wa	ter		Electric				Steam					Chilled Water			
	 2023		2022	2023		2022		2023		2022		2023		2022		2023		2022	
Operating Revenues																			
Water	\$ 50,683,766	\$	49,028,486	\$ 50,683,766	\$	49,028,486	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
Electric:																			
Retail	315,840,115		286,967,530	-		-		315,840,115		286,967,530		-		-		-		-	
Sales for resale	62,951,601		43,085,378	-		-		62,951,601		43,085,378		-		-		-		-	
Steam	12,661,267		11,934,456	-		-		-		-		12,661,267		11,934,456		-		-	
Chilled water	 6,740,010		6,133,314	 -		-		-		-		-		-		6,740,010		6,133,314	
Total operating revenues	 448,876,759		397,149,164	 50,683,766		49,028,486		378,791,716		330,052,908		12,661,267		11,934,456		6,740,010		6,133,314	
Operating Expenses																			
Production:																			
Fuel, purchased power and																			
other operating expenses	172,700,755		149,112,738	11,198,644		9,435,991		154,698,656		133,144,945		4,644,100		4,737,969		2,159,355		1,793,833	
Maintenance	18,044,058		14,534,397	4,198,230		4,013,107		12,565,644		9,271,738		688,443		663,163		591,741		586,389	
Transmission and distribution:																			
Operating expenses	8,872,835		8,314,546	1,658,536		1,313,728		7,042,845		6,882,226		171,454		118,592		-		-	
Maintenance	22,386,918		19,040,926	3,551,034		4,022,344		18,364,613		14,546,121		471,271		472,461		-		-	
Administrative and general	87,448,518		75,850,273	19,254,288		15,832,019		63,730,326		56,017,223		3,089,967		2,853,043		1,373,937		1,147,988	
Return on equity	26,428,992		25,000,000	2,858,495		3,146,386		22,419,987		20,675,402		746,109		754,748		404,401		423,464	
Depreciation	 70,371,305		56,503,060	 9,127,075		8,967,060		55,887,062		42,223,210		3,946,378		3,886,888		1,410,790		1,425,902	
Total operating expenses	 406,253,381		348,355,940	 51,846,302		46,730,635		334,709,133		282,760,865		13,757,722		13,486,864		5,940,224		5,377,576	
Operating income	 42,623,378		48,793,224	 (1,162,536)		2,297,851		44,082,583		47,292,043		(1,096,455)		(1,552,408)		799,786		755,738	
Nonoperating Income (Expenses)																			
Investment income (loss)	3,682,036		(5,372,203)	547,979		(558,864)		2,480,644		(4,513,675)		496,610		(222,773)		156,803		(76,891)	
Other (expense) income	(3,840,612)		(4,949,145)	862,904		776,667		(4,820,837)		(5,626,918)		(330,534)		(319,953)		447,855		221,059	
Bonded debt interest expense	(26,376,856)		(26,862,101)	(1,512,107)		(1,624,972)		(22,648,357)		(22,903,999)		(1,941,266)		(1,966,468)		(275,126)		(366,662)	
Other interest expense	 (39,109)		(20,721)	 (4,015)		(1,541)		(35,051)		(19,169)		(43)		(11)		-		-	
Total nonoperating expense	 (26,574,541)		(37,204,170)	 (105,239)		(1,408,710)		(25,023,601)		(33,063,761)		(1,775,233)		(2,509,205)		329,532		(222,494)	
Net income (loss)	\$ 16,048,837	\$	11,589,054	\$ (1,267,775)	\$	889,141	\$	19,058,982	\$	14,228,282	\$	(2,871,688)	\$	(4,061,613)	\$	1,129,318	\$	533,244	

Board of Water & Light - City of Lansing, Michigan Detail of Statements of Changes in Net Position Years Ended June 30, 2023 and 2022

	Combined	Water	Electric	Steam	Chilled Water
Net Position, June 30, 2021	\$ 685,315,882	\$ 103,563,405	\$ 579,265,047	\$ (7,561,365)	\$ 10,048,795
Income (loss) before contributions	11,589,054	889,141	14,228,282	(4,061,613)	533,244
Net Position, June 30, 2022	696,904,936	104,452,546	593,493,329	(11,622,978)	10,582,039
Income (loss) before contributions	16,048,837	(1,267,775)	19,058,982	(2,871,688)	1,129,318
Net Position, June 30, 2023	\$ 712,953,773	\$ 103,184,771	\$ 612,552,311	\$ (14,494,666)	\$ 11,711,357

Board of Water & Light - City of Lansing, Michigan

Detail of Fiduciary Statements of Net Position -Pension and OPEB Trust Funds Years Ended June 30, 2023 and 2022

	2023										
	Defined Contribution Plan	Defined Benefit Plan	VEBA	Total							
Assets											
Receivable, investment interest receivable	\$ -	\$ 1,100	\$ 13,772	\$ 14,872							
Cash and cash equivalents	862,865	778,163	338,130	1,979,158							
Investments at fair value:											
Mutual funds	148,520,087	31,282,941	156,666,884	336,469,912							
Stable value	27,332,984	-	-	27,332,984							
Common collective funds	-	13,544,502	41,345,355	54,889,857							
Real estate fund investment	-	3,932,003	42,471,497	46,403,500							
Self-directed brokerage account											
Equities	9,997,083	-	-	9,997,083							
Fixed income	349,683	-	-	349,683							
Mutual funds	454,285	-	-	454,285							
Participants note receivable	3,439,525			3,439,525							
Total assets	190,956,512	49,538,709	240,835,638	481,330,859							
Liabilities											
Trade payable, due to broker/other	<u> </u>	15,476	2,365,067	2,380,543							
Net Position, Held in Trust for Pension and Other Employee Benefits	\$ 190,956,512	\$ 49,523,233	\$ 238,470,571	\$ 478,950,316							

	2022						
	Defined Contribution Plan	Defined Benefit Plan	VEBA	Total			
Assets							
Receivable, investment interest receivable	\$ -	\$ 1,171	\$ 3,091	\$ 4,262			
Trade receivable, due from broker	-	500,000	-	500,000			
Cash and cash equivalents	1,662,131	1,308,877	957,009	3,928,017			
Investments at fair value:							
Mutual funds	139,302,720	30,178,912	138,313,141	307,794,773			
Stable value	29,720,419	-	-	29,720,419			
Common collective funds	-	14,578,119	41,956,442	56,534,561			
Real estate fund investment	-	4,093,767	46,922,667	51,016,434			
Self-directed brokerage account							
Equities	8,979,962	-	-	8,979,962			
Fixed income	-	-	-	-			
Mutual funds	515,714	-	-	515,714			
Participants note receivable	3,302,591			3,302,591			
Total assets	183,483,537	50,660,846	228,152,350	462,296,733			
Liabilities							
Trade payable, due to broker/other		2,072	12,256	14,328			
Net Position, Held in Trust for Pension and Other Employee Benefits	\$ 183,483,537	\$ 50,658,774	\$ 228,140,094	\$ 462,282,405			

Board of Water & Light - City of Lansing, Michigan Detail of Statement of Changes in Fiduciary Net Position -

Detail of Statement of Changes in Fiduciary Net Position Pension and OPEB Trust Funds Years Ended June 30, 2023 and 2022

	2023							
	Defined Contribution Plan		Defined Benefit Plan		VEBA		Total	
Increases								
Net appreciation in								
fair value of investments	\$	14,923,330	\$	2,662,472	\$	15,226,432	\$	32,812,234
Interest and dividend income		3,131,258		1,471,375		5,999,336		10,601,969
Net investment income		18,054,588		4,133,847		21,225,768		43,414,203
Employer contributions		11,648,704		-		68,076		11,716,780
Interest from participant notes receivable		131,862		-		-		131,862
Other		84,494				-		84,494
Total increases		29,919,648		4,133,847		21,293,844		55,347,339
Decreases								
Retiree benefits paid		21,900,248		5,142,408		10,627,788		37,670,444
Loan defaults		396,895		-		-		396,895
Participants' note and administrative fees		149,530		126,980		335,579		612,089
Total decreases		22,446,673		5,269,388		10,963,367		38,679,428
Change in net position held in trust		7,472,975		(1,135,541)		10,330,477		16,667,911
Net Position Held in Trust for Pension and Other Employee Benefits								
Beginning		183,483,537		50,658,774		228,140,094		462,282,405
Ending	\$	190,956,512	\$	49,523,233	\$	238,470,571	\$	478,950,316

Board of Water & Light - City of Lansing, Michigan Detail of Statement of Changes in Fiduciary Net Position -

Detail of Statement of Changes in Fiduciary Net Position -Pension and OPEB Trust Funds Years Ended June 30, 2023 and 2022

	2022							
	Defined Contribution Plan		Defined Benefit Plan		VEBA		Total	
Increases Investment income:								
Interest and dividend income	\$	2,665,738	\$	2,102,005	\$	7,872,032	\$	12,639,775
Net investment income		2,665,738		2,102,005		7,872,032		12,639,775
Employer contributions Interest from participant notes receivable		11,134,555 729,619		-		13,492,757 -		24,627,312 729,619
Total increases		14,529,912		2,102,005		21,364,789		37,996,706
Decreases Investment loss: Net depreciation in fair								
value of investments		20,323,831		7,500,562		27,121,349		54,945,742
Retiree benefits paid		20,560,553		5,466,158		13,492,757		39,519,468
Loan defaults		577,197		-		-		577,197
Participants' note and administrative fees		150,974		134,610		353,816		639,400
Total decreases		41,612,555		13,101,330		40,967,922		95,681,807
Change in net position held in trust		(27,082,643)		(10,999,325)		(19,603,133)		(57,685,101)
Net Position Held in Trust for Pension and Other Employee Benefits								
Beginning of year		210,566,180		61,658,099		247,743,227		519,967,506
End of year	\$	183,483,537	\$	50,658,774	\$	228,140,094	\$	462,282,405

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Appendix D

BOND RESOLUTION CONSOLIDATED VERSION

The Bond Resolution is presented in this Appendix D in consolidated form, and certain details with respect to the Series 2024A Bonds have been omitted.

The series-specific provisions of the Bond Resolution refer to the "Series 2024 Bonds" throughout. Pursuant to the authority granted to the Chief Financial Officer under the Bond Resolution, and as described in this official statement, the bonds to be issued under the Bond Resolution will be designated Utility System Revenue and Revenue Refunding Bonds, Series 2024A. Therefore, all references to the "Series 2024 Bonds" apply to the Series 2024A Bonds.

Copies of the Amended and Restated Utility System Revenue Bond Resolution and any supplements or amendments may be obtained from the Chief Financial Officer of the BWL.

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AMENDED AND RESTATED UTILITY SYSTEM REVENUE BOND RESOLUTION, AS AMENDED

Section 1. <u>Definitions</u>. Whenever used in this Bond Resolution, except when otherwise indicated by the context, the following terms shall have the following meanings:

(a) "Act 94" means Act 94, Public Acts of Michigan 1933, as amended.

(b) "Additional Bonds" means any additional bonds of equal standing with the Bonds issued pursuant to Section 24 of this Bond Resolution.

(c) "Aggregate Debt Service" for any period means, as of any date of calculation by the Board, the sum of the amounts of the debt service for such period with respect to all Outstanding Bonds. In the event that any of the Outstanding Bonds bear interest at a variable rate, such Bonds shall, for purposes of calculating Aggregate Debt Service, be assumed by the Board to bear interest at a fixed rate of interest equal to the greater of the actual rate of interest then borne by such variable rate Bonds or the Certified Interest Rate applicable thereto.

(d) "Aggregate Debt Service Requirement" means for any period, and as of any date of calculation, Aggregate Debt Service for such period, less any capitalized interest to be paid from the proceeds of the Bonds.

(e) "Board" means the Board of Water and Light established pursuant to Section 5-201 of Chapter 2 of the City Charter of the City.

(f) "Bond Reserve Account" means the Bond Reserve Account established pursuant to Section 18(B) of this Bond Resolution.

(g) "Bond Resolution" means this Amended and Restated Bond Resolution and any other resolution amendatory to or supplemental to this Amended and Restated Bond Resolution.

(h) "Bonds" or "Senior Lien Bonds" means the Outstanding portion of the Water Supply, Steam, Chilled Water and Electric Utility System Revenue Bonds, Series 2008A, the Utility System Revenue Bonds, Series 2011A, the Utility System Revenue Refunding Bonds, Series 2012A, the Utility System Revenue Refunding Bonds, Series 2013A, the 2017A Bonds, and the Series 2019 Bonds, and any Additional Bonds of equal standing hereafter issued.

(i) "Certified Interest Rate" shall mean the interest rate determined by a certificate of the Chief Financial Officer executed on or prior to the date of delivery of variable rate Bonds as the rate of interest the variable rate Bonds would bear if they were issued at a fixed rate of interest based on the Bond Buyer Revenue Bond Index and assuming the same maturity date, terms and provisions (other than interest rate) as the variable rate Bonds, and on the basis of the Board's credit ratings with respect to the Bonds (other than Bonds for which credit enhancement is provided by a third party). Determination of the Certified Interest Rate as described in the prior sentence shall be conclusive.

(j) "Chief Financial Officer" means the Board's Chief Financial Officer.

(k) "City" means the City of Lansing, Michigan.

(1) Consulting Engineer" means the engineer or engineering firm or firms appointed from time to time, and having a favorable reputation for skill and experience in the design and operation of municipal utility systems, at the time retained by the Board to perform the acts and carry out the duties provided for such Consulting Engineer in the Bond Resolution.

(m) "Event of Default" means an Event of Default specified in Section 25 of this Bond Resolution.

(n) "Government Obligations" means (i) direct obligations of (including obligations issued or held in book entry form on the books of) the United States of America, (ii) obligations the payment on which is guaranteed by the United States of America including, but not limited to, stripped interest components of obligations issued by the Resolution Funding Corporation (REFCORP) and non-callable, non-prepayable debt obligations of the United States Agency for International Development (US AID), which pay principal and interest at least three (3) business days prior to any respective escrow requirement dates, or (iii) non-callable, senior debt obligations of any government-sponsored enterprise or federal agency, corporation, or instrumentality of the United States of America created by an act of congress including, but not limited to, the Federal Home Loan Banks, Freddie Mac, Federal Farm Credit Banks Funding Corporation, and Fannie Mae.

(o) "Internal Revenue Code" means the Internal Revenue Code of 1986, as amended.

(p) "Investment Obligations" means, to the extent authorized by law, (i) United States government obligations; (ii) obligations the principal and interest on which is fully guaranteed by the United States; (iii) repurchase agreements that are secured by United States government obligations or obligations fully guaranteed by the United States and that are

held by an independent third party; (iv) certificates of deposit or other accounts of, or bankers acceptances of, 1 or more of the following: (a) banks that are members of the federal deposit insurance corporation; (b) savings and loan associations that are members of the federal savings and loan insurance corporation; (c) credit unions whose accounts are insured by the national credit union share insurance fund; (v) commercial paper that is rated in the highest category by a nationally recognized rating agency; (vi) obligations of a state of the United States or of a political subdivision of a state of the United States that are rated in 1 of the 3 highest categories by a nationally recognized rating agency; (vii) a collective investment fund that invests solely in 1 or more of the securities described above; and (viii) Government Obligations.

(q) "Junior Lien Bonds" and "Junior Lien Notes" means bonds, bond anticipation notes issued under Act 34, Public Acts of Michigan, 2001, as amended, or other obligations which may be issued or incurred by the Board to provide funds for any lawful purpose of the System which are of junior standing and priority of lien with respect to the Net Revenues to the claim of the Bonds.

(r) "Municipal Obligation" means any bonds or other obligations of any state of the United States of America or of any agency, instrumentality or local governmental unit of any such state (i) which are not callable at the option of the obligor prior to maturity or as to which irrevocable notice has been given by the obligor to call on the date specified in the notice, and (ii) which are fully secured as to principal and interest and redemption premium, if any, by a fund consisting only of cash or Government Obligations, which fund may be applied only to the payment of such principal of and interest and redemption premium, if any, on such bonds or other obligations on the maturity date or dates thereof or the specified redemption date or dates pursuant to such irrevocable instructions, as appropriate, and (iii) which fund is sufficient, as verified by an independent certified public accountant, to pay principal of and interest and redemption on the maturity date or dates specified in this definition of Municipal Obligation, as appropriate, and (iv) which are rated, based on the escrow, in the highest rating category of Standard & Poor's Corporation, Fitch Ratings, Moody's Investors Service, Inc. or any successors thereto.

(s) "Net Revenues" means the Revenues remaining after deducting the reasonable expenses of administration, operation, and maintenance of the System.

(t) "Operation and Maintenance Fund" means the Operation and Maintenance Fund established pursuant to Section 18(A) of this Bond Resolution.

(u) "Outstanding Bonds" means Bonds issued under this Bond Resolution except:

(i) Bonds cancelled by the Transfer Agent at or prior to such date;

(ii) Bonds (or portions of Bonds) for the payment or redemption of which moneys or Government Obligations, equal to the principal amount or redemption price thereof, as the case may be, with interest to the date of maturity or redemption date, shall be held in trust under this Bond Resolution and set aside for such payment or redemption (whether at or prior to the maturity or redemption date), provided that if such Bonds (or portions of Bonds) are to be redeemed, notice of such redemption shall have been given as provided in this Bond Resolution or provision satisfactory to the Transfer Agent shall have been made for the giving of such notice;

(iii) Bonds in lieu of or in substitution for which other Bonds shall have been authenticated and delivered hereunder; and

(iv) Bonds no longer deemed to be Outstanding Bonds as provided in Section 5 of this Bond Resolution.

(v) "Rebate Fund" means the Rebate Fund established pursuant to Section 19 of this Bond Resolution.

(w) "Receiving Fund" means the Receiving Fund established pursuant to Section 18 of this Bond Resolution.

(x) "Redemption Fund" means the Bond and Interest Redemption Fund established pursuant to Section 18(B) of this Bond Resolution.

(y) "Registered Owner" means the owner of a Bond as shown by the registration records kept by the Transfer Agent.

(z) "Reserve Requirement" shall mean the following: (i) if the long-term unenhanced credit ratings of the Outstanding Bonds are in at least the "A/A2" category without regard to notching factors (or an equivalent rating in at least the third highest category of nationally recognized bond rating agencies), \$0, only upon the written direction of the Chief Financial Officer; or (ii) if the long-term unenhanced credit ratings of the Outstanding Bonds are reduced below the "A/A2" category without regard to notching factors (or an equivalent rating in at least the third highest

category of nationally recognized bond rating agencies), the lesser of (1) 50% of the maximum annual debt service requirements on the Outstanding Bonds, (2) 62.5% of the average annual debt service requirements on the Outstanding Bonds, or (3) the total of 5% of the original aggregate face amount of each series of the Outstanding Bonds, reduced by the net original issue discount, if any; provided, however, that the Reserve Requirement shall not at any time exceed the amount allowed to be invested at an unrestricted yield pursuant to Treas. Reg. \$1.148-2(f)(2) or any successor provision thereto applicable to the Bonds. For purposes of determining the Reserve Requirement, the long-term unenhanced credit ratings of the Outstanding Bonds shall be determined with regard only to the highest two long-term unenhanced ratings of such Bonds. Therefore, subsection (z)(ii) applies only if both such ratings are reduced below the "A/A2" category without regard to notching factors (or an equivalent rating as described above). The Board may rely on the advice of its financial advisor as to which rating category or categories its ratings are within.

(aa) "Revenues" means the income derived from the rates charged for the services, facilities, and commodities furnished by the System, earnings on investment of funds and accounts of the System required to be deposited in the Receiving Fund pursuant to this Bond Resolution and other revenues derived from or pledged to the operation of the System.

(bb) "Senior Lien Bonds" means the Bonds and does not include the Junior Lien Bonds and Junior Lien Notes.

- (cc) [Omitted]
- (dd) [Omitted]
- (ee) [Omitted]
- (ff) [Omitted]

(gg) "Sufficient" means with respect to (i) cash or (ii) Government Obligations or (iii) Municipal Obligations, or any combination thereof, not redeemable at the option of the issuer thereof, the principal and interest payments upon which, without reinvestment of the interest, come due at such times and in such amounts, as to be fully sufficient to pay the interest as it comes due on the Bonds or any portion thereof and the principal and redemption premium, if any, on the Bonds or any portion thereof as they come due whether on the stated maturity date or upon earlier redemption. Securities representing such obligations or cash shall be placed in trust with a bank or trust company, and if any of the Bonds are to be called for redemption prior to maturity, irrevocable instructions to call the Bonds for redemption shall be given to the Transfer Agent.

(hh) "System" means the complete facilities of the Board for the supply and distribution of water and the generation and distribution of electricity, steam, chilled water, and heat, including all plants, works, instrumentalities and properties used or useful in connection with the supply and distribution of water and the generation and distribution of electricity, steam, chilled water, and heat, and all additions, extensions and improvements thereto existing or hereafter acquired by the Board.

(ii) "Transfer Agent" means U.S. Bank National Association, or such other bank selected by the Board for payment of the Bonds.

[Sections 2-11 Related to the Issuance of Series 2019 Bonds Omitted]

Section 12. <u>Payment of Bonds; Defeasance</u>. The Bonds and the interest thereon shall be payable solely from the Net Revenues, and to secure such payment, there is hereby created a statutory lien upon the whole of the Net Revenues. Pursuant to provisions of Act 94, the City, by and through its Board, hereby pledges to the repayment of principal of, redemption premium, if any, and interest on the Bonds, the funds and accounts established by this Bond Resolution, and a statutory lien is hereby created on such funds and accounts. The liens and pledge provided by this Bond Resolution shall continue until payment in full of the principal of and interest on all Bonds payable from Net Revenues, or, until Sufficient cash, Sufficient Government Obligations, Sufficient Municipal Obligations or any combination thereof shall have been deposited in trust for payment in full of the principal of and the interest on all Bonds to be paid to their maturity, or, if called or if irrevocable instructions have been given to call Bonds for redemption, to the date fixed for redemption together with the amount of the redemption premium, if any. Upon deposit of Sufficient cash, Sufficient Government Obligations, Sufficient Municipal Obligations or Municipal Obligations, or combination thereof, the statutory lien created by this Bond Resolution shall be terminated with respect to the Bonds to be paid from the cash, Government Obligations, or combination thereof, the Registered Owners of such Bonds shall have no further rights under this Bond Resolution except for payment from the deposited funds and for the rights of replacement, registration and transfer provided by this Bond Resolution, and such Bonds shall no longer be considered to be Outstanding Bonds under this Bond Resolution.

Section 13. <u>Management</u>. The operation, repair and management of the System shall be under the supervision and control of the Board.

Section 14. <u>Charges</u>. The rates to be charged for service furnished by the System and the methods of collection and enforcement of the collection of the rates shall be those permitted by law and established by the Board and in effect on the date of adoption of this Bond Resolution and thereafter as established by the Board.

Section 15. <u>No Free Service</u>. No free service shall be furnished by the System to any person, firm or corporation public or private, or to any public agency or instrumentality.

Section 16. <u>Rate Covenant</u>. The Board will at all times fix, establish, maintain and collect rates, fees and charges for the sale of the output, capacity, use or service of the System which, together with other income, are reasonably expected to yield Net Revenues equal to at least 125% of the Aggregate Debt Service Requirement for the forthcoming twelve month period plus such amount as is necessary to comply with all covenants in the Bond Resolution and to pay all charges and liens whatsoever payable out of Net Revenues in such period.

Section 17. <u>Operating Year</u>. The System shall continue to be operated on the basis of an operating year commencing on July 1st and ending on the 30th day of the following June. For purposes of determining the annual Aggregate Debt Service Requirement on the Bonds for any operating year, payments of principal and interest due on July 1st shall be considered to be part of the Aggregate Debt Service Requirement for the preceding operating year.

Section 18. <u>Funds and Accounts: Flow of Funds</u>. All Revenues of the System shall be set aside as collected and credited to a fund established with the Depository to be designated UTILITY SYSTEM RECEIVING FUND. The Revenues so credited are pledged for the purpose of the following funds and shall be transferred from the Receiving Fund periodically in the manner and at the times hereinafter specified:

A. <u>OPERATION AND MAINTENANCE FUND</u>: Periodically, out of the Revenues credited to the Receiving Fund there shall be first set aside in, or credited to, a fund designated OPERATION AND MAINTENANCE FUND, a sum sufficient to provide for the payment during the succeeding period of the next month's expenses of administration and operation of the System, including such current expenses for the maintenance thereof as may be necessary to preserve the same in good repair and working order.

B. <u>BOND AND INTEREST REDEMPTION FUND</u>: There shall be established and maintained a fund designated BOND AND INTEREST REDEMPTION FUND, the moneys on deposit therein from time to time to be used solely, except for required deposits to the Rebate Fund, for the purpose of paying the principal of, redemption premium, if any, and interest on the Bonds.

Out of the Revenues remaining in the Receiving Fund, after provision for the credit or deposit to the Operation and Maintenance Fund, there shall next be set aside, monthly, in the Redemption Fund a sum proportionately sufficient to provide for the payment of the principal of, mandatory redemption requirements, if any, and interest on the Bonds as and when the same shall become due and payable, subject to any credit therefor as provided in this Section 18(B). If there is any deficiency in the amount previously set aside, that deficiency shall be added to the requirements for the next succeeding month.

There shall be established a separate account in the Redemption Fund to be known as the BOND RESERVE ACCOUNT. If, as a result of a reduction in the long-term unenhanced credit ratings of the Outstanding Bonds to a category below "A/A2" without regard to notching factors (or an equivalent rating in at least the third highest category of nationally recognized bond rating agencies) as described in Section 1(z)(ii) (a "Ratings Downgrade Event"), the Reserve Requirement is increased from \$0, and amounts then held in the Bond Reserve Account are insufficient to meet the Reserve Requirement, then the Board must satisfy the Reserve Requirement either by:

- transferring moneys to the Bond Reserve Account from an available source of funds (other than proceeds of Additional Bonds) in an amount equal to the Reserve Requirement in six (6) semi-annual installments beginning on the date which is 180 days following the Ratings Downgrade Event; or
- (ii) purchasing a letter of credit, a surety bond, or an insurance policy within 180 days of the Ratings Downgrade Event; provided, however, the provider or issuer thereof shall be rated by any nationally recognized bond rating agency as high or higher than the Bonds at the time of purchase of the letter of credit, surety bond, or insurance policy; or
- (iii) transferring moneys to the Bond Reserve Account from proceeds of Additional Bonds within 180 days of the Ratings Downgrade Event.

The Board must adopt a plan to satisfy the Reserve Requirement pursuant to either Subsection (i), (ii) or (iii) above within ninety (90) days of the Ratings Downgrade Event.

Except as otherwise provided in this Bond Resolution, the moneys credited to the Bond Reserve Account shall be used solely for the payment of the principal of, redemption premium, if any, and interest on the Bonds as to which there would otherwise be a default. If, at any time, it shall be necessary to use moneys credited to the Bond Reserve Account for such payment, then the moneys so used shall be replaced from the Net Revenues first received thereafter which are not required for expenses of administration, operation, and maintenance of the System or for current principal and interest requirements on any of the Bonds.

If at any time the amount in the Bond Reserve Account exceeds the Reserve Requirement, the excess may be transferred to such fund or account as the Board may direct; provided, however, if the excess is allocable to proceeds of tax-exempt Outstanding Bonds (or proceeds of tax-exempt Bonds refunded by the Outstanding Bonds) then such excess shall be transferred to a segregated account to pay the costs of the Power Plant Project or the System Improvements Project, unless it is determined by nationally recognized bond counsel that such transfer is not required to maintain the tax-exempt status of each series of the Outstanding Bonds.

C. <u>JUNIOR LIEN REDEMPTION FUND</u>: If the Board shall ever issue Junior Lien Bonds or Junior Lien Notes, there shall be established and maintained a separable depositary fund for the purpose of paying the principal of, redemption premium, if any, and interest on such Junior Lien Bonds or Junior Lien Notes as they come due (the "Junior Lien Redemption Fund"). Revenues remaining in the Receiving Fund, after provision has been made for the requirements of the Operation and Maintenance Fund and of the Redemption Fund, shall be set aside, but not more often than monthly, in a fund for the Junior Lien Bonds or Junior Lien Notes in accordance with the resolution authorizing the issuance thereof. A separate account may also be established within such fund as a bond reserve account to be funded on a junior lien basis in accordance with the resolution authorizing the issuance of the Junior Lien Bonds or Junior Lien Notes. The detail of the establishment and maintenance of such fund shall be provided in the resolution of the Board authorizing the issuance thereof.

D. <u>SURPLUS MONEYS</u>: Any Revenues in the Receiving Fund after satisfying all requirements of the Operation and Maintenance Fund, the Redemption Fund, the Rebate Fund and the Junior Lien Redemption Fund shall be deemed to be surplus moneys and may be used for such purposes as the Board deems to be for the best interests of the City.

If there should be any deficit in the Operation and Maintenance Fund, Redemption Fund or the Rebate Fund on account of defaults in setting aside required amounts therein, then transfers shall be made from the moneys remaining in the Receiving Fund at the end of any operating year to those funds in the priority and order specified herein, to the extent of any deficit, before any other disposition is made of the moneys in the Receiving Fund at the end of any operating year.

Section 19. <u>Rebate Fund</u>. There shall be established and maintained a fund designated the REBATE FUND. Moneys representing investment earnings or profits shall be transferred annually from all funds and accounts established under this Bond Resolution and deposited in the Rebate Fund in an amount sufficient to enable the City to rebate investment earnings to the federal government, if necessary, in accordance with the requirements of the Code. Funds on deposit in the Rebate Fund are not pledged as security for the Bonds. Moneys shall be deposited in the Rebate Fund and shall be rebated to the federal government unless the City has received an opinion of nationally recognized bond counsel that failure to take such actions will not adversely affect the exclusion from gross income for federal income tax purposes of the interest on such Bonds.

Section 20. <u>Priority of Funds</u>. In the event the moneys in the Receiving Fund are insufficient to provide for the current requirements of the Operation and Maintenance Fund or the Redemption Fund or the Rebate Fund or the Junior Lien Redemption Fund, any moneys or securities in other funds of the System, except the proceeds of sale of the Bonds, shall be credited or transferred, first, to the Operation and Maintenance Fund, second, to the Redemption Fund, to the extent of any deficit therein, third, to the Rebate Fund and fourth, to the Junior Lien Redemption Fund.

Section 21. <u>Investments</u>. Moneys in the funds and account established herein, and moneys derived from the proceeds of sale of the Bonds, may be invested by the Board on behalf of the City in Investment Obligations. Investment of moneys in the Redemption Fund being accumulated for payment of the next maturing principal or interest on the Bonds shall be limited to Government Obligations bearing maturity dates prior to the date of the next maturing principal or interest payment respectively on the Bonds. Investment of moneys in any other funds or account, including moneys derived from the proceeds of sale of the Bonds, shall be limited to obligations bearing maturity dates or subject to redemption, at the option of the holder thereof, not later than the time estimated by the City when the moneys from such investments will be required. Any securities representing investments shall be kept on deposit with the bank or trust company having on deposit the fund or funds or account from which such purchase was made. Earnings or profits on any investment of funds in any fund or account

established in this Bond Resolution shall be deposited in or credited to the Rebate Fund to the extent necessary as required by Section 19 of this Bond Resolution and any earnings or profits remaining in the Receiving Fund, Operation and Maintenance Fund and Redemption Fund, shall be deposited in or credited to the Receiving Fund. Investments of moneys in the Bond Reserve Account shall be valued at amortized cost, including any amount paid as accrued interest at the time of purchase until the payment of such interest or the next interest payment date.

Section 22. <u>Applicable Law</u>. The Bonds shall be sold and the proceeds applied in accordance with the provisions of Act 94.

Section 23. <u>Covenants</u>. The City and the Board covenant and agree with the Registered Owners of the Bonds that so long as any of the Bonds remain as Outstanding Bonds and unpaid as to either principal or interest:

(a) The Board will maintain the System in good repair and working order and will operate the same efficiently and will faithfully and punctually perform all duties with reference to the System required by the Constitution and laws of the State of Michigan and this Bond Resolution.

(b) The City and the Board will not sell, lease, mortgage or otherwise dispose of any part of the System, except for sales or exchanges of property or facilities (1) which are not useful in the operation of the System, or (2) for which the proceeds received are, or the fair market value of the subject property is, less than 1% of the Revenues for the preceding fiscal year, or (3) which will not impair the ability of the Board to comply with the rate covenant described in Section 16 of this Bond Resolution.

(c) The City and the Board will not grant any franchise or other rights to any person, firm or corporation to operate an electric system that will compete with the System unless required or authorized by law and the City and the Board will not operate a system that will compete with the System.

(d) The Board will use their best efforts to enforce any contracts to which they are a party regarding providing of electrical service.

(e) The Board will not issue additional bonds of prior standing to the Bonds.

The Chief Financial Officer is authorized on behalf of the Board to make any additional covenants with the purchaser of a series of Bonds as may be deemed advisable and approved by bond counsel and the municipal advisor.

Section 24. <u>Additional Bonds</u>. The right is reserved, in accordance with the provisions of Act 94, to issue additional bonds payable from the Net Revenues of the System which shall be of equal standing and priority of lien on the Net Revenues of the System with the Bonds, but only for the following purposes and under the following terms and conditions:

(a) For repairs, extensions, enlargements and improvements to the System or for the purpose of refunding a part of any Outstanding Bonds (unless such partial refunding is done in compliance with (b) below) and paying costs of issuing such Additional Bonds, including deposits which may be required to be made to a bond reserve account. Bonds for such purposes shall not be issued pursuant to this subparagraph (a) unless the actual or augmented Net Revenues of the System for the fiscal year of the System ending not more than 15 months prior to the sale of Additional Bonds shall be equal to at least one hundred twenty-five (125%) percent of the maximum Aggregate Debt Service Requirement in any current or future fiscal year on the Outstanding Bonds and on the Additional Bonds then being issued. If the Additional Bonds are to be issued in whole or in part for refunding Outstanding Bonds, the maximum Aggregate Debt Service shall be determined by deducting from the principal and interest requirements for each operating year the annual Aggregate Debt Service Requirement of any Bonds to be refunded from the proceeds of the Additional Bonds.

Net Revenues may be augmented as follows for the purposes of this subsection (a):

- (1) If the System rates, fees or charges shall be increased at or prior to the time of authorizing the Additional Bonds, the Net Revenues may be augmented by an amount which in the opinion of the Board's financial advisor will reflect the effect of the increase had the System's billings during such time been at the increased rates.
- (2) The actual Net Revenues may be augmented by the estimated increase in Net Revenues which in the opinion of the Board's financial advisor will accrue as a result of new customers which have not been serviced during the fiscal year described in paragraph (a) above or as a result of the acquisition of the repairs, extensions, enlargements and improvements to the System which have been made during or subsequent to the fiscal year described in paragraph (a) above or which will be acquired in whole or in part from the proceeds of the Additional Bonds to be issued.

No Additional Bonds of equal standing as to the Net Revenues of the System shall be issued pursuant to the authorization contained in subparagraphs (a) or (c) if the City shall then be in default in making its required payments to the Operation and Maintenance Fund or the Redemption Fund.

(b) For refunding all of the Outstanding Bonds and paying costs of issuing such Additional Bonds. For refunding a part of the Outstanding Bonds and paying costs of issuing such Additional Bonds, if after giving effect to the refunding the maximum amount of Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year shall be less than the Aggregate Debt Service in each future fiscal year prior to giving effect to the refunding.

(c) Additional Bonds may be issued without meeting any of the conditions and tests set forth in subsection (a) above for any one or more of the following purposes: (i) to pay the cost of acquisition and construction of any repairs, replacements, betterments, improvements, major renewals or corrections of any damage or loss to the System necessary, in the opinion of the Consulting Engineer, to keep the System in good operating condition or to prevent a loss of Revenues therefrom or (ii) to pay the cost of decommissioning, disposal or termination of the System.

Determination by the Board as to existence of conditions permitting the issuance of Additional Bonds shall be conclusive.

Notwithstanding the foregoing requirements of Section 24, the Board reserves the right to issue Junior Lien Bonds and Junior Lien Notes payable as provided herein.

Section 25. Events of Default. Each of the following events, with respect to an issue of Bonds, is hereby declared an "Event of Default":

(a) default in the payment of the principal of, or interest, or redemption premium, if any, on any Bond after the same shall become due, whether at maturity or upon call for redemption; or

(b) default by the City or the Board in the performance or observance of any other of the covenants, agreements or conditions on their part in this Bond Resolution, or contained in the Bonds; provided no default shall constitute an Event of Default until written notice thereof shall have been given by the Registered Owners of not less than twenty percent (20%) in principal amount of the Outstanding Bonds to the City and the City shall have had sixty (60) days after receipt of such notice to correct such default or cause the same to be corrected and shall not have corrected such default or caused the same to be corrected within such period; and provided, further, that if the default be such that it cannot be corrected within such period, it shall not constitute an Event of Default if action to correct the same is instituted within such period and diligently pursued until the default is corrected.

Section 26. <u>Appointment of Receiver and Statutory Rights</u>. The Registered Owners of Bonds representing in the aggregate principal amount not less than twenty percent (20%) of all Outstanding Bonds, may protect and enforce the statutory lien and pledge of the funds and accounts and Net Revenues created by Act 94, and enforce and compel the performance of all duties of the officials of the City and the Board, including the fixing of sufficient rates, the collection of Revenues, the proper segregation of Revenues, and the proper application of Revenues. In addition to the rights conferred to Registered Owners by the Resolution, the Registered Owners shall have all the rights conferred by Act 94. The statutory lien upon the Net Revenues, however, shall not be construed to compel the sale of the System or any part thereof.

Section 27. <u>Effect of Waiver and Other Circumstances</u>. No delay or omission of any Registered Owner to exercise any right or power arising upon the happening or an Event of Default shall impair any right or power or shall be construed to be a waiver of any such Event of Default or be an acquiescence therein and every power and remedy given by this Bond Resolution to the Registered Owners may be exercised from time to time and as often as may be deemed expedient by the Registered Owners.

Section 28. Amendments: Consent of Registered Owners.

(a) Amendments Without Consent of Registered Owners. The City, from time to time and at any time, subject to the conditions and restrictions in this Bond Resolution, may by and through its Board, adopt one or more supplemental or amendatory resolutions which thereafter shall form a part hereof, for any one or more or all of the following purposes:

(i) To issue Additional Bonds or Junior Lien Bonds or Junior Lien Notes;

(ii) To add to the covenants and agreements of the City contained in this Bond Resolution, other covenants and agreements thereafter to be observed or to surrender, restrict or limit any right or power herein reserved to or conferred upon the City and the Board (including but not limited to the right to issue Additional Bonds);

(iii) To make such provisions for the purpose of curing any ambiguity, or of curing, correcting or supplementing any defective provisions contained in this Bond Resolution, or in regard to matters or questions arising under this Bond Resolution, as the City may deem necessary or desirable and not inconsistent with this Bond Resolution and which shall not have a material, adverse effect on the interests of the Registered Owners of the Bonds; (iv) To increase the size or scope of the System; and

(v) To make such modifications in the provisions hereof as may be deemed advisable by the City provided that the Board has confirmed in writing with each rating agency rating Outstanding Bonds to which the provision will apply that the adoption of such provision with not result in the reduction or withdrawal of any rating on such Bonds.

Any amendment or supplemental resolution or resolution authorized by the provisions of this Section 28(a) may be adopted by the City, by and through its Board, without the consent of or notice to the Registered Owners of any of the Outstanding Bonds, notwithstanding any of the provisions of Section 28(b) below.

(b) Amendments Requiring Consent of Registered Owners. With the consent of the Registered Owners of not less than fifty one percent (51%) in principal amount of the Bonds then outstanding the City, by and through its Board, may from time to time and at any time adopt a resolution or resolutions supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Bond Resolution or of any supplemental resolution; provided, however, that no such supplemental resolution shall (i) extend the fixed maturity of any Bond, change a mandatory redemption requirement for any series of Bonds or reduce the rate of interest thereon or extend the time of payment of interest, or reduce the amount of the principal thereof, or reduce or extend the time for payment of any premium payable on the redemption thereof, without the consent of the Registered Owner of each Bond so affected, or (ii) reduce the aforesaid percentage of Registered Owners of the Bonds required to approve any such supplemental resolution, or (iii) deprive the Registered Owners of the Bonds, except as aforesaid, of the right to payment of the Bonds from the Net Revenues, without the consent of the Registered Owners of all the Outstanding Bonds or, (iv) cause any modification or reduction of the lien on or pledge of the Net Revenues or the funds or accounts established hereunder. No amendment may be made under this Section 28(b) which affects the rights or duties of the insurer of any of the Bonds without its consent. It shall not be necessary for the consent of the Registered Owners under this Section 28(b) to approve the particular form of any proposed supplemental resolution, but it shall be sufficient if such consent shall approve the substance thereof. Promptly after the adoption by the City of any supplemental resolution pursuant to the provisions of this Section 28(b), the City shall cause the Transfer Agent to mail a notice by registered or certified mail to the Registered Owners of all Outstanding Bonds at their addresses shown on the bond register or at such other address as is furnished in writing by such Registered Owner to the Transfer Agent setting forth in general terms the substance of such supplemental resolution.

Section 29. Negotiated Sale of the Bonds; Appointment of Senior Managing Underwriter. [2019 Bond details omitted]

Section 30. <u>Bond Ratings and Bond Insurance</u>. The Chief Financial Officer is hereby authorized to apply for bond ratings from such municipal bond rating agencies as deemed appropriate, in consultation with the Municipal Advisor. If the Municipal Advisor recommends that the Board consider purchase of municipal bond insurance, then the Chief Financial Officer is hereby authorized to negotiate with insurers regarding acquisition of municipal bond insurance, and, in consultation with the Municipal Advisor, to select an insurer and determine which bonds, if any, shall be insured, and the Chief Financial Officer is hereby authorized to execute an agreement with the insurer relating to procedures for paying debt service on the insured bonds and notifying the insurer of any need to draw on the insurance and other matters.

Section 31.Official Statement. [Omitted]

Section 32. Continuing Disclosure. [Omitted]

Section 33. Sale of Series 2019 Bonds. [Omitted]

Section 34. Other Actions. [Omitted]

Section 35. Applicability of the Outstanding Bond Resolutions. [Omitted]

Section 36. Conflicting Resolutions. [Omitted]

Section 37. Severability and Paragraph Headings. [Omitted]

Section 38 Publication and Recordation. [Omitted]

Section 39. Effective Date. [Omitted]

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THIRD SUPPLEMENTAL UTILITY SYSTEM REVENUE BOND RESOLUTION

Section 1. <u>Definitions</u>. All terms not defined herein shall have the meanings set forth in the Bond Resolution, and whenever used in this Third Supplemental Resolution, except when otherwise indicated by the context, the following terms shall have the following meanings:

(a) "Additional Bonds" means any Additional Bonds of equal standing with the outstanding Senior Lien Bonds issued pursuant to Section 24 of the Bond Resolution adopted on March 27, 2018.

(b) "Bond Resolution" means the Amended and Restated Utility System Revenue Bond Resolution adopted by the Board on March 27, 2018, as amended on March 26, 2019 and November 17, 2020, and supplemented on November 19, 2019 and July 20, 2023 and by this Third Supplemental Resolution, and any other resolution which amends or supplements the Bond Resolution.

(c) "Bonds" or "Senior Lien Bonds" means the outstanding portion of the Board's Utility System Revenue Refunding Bonds, Series 2013A, the Utility System Revenue Refunding Bonds, Series 2017A, the Utility System Revenue Bonds, Series 2019A, the Utility System Revenue Refunding Bonds, Series 2019B, Utility System Revenue Bonds, Series 2021A, the Utility System Revenue Bonds, Series 2021A, the Utility System Revenue Bonds, Series 2021B, the Series 2024 Bonds, and any Additional Bonds of equal standing hereafter issued.

(d) "Chief Financial Officer" means the Board's Chief Financial Officer.

(e) "Clean Energy Bonds" means all or any series of the Bonds issued pursuant to this Third Supplemental Resolution to finance the Clean Energy Project.

(f) "Clean Energy Project" means the System improvements including, but not limited to, clean energy projects including a natural gas reciprocating engine, battery storage, solar and wind energy improvements, energy waste reduction improvements and enhancements to improve demand response for customers, as well as construction, improvement and renovation of transmission and distribution lines and related System facilities, including all equipment and any appurtenances and attachments thereto and any related site acquisition or improvements.

(g) "Escrow Agreement" means, for purposes of this Third Supplemental Resolution, one or more escrow agreements described in this Third Supplemental Resolution to provide for payment of principal of and interest on the Prior Bonds being refunded.

(h) "Escrow Fund" means, for purposes of this Third Supplemental Resolution, one or more escrow funds established pursuant to the Escrow Agreement to hold the cash and investments necessary provide for payment of principal of and interest on the Prior Bonds being refunded.

(i) "Prior Bonds" means, for purposes of this Third Supplemental Resolution, the Utility System Revenue Refunding Bonds, Series 2013A, dated April 17, 2013, and the Utility System Revenue Refunding Bonds, Series 2019B, dated December 19, 2019.

(j) "Refunding Bonds" means, for purposes of this Third Supplemental Resolution, all or any series of Refunding Bonds issued pursuant to this Third Supplemental Resolution.

(k) "Series 2024 Bonds" means collectively the Clean Energy Bonds and the Refunding Bonds issued in one or more series pursuant to this Third Supplemental Resolution.

(1) "System" means the complete facilities of the Board for the supply and distribution of water and the generation and distribution of electricity, steam, chilled water, and heat, including all plants, works, instrumentalities and properties used or useful in connection with the supply and distribution of water and the generation and distribution of electricity, steam, chilled water, and heat, and all additions, extensions and improvements thereto existing or hereafter acquired by the Board.

(m) "Third Supplemental Resolution" means this Third Supplemental Utility System Revenue Bond Resolution.

Section 2. <u>Necessity and Statement of Purpose of Clean Energy Project</u>. It is hereby determined to be a necessary public purpose of the Board to acquire and construct the Clean Energy Project.

Section 3. <u>Costs; Useful Life of Clean Energy Project</u>. The total cost of the Clean Energy Project is estimated to be not-to-exceed \$325,000,000 including the payment of capitalized interest and all legal, engineering, financial and other expenses incident thereto, which estimate of cost is hereby approved and confirmed, and the period of usefulness of the Clean Energy Project is estimated to be not less than thirty (30) years.

Section 4. <u>Conditions Permitting Issuance of Additional Bonds</u>. Pursuant to Section 24(a) of the Bond Resolution, the Board hereby determines that the Series 2024 Bonds shall be issued as Additional Bonds of equal standing and priority of lien with the Outstanding Bonds only if, after giving effect to the refunding of Prior Bonds, the actual or augmented Net Revenues of the System for the fiscal year of the System ending not more than 15 months prior to the sale of each series of the Series 2024 Bonds shall be equal to at least 125% of the maximum Aggregate Debt Service Requirement in any current or future fiscal year on the Outstanding Bonds and on the Series 2024 Bonds then being issued.

The Board hereby determines that the Board is not in default in making its required payments to the Operation and Maintenance Fund or the Redemption Fund.

Section 5. <u>Series 2024 Bonds Authorized</u>. The Series 2024 Bonds are authorized to be issued in one or more series as provided in this Section.

<u>Clean Energy Bonds</u>: The City, acting by and through the Board, shall borrow the sum of not-to-exceed Three Hundred Twenty-Five Million Dollars (\$325,000,000) and shall issue the Clean Energy Bonds therefor in one or more series in order to pay costs of acquiring and constructing all or a portion of the Clean Energy Project, including payment of all legal, engineering, financial and other expenses incident thereto and incident to the issuance and sale of the Clean Energy Bonds, and capitalized interest in the amount to be determined at the time of sale of the Clean Energy Bonds. The remaining cost of the Clean Energy Project in excess of \$325,000,000, if any, shall be defrayed from funds on hand and legally available for such use, or from an additional series of Bonds to be issued upon approval of a future resolution. The Clean Energy Bonds shall be designated as the "UTILITY SYSTEM REVENUE BONDS, SERIES 2024" or such other series designation as determined at the time of sale by the Chief Financial Officer to reflect the sequence and the year of sale or delivery of the series or to otherwise distinguish the series from other series of Bonds.

<u>Refunding Bonds</u>: If, upon the advice of the Municipal Advisor, refunding all or a portion of the Prior Bonds will accomplish debt service savings, then in order to pay costs of the refunding, including the payment of the costs of legal, financial and other expenses incident thereto and incident to the issuance and sale of the Refunding Bonds, the City, acting by and through the Board, shall borrow the sum of not-to-exceed Two Hundred Fifty-Eight Million Seven Hundred Thousand Dollars (\$258,700,000), and issue the Refunding Bonds therefor in one or more series. The Refunding Bonds shall be designated as the "UTILITY SYSTEM REVENUE REFUNDING BONDS, SERIES 2024" or such other series designation as determined at the time of sale by the Chief Financial Officer to reflect the sequence and the year of sale or delivery of the series or to otherwise distinguish the series from other series of Bonds.

<u>Combined Series of Bonds</u>: [Combined designation provisions omitted]

The Series 2024 Bonds shall be payable solely out of the Net Revenues of the System, and City Council shall not be requested to pledge the full faith and credit of the City for payment of the Series 2024 Bonds. The Series 2024 Bonds shall be sold and the proceeds applied in accordance with the provisions of Act 94.

Section 6. <u>Series 2024 Bond Details</u>. The Series 2024 Bonds shall be issued as fully registered bonds in the denomination of \$5,000 or integral multiples thereof and shall be numbered in consecutive order of registration or authentication from 1 upwards. The Series 2024 Bonds shall be dated as of the date of delivery thereof or such other date as determined at the time of sale of the Series 2024 Bonds, and shall mature as serial bonds or term bonds on such dates as shall be determined at the time of sale of the Series 2024 Bonds.

The Series 2024 Bonds shall be subject to optional and mandatory redemption prior to maturity at the times and prices as finally determined at the time of sale of the Series 2024 Bonds.

The Series 2024 Bonds shall bear interest at a rate or rates to be determined on sale thereof, payable on July 1, 2024, or such other date as provided at the time of sale of the Series 2024 Bonds, and semi-annually thereafter on January 1st and July 1st of each year.

The Series 2024 Bonds shall be executed by the manual or facsimile signature of the Chairperson and the Corporate Secretary of the Board. No Series 2024 Bond shall be valid until authenticated by an authorized representative of the Transfer Agent. The Series 2024 Bonds shall be delivered to the Transfer Agent for authentication and be delivered by the Transfer Agent to the purchaser in accordance with instructions from the Chief Financial Officer upon payment of the purchase price for the Series 2024 Bonds.

Section 7. <u>Registration and Transfer</u>. [Omitted]

Section 8. <u>Creation of Clean Energy Bonds Construction Fund</u>. There shall be established and maintained a separate depositary fund designated as the CLEAN ENERGY BONDS CONSTRUCTION FUND which shall be established by the Chief Financial Officer in a bank or banks qualified to act as depository of the proceeds of sale under the provisions of Section 15 of Act 94. If the Clean Energy Bonds are issued in more than one series or otherwise at the discretion of the

Chief Financial Officer, separate accounts may be established within the Clean Energy Bonds Construction Fund. Monies deposited in the Clean Energy Bonds Construction Fund shall be applied solely in payment of the cost of the Clean Energy Project and any costs of engineering, legal, issuance and other expenses incident thereto. Any unexpended balance remaining in the Clean Energy Bonds Construction Fund after completion of the Clean Energy Project may, in the discretion of the Board, be used for meeting requirements, if any, of the Bond Reserve Account, or for further improvements, enlargements and extension to the System. Any balance remaining after such expenditure shall be paid into the Redemption Fund.

Section 9. <u>Clean Energy Bond Proceeds</u>. From the proceeds of sale of the Clean Energy Bonds there first shall be immediately deposited in the Redemption Fund an amount equal to the accrued interest, if any, received on delivery of the Clean Energy Bonds, and the Board may take credit for the amount so deposited against the amount required to be deposited in the Redemption Fund for payment of the next maturing interest. All or a portion of any premium received upon delivery of the Clean Energy Bonds may be deposited in either the Redemption Fund or the Clean Energy Bonds Construction Fund, as determined by the Chief Financial Officer.

The capitalized interest shall next be deposited in the Redemption Fund, and the Board may take credit for the amount so deposited against the amount required to be deposited in the Redemption Fund for payment of interest on the Clean Energy Bonds.

There shall next be deposited in the Bond Reserve Account an amount, if any, designated at the time of sale of the Clean Energy Bonds as necessary to cause the amount on deposit in the Bond Reserve Account to be equal to the Reserve Requirement.

The remaining proceeds of sale of the Clean Energy Bonds shall be deposited to the Construction Fund.

Section 10. <u>Refunding Bond Proceeds</u>. From the proceeds of sale of the Refunding Bonds there first shall be immediately deposited in the Redemption Fund an amount equal to the accrued interest, if any, received on delivery of the Refunding Bonds, and the Board may take credit for the amount so deposited against the amount required to be deposited in the Redemption Fund for payment of the next maturing interest on the Refunding Bonds. All or a portion of any premium received upon delivery of the Refunding Bonds may be deposited in either the Redemption Fund or the Escrow Fund, as determined by the Chief Financial Officer in consultation with Bond Counsel.

There shall next be deposited in the Bond Reserve Account an amount, if any, designated by the Chief Financial Officer at the time of sale of the Refunding Bonds.

After any deposit to the Bond Reserve Account, proceeds of the Refunding Bonds shall next be deposited as follows:

(a) Proceeds of sale of Refunding Bonds issued to refund any Prior Bonds other than Repurchased Bonds shall be deposited in the Escrow Fund and held in cash and investments in Government Obligations or Municipal Obligations not redeemable at the option of the issuer. U.S. Bank Trust Company, National Association, Detroit, Michigan, is hereby appointed to act as escrow trustee (the "Escrow Trustee") under the Escrow Agreement. The Escrow Trustee shall hold the Escrow Fund in trust pursuant to the Escrow Agreement which shall irrevocably direct the Escrow Trustee to take all necessary steps to call such Prior Bonds being refunded for redemption as specified in the Escrow Agreement. The Chief Financial Officer is hereby authorized to execute and deliver the Escrow Agreement, to transfer any moneys as she may deem necessary from the Redemption Fund, or other fund or account of the Board, to the Escrow Fund, and to purchase, or cause to be purchased, escrow securities consisting of Government Obligations, including, but not limited to, United States Treasury Obligations – State and Local Government Series (SLGS), or Municipal Obligations, for deposit in the Escrow Fund. The Chief Financial Officer is directed to deposit to the Escrow Fund, from Refunding Bond proceeds and other moneys as necessary, an amount which, together with investment proceeds to be received thereon, will be sufficient, without reinvestment, to pay the principal of and interest on such Prior Bonds being refunded as they become due or upon call for redemption.

(b) Proceeds of the sale of Refunding Bonds issued to repurchase Repurchased Bonds shall be deposited and applied in accordance with the instructions for settlement of the tender and repurchase of the Repurchased Bonds.

The remaining proceeds of the Refunding Bonds shall be deposited in a fund which may be established to pay costs of issuance of the Series 2024 Bonds and the costs of refunding the Prior Bonds. Any moneys remaining after payment of costs of issuance and costs of refunding the Prior Bonds being refunded shall be transferred to the Redemption Fund and used to pay interest on the Refunding Bonds.

 Section 11.
 Bond Form. [Omitted]

 Section 12.
 Municipal Advisor. [Omitted].

Section 13. Bond Counsel. [Omitted]

Section 14. <u>Tax Covenant</u>. Any series of Series 2024 Bonds may be issued on a tax-exempt basis or a taxable basis. The Board hereby covenants that it shall not invest, reinvest or accumulate any moneys deemed to be proceeds of a tax-exempt series of Series 2024 Bonds pursuant to the Internal Revenue Code of 1986, as amended, in such a manner as to cause such tax-exempt Series 2024 Bonds to be "arbitrage bonds" within the meaning of the Internal Revenue Code. The Board hereby covenants that, to the extent permitted by law, it will take all actions within its control and that it shall not fail to take any action as may be necessary to maintain the exclusion of interest on such tax-exempt Series 2024 Bonds from gross income for federal income tax purposes, including but not limited to, actions relating to the rebate of arbitrage earnings, if applicable, and the expenditure and investment of bond proceeds and moneys deemed to be bond proceeds, all as more fully set forth in the non-arbitrage and tax compliance certificate to be delivered by the Board on the date of delivery of such tax-exempt Series 2024 Bonds.

Section 15. <u>Negotiated Sale of Bonds; Appointment of Senior Managing Underwriter</u>. Based on the advice of the Municipal Advisor, it is hereby determined to be in the best interest of the Board to sell the Series 2024 Bonds by negotiated sale in order to enable the Board to select and adjust terms for the Series 2024 Bonds, to enter the market on short notice at a point in time which appears to be most advantageous, and thereby possibly obtain a lower rate of interest on the Series 2024 Bonds, to achieve sale efficiencies so as to reduce the cost of issuance and interest expense.

The Chief Financial Officer is hereby authorized to select one or more managing underwriters and to name additional co-managers and/or to develop a selling group in consultation with the Municipal Advisor. By adoption of this resolution the Board assumes no obligations or liability to the underwriter for any loss or damage that may result to the underwriter from the adoption of this resolution, and all costs and expenses incurred by the underwriter in preparing for sale of the Series 2024 Bonds shall be paid from the proceeds of the Series 2024 Bonds, if issued, except as may be otherwise provided in the Bond Purchase Agreement for Series 2024 Bonds.

- Section 16. Bond Ratings and Bond Insurance. [Omitted]
- Section 17. Official Statement. [Omitted]
- Section 18. <u>Continuing Disclosure</u>. [Omitted]

Section 19. <u>Sale of Series 2024 Bonds</u>. The Chief Financial Officer is authorized, in consultation with the Municipal Advisor, to accept an offer to purchase the Series 2024 Bonds without further resolution of this Board. This authorization includes, but is not limited to, determination of original principal amount of the Series 2024 Bonds; the prices at which the Series 2024 Bonds are sold; the date of the Series 2024 Bonds; the schedule of principal maturities and whether the Series 2024 Bonds shall mature serially or as term bonds; provisions for early redemption, if any, including mandatory redemption of term bonds, if any; the interest rates and payment dates of the Series 2024 Bonds; application of the proceeds of the Series 2024 Bonds, and, if necessary to meet the requirements of the bond underwriters or purchasers, deposit to the Bond Reserve Account from funds on hand or proceeds of the Series 2024 Bonds. Approval of the matters delegated to the Chief Financial Officer under this resolution may be evidenced by her execution of the Bond Purchase Agreement for the Series 2024 Bonds or other offer to purchase the Series 2024 Bonds, or Sale Order, or the Official Statement.

The maximum interest rate on the Series 2024 Bonds shall not exceed 6.0%. The first maturity of principal on the Series 2024 Bonds shall occur no earlier than July 1, 2024. Each series of the Series 2024 Bonds will mature in not to exceed thirty (30) annual installments. The Refunding Bonds shall not be sold unless there shall be net present value savings after payment of costs of issuance of the Series 2024 Bonds and costs of refunding the Prior Bonds being refunded. In making such determinations the Chief Financial Officer is authorized to rely upon data and computer runs provided by the Municipal Advisor.

Section 20. <u>Verification Agent</u>. [Omitted]

Section 21. <u>Tender Agent and Solicitation to Tender the Series 2019B Bonds</u>. Upon the recommendation of the Municipal Advisor and with the approval of the Underwriter (hereby selected to serve as Dealer Manager for the Invitation (the "Dealer Manager")), the Chief Financial Officer is hereby authorized to approve the selection of a tender, information and repurchase agent (the "Tender Agent") to issue the Invitation for the tender, repurchase and cancellation of the Repurchased Bonds. The Chief Financial Officer is further authorized, upon the recommendation of the Municipal Advisor, Dealer Manager and the Tender Agent, to take the following actions relating to such tender: (a) approve and deliver any and all notices, solicitations and disclosures (including, but not limited to, one or more Invitations to tender, a tender offer disclosure statement, if necessary, and related informational statements); (b) negotiate, execute and deliver any and all agreements; (c) file any and all documents with State or federal agencies; (d) seek any and all approvals; (e) approve the selection of which portion or all of the Series 2019B Bonds tendered that will be repurchased and cancelled; and (f) take all other actions necessary or appropriate to accomplish the repurchase and cancellation of the Repurchased Bonds.

Section 22. Other Actions. [Omitted]

Section 23. <u>Applicability of the Outstanding Bond Resolutions</u>. Except to the extent supplemented or otherwise provided in this resolution, all of the provisions and covenants provided in the Bond Resolution shall apply to the Series 2024 Bonds issued pursuant to provisions of this resolution, such provisions of the Bond Resolution being made applicable to the Series 2024 Bonds.

- Section 24. <u>Conflicting Resolutions</u>. [Omitted]
- Section 25. <u>Severability and Paragraph Headings</u>. [Omitted].
- Section 26. <u>Publication and Recordation</u>. [Omitted]
- Section 27. <u>Effective Date</u>. [Omitted]

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Appendix E

FORM OF APPROVING OPINION

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Founded in 1852 by Sidney Davy Miller



Miller, Canfield, Paddock and Stone, P.L.C. 150 West Jefferson, Suite 2500 Detroit, Michigan 48226 TEL (313) 963-6420 FAX (313) 496-7500 www.millercanfield.com MICHIGAN ILLINOIS NEW YORK OHIO WASHINGTON, D.C. CALIFORNIA CANADA CHINA MEXICO POLAND UKRAINE QATAR

FORM OF APPROVING OPINION

Lansing Board of Water and Light City of Lansing State of Michigan

We have acted as bond counsel to the City of Lansing, State of Michigan, acting through the governing body of the Lansing Board of Water and Light (the "Issuer") in connection with the issuance by the Issuer of the following bonds: \$364,625,000 UTILITY SYSTEM REVENUE AND REVENUE REFUNDING BONDS, SERIES 2024A (the "Bonds"). In such capacity, we have examined such law and the transcript of proceedings relating to the issuance of the Bonds and such other proceedings, certifications and documents as we have deemed necessary to render this opinion.

The Bonds are issued pursuant to Act 94, Public Acts of Michigan, 1933, as amended ("Act 94"), and a bond resolution adopted by the Issuer as supplemented and amended from time to time (the "Bond Resolution"). Under the Bond Resolution, the Issuer has pledged certain revenues for the payment of the principal and interest on the Bonds when due.

The Bonds are in fully-registered form in the denomination of \$5,000 each or multiples thereof, bearing original issue date of January 31, 2024, payable as to principal and interest as provided in the Bonds, and are subject to redemption prior to maturity in the manner, at the times and at the prices specified in the Bonds.

As to questions of fact material to our opinion, we have relied on the representations of the Issuer contained in the Bond Resolution, and in the certified proceedings and other certifications of public officials and others furnished to us.

Based upon the foregoing, we are of the opinion that, under existing law:

1. The Bonds are valid and binding obligations of the Issuer, according to their tenor, payable solely and only from and secured by a statutory first lien on the revenues of the Issuer's facilities for the supply and distribution of water and the generation and distribution of electricity, steam, chilled water, and heat (collectively, the "System"), after payment of the

MILLER, CANFIELD, PADDOCK AND STONE, P.L.C.

Lansing Board of Water and Light -2- FORM OF APPROVING OPINION

expenses of administration, operation and maintenance thereof (the "Net Revenues"), and are entitled to the benefits of the Bond Resolution and Act 94.

2. The Bonds are of equal standing and priority of lien as to the Net Revenues of the System with the Issuer's outstanding Utility System Revenue Refunding Bonds, Series 2013A, Utility System Revenue Refunding Bonds, Series 2017A, Utility System Revenue Bonds, Series 2019A, Utility System Revenue Refunding Bonds, Series 2019B (Federally Taxable), Utility System Revenue Bonds, Series 2021A, and Utility System Revenue Bonds, Series 2021B (collectively, the "Outstanding Senior Lien Bonds"). The Issuer has reserved the right to issue additional bonds of equal standing and priority of lien as to the Net Revenues of the System with the Bonds and the Outstanding Senior Lien Bonds on conditions stated in the Bond Resolution.

3. The Issuer is obligated to charge and collect rates from every user of the service supplied by the System sufficient to provide adequate revenues for the payment of the expenses of administration, operation and maintenance of the System and for the payment of the principal of and interest on the Bonds, the Outstanding Senior Lien Bonds and all other bonds payable from the revenues of the System, and to provide for such other expenditures and funds for the Bonds, the Outstanding Senior Lien Bonds are required by the Bond Resolution.

4. The interest on the Bonds (a) is excludable from gross income for federal income tax purposes and (b) is not an item of tax preference for purposes of the federal alternative minimum tax. The opinion set forth in clause (a) above 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) excludable 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 the interest on the Bonds to be included in gross income retroactively to the date of issuance of the Bonds.

5. The Bonds and the interest thereon are exempt from all taxation by the State of Michigan or by any taxing authority within the State of Michigan except estate taxes and taxes on gains realized from the sale, payment or other disposition thereof.

Except as stated in paragraphs 4 and 5 above, we express no opinion regarding other federal or state tax consequences arising with respect to the Bonds and the interest thereon.

The rights or remedies of bondholders may be affected by bankruptcy, insolvency, fraudulent conveyance or other laws affecting creditors' rights generally, now existing or hereafter enacted, and by the application of general principles of equity, including those relating to equitable subordination.

MILLER, CANFIELD, PADDOCK AND STONE, P.L.C.

Lansing Board of Water and Light -3- FORM OF APPROVING OPINION

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

Very truly yours,

MILLER, CANFIELD, PADDOCK AND STONE, P.L.C.

Appendix F

FORM OF CONTINUING DISCLOSURE UNDERTAKING

\$364,625,000 LANSING BOARD OF WATER AND LIGHT City of Lansing, Michigan UTILITY SYSTEM REVENUE AND REVENUE REFUNDING BONDS, SERIES 2024A

Continuing Disclosure Undertaking

The Lansing Board of Water and Light (the "Issuer"), an administrative Board of the City of Lansing, Michigan existing under the City's Charter, hereby executes and delivers this Continuing Disclosure Undertaking (the "Undertaking") in connection with the issuance by the Issuer of the \$364,625,000 Utility System Revenue and Revenue Refunding Bonds, Series 2024A (the "Bonds"). The Issuer hereby covenants and agrees for the benefit of the Bondholders (as hereinafter defined), as follows:

(a) *Definitions*. The following terms used herein shall have the following meanings:

"Audited Financial Statements" means the annual audited financial statements pertaining to the Issuer prepared by an individual or firm of independent certified public accountants as required by Act 2, Public Acts of Michigan, 1968, as amended, which presently requires preparation in accordance with generally accepted accounting principles.

"Bondholders" shall mean the registered owner of any Bond or any person (a) with the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bond (including any person holding a Bond through a nominee, depository or other intermediary) or (b) treated as the owner of any Bond for federal income tax purposes.

"EMMA" shall mean the MSRB's Electronic Municipal Market Access System, or such other system, Internet Web site, or repository hereafter prescribed by the MSRB for the submission of electronic filings pursuant to the Rule.

"Financial Obligation" means "financial obligation" as such term is defined in the Rule.

"MSRB" means the Municipal Securities Rulemaking Board.

"Rule" means Rule 15c2-12 promulgated by the SEC pursuant to the Securities Exchange Act of 1934, as amended, as in effect on the date of this Undertaking, including any official interpretations thereof issued either before or after the date of this Undertaking which are applicable to this Undertaking.

"SEC" means the United States Securities and Exchange Commission.

"Undertaking" means this Continuing Disclosure Undertaking.

(b) *Continuing Disclosure.* The Issuer hereby agrees, in accordance with the provisions of the Rule, to provide or cause to be provided to the MSRB through EMMA, on or before the last day of the sixth month after the end of the fiscal year of the Issuer, the following annual financial

information and operating data or data of substantially the same nature, commencing with the fiscal year ended June 30, 2024, in an electronic format as prescribed by the MSRB:

(1) Updates of the numerical financial information and operating data (excluding any pictorial representation), or data of substantially the same nature, included in the official statement for the Bonds (the "Official Statement") appearing in the Tables or under the headings as described in Exhibit A.

(2) Audited Financial Statements, or in the event audited financial statements are not available, the Issuer agrees to provide unaudited financial statements, and then provide audited financial statements immediately after they become available.

(3) Such additional financial information or operating data as may be determined by the Issuer and its advisors as desirable or necessary to comply with the Rule.

Such annual financial information and operating data described above are expected to be provided directly by the Issuer or by specific reference to documents available to the public through EMMA or filed with the SEC, including official statements of debt issues of the Issuer.

If the fiscal year of the Issuer is changed, the Issuer agrees to send a notice of such change to the MSRB through EMMA, prior to the earlier of the ending date of the fiscal year prior to such change or the ending date of the fiscal year as changed.

(c) *Notice of Failure to Disclose*. The Issuer agrees to provide or cause to be provided, in a timely manner, to the MSRB through EMMA, in an electronic format as prescribed by the MSRB, notice of a failure by the Issuer to provide the annual financial information with respect to the Issuer described in subsection (b) above on or prior to the dates set forth in subsection (b) above.

(d) Occurrence of Events. The Issuer agrees to provide or cause to be provided to the MSRB through EMMA, in an electronic format as prescribed by the MSRB, in a timely manner not in excess of ten business days after the occurrence of the event, notice of the occurrence of any of the following events listed in (b)(5)(i)(C) of the Rule with respect to the Bonds:

- (1) principal and interest payment delinquencies;
- (2) non-payment related defaults, if material;
- (3) unscheduled draws on debt service reserves reflecting financial difficulties;
- (4) unscheduled draws on credit enhancements reflecting financial difficulties;
- (5) substitution of credit or liquidity providers, or their failure to perform;
- (6) 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;
- (7) modifications to rights of holders of the Bonds, if material;
- (8) bond calls, if material, and tender offers;
- (9) defeasances;
- (10) release, substitution, or sale of property securing repayment of the Bonds, if material;

Continuing Disclosure Undertaking Lansing Board of Water and Light Utility System Revenue and Revenue Refunding Bonds, Series 2024A

- (11) rating changes;
- (12) bankruptcy, insolvency, receivership or similar event of the Issuer, which is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the Issuer in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Issuer, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Issuer;
- (13) the consummation of a merger, consolidation, or acquisition involving the Issuer or the sale of all or substantially all of the assets of the Issuer, 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;
- (14) appointment of a successor or additional trustee or the change of name of a trustee, if material;
- (15) incurrence of a Financial Obligation of the Issuer, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Issuer, any of which affect security holders, if material; or
- (16) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Issuer, any of which reflect financial difficulties.

(e) *Materiality Determined Under Federal* Securities *Laws*. The Issuer agrees that its determination of whether any event listed in subsection (d) is material shall be made in accordance with federal securities laws.

(f) *Identifying Information*. All documents provided to the MSRB through EMMA shall be accompanied by the identifying information prescribed by the MSRB.

(g) *Termination of Reporting Obligation*. The obligation of the Issuer to provide annual financial information and notices of material events, as set forth above, shall be terminated if and when the Issuer no longer remains an "obligated person" with respect to the Bonds within the meaning of the Rule, including upon legal defeasance of all Bonds.

(h) *Benefit of Bondholders*. The Issuer agrees that its undertaking pursuant to the Rule set forth in this Undertaking is intended to be for the benefit of the Bondholders and shall be enforceable by any Bondholder; provided that, the right to enforce the provisions of this Undertaking shall be limited to a right to obtain specific enforcement of the Issuer's obligations hereunder and any failure by the Issuer to comply with the provisions of this Undertaking shall not constitute a default or an event of default with respect to the Bonds.

(i) *Amendments to the Undertaking*. Amendments may be made in the specific types of information provided or the format of the presentation of such information to the extent deemed

Continuing Disclosure Undertaking Lansing Board of Water and Light Utility System Revenue and Revenue Refunding Bonds, Series 2024A necessary or appropriate in the judgment of the Issuer, provided that the Issuer agrees that any such amendment will be adopted procedurally and substantively in a manner consistent with the Rule, including any interpretations thereof by the SEC, which, to the extent applicable, are incorporated herein by reference. Such interpretations currently include the requirements that (a) the amendment 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 the Issuer or the type of activities conducted thereby, (b) the undertaking, as amended, would have complied with the requirements of the Rule at the time of the primary offering 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 does not materially impair the interests of Bondholders, as determined by parties unaffiliated with the Issuer (such as independent legal counsel), but such interpretations may be changed in the future. If the accounting principles to be followed by the Issuer in the preparing of the Audited Financial Statements are modified, the annual financial information for the year in which the change is made shall present a comparison between the financial statements as prepared on the prior basis and the statements as prepared on the new basis, and otherwise shall comply with the requirements of the Rule, in order to provide information to investors to enable them to evaluate the ability of the Issuer to meet its obligations. A notice of the change in accounting principles shall be sent to the MSRB through EMMA.

IN WITNESS WHEREOF, the Issuer has caused this Undertaking to be executed by its authorized officer.

LANSING BOARD OF WATER AND LIGHT

By

Its: Chief Financial Officer

Dated: January 31, 2024

EXHIBIT A CONTINUING DISCLOSURE UNDERTAKING TABLES IN THE OFFICIAL STATEMENT TO BE UPDATED ANNUALLY

The Lansing Board of Water and Light will update the numerical financial information and operating data included in the following Official Statement tables for the current year:

THE ELECTRIC UTILITY:

Power Requirements: Electric Utility – Power Availability, Sales and Losses in MWh;

Customers:

Electric Utility – Average Number and Percent of Customers by Classification;

Ten Largest Customers:

Electric Utility – Ten Largest Customers;

Rates and Charges:

Electric Utility – Estimated Monthly Residential Bill;

Electric Sales:

Electric Utility - Amount in MWh and Percent of Sales by Customer Classification; and

Electric Revenues:

Electric Utility – Amount and Percent of Revenues by Customer Classification.

THE WATER UTILITY:

Service Area and Customer Base: Water Utility - Average Number and Percent of Water Customers by Classification;

Ten Largest Customers:

Water Utility - Ten Largest Water Customers;

Rates and Charges:

Water Utility - Monthly Basic Service Charge by Water Meter Size; and

Water Revenues:

Water Utility - Amount and Percent of Water Sales by Customer Classification.

THE STEAM UTILITY:

General:

Steam Utility - Average Number and Percent of Customers by Classification;

Rates and Charges:

Steam Utility - Historical and Existing Rates by Customer Classification;

Steam Revenues:

Steam Utility - Amount and Percent of Steam Revenues as Billed by Customer Classification; and

Ten Largest Customers:

Steam Utility - Ten Largest Steam Customers.

THE CHILLED WATER UTILITY:

Service Area and Customer Base:

Chilled Water Utility - Number of Service Leads and Volume in MThrs by Classification;

Rates and Charges: Chilled Water Utility - Historical and Existing Rates;

Chilled Water Revenues:

Chilled Water Utility - Chilled Water Revenues by Classification; and

Chilled Water Customers by Volume and Revenues:

Chilled Water Utility – Five Largest Chilled Water Customers by Volume and Revenues.

SYSTEM FINANCIAL INFORMATION:

Historical and Projected Operating Cash Flows and Debt Service Coverage.

Appendix G

BOOK-ENTRY-ONLY SYSTEM

The information set forth in this Appendix G is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC, Euroclear or Clearstream Banking (DTC, Euroclear and Clearstream Banking together, the "Clearing Systems") currently in effect. The information set forth in this Appendix G concerning the Clearing Systems has been obtained from sources that that the BWL believes to be reliable, but none of the BWL, Bond Counsel, the Transfer Agent, or the Underwriters takes any responsibility for the accuracy, completeness or adequacy of the information in this section. Investors wishing to use the facilities of any of the Clearing Systems are advised to confirm the continued applicability of the rules, regulations and procedures of the relevant Clearing System. The BWL will not have any responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the Bonds held through the facilities of any Clearing System or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

DTC Book-Entry-Only System

The information in this appendix has been furnished by DTC. No representation is made by the BWL, Bond Counsel, the Transfer Agent, or the Underwriters as to the completeness or accuracy of such information or as to the absence of material adverse changes in such information subsequent to the date hereof. No attempt has been made by the BWL, Bond Counsel, the Transfer Agent, or the Underwriters to determine whether DTC is or will be financially or otherwise capable of fulfilling its obligations. Neither the BWL nor the Transfer Agent will have any responsibility or obligation to DTC Direct Participants, Indirect Participants or the persons for which they act as nominees with respect to the Bonds, or for any principal or interest payment thereof.

The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC, as registered owner of the Bonds. So long as Cede & Co., as nominee of DTC, is the registered holder of all of the Bonds, one bond certificate will be issued for the Bonds in the aggregate principal amount thereof and will be deposited with DTC. Purchasers of the Bonds (the "Beneficial Owners") will not receive physical delivery of bond certificates. By purchasing a Bond, a Beneficial Owner shall be deemed to have waived the right to receive a bond certificate, except under the circumstances described herein. For purposes of this Official Statement, so long as all Bonds are immobilized in the custody of DTC, references to Bondowners or holders means DTC or its nominee.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking 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 over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates 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 is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of 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 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. Beneficial Owners are, however, 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 which the Beneficial Owner 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 in the event that use of the book-entry system for the Bonds is discontinued.

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 Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not affect 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. Neither the BWL nor the Transfer Agent is responsible or liable for sending transaction statements or for maintaining, supervising or reviewing such records.

The BWL and the Transfer Agent will recognize DTC or its nominee as the Bondowner for all purposes, including notices and voting. 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 the 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. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners.

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 MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the BWL as soon as possible 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).

Principal, redemption proceeds, distributions and dividend 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 BWL or Transfer Agent, on payable date in accordance with their respective holdings on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with Bonds 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 Transfer Agent or the BWL, subject to any statutory or regulatory requires as may be in effect from time to time. Payments of principal, redemption proceeds, distributions and divided payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the BWL or Transfer 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 DTC, and disbursement of such payments to the Beneficial be the responsibility of DTC.

DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to the BWL or the Transfer Agent. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered to DTC.

The BWL may decide to discontinue use of the system of book-entry only transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered to DTC.

The BWL, Bond Counsel, the Transfer Agent, and the Underwriters cannot and do not give any assurances that DTC, the Direct Participants or the Indirect Participants will distribute to the Beneficial Owners of the Bonds (i) payments of principal of or interest on the Bonds, (ii) any document representing or confirming beneficial ownership interests in the Bonds, or (iii) notices sent to DTC or Cede & Co. its nominee, as the registered owner of the Bonds, or that it will do so on a timely basis or that DTC, Direct Participants or Indirect Participants will serve and act in the manner described in this Official Statement. The current "rules" applicable to DTC are on file with the Securities and Exchange Commission, and the current "procedures" of DTC to be followed in dealing with the Participants are on file with DTC.

The information in this appendix concerning DTC and DTC's book-entry system has been obtained from sources that the BWL believes to be reliable, but the BWL takes no responsibility for the accuracy thereof.

Neither the BWL, Bond Counsel, the Transfer Agent nor the Underwriters will have any responsibility or obligation to any Direct Participant, Indirect Participant or any Beneficial Owner or any other person with respect to: (a) the Bonds; (b) the accuracy of any records maintained by DTC or any Direct Participant or Indirect Participant; (c) the payment by DTC to any Participant, or by any Direct Participant or Indirect Participant to any Beneficial Owner of any amount due with respect to the principal of or interest on the Bonds; (d) the delivery by DTC to any participant, or by and Direct Participant or Indirect Participant to any Beneficial Owner of any notice which is required or permitted under the terms of the authorizing resolution for each issue to be given to Bondholders; (e) the selection of the Beneficial Owners to receive payment in the event of any partial redemption of the Bonds; or (f) any consent given or other action taken by DTC as Bondholder.

Appendix H

TENDERED BONDS

Lansing Board of Water and Light City of Lansing, Michigan Utility System Revenue Refunding Bonds, Series 2019B (Federally Taxable)

CUSIP ⁽¹⁾ (516391)	Maturity Date <u>(July 1)</u>	Interest Rate	Outstanding Principal <u>Amount</u>	Par Amount of Bonds Accepted for <u>Tender</u>	Purchase Price as Percentage of Principal <u>Amount</u>
DH9	2025	2.279%	\$ 6,740,000	\$ 1,660,000	97.267%
DJ5	2026	2.429	6,885,000	1,480,000	96.284
DK2	2027	2.490	9,910,000	3,525,000	95.195
DL0	2028	2.590	10,160,000	735,000	94.341
DM8	2029	2.640	10,430,000	1,020,000	93.062
DN6	2030	2.740	10,710,000	3,900,000	92.126
DP1	2031	2.840	11,010,000	-0-	n/a
DQ9	2032	2.940	11,330,000	3,585,000	90.273
DR7	2033	3.040	15,115,000	4,500,000	89.798
DS5	2034	3.170	15,570,000	225,000	89.698
DT3	2035	3.240	16,065,000	4,415,000	89.208
DU0	2041	3.525 Total:	108,710,000 \$232,635,000	20,580,000	88.051

⁽¹⁾ Copyright 2024, American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed on behalf of the American Bankers Association by S&P Global Marketing Intelligence. 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 BWL does not make any representation with respect to such number or undertake any responsibility for its 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.

\$364,625,000

LANSING BOARD OF WATER AND LIGHT CITY OF LANSING, MICHIGAN UTILITY SYSTEM REVENUE AND REVENUE REFUNDING BONDS, SERIES 2024A



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