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 Bonds, Series 2021B (Mandatory Put Bonds) (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.

$70,875,000
LANSING BOARD OF WATER AND LIGHT
CITY OF LANSING, MICHIGAN
UTILITY SYSTEM REVENUE BONDS, SERIES 2021B
(MANDATORY PUT BONDS)

Dated: Date of Delivery **Due: July 1, as shown on the inside cover**

The Utility System Revenue Bonds, Series 2021B (Mandatory Put Bonds) (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 to acquire and construct a natural gas combined cycle facility to produce electricity, and system improvements (collectively, the "Project"), (ii) paying capitalized interest, and (iii) 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 on November 17, 2020 (collectively, the "Bond Resolution"), and a Sale Order executed by the Chief Financial Officer of the BWL on January 12, 2021, 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 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 are denoted as a term bond on the inside front cover of this Official Statement and will be initially issued as a term bond in the Initial Term Interest Rate Period. The Business Day following the last day of the Initial Term Interest Rate Period will be a Purchase Date on which the Bonds shall be subject to mandatory tender for purchase, as well as Conversion to another Interest Rate Period or redemption. The Purchase Date for the Bonds is July 1, 2026. The Bonds are also subject to optional and mandatory redemption prior to maturity as described herein. See "THE BONDS—Optional Redemption Prior to Maturity," "—Mandatory Redemption Prior to Maturity," and "—Mandatory Tender for Purchase." The Bonds will bear interest at the rate set forth on the inside cover of this Official Statement, payable semiannually on January 1 and July 1 of each year until maturity, earlier redemption or mandatory purchase, commencing July 1, 2021. During the Initial Term Interest Rate Period, interest on the Bonds will be calculated on the basis of a 360-day year consisting of twelve 30-day months. See Appendix H—"SALE ORDER Terms and Provisions." This Official Statement describes certain terms of the Bonds applicable during the Initial Term Interest Rate Period. There are significant differences in the terms of the Bonds in other Interest Rate Periods, including Term Interest Rate Periods other than the Initial Term Interest Rate Period. This Official Statement is not intended nor should it be relied upon to provide information with respect to the Bonds during any Interest Rate Period other than the Initial Term Interest Rate Period. Capitalized terms used in this paragraph that are not otherwise defined in this Official Statement have the meanings set forth in the Sale Order as reflected in Appendix H.

The Bonds are offered when, as, and if issued and received by the Underwriter, 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 Underwriter by its 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 26, 2021.

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

The date of this Official Statement is: January 12, 2021.

\+ See "Ratings" herein.

$70,875,000
LANSING BOARD OF WATER AND LIGHT
CITY OF LANSING, MICHIGAN
UTILITY SYSTEM REVENUE BONDS, SERIES 2021B
(MANDATORY PUT BONDS)

$70,875,000 Term Bond

Final Maturity July 1	**Initial Term Interest Rate**	**Par Call Date**	**Purchase Date+**	**Price**	**CUSIP† Base No. 516391**
2051	2.000%	January 1, 2026	July 1, 2026	107.296*	DV8

+ Unless all of the Bonds are purchased on the Purchase Date, none of the Bonds will be purchased. In such event, the Registrar will return all of the Bonds to the owners thereof, and a Delayed Remarketing Period shall commence during which the Bonds will bear interest at a Stepped Interest Rate until all of the Bonds are purchased pursuant to a Conversion, redeemed or paid at maturity as further described herein. See "THE BONDS—Mandatory Tender for Purchase."

* Priced to Par Call Date.

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 Underwriter. Nothing contained in this Official Statement is or shall be relied on as a promise or representation by the Underwriter. 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 Underwriter, 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 National Association, Lansing, 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 Underwriter has provided the following sentence for inclusion in this Official Statement: The Underwriter has 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 Underwriter does 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.

TABLE OF CONTENTS

Page

CITY OF LANSING OFFICIALS
Mayor
Andy Schor

City Council

Kathie Dunbar	Jeremy Garza	Adam Hussain
Brian T. Jackson	Peter Spadafore	Patricia Spitzley
Brandon Betz	Carol Wood	

LANSING BOARD OF WATER AND LIGHT OFFICIALS
Board of Commissioners

Chair David Price	Vice Chair Tracy Thomas

Beth Graham	Deshon Leek	David Lenz
Tony Mullen	Ken Ross	Sandra Zerkle

Non-Voting Commissioners

Stuart Goodrich	Doug Jester	Larry Merrill

BWL Administration

General Manager
Richard R. Peffley

Chief Financial Officer Heather Shawa	Executive Director of Strategic Planning & Development Brandie Ekren	Chief Operations Officer Dave Bolan
Executive Director of Corporate Governance, Risk & Legal Compliance Mark Matus	Executive Director of Labor Relations Michael Flowers	Executive Director of Customer Operations & Communications Stephen Serkaian
Executive Director of Human Resources Lynnette Keller		Delta Energy Park Project Director Roberto Hodge

---

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

PROFESSIONAL SERVICES

Auditor:	Baker Tilly Virchow Krause, LLP, Madison, Wisconsin
Bond Counsel:	Miller, Canfield, Paddock and Stone, P.L.C., Lansing, Michigan
Municipal Advisor:	PFM Financial Advisors LLC, Charlotte, North Carolina
Transfer/Paying Agent:	U.S. Bank National Association, Lansing, Michigan
Underwriter's Counsel:	Dykema Gossett PLLC, Lansing, Michigan

OFFICIAL STATEMENT
$70,875,000
LANSING BOARD OF WATER AND LIGHT
CITY OF LANSING, MICHIGAN
UTILITY SYSTEM REVENUE BONDS, SERIES 2021B
(MANDATORY PUT BONDS)

INTRODUCTION

The Lansing Board of Water and Light (the "Board" or the "BWL") is issuing its $70,875,000 Utility System Revenue Bonds, Series 2021B (Mandatory Put Bonds) (the "Bonds") for the purposes of (i) paying costs to acquire and construct a natural gas combined cycle facility to produce electricity, and system improvements (collectively, the "Project"), (ii) paying capitalized interest, and (iii) 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 on November 17, 2020 (collectively, the "Bond Resolution"), and a Sale Order executed by the Chief Financial Officer of the BWL on January 12, 2021, approving the sale and terms of the Bonds (the "Sale Order," and together with the Bond Resolution, the "Resolution"). U.S. Bank National Association, Lansing, Michigan, currently is the Transfer Agent and bond registrar under the Bond Resolution.

The Bonds are denoted as a term bond on the inside front cover of this Official Statement and will be initially issued as a term bond in the Initial Term Interest Rate Period. The Business Day following the last day of the Initial Term Interest Rate Period will be a Purchase Date on which the Bonds shall be subject to mandatory tender for purchase, as well as Conversion to another Interest Rate Period or redemption. The Purchase Date for the Bonds is July 1, 2026. The Bonds are also subject to optional and mandatory redemption prior to maturity as described herein. See "THE BONDS—Optional Redemption Prior to Maturity," "—Mandatory Redemption Prior to Maturity," and "—Mandatory Tender for Purchase." The Bonds will bear interest at the rate set forth on the inside cover of this Official Statement, payable semiannually on January 1 and July 1 of each year until maturity, earlier redemption or mandatory purchase, commencing July 1, 2021. During the Initial Term Interest Rate Period, interest on the Bonds will be calculated on the basis of a 360-day year consisting of twelve 30-day months. See Appendix H—"SALE ORDER TERMS AND PROVISIONS." This Official Statement describes certain terms of the Bonds applicable during the Initial Term Interest Rate Period. There are significant differences in the terms of the Bonds in other Interest Rate Periods, including Term Interest Rate Periods other than the Initial Term Interest Rate Period. This Official Statement is not intended nor should it be relied upon to provide information with respect to the Bonds during any Interest Rate Period other than the Initial Term Interest Rate Period. Capitalized terms used herein that are not otherwise defined in this Official Statement have the meanings set forth in the Sale Order. See Appendix H.

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 "THE BONDS—Security." The outstanding bonds previously issued on a parity basis with and excluding the Bonds and the 2021A Bonds (defined below) 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 priority of lien with respect to the Net Revenues to the claim of the Bonds. The Board does not have any Junior Lien Bonds or Junior Lien Notes outstanding.

Additionally, on or about the date the Bonds are issued, the BWL expects to issue its Utility System Revenue Bonds, Series 2021A (the "2021A Bonds") in the original principal amount of $56,020,000, the proceeds of which will also fund the costs of the Project. The 2021A Bonds are described in a separate official statement and are being separately marketed.

THE BONDS

Interest Rate Periods

Pursuant to the Sale Order, the Bonds may bear interest as Fixed Rate Bonds or as Variable Rate Bonds. If the Bonds are Variable Rate Bonds, they may bear interest at a Daily Interest Rate, a Weekly Interest Rate, a Term Interest Rate, an Index Floating Rate, a Flexible Rate, or a Direct Purchase Rate, as each is more particularly described in the Sale Order. See Appendix H—"SALE ORDER TERMS AND PROVISIONS."

The Bonds are being issued initially as Variable Rate Bonds bearing interest at a Term Interest Rate for the Initial Term Interest Rate Period.

This Official Statement describes the terms and conditions of the Bonds only during the Initial Term Interest Rate Period. The Bonds in the Initial Term Interest Rate Period may, after the Par Call Date or after the Purchase Date, be purchased, continued at a Term Interest Rate for a new Term Interest Rate Period, or converted to another Interest Rate Period or Periods. There are significant differences in the terms of the Bonds in other Interest Rate Periods. This Official Statement is not intended and may not be relied upon to provide information with respect to the Bonds in any other interest rate mode other than the Initial Term Interest Rate during the Initial Term Interest Rate Period. In the event the Bonds are converted to bear interest in another Interest Rate Period, the BWL expects to deliver a supplement to the Official Statement, a new Official Statement, or other descriptive offering materials describing the terms of such Interest Rate Period and certain provisions of the Sale Order related to such Interest Rate Period.

Description of the Bonds

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, 2021. 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 or portions of the Bonds in multiples of $5,000 in the Initial Term Interest Rate Period are subject to optional redemption or purchase prior to their stated Purchase Date or their Maturity Date, 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 Business Day on or after January 1, 2026 (the "Par Call Date") at par plus accrued interest to the date fixed for redemption, without premium.

Mandatory Redemption Prior to Maturity

Unless the following schedule is modified in connection with a mandatory purchase and contemplated remarketing of the Bonds, after the applicable Purchase Date the Bonds in the Initial Term Interest Rate Period will be subject to mandatory redemption prior to maturity on the dates and in the amounts set forth below at a redemption price equal to the principal amount to be redeemed plus accrued interest to the date fixed for redemption, without premium, as follows:

Mandatory Redemption Date (July 1)	Principal Amount
2026	$5,000
2027	5,000
2028	5,000
2029	5,000
2030	5,000
2031	5,000
2032	5,000
2033	5,000
2034	5,000
2035	5,000
2036	5,000
2037	5,000
2038	5,000
2039	5,000
2040	5,000
2041	5,000
2042	5,000
2043	5,000
2044	5,000
2045	5,000
2046	5,000
2047	5,000
2048	5,000
2049	22,780,000
2050	23,575,000
2051 (maturity)	24,405,000

Mandatory Tender for Purchase

For any Purchase Date occurring during the Initial Term Interest Rate Period (including the Purchase Date occurring at the end of such Initial Term Interest Rate Period), unless all of the Bonds are purchased, none of the Bonds will be purchased. In such event, the Registrar will return all of the Bonds to the owners thereof and the Bonds will remain outstanding and bear interest at the then-effective Term Interest Rate; provided, however, that if the Bonds are not purchased on the Purchase Date occurring on the Business Day succeeding the last day of the Initial Term Interest Rate Period, a Delayed Remarketing Period shall commence on such Purchase Date and from and after such date the Bonds shall accrue interest at the Stepped Interest Rate until the Bonds are purchased pursuant to a Conversion, redeemed or paid at maturity. The Stepped Interest Rate as set forth in the Bond Purchase Agreement is 6% for the first 90 days after the Purchase Date, then 8% thereafter. The failure to pay the Purchase Price on the Purchase Date occurring on the Business Day succeeding the last day of the Initial Term Interest Rate Period shall not constitute an Event of Default under the Resolution.

Notice and Manner of Redemption

Notice of redemption, either conditional or unconditional, shall be given as provided in the Sale Order 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 registration books 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 Bond 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 and distribution 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 October 25, 2020, there was $614,715,000 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 does not have any Junior Lien Bonds or Junior Lien Notes outstanding.

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 – AMENDED AND RESTATED UTILITY SYSTEM REVENUE 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 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 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 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 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 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 – AMENDED AND RESTATED UTILITY SYSTEM REVENUE 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 be set aside on or before the first day of each month, in the Bond and Interest Redemption Fund a sum equal to 1/6th of the interest on all Senior Lien Bonds next coming due and 1/12th of the total amount of the principal of all Senior Lien Bonds due on the next July 1 and 1/12th of the maturing amount of any capital appreciation bonds due one year or less from the 1st day of such month. 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.

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 "AMENDED AND RESTATED UTILITY SYSTEM REVENUE BOND RESOLUTION CONSOLIDATED VERSION" attached hereto as Appendix D.

Outstanding Parity Bonds

The Bonds are being issued by the BWL on parity with its outstanding Utility System Revenue Bonds, Series 2011A (the "Outstanding 2011A Bonds"), 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," and together with the Outstanding 2011A Bonds, the Outstanding 2013A Bonds, the Outstanding 2017A Bonds, and the Outstanding 2019A Bonds, the "Outstanding Bonds").

Immediately following the issuance of the Bonds, expected to be issued simultaneously with the BWL's Series 2021A Bonds, the BWL will have the following Outstanding Bonds in the aggregate principal amounts with final maturities set forth below:

	Par Outstanding	Final Maturity
Utility System Revenue Bonds, Series 2011A	$3,965,000	July 1, 2021
Utility System Revenue Refunding Bonds, Series 2013A	11,795,000	July 1, 2026
Utility System Revenue Refunding Bonds, Series 2017A	27,085,000	July 1, 2032
Utility System Revenue Bonds, Series 2019A	319,875,000	July 1, 2048
Utility System Revenue Refunding Bonds, Series 2019B	251,995,000	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	$741,610,000	

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 accordance with the provisions of Act 94 and the Bond Resolution, the BWL may 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 and the Outstanding Bonds, for repairs, extensions, enlargements and improvements to the System or for the purpose of refunding all or (subject to certain conditions) part of the Bonds and the Outstanding Bonds (the "Additional Bonds"). Except as described below, no such Additional Bonds shall be issued unless the actual or augmented Net Revenues of the System for the fiscal year ending not more than 15 months prior to the sale of the Additional 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 any Additional Bonds then being issued. Upon issuance of the Bonds and the anticipated 2021A Bonds, the Outstanding Bonds will be in compliance with the 125% test. 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.

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 "AMENDED AND RESTATED UTILITY SYSTEM REVENUE BOND RESOLUTION CONSOLIDATED VERSION" attached hereto as Appendix D.

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 and global clearance procedures 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 purposes of paying the following:

i. The final amounts needed, after taking into account the proceeds of the BWL's 2019A Bonds and 2021A Bonds, to complete the "Project," which includes:
    a. Costs to acquire and construct:
        1. A natural gas combined cycle facility to produce electricity (the "Delta Energy Park") together with:
            i. Any appurtenances and attachments thereto and
            ii. Any related site acquisitions or improvements
    b. Certain improvements to the System, including but not limited to:
        1. Construction, improvement, and renovation of transmission and distribution lines and utility system facilities for the supply of electricity, water, steam, and chilled water
            i. Any appurtenances and attachments thereto and
            ii. Any related site acquisitions or improvements
ii. Capitalized interest through October 1, 2021
iii. Costs of issuing the Bonds

The Delta Energy Park

Overview. To meet evolving customer, market, and environmental demands, BWL began construction of Delta Energy Park in 2019. The Project consists of a 250 MW electric generation facility and a 138-kilovolt ("kV") switchyard. The highly efficient plant will be powered by natural gas combustion turbines capable of combined or simple cycle operation. Delta Energy Park is being built in Delta Township, at the site of BWL's existing Erickson Station. The 90-acre plot is located eight miles from BWL's REO Town Plant & Headquarters.

The BWL's Integrated Resource Plan uses the baseline of 30% clean energy by the end of calendar year 2020 to set a goal of 50% clean energy by the end of calendar year 2030.* See "THE LANSING BOARD OF WATER AND LIGHT—Integrated Resource Plan" and "THE ELECTRIC UTILITY—Electric Generation" herein. BWL will accomplish the 2030 goal by retiring coal-fired generating assets and increasing reliance on cleaner energy resources—including gas-fired generating assets like Delta Energy Park. Delta Energy Park will be BWL's second natural gas plant as it works to transition its fleet from coal to cleaner resources. The first plant, BWL's REO Town Plant, was completed on budget and on time in 2013. For Delta Energy Park, BWL has an approved budget of up to $500 million to complete the Project, and the Bonds, along with BWL's anticipated 2021A Bonds, are the final phase of the financing required.

BWL continues to reduce reliance on coal by retiring coal-fired generation assets. BWL is replacing those assets with cleaner energy sources, including renewables and natural gas generation. The Delta Energy Park is expected to align with these efforts according to the following schedule:

- May 2019 – Construction commenced
- December 2020 – Back feed from switchyard completed
- May 2021 – Simple Cycle Unit load test
- September 2021 – Delta Energy Park planned commercial operation

Technical Details. Rated at 250 MW, Delta Energy Park will be capable of generating approximately 1.9 million megawatt hours (MWh) annually. The combined-cycle portion of the plant, used for base loads, will be rated at 195 MW. By rerouting waste heat from the combustion turbine generators ("CTGs") to the steam turbine, the combined-cycle process produces up to 50% more electricity than a simple-cycle plant. The main generators can also employ a series of bypass stacks and dampers to shut down half the generating path during periods of low load, thus reducing fuel consumption. The simple cycle portion of the plant, which can react to periods of peak demand, adds 55 MW. In summary, Delta Energy Park was designed with improved efficiency in mind. Resulting carbon emissions are expected to be significantly lower than those of BWL's aging coal stations.

---

* Clean energy includes renewable energy and accrued energy waste reductions since 2009. Clean energy as of the end of calendar year 2020 is composed of approximately 20% renewables (wind and solar) plus 10% energy waste reduction

The Project consists of the following major hardware components:

- Three combustion turbine generators
    - Manufacturer: Siemens Energy
    - Warranty Period: The earlier to occur of (a) four years after delivery of the last major component of goods or (b) for a period of two years after the date equipment performance tests (or equivalent) are completed after the goods furnished under the applicable contract are installed, subject to actual completion occurring within 180 days of the scheduled completion date.
- One plant control system
    - Manufacturer: Siemens Energy
    - Warranty Period: Three years after completion of delivery of goods or for a period of two years after the equipment performance completion date, or equivalent, in which the goods furnished under the applicable contract are installed, whichever is the later to occur, subject to actual completion occurring within 180 days of the scheduled completion date.
- Two heat-recovery steam generators ("HRSGs")
    - Manufacturer: Vogt Power International
    - Warranty Period: One year after the Project facilities' commercial operations date or thirty-six months after delivery of the last major component of goods, whichever occurs first.
- Two generator step-up transformers
    - Manufacturer: Pennsylvania Transformer Technology
    - Warranty Period: The lesser of sixty months from erection or sixty-six months from date of shipment.
- Three condensate pumps and four feedwater pumps
    - Manufacturer: Torishima Pump Manufacturing
    - Warranty Period: Three years after delivery or for a period of one year after the Project facilities' commercial operations date or equivalent in which the goods furnished under the applicable contract are installed, whichever is the later to occur. All warranty obligations of the seller shall cease to exist four years from date of delivery of the goods.
- One steam turbine generator with wet cooling tower heat rejection
    - Manufacturer: Doosan Skoda Power
    - Warranty Period: One year after the equipment performance completion or thirty-six months after delivery of the last major component of goods, whichever occurs first.

Pipeline Construction. Consumers Energy Company ("Consumers") has served the BWL as Transmission Line Contractor since December 2018. Consumers completed construction of a pipeline for the delivery of natural gas to the Delta Energy Park in December 2020. Consumers can now deliver startup gas quantities if desired by BWL. Consumers is on track to provide full load quantities of natural gas by April 1, 2021—ahead of the scheduled first fire of gas turbines. Consumers, the principal subsidiary of CMS Energy Corporation, will provide ongoing transportation through the pipeline.

The BWL is a transportation customer on the Consumers Energy Company natural gas system and has firm delivery service from Consumers Energy Company. The BWL has contracted with Fellon-McCord to provide natural gas procurement services. Forward purchases of natural gas are made in accordance with the BWL's Energy Risk Management Program.

Construction Contractors. Kramer Management Group of Lansing, Michigan has served BWL as Owner's Representative since 2016. Kramer provides comprehensive management and coordination of all construction activities.

Sargent & Lundy has served the BWL as Owner's Engineer since February 2017. With over 150 combustion turbine projects (including combined-cycle and cogeneration units) under their belt, the firm lends significant experience to the Delta Energy Park project.

Black & Veatch of Michigan has served the BWL as Design Engineer since 2018. Black & Veatch has an engineering track record which dates back over 100 years.

Lansing Power Constructors ("LPC"), a joint venture between Barton Malow and Clark Construction Company, has served the BWL as Construction Manager since January 2019. BWL has worked with both Barton Malow and Clark Construction Company for previous capital projects.

Pre-Construction and Construction Permits Received. The BWL has obtained the following permissions from the Michigan Department of Environment, Great Lakes, and Energy ("EGLE," formerly the Michigan Department of Environmental Quality): Air Permit (Permit to Install No. 74-18), Wetland Permit (WRP015113v1), and Soil Erosion &

Sedimentation Control Permit. The BWL has obtained the following permits from Delta Township: Site plan approval (allows BWL to perform all site preparation and grading activities) and Special Land Use Permit. The BWL has filed for an amended Air Permit (Permit to Install No. 74-18A) from EGLE. The final permit BWL expects to request is an occupancy permit from Delta Township.

Construction Status. As of October 2020, Delta Energy Park is commencing mechanical and electrical system integration. All three CTGs, the two HRSGs, the steam turbine, the two generator step-up transformers, three condensate pumps, and the four feedwater pumps have been installed and are awaiting mechanical and electrical integration. The plant control system is scheduled for installation in January 2021. The building shell and cooling tower have been erected.

Operational Integration. The combined-cycle portion of the plant is expected to operate continually. Delta Energy Park output will be dispatched economically and against the load requirements of the Midcontinent Independent System Operator Inc. ("MISO") market. BWL will register the new power plant as a behind-the-meter resource on the MISO market. See also "THE ELECTRIC UTILITY—Transmission Arrangements" herein.

ESTIMATED SOURCES AND USES OF FUNDS

The Bonds

Sources	
Principal Amount of the Bonds	$70,875,000.00
Original Issue Premium	5,171,040.00
Total Sources	$76,046,040.00
Uses	
Construction Fund	$72,600,000.00
Capitalized Interest	3,012,209.68
Costs of Issuance[(1)]	204,812.89
Underwriter's Discount	229,017.43
Total Uses	$76,046,040.00

(1) Includes legal, ratings, financial advisory, printing and other costs of issuance.

[*Remainder of Page Intentionally Left Blank*]

DEBT SERVICE REQUIREMENTS

The following table sets forth the debt service on BWL's Outstanding Bonds, as well as the principal of, interest on, and annual debt service on the Bonds and the 2021A Bonds.

Period Ending	Outstanding Bonds Debt Service[(1)]	The Bonds: Principal[(2)]	The Bonds: Interest[(3), (4)]	The Bonds: Annual Debt Service	The 2021A Bonds: Principal	The 2021A Bonds: Interest[(3)]	The 2021A Bonds: Annual Debt Service	Total Debt Service
7/1/2021	$20,382,058	-	$610,313	$610,313	-	$1,205,986	$1,205,986	$22,198,357
7/1/2022	38,462,115	-	1,417,500	1,417,500	-	2,801,000	2,801,000	42,680,615
7/1/2023	38,467,096	-	1,417,500	1,417,500	-	2,801,000	2,801,000	42,685,596
7/1/2024	38,465,194	-	1,417,500	1,417,500	-	2,801,000	2,801,000	42,683,694
7/1/2025	38,465,235	-	1,417,500	1,417,500	$150,000	2,801,000	2,951,000	42,833,735
7/1/2026	38,463,880	$5,000	1,417,500	1,422,500	150,000	2,793,500	2,943,500	42,829,880
7/1/2027	38,464,394	5,000	2,480,450	2,485,450	150,000	2,786,000	2,936,000	43,885,844
7/1/2028	38,468,135	5,000	2,480,275	2,485,275	150,000	2,778,500	2,928,500	43,881,910
7/1/2029	38,466,491	5,000	2,480,100	2,485,100	150,000	2,771,000	2,921,000	43,872,591
7/1/2030	38,463,589	5,000	2,479,925	2,484,925	150,000	2,763,500	2,913,500	43,862,014
7/1/2031	38,467,385	5,000	2,479,750	2,484,750	150,000	2,756,000	2,906,000	43,858,135
7/1/2032	38,470,951	5,000	2,479,575	2,484,575	150,000	2,748,500	2,898,500	43,854,026
7/1/2033	38,467,349	5,000	2,479,400	2,484,400	150,000	2,741,000	2,891,000	43,842,749
7/1/2034	38,467,353	5,000	2,479,225	2,484,225	150,000	2,733,500	2,883,500	43,835,078
7/1/2035	38,468,034	5,000	2,479,050	2,484,050	150,000	2,726,000	2,876,000	43,828,084
7/1/2036	38,466,278	5,000	2,478,875	2,483,875	150,000	2,718,500	2,868,500	43,818,653
7/1/2037	38,464,406	5,000	2,478,700	2,483,700	150,000	2,711,000	2,861,000	43,809,106
7/1/2038	38,470,414	5,000	2,478,525	2,483,525	150,000	2,703,500	2,853,500	43,807,439
7/1/2039	38,467,669	5,000	2,478,350	2,483,350	150,000	2,696,000	2,846,000	43,797,019
7/1/2040	38,465,069	5,000	2,478,175	2,483,175	150,000	2,688,500	2,838,500	43,786,744
7/1/2041	38,466,306	5,000	2,478,000	2,483,000	150,000	2,681,000	2,831,000	43,780,306
7/1/2042	40,869,750	5,000	2,477,825	2,482,825	20,000	2,673,500	2,693,500	46,046,075
7/1/2043	40,872,500	5,000	2,477,650	2,482,650	20,000	2,672,500	2,692,500	46,047,650
7/1/2044	40,872,500	5,000	2,477,475	2,482,475	20,000	2,671,500	2,691,500	46,046,475
7/1/2045	40,871,250	5,000	2,477,300	2,482,300	20,000	2,670,500	2,690,500	46,044,050
7/1/2046	40,870,000	5,000	2,477,125	2,482,125	20,000	2,669,500	2,689,500	46,041,625
7/1/2047	40,869,750	5,000	2,476,950	2,481,950	20,000	2,668,500	2,688,500	46,040,200
7/1/2048	40,871,250	5,000	2,476,775	2,481,775	20,000	2,667,500	2,687,500	46,040,525
7/1/2049	-	22,780,000	2,476,600	25,256,600	16,915,000	2,666,500	19,581,500	44,838,100
7/1/2050	-	23,575,000	1,679,300	25,254,300	17,765,000	1,820,750	19,585,750	44,840,050
7/1/2051	-	24,405,000	854,175	25,259,175	18,650,000	932,500	19,582,500	44,841,675
Total	$1,075,806,401	$70,875,000	$67,237,363	$138,112,363	$56,020,000	$80,319,236	$136,339,236	$1,350,258,000

(1) The Outstanding Bonds Debt Service does not include debt service on the Bonds or the 2021A Bonds.
(2) The Bonds are a term rate bond that is subject to mandatory tender on July 1, 2026.
(3) Interest on the Bonds and the 2021A Bonds is capitalized to October 1, 2021.
(4) An interest rate of 3.500% per year is assumed for the Bonds following the mandatory tender date of July 1, 2026.

THE LANSING BOARD OF WATER AND LIGHT

The City of Lansing

The City of Lansing, Counties of Ingham and Eaton, is Michigan's state capital. Lansing's population of 118,210 people (approximate as of July 1, 2019) 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 55.5%, 31.3% and 6.5%, respectively, of the City's 2020 Taxable Valuation, as defined in Appendix A. The balance of the City's 2020 Taxable Valuation is personal property—primarily commercial and industrial 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 unique 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 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. Lansing'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. BWL further diversified revenues in 2001 when it began the sale of chilled water.

Strategic Plan

BWL's current strategic plan was approved by its Board of Commissioners in 2016 (the "2016 Strategic Plan"). The 2016 Strategic Plan contains overarching priorities for BWL's organizational development during calendar years 2016-2020. The 2016 Strategic Plan set BWL on a path toward anticipated achievement of its declared baseline of 30% clean energy generation by the end of calendar year 2020.* In addition to the 133 MW of renewables already online, BWL permanently ceased operation of Eckert Station on December 31, 2020 to help meet this clean energy mark. Although the BWL does not plan to operate Eckert Station after December 31, 2020, construction delays at the Delta Energy Park due to the COVID-19 pandemic will prevent it from formally retiring one of the units until the spring of 2021. Complete information regarding BWL's 2016 Strategic Plan is available at https://www.lbwl.com/about-bwl/strategic-plan.

In addition to environmental sustainability, the 2016 Strategic Plan ensures that BWL stays true to its mission while navigating the evolving utility industry. To do so, the BWL will continue to prioritize the following values:

- Dedicated attention to change management
- Enhanced customer experience
- Community involvement
- Effective acquisition and management of resources
- Implementation of new technologies
- Maintenance of a strong and diverse workforce
- Financial stability
- Continuous improvement through BWL leadership

BWL periodically develops strategic plans by evaluating recommendations from its then-most-recent integrated resource plan. See "—Integrated Resource Plan" herein. The 2016 Strategic Plan will continue to influence decisions for modernizing BWL's electric resource mix until the adoption of BWL's next strategic plan, which will be informed by the 2020 IRP (as defined below). An updated strategic plan will be presented to the Board of Commissioners for approval early in calendar year 2021 (the "2021 Strategic Plan").

Integrated Resource Plan

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/resilience, and environment/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.

---

* Clean energy includes renewable energy and cumulative energy waste reductions since 2009. Clean energy as of the end of calendar year 2020 is composed of approximately 20% renewables (wind and solar) plus 10% energy waste reduction.

During 2019, BWL engaged various stakeholders for input which would shape the next IRP. BWL listened to diverse sources including customers, stakeholders, and local community organizations. Modes of outreach included telephone, social media, email, web, and public meetings. This input was also used to forecast long-term energy usage and peak demand trends.

Through this process, BWL learned that Lansing wants its utility to be a model of environmental stewardship. Customers stated that BWL should embrace its role in the climate challenge head-on by:

- Transitioning from coal to diverse generation sources including natural gas, wind, and solar
- Maintaining reliability and affordability of services
- Significantly reducing CO_2, NO_X, and SO_2 emissions by 2030

BWL's most recent IRP, published in 2020 (the "2020 IRP"), responds directly to these customer demands. The 2020 IRP is a 20-year plan for meeting Lansing's demand-side and supply-side energy needs. This document contains extensive modeling of potential energy production portfolios with detailed emissions calculations for each. The IRP is available in its entirety at https://www.lbwl.com/IRP2020.

The 2020 IRP recommends increased investment in energy waste reduction and renewable generation sources. It demonstrates that it is possible for 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 Neutrality

The construction of Delta Energy Park is integral to meeting these goals, with natural gas serving as a bridge to an increasingly renewable future. Additionally, the retirement of Erickson Station on December 31, 2025 was included in all scenarios modeled for the 2020 IRP. Though slightly more expensive in the next 10 years than some other IRP model scenarios, the 50% clean energy by 2030 strategy should reduce risk and costs over the 20-year period. Additionally, carbon neutrality is expected to be viable in the future as energy storage and other technologies become more affordable, and a carbon neutrality goal is included in the 2020 IRP.

Although the 2020 IRP, along with its 50% clean energy goal and its carbon neutrality goal, will not be formally approved or adopted by the Board of Commissioners, BWL management has publicized both goals and will include them in its official recommendation to the Board of Commissioners when the Board considers and approves the 2021 Strategic Plan. IRP recommendations that are favored by Commissioners will shape BWL decision-making through their inclusion in the 2021 Strategic Plan. See "—Strategic Plan" above.

Environmental Initiatives: Resource Planning for a Cleaner Energy Future

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 2007, as Michigan's first utility to adopt a renewable energy standard, 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.

---

* Clean energy includes renewable energy and cumulative energy waste reductions since 2009. Clean energy as of the end of calendar year 2020 is composed of approximately 20% renewables (wind and solar) plus 10% energy waste reduction

[†] The BWL program predated the State's statutory adoption of energy efficiency standards. The State now refers to energy efficiency as energy waste reduction.

In 2010, the BWL owned and operated fourteen coal-fired generation units.* Only three years later, this number had been cut in half.† The 2013 debut of the REO Town Plant marked an important milestone in BWL's long-term plan to completely eliminate its coal consumption. The REO Town Plant is a combined-cycle cogeneration facility powered by natural gas, which is much cleaner than the seven coal-fired units it replaced.

REO Town Plant's two combustion turbines are each paired with a heat recovery steam generator which, along with a boiler, provide steam heating to nearby customers. Excess steam also powers a turbine for additional electric generation. The REO Town Plant's heat rate (approximately 8,000 HHV) represents a 30% improvement in efficiency over Eckert's generating units (approximately 11,300 HHV). Having won awards for safety and engineering, the REO Town Plant reflects BWL's leadership in cleaner energy.

BWL expects to acquire 20% of retail electric sales from renewable energy projects, such as wind and solar, by the end of calendar year 2020. BWL energy will be 30% clean at that time, and BWL intends to reach its 50% clean energy goal by 2030.‡ See "THE LANSING BOARD OF WATER AND LIGHT—Integrated Resource Plan" above. Moreover, the continued expansion of renewable energy in BWL's electric portfolio is consistent with BWL's 2016 Strategic Plan. See "THE LANSING BOARD OF WATER AND LIGHT—Strategic Plan" above.

The 2016 Strategic Plan further included new generation from natural gas to replace the capacity of the BWL's existing generation units at the coal-fired Eckert and Erickson Stations. On March 27, 2018, the BWL Board of Commissioners unanimously approved the construction of a new natural gas-fired power plant. The new facility will be cleaner and more efficient than the coal-fired facilities it replaces. The new plant, collectively known as the Delta Energy Park, will provide base-load generation, peaking support and cycling to further complement the BWL's growing investments in supplying renewable energy. See "THE ELECTRIC UTILITY—Electric Generation" herein.

Energy Waste Reduction Programming. In 2007, the BWL began plans for a comprehensive energy waste reduction program. In 2008, the State of Michigan promulgated renewable energy and energy waste reduction standards for all utilities providing natural gas or electric services within Michigan. 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. The Act was amended in 2016 to increase the renewable energy standard to 12.5% in 2019 and 2020, and 15% in 2021. The 1% annual energy waste reduction goal for municipal utilities remains unchanged. BWL has measured energy waste reduction savings since 2009. The state will no longer require annual compliance filings for municipal utilities after 2021.

The BWL has historically met or exceeded all statutory requirements related to energy waste reduction savings and renewables. The 2021 Strategic Plan is expected to set goals for future energy efficiency savings.

Year	Actual Efficiency Savings as % 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
2019	1.19

* Ten of the fourteen units generated electricity. Four of the units were located at Moores Park and generated steam for the BWL customers in downtown Lansing.

† 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.

‡ Clean energy includes renewable energy and accrued energy waste reductions since 2009.

Environmental Initiatives

1. 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 2025, the BWL has charted a cleaner energy future. The BWL expects its 2026 carbon dioxide (CO_2) emissions to be 80% lower than in 2005. Additionally, 2026 nitrogen oxide (NO_X) and sulfur dioxide (SO_2) emissions will decrease by 96% 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 actual historical and projected coal consumption levels.

Year	Coal Consumed at BWL 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
2026 (projected)	0

Coal-fired power plants are significant emitters of NO_X, SO_2, and the greenhouse gas CO_2. By transitioning to cleaner energy sources and renewables, the BWL has simultaneously reduced both its emissions and dependence on coal. The BWL is committed to continuous progress in emissions reductions, both before and after the replacement of coal.

2. 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:

- Erickson Station—Excavation of ash from the storage cell adjacent to the power plant was completed in 2013. Since then, Erickson's bottom ash has been and is currently transported to a licensed municipal landfill for proper disposal. A small, lined temporary storage cell was installed in 2015. BWL has initiated a CCR regulatory compliance program including inspections of the impoundment's structural integrity, maintenance of a fugitive dust plan, and installation of a groundwater-monitoring network.

- Comfort Street—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.

- North Lansing Landfill—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 and is therefore not impacted by this rule. The BWL's treatment of legacy CCR sites is comprehensive because these actions to benefit the environment should also foreclose or mitigate future regulatory or citizen suit actions.

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 BWL's footsteps.

In 2018, the State of Michigan 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.

BWL is ahead of the curve with regard to Michigan's LCR regulations. Owing to its complete elimination of lead service lines, BWL was able to complete the system materials inventory in short order. Also due to LSLR, 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. 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 for PFAS since 2015. 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. 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.

In 2017, the BWL implemented a composting program for employees at BWL facilities. Education on composting and recycling expanded greatly in 2018, resulting in BWL's composting volume increasing 40% from the previous year. For every five cubic yards of compostable material that BWL produces, one cubic yard of finished soil is generated. This soil is given to a not-for-profit garden project in the Lansing area. Additional sustainability efforts have resulted in improved recycling practices and have increased rates of waste being diverted from the landfill.

Actual Recycling Measurements From BWL Facilities (Annual)

Recycling Type	2011	2012	2013	2014	2015	2016	2017	2018	2019
Municipal (lbs)*	165,280	162,604	166,693	153,036	128,700	137,670	188,760	171,600	163,200
Scrap Metals (lbs)	509,846	733,199	739,171	530,890	1,075,274	818,192	798,254	938,426	920,744
Fluorescent Lamps	970	2,751	2,283	2,063	2,726	2,751	3,001	1,920	1,106

* Municipal recycling includes paper, cardboard and plastic.

The BWL's Dye Water Conditioning Plant is the only water conditioning facility in the state to achieve Clean Corporate Citizen status as part of the Michigan Business Pollution Prevention Program. The BWL accomplished this by implementing and maintaining an Environmental Management System which has improved plant efficiency while reducing environmental impact. For example, all (approximately 33,000 tons per year) of the calcium carbonate sludge from Dye is reused for beneficial uses such as land application and land reclamation, rather than being sent to a landfill.*

In 2019, the BWL began implementing a native pollinator conversion program at two wellhead sites. Native pollinators are plant species that support bird, honeybee, butterfly and animal habitats, which are being restored at BWL properties currently covered by grass. The conversion from grass to native pollinators has multiple benefits:

* Calcium carbonate sludge is a byproduct of the water-conditioning process.

- he pollinator species being planted at the BWL sites are native to Michigan and thus contribute to reversing human damage inflicted upon natural ecosystems.
- The BWL will reduce fossil fuel consumption by discontinuing lawn mowing at the pollinator sites.
- The plants will improve groundwater quality, as their extensive roots provide greater filtration than those of grass.
- Additional sites will be evaluated for conversion to native pollinators.

Energy Risk Management

In 2013, the BWL formally adopted an Energy Risk Management Program. The program is reviewed annually. The most recent revision was approved in April 2020.

The purpose of 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

Critical Infrastructure and Digital Security

Since BWL operates in multiple critical infrastructure sectors, BWL business practices place continued emphasis on digital security and resilience. Accordingly, 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, fiber WAN upgrades enabling improved physical security controls, and continued network hardening to comply with NERC-CIP (North American Electric Reliability Corporation, Critical Infrastructure Protection) requirements. Recently completed information technology initiatives include network hardware lifecycle refresh for two-thirds of the network, the addition of redundant wide-area network connections amongst the data centers using AT&T switched ethernet for failover from BWL's private fiber ring, and in-process network transformation to include more network segmentation and routing for increased stability and performance. Legacy storage area network has been retired and replaced with a new solution, 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.

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 high-risk user groups (IT, Executives, Finance and Accounting)
- 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

* Since BWL operates in multiple critical infrastructure sectors, 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).

- Participation in Department of Homeland Security (DHS) penetration testing and vulnerability scanning programs
- Continuous operating system and network patching
- New 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 6-year budget and forecast period. The current policy (FY 2021-26) has calculated a minimum cash reserve requirement ranging from 165-180 days cash. This falls within the target range of 150-249 days cash as recommended by credit rating agencies for utilities in BWL's current credit quality tier.

For the fiscal year ended June 30, 2020, BWL exceeded its minimum cash reserve requirement with 212 days cash on hand. See "SYSTEM FINANCIAL INFORMATION" 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. The current plan covering the next six years (FY 2021-2026) was adopted in May 2020 and consists of approximately $399.8 million in capital expenditures not including Delta Energy Park. Capital expenditures are shown by utility and location in the tables below. BWL expects 92% of this to be funded with internally generated funds.

Lansing Board of Water and Light
Capital Improvement Plan by Utility
Fiscal Years 2021-2026

Utility	Capital Expenditures ($ million)
Electric	$258.1
Water	67.7
Steam	23.4
Chilled Water	0.4
Common	50.2
Total[(2)]	$399.8

Lansing Board of Water and Light
Capital Improvement Plan by Location[(1)]
Fiscal Years 2021-2026

Location	Capital Expenditures ($ million)
Eckert	$0.1
Erickson	4.3
Water Production	18.4
Chiller Plant	0.6
REO Town Plant	18.5
Transmission and Dist.	300.1
Other	57.7
Total[(2)]	$399.8

(1) Due to rounding, totals may not add up.
(2) There are no capital expenditures currently planned for Delta Energy Park through 2026, other than for the Project.
Source: Lansing Board of Water and Light

Board of Water and Light Administrators

Richard Peffley joined the Board of Water and Light in 1976 and has been the General Manager since 2015. Mr. Peffley's experience at the BWL is extensive, having previously held numerous positions including Executive Director of Operations and Plant Manager of the Erickson and Eckert Power Stations. Mr. Peffley also served as project manager for the $182 million REO Town Cogeneration Plant & Headquarters and the $20 million Chilled Water Plant. He successfully brought both projects to completion on time and on budget. In July 2013, while Mr. Peffley was the Executive Director of Special Projects & Water Operations, BWL distributed a record-breaking one billion gallons of water in a single month.

Heather Shawa joined the Board of Water and Light in 2015 as the Chief Financial Officer. Ms. Shawa is responsible for the BWL's financial and administrative operations including accounting, finance, budgeting, purchasing and warehousing, and information technology. Prior to joining the BWL, Ms. Shawa served as Vice President of Operations and Chief Financial Officer at Demmer Corporation. Ms. Shawa brings to the BWL her significant experience in accounting, private and municipal finance, acquisitions, and plant operations in both public and private sectors and multiple industries. Ms. Shawa sits on the boards of Peckham, Inc. and Big Brothers Big Sisters (Michigan Capital Region).

Dave Bolan joined the Board of Water and Light 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; and the BWL's NERC (North American Electric Reliability Corporation) compliance program. 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 coal 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 Board of Water and Light in 2008 and has served as Executive Director of Labor Relations since 2020. Mr. Flowers is responsible for collective bargaining negotiations, labor policies and advising on issues regarding union-management relations. Mr. Flowers previously served as the Executive Director of Human Resources and Training. Prior to joining the BWL, Mr. Flowers worked in Human Resources for Accident Fund Insurance Company and Sparrow Health System. Additionally, he teaches human resources at Lansing Community College, is the Chair of Lansing Community College Foundation Board, and sits on the board of Peckham, Inc. and the Board of Education for Ingham Intermediate School District. Mr. Flowers is also a past president and current member of the advisory board for the Labor and Employment Relations Association and a Board member for the Capital Region Community Foundation.

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.

Brandie Ekren is the Executive Director of Strategic Planning and Development and is responsible for the BWL's strategic initiatives and planning, which includes the strategic plan, renewable portfolio and climate response strategies and programs, and innovation investments. She is also responsible for business development and marketing for commercial/industrial customers and real property management. She joined the BWL in 2004 as an attorney and served as the General Counsel for 12 years prior to assuming her new role as Executive Director of Strategic Planning & Development in January 2019. During intermittent periods of her BWL tenure she was responsible for enterprise risk management, corporate governance, environmental services, and employment professional development. In addition to her current role as the Executive Director of Strategic Planning and Development, she serves as the executive sponsor for the BWL's Diversity Equity and Inclusion initiative. External to the BWL, she serves as the Chair of Board for Highfields Inc., a non-profit organization dedicated to supporting, strengthen and empowering families. Ms. Ekren is also a trustee for the Lansing Kiwanis Endowment fund, which financially supports community programs and events.

Lynnette Keller joined the BWL in 2020 as the Executive Director of Human Resources. Ms. Keller is responsible for employee relations, talent acquisition and retention, employee and leadership development, performance management, succession planning, compensation and benefits, payroll, training and development, organizational change management, HRIS, compliance, safety and security, policy administration and continuous improvement of HR processes and strategic planning. Ms. Keller was previously employed with Dow Corning, Styron (Trinseo), Demmer Corporation, XALT Energy and Michigan Sugar Company. She holds a BBA from Saginaw Valley State University and is a Certified Senior Professional in Human Resources (SPHR) and a Society of Human Resources Management Senior Certified Professional (SHRM-SCP).

Roberto Hodge joined the BWL in 2008 and has served as the Delta Energy Park Project Director since 2018. Mr. Hodge is responsible for overseeing the design, construction, and engineering teams for the Project. Mr. Hodge is a veteran of the United States Navy whose previous roles at 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, 2020, the BWL employed 679 people—404 of whom were considered general System employees. The balance of utility-specific employees included 187, 5, and 83 persons serving the electric, steam, and combined water utilities, respectively.

The International Brotherhood of Electric Workers, AFL-CIO, Local Union 352, represents approximately 397 BWL employees. Remaining BWL employees are not represented by a union.

A memorandum of understanding executed between union and BWL leaders in August 2020 extended most provisions of the 2016-2020 collective bargaining agreement through October 31, 2021. Formal negotiations for establishing a new collective bargaining agreement will begin ninety days prior to expiration of the current contract.

The BWL has historically maintained good labor relations with respect to the System.

The BWL has three forms of retirement plans. See "PENSION AND RETIREMENT SYSTEMS."

Collection and Enforcement

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 fifteen days after distribution. Customers who do not pay in full by the due date incur a 5% late fee monthly on the remaining balance. Except for residential electric customers during winter months, services may be disconnected when the unpaid balance is 40 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.

The outbreak of COVID-19, and subsequent responses to the outbreak by various governmental entities, impacted BWL's ability to collect past-due customer balances. Collection activities were suspended per state executive order between mid-March 2020 and July 2020, during which time Michigan utilities including BWL could not charge late fees or interrupt services. Collection activities have resumed since July 2020. BWL has observed an 8% increase in the number of past-due customer accounts since the onset of the pandemic.* See also "IMPACT OF THE COVID-19 PANDEMIC—Impact on the BWL and the Bonds" herein.

BWL customer billing staff makes additional collection attempts between 40 and 100 days past due. Accounts over 100 days past due are sent to an external collection agency. Uncollectable customer debts accounted for 0.45% of revenues during fiscal year 2019, compared to 0.83% in fiscal year 2020.

Unmetered or non-traditional customers including pole attachments, traffic signals, and water supply for fire hydrants, accounted for an immaterial share of BWL revenues during fiscal year 2020. Unmetered services are budgeted to account for less than 1% of revenues during fiscal year 2021.

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 $1,500,000. Combined liability coverages total $36 million for each occurrence and $70 million general aggregate for certain bodily injury and property damage claims.

THE ELECTRIC UTILITY

General

The BWL's Electric Utility has provided System services for over 120 years. It is the largest municipally-owned electric utility in Michigan with more than 98,000 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.

Electric Generation

The Electric Utility's primary generating assets are two coal-fired generating facilities and one natural-gas cogeneration facility. The newest generation asset BWL owns is the REO Town Plant, which has been in service since 2013. REO Town Plant's construction was completed on time and within budget. REO Town Plant replaced the aging, coal-fired Moores Park Steam Plant.

The REO Town Plant is a combined-cycle cogeneration facility fueled by natural gas. 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 turn 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 BWL's projected maximum steam demand capacity of 300,000 pounds per hour even if one steam production unit is out of service.

The state-of-the-art facility is cleaner, greener, and more efficient than BWL's coal plants. BWL estimates that the REO Town Plant prevents the consumption of 351,000 additional tons of coal per year. Compared to a coal plant of similar capacity, REO Town Plant's greenhouse gas emissions, mercury and SO_2 emissions, and NO_X emissions are 50%, 99%, and 85% lower, respectively.

The Electric Utility owns multiple solar generation sites in Lansing, 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.

* March through October 2020 compared to March through October 2019.

The Electric Utility owns one hydroelectric generating unit, which is currently non-operational. The hydroelectric generating unit had a rated capacity of 0.525 MW.

The Electric Utility's coal-fired electric generating facilities are known as the Eckert Station and the Erickson Station. In its prime, the Eckert Station had six generating units. One unit was retired in 2014 and two additional units were mothballed in 2015. The three operational coal-fired generating units at the Eckert Station have a combined nameplate capacity of 225 MW. These generating units were placed in service between 1964 and 1970. The Erickson Station has one coal-fired generating unit with a nameplate capacity of 162 MW. The Erickson Station was placed in service in 1973. Together, the Eckert and Erickson Stations have a combined nameplate capacity of 387 MW. The Eckert and Erickson Stations burn low-sulfur (less than 1%) coal. Both facilities meet Michigan's air and water quality standards. The Eckert and Erickson Stations are also in compliance with federal and state environmental requirements.

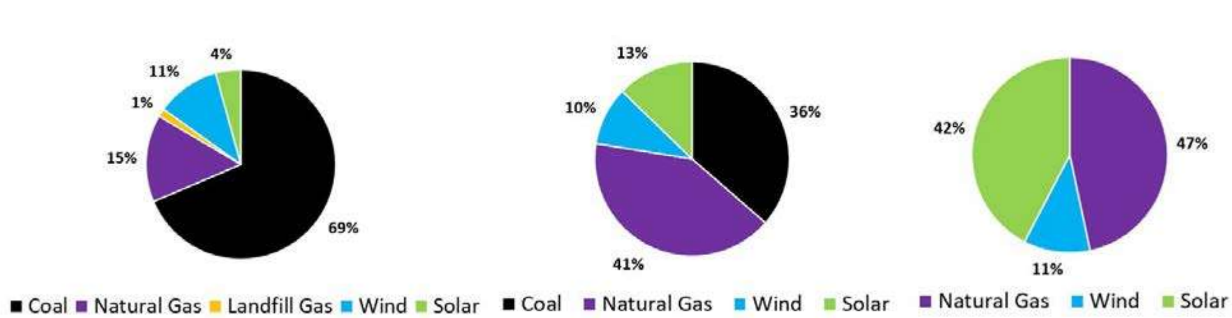
The BWL had announced plans to permanently cease operation of the Eckert Station on December 31, 2020, and it has ceased operation. Although the BWL has no intention of operating Eckert Station after that date, construction delays at the Delta Energy Park due to the COVID-19 pandemic will prevent the BWL from formally retiring one of the units until the spring of 2021. The decision to close represents a proactive decision driven by environmental regulations, low-cost natural gas generation, and rising operation and maintenance costs associated with a generating plant nearing the end of its useful life. Closing Eckert Station is in alignment with the BWL's 2016 Strategic Plan and 2020 Integrated Resource Plan, which reinforces a balanced approach and forward-looking goals, including goals for clean energy.

To meet evolving customer, market, and environmental demands, BWL broke ground on Delta Energy Park in 2019. Delta Energy Park will consist of a 250 MW combined-cycle facility and a 138-kV switchyard. The highly-efficient plant will be powered by natural gas combustion turbines capable of combined or simple-cycle operation. Delta Energy Park will be built in Delta Township, at the site of BWL's existing Erickson Station. The 90-acre plot is located eight miles from BWL's REO Town Plant & Headquarters. Delta Energy Park will be BWL's second natural gas plant. It follows in the footsteps of BWL's REO Town Plant, which was completed on budget and on time in 2013. BWL has a Delta Energy Park Project budget of up to $500 million.

Delta Energy Park is critical to BWL reaching its goals of 30% clean energy by the end of calendar year 2020 and 50% clean energy by the end of calendar year 2030. See "THE LANSING BOARD OF WATER AND LIGHT—Integrated Resource Plan" herein for more information. These goals will be accomplished by reducing reliance on and retiring certain coal-fired generating assets and increasing reliance on cleaner energy resources, including gas-fired generating assets, like the Delta Energy Park. In addition, this decision will allow further diversification of the BWL generation portfolio and proactively address market and regulatory issues. Current installed capacity and projections for fuel diversification are indicated in the following charts.

Moving Away from Coal: BWL Energy Resource Capacity by Fuel[*]

Calendar Year 2020 | Calendar Year 2022 | Calendar Year 2030



Joint Action Agency Participation

The Michigan Public Power Agency ("MPPA") is an alliance of electric system owner-operators established by Michigan Public Act 448 in the late 1970s. 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.

[*] Includes capacity from PPAs in addition to assets owned by BWL.

The BWL joined MPPA in 1992. 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. Including BWL, MPPA consists of 22 member utilities. Six additional utilities participate in MPPA as associate members. Additional information regarding MPPA and detailed membership are available at www.mpower.org.

Purchased Power

In 1983, MPPA issued $590,370,000 of revenue bonds to purchase an interest in Detroit Edison Company's "Belle River" coal-fired generating facilities. Located in St. Clair County, Michigan, Belle River units one and two have a combined nameplate rating of 1,260 MW. Belle River commenced commercial operation in July 1985. Previously, BWL was required to pay its proportionate share of debt service on MPPA's Belle River bonds. MPPA's Belle River bond debt was paid in full as of January 2, 2018, eliminating BWL's debt service obligation. The payoff, which occurred part way through BWL's FY 2018, lowered the cost per kWh for MPPA/Belle River participants including BWL.

Due to corporate restructuring in 1996, Detroit Edison assumed the name of DTE Energy Company ("DTE"). MPPA, through its purchase agreements with DTE, owns 18.61% of Belle River units one and two. Through its participation in MPPA, the BWL has purchased a capacity and energy entitlement of 150.8 MW. 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.

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 the obligations of a defaulting Belle River participant, to an extent that does not exceed 25% of BWL's original obligation. In this scenario, the BWL would also become entitled to the 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 of 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.

Belle River power cost during the fiscal year ending 2020 was 5.10 cents per kilowatt hour. Excluding possible transmission losses, the following table projects the Belle River power cost per kilowatt hour ("kWh") at 80% availability from 2021 through 2025.

Lansing Board of Water and Light
Electric Utility
Projected Belle River Power Costs per kWh as of December 2019
Fiscal Years Ended or Ending June 30, 2021 through 2025

Year	Cents Per kWh
2021	5.19
2022	4.78
2023	4.84
2024	5.08
2025	4.80

Source: Lansing Board of Water and Light

In 2007, the Electric Utility entered into a twenty-one-year power purchase agreement with Granger Electric of Lansing LLC. A leading provider of curbside waste and recycling services in mid-Michigan, the Granger group of companies owns and operates two electric generation facilities in and near Lansing. Each Granger site is equipped with a generating station capable of capturing landfill gas and using it as fuel. The contract currently provides electric capacity totaling 11.2 MW. The power from both facilities meets Michigan's renewable energy portfolio standard. In 2017, Energy Developments Limited (EDL) acquired Granger's North-American landfill gas-to-energy facilities and assumed the BWL agreement.

Due to falling prices for renewable energy, BWL performed a revised cost analysis of the EDL agreement. Though an amendment of the agreement was considered, BWL gauged early termination to be the most cost-effective option. Consequently, BWL has arranged for termination of the landfill energy contract effective December 31, 2020. Despite a one-time termination fee (BWL paid EDL $14.1 million in October 2019), BWL estimates that the premature severance will nonetheless result in long-term net savings of approximately $19.6 million.

Since 2011, BWL had maintained a power purchase agreement with Tower Kleber Limited Partnership ("Tower Kleber") for 1.8 MW of hydroelectric energy generated at a Tower Kleber site in Northern Michigan. The agreement terminated as of December 31, 2019.

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 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 BWL since 2018.

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

The BWL has a power purchase agreement with Community Energy Options, LLC ("Community Solar") for 0.345 MW of solar power generated from a site in East Lansing, Michigan. This arrangement gives 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 power purchase agreement with Solar Development North America LLC ("Invenergy") for 10 MW of solar power generated in Calhoun County, Michigan. The 25-year agreement will be effective when generation commences in late calendar year 2021.

The BWL has two power purchase agreements with Assembly Solar LLC ("Ranger") for 10 MW and 70 MW of solar power to be generated in Shiawassee County, Michigan. The agreements span 25 years with BWL's energy entitlement beginning by the end of calendar year 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 70 square mile service area and connect with transmission facilities owned by 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. 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 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 would be necessary for BWL to become a transmission-owning MISO member.

BWL's 138 kV transmission system interconnects with the ITC system and is governed by the MISO Tariff. Prior to 2016, 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, 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 Eckert, Erickson, and REO Town Plants during the fiscal years ended June 30, 2016 through 2020.

Lansing Board of Water and Light
Electric Utility
Eckert Station Operating Statistics
Fiscal Years Ended June 30, 2016 through 2020

Fiscal Year Ended June 30	Gross Generation (MWh)(1)	Net Generation (MWh)(2)	Availability Factor (%)(3)	Net Capacity Factor (%)(4)
2016	492,102	440,046	91.10%	25.30%
2017	571,378	511,601	68.50%	29.50%
2018	423,541	366,176	72.40%	21.10%
2019	266,251	232,251	89.00%	16.60%
2020	29,418	25,147	99.97%	1.79%

(1) Annual total of MWh produced at the Eckert Station.
(2) Annual total of MWh available for sale. The difference between gross and net generation is the MWh used to operate the Eckert Station.
(3) The annual percentage of time that the Eckert Station facility was capable of generating electricity after taking into consideration scheduled and non-scheduled outages.
(4) Annual total of MWh generated as a percentage of annual net generation capacity.
Source: Lansing Board of Water and Light

Lansing Board of Water and Light
Electric Utility
Erickson Station Operating Statistics
Fiscal Years Ended June 30, 2016 through 2020

Fiscal Year Ended June 30	Gross Generation (MWh)[1]	Net Generation (MWh)[2]	Availability Factor (%)[3]	Net Capacity Factor (%)[4]
2016	954,742	871,912	90.30%	64.90%
2017	927,709	849,954	74.70%	63.40%
2018	1,034,524	946,233	85.80%	70.60%
2019	532,840	486,554	51.90%	36.90%
2020	786,565	720,261	78.44%	54.45%

(1) Annual total of MWh produced at the Erickson Station.
(2) Annual total of MWh available for sale. The difference between gross and net generation is the MWh used to operate the Erickson Station.
(3) The annual percentage of time that the Erickson Station was capable of generating electricity after taking into consideration scheduled and non-scheduled outages.
(4) Annual total of MWh generated as a percentage of annual net generation capacity.
Source: Lansing Board of Water and Light

Lansing Board of Water and Light
Electric Utility
REO Town Plant Operating Statistics
Fiscal Years Ended June 30, 2016 through 2020

Fiscal Year Ended June 30	Gross Generation (MWh)[1]	Net Generation (MWh)[2]	Availability Factor (%)[3]	Net Capacity Factor (%)[4]
2016	554,776	525,290	92.50%	66.20%
2017	542,708	515,655	95.40%	65.20%
2018	492,601	466,598	89.20%	59.00%
2019	586,254	555,251	90.40%	73.60%
2020	589,160	588,788	92.47%	85.66%

(1) Annual total of MWh produced at the REO Town Plant.
(2) Annual total of MWh available for sale. The difference between gross and net generation is the MWh used to operate the REO Town Plant.
(3) The annual percentage of time that the REO Town Plant was capable of generating electricity after taking into consideration scheduled and non-scheduled outages.
(4) Annual total of MWh generated as a percentage of annual net generation capacity.
Source: Lansing Board of Water and Light

The following tables show nameplate capacity mix by fuel type for the fiscal year ended June 30, 2020 and energy mix during the fiscal years ended June 30, 2018 through 2020 for major generating contributors to the Electric Utility.

Lansing Board of Water and Light
Electric Utility
Energy Mix in MWh by Fuel Type[1]
Fiscal Years Ended June 30, 2018 through 2020

Resource	Fuel Type	FY 2018	FY 2019	FY 2020
Eckert	Coal	366,176	232,251	25,147
Erickson	Coal	946,233	486,554	720,261
Belle River	Coal	762,702	757,886	499,764
REO Town	Natural Gas	466,598	555,251	558,788
EDL	Landfill Gas	79,300	77,732	75,690
Delta Solar I	Solar	436	12,341	13,749
Delta Solar II	Solar	-	20,059	26,319
Community Solar	Solar	-	177	374
Other Local Solar	Solar	172	173	167
Beebe Wind	Wind	53,818	52,952	53,374
Tower Kleber	Hydro	7,410	7,570	3,635
Total		**2,682,845**	**2,202,945**	**1,977,267**

[1] Due to rounding, values may not add up.
Source: Lansing Board of Water and Light

Lansing Board of Water and Light
Electric Utility
Nameplate Capacity Mix by Fuel Type
Fiscal Year Ended June 30, 2020

Resource	Fuel Type	Nameplate Capacity (MW)
Eckert	Coal	225.0
Erickson	Coal	162.0
Belle River	Coal	165.0
REO Town	Natural Gas	119.7
Granger	Landfill Gas	11.2
Delta Solar I	Solar	8.1
Delta Solar II	Solar	15.9
Community Solar	Solar	0.3
Other Local Solar	Solar	0.2
Beebe Wind	Wind	19.2
Tower Kleber	Hydro	1.8
Total		**728.4**

Source: Lansing Board of Water and Light

Fuel Supply and Delivery

The Eckert and Erickson Stations burn low-sulfur (less than 1%) coal that contains approximately 8,800 British Thermal Units ("BTUs") per pound. The Electric Utility has contracted with Arch Coal ("Arch") for the purchase of between 200,000 and 800,000 tons annually. The current price is $12.77 per ton for 2020, with pricing set at $12.34 for 2021. The contract with Arch expires on December 31, 2021. Performance under the contract may be excused under force majeure.

Arch's 2016 bankruptcy caused no interruption to BWL's contract, delivery, or pricing. Arch's proposed joint venture with Peabody Energy Corp. in 2020 was denied by the Federal Trade Commission ("FTC"). The FTC stated that the deal would hurt competition and would likely raise the price of coal to utilities and, ultimately, their customers.

Pursuant to a two-party contract dated January 9, 2014, coal is delivered by the origin rail carrier, Burlington Northern Santa Fe LLC ("BNSF") to the destination rail carrier, Canadian National Railway Company ("CN") in Chicago, IL. CN then delivers the coal to Lansing. For 2019, each railcar of coal costs the BWL Electric Utility a combined $3,679 per car before fuel surcharge. For 2020, each railcar of coal costs the BWL Electric Utility a combined $3,881 per car before fuel surcharge. For 2021, each railcar of coal costs the BWL Electric Utility a combined $3,999 per car before fuel surcharge. For 2022, each railcar of coal costs the BWL Electric Utility a combined $4,122 per car before fuel surcharge. Performance under the BNSF/CN/BWL contract is excused under force majeure. The most recent contract amendment specifies a minimum of 400,000 tons per year for three years.

The current contract with BNSF & CN is scheduled to expire on December 31, 2022. BWL is exploring the possibility of renewing this contract. Additionally, BWL plans to evaluate direct negotiation opportunities with BNSF. The possibility of a BNSF contract tied to commodity pricing (of either natural gas or electricity) could additionally improve Erickson Plant's year-round market viability.

The BWL also leases 285 railcars. The BWL has one lease with Progress Rail for 285 railcars at a current cost of $275 per railcar per month. The BWL's obligation to pay the leases with Progress Rail is absolute and unconditional. The term of the Progress Rail lease runs from April 1, 2020 through March 31, 2021, with the option to renew from April 1, 2021 through March 31, 2022 for $265 per railcar per month.

The BWL signed an agreement with Consumers Energy Company to install a natural gas pipeline to the REO Town Plant. The gas line was completed in January 2013. The BWL is a transportation customer on the Consumers Energy Company natural gas system and has firm delivery service from Consumers Energy Company. The BWL has contracted with Fellon-McCord to provide natural gas procurement services. Forward purchases of natural gas are made in accordance with the BWL's Energy Risk Management Program.

For information regarding the natural gas pipeline which will serve Delta Energy Park, see "Delta Energy Park."

Environmental Regulations

Mercury and Air Toxics Standards ("MATS") Rule. The MATS Rule applies to coal-fired power plants. After the grant of a one-year extension from EGLE, the BWL's compliance date for the MATS was April 15, 2016, at both Erickson and Eckert Stations. Natural gas plants such as REO Town Plant are not included in the MATS. Although the United States Supreme Court held in June 2015 that the EPA had failed to properly promulgate the MATS, the rule remained in effect because the Court did not issue a stay of the rule.

Both Erickson and Eckert Stations are in full compliance with the rule. The necessary emission control equipment was installed at Erickson Station well in advance of the April 15, 2016 compliance date and the plant began using the equipment in 2015. At Eckert Station, an activated carbon injection system ("ACI") was installed in 2016 for units 4, 5 and 6, and was fully operational by the compliance date. Upgrades to the existing electrostatic precipitators were also made in 2015 to help ensure compliance. Compliance with the limitations on mercury emissions is monitored by sorbent traps at both plants, and compliance with the hydrogen chloride and particulate matter limitations of the rule is demonstrated by quarterly stack testing.

Cross State Air Pollution Rule (CSAPR). The Cross-State Air Pollution Rule took effect in 2015, and Michigan is one of the 23 states subject to the rule's limits on SO_2 and NO_x emissions from power plants. To help ensure compliance with the CSAPR, a Selective Non-Catalytic Reduction (SNCR) system was installed at Erickson in 2011 to reduce NO_x emissions sufficiently to cover both Erickson and Eckert emissions. Since 2017, the EPA began reducing each utility's number of NO_x allowances allocated during the summer ozone season; hence operation of the SNCR during the summer months became a standard practice. Because the BWL uses only low sulfur coal from the Powder River Basin, it anticipates it will have sufficient SO_2 allowances to meet its obligations at both plants for several years without additional control equipment.

U.S. Climate Change Regulations. The EPA's final rule on greenhouse gas emissions from existing power plants became effective on October 23, 2015 (known as the Clean Power Plan), but the United States Supreme Court stayed the implementation of the rule on February 9, 2016. The stay remains in effect. In a March 28, 2017 executive order, the

Administration directed EPA to suspend, revise, or rescind any rule that was inconsistent with their policy to promote coal, oil or natural gas usage. In response, EPA proposed the Affordable Clean Energy ("ACE") Rule on August 21, 2018, which establishes emission guidelines for states to develop plans to address greenhouse gas emissions from existing coal-fired plants and ultimately replaces the Clean Power Plan. The final rule was promulgated on July 8, 2019 and requires that subject facilities establish heat rate improvements or efficiency improvements by 2024. Eckert Station ceased operation in December 2020 (although one unit is available and will not be formally retired until the spring of 2021); it is not subject to the rule. Based on BWL's commitment to retire Erickson Station in 2025, EPA will not require any upgrades to the Erickson boiler. The ACE Rule and its predecessors are subject to on-going litigation. The incoming new administration may cause delays or a complete reversal of the rule. Nevertheless, BWL's future energy portfolio includes energy waste reduction measures, renewable energy sources and baseload capacity from natural gas rather than coal, which will fulfill the requirements under both the Clean Power Plan and the ACE Rule.

Coal Combustion Residuals Rule. The Coal Combustion Residuals ("CCR") rule became effective October 14, 2015, and established new requirements for the disposal of CCRs in landfills and surface impoundments. Prior to the effective date of the rule, the BWL minimized the impact of the CCR rule by excavating CCRs from two sites and modifying its bottom ash disposal practices at Erickson Station. See "THE LANSING BOARD OF WATER AND LIGHT – Environmental Initiatives: Resource planning for a Cleaner Energy Future" above for information about the BWL's excavation of CCRs and its practice modifications.

Eckert Station has never had an ash impoundment or landfill onsite and is therefore not impacted by this rule.

Cooling Water Intake Rule. Commonly referred to as the Section 316(b) Rule (Section 316(b) of the Clean Water Act, 33 USC §1326), this rule took effect on October 14, 2014, and established national requirements applicable to cooling water intake structures. The requirements apply to facilities that use more than 2 million gallons per day (MMGal/day) of surface water, which includes most coal-fired power plants. The most stringent requirements apply only to facilities which exceed 125 MMGal/day.

The Rule requires the installation of the Best Technology Available for minimizing adverse environmental impacts, i.e., limiting the mortality of fish and other aquatic organisms due to impingement or entrainment in facility cooling water systems. Because Erickson Station operates a qualifying closed-loop cooling system, and actual intake flow is relatively minor at 3 MMGal/day, the existing operations represent Best Technology Available. Because Eckert Station was scheduled to cease operation in 2020, EGLE issued a discharge permit for Eckert that does not require any plant upgrades for compliance.

Effluent Limitations Guidelines. On November 3, 2015, the EPA published national regulatory standards for wastewater discharge to surface waters and municipal sewage treatment plants. These Effluent Limitations Guidelines ("ELGs") regulate a variety of industrial operations including "steam electric power generators" like BWL. The guidelines forbid generation facilities from discharging any amount of bottom transport water. On August 31, 2020, the EPA issued a final rule that alters parts of the 2015 rule. In the revised rule, the EPA established a total suspended solids limit rather than zero discharge for units that are scheduled to retire by 2028. The ELGs are to be incorporated into each coal-fired power plant's National Pollution Discharge Elimination System ("NPDES") permits within one year after the final rule is effective, but no later than 2025.

The ELGs are not applicable to Eckert Station since it ceased operation in 2020, although one unit remains available and will be formally retired in the spring of 2021. Erickson Station may become subject to ELGs upon application for renewal of its NPDES permit in 2023. BWL expects that the plant's scheduled closure in 2025 will satisfy the ELG compliance measures necessary to obtain a renewed NPDES permit.

New Source Review ("NSR") & State Air Permits. The Clean Air Act ("CAA") requires that a permit be obtained from the regulatory authority, in this case EGLE, when work performed at a facility constitutes a modification that results in a significant increase in air pollution emissions. A complex and sometimes conflicting body of law pertaining to NSR litigation has developed based on years of litigation brought by the U.S. EPA, the Sierra Club and others.

On June 16, 2014, the Sierra Club served a Notice of Intent to Sue the BWL based on alleged NSR violations at Eckert and Erickson Stations, and also alleged that opacity exceedances at both facilities were in violation of the CAA. The BWL has denied the allegations. On August 2, 2017, BWL entered into a settlement agreement with the Sierra Club which effectively memorializes the 2016 BWL Strategic Plan measures. As part of the agreement, BWL ceased or plans to cease operation of its coal assets by 2020 (Eckert) and 2025 (Erickson), maintain its clean energy and energy waste reduction goals and develop a sustainability program to promote energy waste reduction and pollution prevention.

On March 13, 2015, the EPA filed a Notice of Violation asserting that two projects at Erickson Station, one in 2010 and another in 2012, were improperly conducted without an NSR permit. Again, the BWL has denied the allegations. After years of discussion and negotiation with EPA, BWL entered into a Consent Agreement and Final Order (CAFO) on September 30, 2019 to resolve the Notice of Violation. BWL agreed to a de minimis settlement amount and agreed to implement an environmental mitigation project involving transportation electrification in its service territory.

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 $.0006/kWh.

Power Requirements

During the fiscal years ended June 30, 2016 through 2020, the Electric Utility produced between 59% and 83% of its total annual power requirements. 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, 2016 through 2020.

Lansing Board of Water and Light
Electric Utility
Power Availability, Sales and Losses in MWh[1]
Fiscal Years Ended June 30, 2016 through 2020

	Fiscal Year Ended June 30				
	2016	2017	2018	2019	2020
MWh Generated[2]	1,837,456	1,877,385	1,779,179	1,274,229	1,304,359
MWh Purchased[3]	978,214	1,129,910	952,516	1,156,711	912,317
Total MWh Available	2,815,670	3,007,295	2,731,695	2,430,939	2,216,676
Less MWh Sold[4]	2,709,158	2,927,580	2,643,780	2,367,654	2,143,807
Transmission and Distribution Losses	106,511	79,715	87,915	63,285	72,869
Losses as % of MWh Available	3.78%	2.65%	3.22%	2.60%	3.30%

[1] Due to rounding, values may not add up or percentages may not precisely calculate.
[2] See "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, 2016 through 2020. 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, 2016 through 2020

Fiscal Year Ended June 30	Peak Demand MW	Peak Demand % Change	Total Power Requirement MWh	Total Power Requirement % Change	Load Factor %
2016	433.502	3.3%	2,213,852	1.7%	58.1%
2017	454.828	4.9%	2,258,342	2.0%	56.7%
2018	443.895	-2.4%	2,174,780	-3.7%	55.9%
2019	439.730	-0.9%	2,154,825	-0.9%	55.9%
2020	432.544	-1.6%	2,045,852	-5.0%	54.0%

Source: Lansing Board of Water and Light

Power Costs

The following tables set forth the total cost of generated and purchased power and the average cost of generated and purchased power by kilowatt hour ("kWh") for the fiscal years ended June 30, 2016 through 2020.

Lansing Board of Water and Light
Electric Utility
Cost of Generated and Purchased Power(1)(2)
Fiscal Years Ended June 30, 2016 through 2020

Source	2016	2017	2018	2019	2020
Generated	$ 90,008,060	$88,763,259	$82,517,506	$67,346,717	$59,604,985
Purchased:					
Wholesale	811,392	442,821	2,191,880	7,589,528	6,218,700
Renewable(3)	9,867,671	10,158,041	9,930,521	11,891,904	25,406,458
Belle River	56,247,959	59,225,184	42,020,540	31,654,925	25,494,415
Total	$156,935,083	$158,589,304	$136,660,447	$118,483,073	$116,724,558

(1) Due to rounding, values may not add up or percentages may not precisely calculate.
(2) See "Electric Generation," "Purchased Power," and "Joint Action Agency Participation" herein.
(3) Renewable includes solar, wind, landfill gas, and—prior to December 31, 2019—hydroelectric generation.
Source: Lansing Board of Water and Light

Lansing Board of Water and Light
Electric Utility
Cost of Net Generated and Purchased Power per kWh[(1)]
Fiscal Years Ended June 30, 2016 through 2020

	Cost Per kWh				
Source	2016	2017	2018	2019	2020
Generated	$0.049	$0.047	$0.046	$0.053	$0.046
Purchased:					
Wholesale	$0.023	$0.037	$0.045	$0.038	$0.026
Renewable[(2)]	0.067	0.068	0.070	0.060	$0.145[(3)]
Belle River	0.071	0.061	0.055	0.042	$0.051
Average Cost Per kWh	$0.056	$0.053	$0.050	$0.049	$0.053

(1) See "Electric Generation," "Purchased Power," and "Joint Action Agency Participation" herein.
(2) Renewable includes solar, wind, landfill gas, and—prior to December 31, 2019—hydroelectric generation.
(3) This value includes a one-time $14.1 million power purchase agreement termination payment. See "THE ELECTRIC UTILITY—Purchased Power" herein. This payment accounts for $0.081 of the $0.145 cost per kWh in 2020.
Source: Lansing Board of Water and Light

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 service area is 198,853 persons. By comparison, the City encompasses an area of approximately 35 square miles and has a 2017 estimated population of approximately 115,222 persons. 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 below.

Lansing Board of Water and Light
Electric Utility
Electric Franchises

Municipality	Franchise Period	Effective Date[(1)]	Expiration Date
City of East Lansing	30 Years	06/14/17	06/13/47
Delhi Township	30 Years	08/01/88	07/31/18[(2)]
Delta Township	30 Years	01/08/18	01/01/48
DeWitt Township	30 Years	06/30/20	06/29/50
Lansing Township	30 Years	04/09/12	04/08/42
Meridian Township	30 Years	02/04/88	02/03/18[(2)]
Watertown Township	20 Years	05/23/89	05/22/09[(2)]
Windsor Township	30 Years	01/26/19	02/05/49

(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 of 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 98,000 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, 2016 through 2020.

Lansing Board of Water and Light
Electric Utility
Average Number and Percent of Customers by Location[(1)]
Fiscal Years Ended June 30, 2016 through 2020

	Fiscal Year Ended June 30				
Location	2016	2017	2018	2019	2020
City	59,646	59,687	59,898	59,986	60,304
Outside City	37,078	37,260	37,568	37,843	38,542
Total	96,724	96,947	97,466	97,830	98,846
City	61.7%	61.6%	61.5%	61.3%	61.0%
Outside City	38.3	38.4	38.5	38.7	39.0%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

(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, 2016 through 2020

	Fiscal Year Ended June 30				
Classification	2016	2017	2018	2019	2020
Residential	83,783	84,009	84,509	84,905	85,943
Commercial	12,706	12,704	12,726	12,698	12,692
Industrial	235	233	231	227	211
Total	96,724	96.946	97,466	97,830	98,846
Classification					
Residential	86.62%	86.66%	86.70%	86.79%	86.95%
Commercial	13.14	13.1	13.06	12.98	12.84
Industrial	0.24	0.24	0.24	0.23	0.21
Total	100.00%	100.00%	100.00%	100.00%	100.00%

(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 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[(a)]
Fiscal Year Ended June 30, 2020

	Name	Industry	Revenue[(b)]	% Total Electric Revenue[(c)]	kWh	% Total kWh[(d)]
1.	General Motors	Automotive Manufacturing	$24,627,974.51	8.21%	216,185,824	10.08%
2.	City of Lansing	Municipal Government	$8,206,316.87	2.74%	40,514,926	1.89%
3.	State of Michigan	State Government	$7,944,478.13	2.65%	60,815,696	2.84%
4.	Sparrow Hospital	Health Care	$7,569,258.44	2.52%	66,336,560	3.09%
5.	Meijer, Inc.	Retail & Warehouse	$7,496,580.96	2.50%	61,069,750	2.85%
6.	Jackson National Life	Insurance	$3,883,993.84	1.29%	33,867,259	1.58%
7.	Liquid Web Inc.	Web Hosting	$3,169,781.62	1.06%	30,400,702	1.42%
8.	City of East Lansing	Municipal Government	$3,161,392.73	1.05%	20,031,171	0.93%
9.	McLaren-Greater Lansing	Health Care	$2,914,361.17	0.97%	24,651,681	1.15%
10.	Auto Owners Insurance	Insurance	$2,872,483.64	0.96%	20,590,092	0.96%
	Totals		$71,846,621.91	23.95%	574,463,661	26.80%

Source: Lansing Board of Water and Light

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

[(b)] City of Lansing and State of Michigan revenues include Street Lighting and Traffic Signal billings, which include a capital recovery factor on Board investment in Street Lights and Traffic Signals.

[(c)] Based on total electric revenues of $299,951,673 for the fiscal year ended June 30, 2020.

[(d)] Based on total sales of 2,143,807,824 kWh the fiscal year ended June 30, 2020.

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 2017, the BWL Board of Commissioners approved a three-year rate strategy which took effect February 1, 2018. The three-year plan implemented gradual increases in customer and commodity charges annually on February 1 during the years 2018-2020. The revised rate strategy better aligned customer rates with BWL's expense projections and provided more complete coverage of fixed costs. The minor, frequent rate adjustments were designed to minimize customer impact.

BWL currently offers the following specialty electric rates:

- Time-of-use rates for the following customers:
    - Commercial
    - Industrial
    - Electric Vehicles (EVs) with separate metering – BWL encourages the adoption of EVs by offering lower rates for charging during off-peak hours. This allows BWL customers to reduce the environmental impact of their transportation choices, while also saving money.
- GreenWise Power – Customers can purchase their power from 100% renewable sources for a premium of 1.3 cents per kWh.

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.

Historic 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 February 1, 2020. Any additional rate adjustments will be subject to the Board's rate approval process.

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

Effective Date	10/1/2012[(1)]	10/1/2013[(1)]	11/1/2014	2/1/2018[(2)]	2/1/2019[(2)]	2/1/2020[(2)]
Rate Increase	3.75%	3.75%	7.00%	3.00%	3.00%	3.00%

[(1)] 10/1/2012 and 10/1/2013 increases were both approved in January 2011 as part of an advanced rate approval strategy to support the additional debt service requirements associated with the construction of the REO Town Cogeneration facility.
[(2)] 2/1/2018, 2/1/2019 and 2/1/2020 increases were approved in 2017 as part of an advanced rate approval strategy to support the additional debt service requirements associated with the construction of the Delta Energy Park.
Source: Lansing Board of Water and Light

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

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

Rate No. 1 – Residential service	10/1/12	10/1/13	11/14/14	2/18/18	2/1/19	2/1/20
Basic Service Charge/month	$7.79	$8.10	$10.00	$13.00	$16.00	$19.00
Commodity charge/kWh						
Summer Months (June-Oct)						
1st 500 kWh	$0.0879	$0.0912	$0.1197	$0.1230	$0.1235	$0.1242
over 500 kWh	$0.0929	$0.0964	$0.1252	$0.1285	$0.1290	$0.1297
Winter Months (Nov-May)						
1st 500 kWh	$0.0879	$0.0912	$0.1197	$0.1230	$0.1235	$0.1242
over 500 kWh	$0.0910	$0.0945	$0.1232	$0.1265	$0.1270	$0.1277
Electric Environmental charge/kWh	$0.0025	$0.0025	$0.0025	$0.00	$0.0006	$0.0006
Energy Waste Reduction Surcharge/kWh	$0.001853	$0.001853	$0.001853	$0.002678	$0.002678	$0.004099*
Renewable Energy Plan Surcharge/Month	$2.50	$2.50	$0.75	$0.00	$0.00	$0.00

Rate No. 3-General Secondary Voltage Service	10/1/12	10/1/13	11/1/14	2/1/18	2/1/19	2/1/20
Basic Service Charge/month	$18.66	$19.38	$24.00	$28.00	32.00	36.00
Commodity charge/kWh						
Summer Months (June-Oct)	$0.1010	$0.1048	$0.1342	$0.1410	$0.1443	$0.1478
Winter Months (Nov-May)	$0.0975	$0.1011	$0.1303	$0.1371	$0.1404	$0.1439
Electric Environmental charge/kWh	$0.0025	$0.0025	$0.0025	$0.00	$0.0006	$0.0006
Energy Waste Reduction Surcharge/month	$6.58	$6.58	$6.58	$9.51	$9.51	$11.70*
Renewable Energy Plan Surcharge/Month						
per kWh	$0.0030	$0.0030	$0.0024	$0.00	$0.00	$0.00
Minimum charge/month	$3.50	$3.50	$2.80	$0.00	$0.00	$0.00
Maximum charge/month	$15.00	$15.00	$12.00	$0.00	$0.00	$0.00

Rate No. 4-Large General Secondary Voltage Service	10/1/12	10/1/13	11/1/14	2/1/18	2/1/19	2/1/20
Secondary voltage with billing demand of 15 kw or more						
Basic Service Charge/month	$39.80	$41.33	$50.00	$100.00	$150.00	$200.00
Capacity Charge / kW of max Demand	$10.58	$10.99	$11.76	$14.00	$17.25	$20.50
Commodity charge/kWh						
Summer Months (June-Oct)	$0.0592	$0.0613	$0.0877	$0.0861	$0.0789	$0.0717
Winter Months (Nov-May)	$0.0551	$0.0571	$0.0832	$0.0861	$0.0744	$0.0672
Reactive Power/kvar	$0.00095	$0.0099	$0.0106	$0.0106	$0.0106	$0.0106
Electric Environmental charge/kWh	$0.0025	$0.0025	$0.0025	$0.00	$0.0006	$0.0006*
Energy Waste Reduction Surcharge/month	$65.78	$65.78	$65.78	$95.05	$95.05	$116.95*
Renewable Energy Plan Surcharge per kWh	$0.003	$0.003	$0.0024	$0.00	$0.00	$0.00
Minimum charge/month	$3.50	$3.50	$2.80	$0.00	$0.00	$0.00
Maximum charge/month	$15.00	$15.00	$12.00	$0.00	$0.00	$0.00

Rate No. 5 Primary Service	10/1/12	10/1/13	11/1/14	2/1/18	2/1/19	2/1/20
With billing demand of 100kW or more						
Basic Service Charge/month	$99.53	$103.36	$125.00	$190.00	$255.00	$320.00
Capacity Charge						
Per kW on peak Billing Demand	$8.58	$8.91	$9.53	$11.50	$13.70	$16.25
Per kW on maximum Demand	$2.84	$2.95	$3.16	$4.50	$5.50	$6.20
Commodity charge/kWh						
Summer Months (June-Oct)						
On peak	$0.0534	$0.0553	$0.0813	$0.0782	$0.0730	$0.0678
Off-peak	$0.04.94	$0.0512	$0.0769	$0.0738	$0.0686	$0.0634
Winter Months (Nov-May)						
On peak	$0.0513	$0.0531	$0.0789	$0.0758	$0.0706	$0.0654
Off-peak	$0.0494	$0.0512	$0.0769	$0.0738	$0.0686	$0.0634
Reactive Power/kvar	$0.0095	$0.0099	$0.0106	$0.0106	$0.0106	$0.0106
Electric Environmental charge/kWh	$0.0025	$0.0025	$0.0025	$0.00	$0.0006	$0.0006
Energy Waste Reduction Surcharge/delivery point	$461.20	$461.20	$461.20	$666.43	$666.43	$819.95*
Renewable Energy Plan Surcharge/delivery point	$160.00	$160.00	$160.00	$0.00	$0.00	$0.00

* As of 09/01/2020

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 February 2020

kWh Usage Per Month	Basic Service Charge	Energy Charge	Total Estimated Monthly Billing
250	$19.00	$31.05	$50.05
500	$19.00	$62.10	$81.10
750	$19.00	$94.53	$113.53
1,000	$19.00	$126.95	$145.95

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, 2016 through 2020. 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, 2016 Through 2020

	Fiscal Year Ended June 30				
Classification	2016	2017	2018	2019	2020
Residential	552,593	573,534	556,294	567,018	558,325
Commercial	1,131,488	1,156,655	1,133,090	1,130,767	1,072,909
Industrial	388,541	404,848	367,530	361,288	300,147
Wholesale[2]	601,474	758,182	554,654	278,334	184,261
Other	35,061	34,361	32,212	30,248	28,165
Total	2,709,157	2,927,580	2,643,780	2,367,655	2,143,807
Classification					
Residential	20.40%	19.59%	21.04%	23.95%	26.04%
Commercial	41.77	39.51	42.86	47.76	50.05
Industrial	14.34	13.83	13.90	15.26	14.00
Wholesale[2]	22.20	25.90	20.98	11.76	8.60
Other	1.29	1.17	1.22	1.28	1.31
Total	100.00%	100.00%	100.00%	100.00%	100.00%

[1] Due to rounding, values may not add up or percentages may not precisely calculate.
[2] Includes sales to MPPA Power Pool participants.
Source: Lansing Board of Water and Light

Electric Revenues

Electric rates and charges have historically accounted for approximately 82% 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, 2016 through 2020.

Lansing Board of Water and Light
Electric Utility
Amount and Percent of Revenues by Customer Classification[(1)]
Fiscal Years Ended June 30, 2016 through 2020

	Fiscal Year Ended June 30				
Classification	2016	2017	2018	2019	2020
Residential	$81,756,039	$82,442,118	$80,819,134	$85,761,565	$94,425,309
Commercial	141,572,563	141,794,161	137,408,227	141,927,117	146,975,035
Industrial	40,501,600	41,338,384	37,908,882	38,569,678	36,925,959
Wholesale	24,756,062	31,969,934	21,846,410	13,487,713	6,832,535
Other	14,659,504	15,380,580	15,278,754	14,354,534	14,792,836
Total	$303,245,766	$312,925,177	$293,261,407	$294,100,606	$299,951,673
Classification					
Residential	26.96%	26.35%	27.56%	29.16%	31.48%
Commercial	46.69	45.31	46.85	48.26	49.00
Industrial	13.36	13.21	12.93	13.11	12.31
Wholesale	8.16	10.22	7.45	4.59	2.28
Other	4.83	4.91	5.21	4.88	4.93
Total	100.00%	100.00%	100.00%	100.00%	100.00%

(1) Due to rounding, values may not add up or percentages may not precisely calculate.
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 13% of gross System Revenues. Water is obtained from 125 wells averaging 400 feet in depth with a total hydraulic capacity of approximately 68.3 million gallons per day ("MGD"). During the fiscal year ended June 30, 2020, the average and maximum daily flows were approximately 18.6 MGD and 28.5 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 EPA's Lead and Copper Rule took effect in 1991 with the intent of reducing public exposure to lead in drinking water. In 2018, the State of Michigan promulgated a more stringent rule, effectively reducing the lead action level below the federal standard. The Water Utility has maintained compliance with the rule by maintaining corrosion control and systematically removing lead services lines.

The BWL uses a corrosion control additive to inhibit lead found in the water distribution system and household plumbing from leaching into drinking water. Even though this additive has been effective in achieving compliance with the rule, 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

The Water Utility provides water supply services to over 57,000 retail customers and 3 wholesale customers, which include Delta and Lansing Townships and the East Lansing-Meridian Water and Sewer Authority. The Water Utility's retail service area includes the City of Lansing, Delhi Township, and Watertown Township and portions of the City of DeWitt and the Townships of Lansing, Windsor, Bath, Alaiedon, and DeWitt. A map of the service area of the Water Utility is attached in Appendix B. Retail customers that are not located in the City receive water supply services pursuant to various water supply contracts. The Water Utility has retail and wholesale water supply contracts with the authority and townships set forth in the table below.

Lansing Board of Water and Light
Water Utility
Water Supply Contracts

Municipality	Expiration Date
Delhi Township	06/29/43
Watertown Township	11/24/26
Lansing Township (Retail)	03/05/32
Lansing Township (Wholesale)	09/30/49
Windsor Township	12/17/31
Alaiedon Township	07/25/29
DeWitt Township	07/13/25
Delta Township (Wholesale)	04/30/34
East Lansing-Meridian Authority (Wholesale)	12/31/25
Bath Township	08/10/28
City of DeWitt	08/31/30

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, 2016 through 2020.

Lansing Board of Water and Light
Water Utility
Average Number and Percent of Water Customers by Classification[1]
Fiscal Years Ended June 30, 2016 through 2020

Classification	2016	2017	2018	2019	2020
Residential	49,044	49,368	49,699	50,023	50,315
Commercial	6,629	6,693	6,755	6,782	6,816
Industrial	98	98	95	95	96
Total	55,771	56,159	56,549	56,900	57,227

Classification					
Residential	87.93%	87.91%	87.88%	87.91%	87.92%
Commercial	11.89	11.92	11.95	11.92	11.91
Industrial	0.18	0.17	0.17	0.17	0.17
Total	100.00%	100.00%	100.00%	100.00%	100.00%

(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
Water Utility
Average Number and Percent of Water Customers by Location
Fiscal Years Ended June 30, 2016 through 2020

Location	2016	2017	2018	2019	2020
Inside of City	40,359	40,521	40,669	40,770	40,933
Outside of City	15,412	15,638	15,880	16,130	16,294
Total	55,771	56,159	56,549	56,900	57,227

Location					
Inside of City	72.36%	72.15%	71.92%	71.65%	71.53%
Outside of City	27.64	27.85	28.08	28.35	28.47
Total	100.00%	100.00%	100.00%	100.00%	100.00%

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, 2020.

Lansing Board of Water and Light
Water Utility
Ten Largest Water Customers[(1)]
Fiscal Year Ended June 30, 2020

Name	Principal Product or Service	Revenue	% of Total Revenue[(2)]	100 CF	% of Total 100 CF[(3)]
City of Lansing	Municipal Government	694,571	1.51%	156,166	1.89%
State of Michigan	State Government	663,917	1.45%	76,478	0.93%
Sparrow Hospital	Healthcare	616,497	1.34%	121,238	1.47%
General Motors	Automotive Manufacturing	479,470	1.04%	103,690	1.26%
DTN Management	Property Management	355,978	0.78%	53,307	0.65%
Lansing School District	Education	336,296	0.73%	40,364	0.49%
McLaren-Greater Lansing	Healthcare	277,264	0.60%	50,117	0.61%
Emergent Bio Solutions	Pharmaceutical	229,716	0.50%	55,682	0.67%
Trappers Cove	Apartment Rental	206,625	0.45%	50,477	0.61%
Lansing Housing Commission	Public Housing Agency	191,642	0.42%	35,929	0.44%
		$4,051,975	8.82%	743,448	9.01%

(1) Due to rounding, values may not add up or percentages may not precisely calculate.
(2) Based on total revenues of $45,923,607 for the fiscal year ended June 30, 2020.
(3) Based on total sales of 8,255,445 CCF for the fiscal year ended June 30, 2020.
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 2017, the BWL Board of Commissioners approved a three-year rate strategy which took effect February 1, 2018. The three-year plan will implement gradual increases in customer and commodity charges annually on February 1 during the years 2018-2020. The goal of the revised rate strategy is to better align customer rates with BWL's expense projections and to provide more complete coverage of fixed costs. BWL attempts to implement rate adjustments in a manner that minimizes customer impact.

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 below. 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 February 1, 2020. Any additional rate adjustments will be subject to the Board's rate approval process.

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

Effective Date	3/1/2011	3/1/2012	11/1/2014	2/1/2018	2/1/2019	2/1/2020
Rate Increase	9.00%	9.00%	9.00%	5.50%	7.50%	7.50%

Source: Lansing Board of Water and Light

The following tables set forth historic 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	3/1/2012	11/1/2014	2/1/2018	2/1/2019	2/1/2020
5/8”	$11.19	$12.20	$13.72	$14.75	$15.86
3/4”	15.67	17.08	13.72	14.75	15.86
1”	29.14	31.76	33.51	36.02	38.72
1 1/4”or 1 1/2”	64.97	70.82	74.72	80.32	86.35
2”	114.24	124.52	131.37	141.22	151.81
3”	257.61	280.79	296.23	318.45	342.33
4”	459.22	500.55	528.08	567.69	610.26
6”	1,032.6	1,125.53	1,187.43	1,276.49	1,372.22
8”	1,834.62	1,999.74	2,109.73	2,267.96	2,438.06
10”	2,867.31	3,125.37	3,297.27	3,544.57	3,810.41

Source: Lansing Board of Water and Light

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

Effective Date	Charge Per ccf
March 1, 2011	$2.35
March 1, 2012	$2.56
November 1, 2014	$2.79
February 1, 2018	$2.94
February 1, 2019	$3.16
February 1, 2020	$3.40

Source: Lansing Board of Water and Light

Lansing Board of Water and Light
Water Utility
Estimated Monthly Residential Bill
As of February 2020

Usage in CF Per Month	Basic Service Charge	Water Commodity Charge	Estimated Monthly Bill
500	$15.86	$17.00	$32.86
750	15.86	25.50	41.36
1,000	15.86	34.00	49.86
1,250	15.86	42.50	58.36

Source: Lansing Board of Water and Light

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, 2016 through 2020.

Lansing Board of Water and Light
Water Utility
Total Water Volume in ccf as Billed
Fiscal Years Ended June 30, 2016 through 2020

Fiscal Year Ended June 30	Water Sales (ccf)	% Increase (Decrease)
2016	8,377,211	(0.60)
2017	9,060,254	8.15
2018	8,813,036	(2.73)
2019	8,675,617	(1.56)
2020	8,255,445	(4.84)

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, 2016 through 2020

	Fiscal Year Ended June 30				
Water Volume	2016	2017	2018	2019	2020
Pumped	9,380,554	9,790,315	9,988,297	9,407,526	9,118,874
Billed	8,377,211	9,060,254	8,813,036	8,675,617	8,255,445
Unaccounted[1]	1,003,343	730,061	1,175,261	731,909	863,429
Unaccounted as a Percent of Pumped	10.70%	7.46%	11.77%	7.78%	9.47%

[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, 2016 through 2020

Water Volume	2016	2017	2018	2019	2020
Average Daily	19.21	20.08	20.22	19.28	18.64
Peak Daily	36.85	37.88	28.91	31.16	28.5
Peak as a Percent of Average	191.83%	188.65%	142.98%	161.62%	152.90%

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, 2016 through 2020

	Fiscal Year Ended June 30				
Classification:	2016	2017	2018	2019	2020
Residential	2,714,343	2,887,287	2,821,554	2,777,178	2,745,129
Commercial	2,798,491	3,027,357	3,009,526	3,001,349	2,778,406
Industrial	581,299	636,919	578,184	594,182	514,890
Sales for Resale	2,170,434	2,396,047	2,291,128	2,190,264	2,104,376
Other	112,644	112,644	112,644	112,644	112,644
Total	8,377,211	9,060,254	8,813,036	8,675,617	8,255,445
Classification:					
Residential	32.40%	31.87%	32.02%	32.00%	33.25%
Commercial	33.41	33.41	34.15	34.60	33.66%
Industrial	6.94	7.03	6.56	6.85	6.24%
Sales for Resale	25.91	26.45	26.00	25.25	25.49%
Other	1.34	1.24	1.28	1.30	1.36%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

[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
Water Utility
Amount and Percent of Water Volume in ccf as Billed by Location
Fiscal Years Ended June 30, 2016 through 2020

	Fiscal Year Ended June 30				
Location	2016	2017	2018	2019	2020
Inside of City	4,504,080	4,744,776	4,658,836	4,632,235	4,411,312
Outside of City[1]	3,873,131	4,315,478	4,154,200	4,043,382	3,844,133
Total	8,377,211	9,060,254	8,813,036	8,675,617	8,255,445
Location					
Inside of City	53.77%	52.37	52.86%	53.39%	53.44%
Outside of City[1]	46.23	47.63	47.14	46.61	46.56
Total	100.00%	100.00%	100.00%	100.00%	100.00%

[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, 2016 through 2020.

Lansing Board of Water and Light
Water Utility
Amount and Percent of Water Sales by Customer Classification[1]
Fiscal Years Ended June 30, 2016 through 2020

	Fiscal Year Ended June 30				
Classification	2016	2017	2018	2019	2020
Residential	$15,114,364	$15,666,926	$16,493,502	$16,492,464	$18,546,508
Commercial	12,607,269	13,244,695	13,541,233	14,384,673	14,876,484
Industrial	1,964,514	2,127,132	1,957,693	2,184,421	2,064,510
Sales for Resale[2]	3,199,681	3,514,857	3,397,051	3,419,968	3,552,640
Other	5,844,775	6,184,445	6,134,665	6,369,873	6,883,466
Total	$38,730,602	$40,738,054	$41,524,143	$42,851,399	$45,923,607
Classification					
Residential	39.03%	38.46%	39.72%	38.48%	40.39%
Commercial	32.55	32.51	32.61	33.57	32.39
Industrial	5.07	5.22	4.71	5.10	4.50
Sales for Resale[2]	8.26	8.63	8.18	7.98	7.74
Other	15.09	15.18	14.78	14.87	14.99
Total	100.00%	100.00%	100.00%	100.00%	100.00%

[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.
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, 2016 through 2020

	Fiscal Year Ended June 30				
Location	2016	2017	2018	2019	2020
Inside of City	$25,237,980	$26,130,876	$26,950,279	$27,952,745	$30,045,176
Outside of City[1]	13,492,622	14,607,178	14,573,864	14,898,654	15,878,431
Total	$38,730,602	$40,738,054	$41,524,143	$42,851,399	$45,923,607
Location					
Inside of City	65.16%	64.14%	64.90%	65.23%	65.42%
Outside of City[1]	34.84	35.86	35.10	34.77	34.58
Total	100.00%	100.00%	100.00%	100.00%	100.00%

(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 General Motors ("GM") plant in Lansing. 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, 2020, the Steam Utility served approximately 161 customers. The following table sets forth average number and percent of steam customers by classification for the fiscal years ended June 30, 2016 through 2020.

Lansing Board of Water and Light
Steam Utility
Average Number and Percent of Customers by Classification
Fiscal Years Ended June 30, 2016 through 2020

	Fiscal Year Ended June 30				
Classification	2016	2017	2018	2019	2020
Residential	5	6	5	5	5
Commercial	169	165	164	161	155
Industrial	1	1	1	1	1
Total	175	172	170	167	161
Classification					
Residential	2.86%	3.49%	2.94%	2.99%	3.11%
Commercial	96.57	95.93	96.47	96.41	96.27
Industrial	0.57	0.58	0.59	0.60	0.62
Total	100.00%	100.00%	100.00%	100.00%	100.00%

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 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 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 is constructing 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. The project is currently under construction with substantial completion before December 31, 2020 and final completion in January 2021.

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 2017, the BWL Board of Commissioners approved a three-year rate strategy which took effect February 1, 2018. The three-year plan implemented gradual increases in customer and commodity charges annually on February 1 during the years 2018-2020. The revised rate strategy better aligned customer rates with BWL's expense projections 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.

Historic 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 February 1, 2020. Any additional rate adjustments will be subject to the Board's rate approval process.

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

Effective Date	3/1/2012	10/1/2012[(1)]	11/1/2014	2/1/2018	2/1/2019	2/1/2020
Rate Increase	9.00%	2.00%	9.00%	5.50%	7.50%	7.50%

[(1)] 10/1/2012 increase was approved in January 2011 as part of an advanced rate approval strategy to support the additional debt service requirements associated with the construction of the REO Town Cogeneration facility.
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.

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

Rate No. 1-General Steam Service

Effective Date	**10/1/12**	**11/1/14**	**2/1/18**	**2/1/19**	**2/1/20**
Basic Service charge	$12.44	$13.56	$14.31	$15.38	$16.54
Commodity Charge per Mlbs					
Summer Months (June-Nov.)					
First 200,000 lbs	$14.19	$15.47	$16.32	$17.54	$18.86
Over 200,000 lbs	$14.90	$16.24	$17.13	$18.41	$19.80
Winter Months (Dec.-May)					
First 200,000 lbs	$14.36	$15.65	$16.51	$17.75	$19.08
Over 200,000 lbs	$15.08	$16.44	$17.34	$18.64	$20.04
Environmental Charge (Per Mlb)	$0.30	$0.30	$0.30	$0.30	$0.30

Rate No. 2-Industrial Steam Service

Effective Date	**10/1/12**	**11/1/14**	**2/1/18**	**2/1/19**	**2/1/20**
Monthly Rate:					
Demand Charge per lb per hour					
Lbs per hour of Contract Demand	$1.43	$1.56	$1.65	$1.77	$1.91
Lbs per hour over Contract Demand	$1.24	$1.35	$1.42	$1.53	$1.64
Commodity Charge per Mlbs	$8.73	$9.52	$10.04	$10.79	$11.60
Environmental Charge (Per Mlb)	$0.30	$0.30	$0.30	$0.30	$0.30

Rate No. 5-Residential Steam Service

Effective Date	**10/1/12**	**11/1/14**	**2/1/18**	**2/1/19**	**2/1/20**
Basic Service charge	$9.22	$10.05	$10.60	$11.40	$12.25
Commodity Charge per Mlbs					
Summer Months (June-Nov.)					
First 200,000 lbs	$10.99	$11.98	$12.64	$13.59	$14.61
Over 200,000 lbs	$11.50	$12.54	$13.23	$14.22	$15.29
Winter Months (Dec.-May)					
First 200,000 lbs	$11.12	$12.12	$12.79	$13.75	$14.78
Over 200,000 lbs	$11.64	$12.69	$13.39	$14.39	$15.47
Environmental Charge (Per Mlb)	$0.30	$0.30	$0.30	$0.30	$0.30

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, 2016 through 2020.

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, 2016 through 2020

	Fiscal Year Ended June 30				
Classification	2016	2017	2018	2019	2020
Residential	962	921	1,153	1,209	1,263
Commercial	385,699	396,265	441,647	468,635	418,737
Industrial	226,495	261,160	187,925	173,754	177,304
Other	68,857	68,839	74,132	74,641	70,790
Total	682,013	727,185	704,857	718,239	668,094
Classification					
Residential	0.14%	0.13%	0.16%	0.17%	0.19%
Commercial	56.55	54.49	62.66	65.26	62.68
Industrial	33.21	35.91	26.66	24.19	26.54
Other	10.10	9.47	10.52	10.39	10.60
Total	100.00%	100.00%	100.00%	100.00%	100.00%

[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, 2016 through 2020.

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, 2016 through 2020

	Fiscal Year Ended June 30				
Classification	2016	2017	2018	2019	2020
Residential	$13,136	$12,568	$15,750	$18,275	$19,343
Commercial	6,843,529	6,665,713	7,803,043	9,068,363	8,089,900
Industrial	4,433,915	3,526,152	2,901,334	3,094,832	2,820,639
Other	1,392,882	1,199,742	1,351,891	1,558,649	1,596,617
Total	$12,683,463	$11,404,175	$12,072,018	$13,740,119	$12,526,499
Classification					
Residential	0.10%	0.11%	0.13%	0.13%	0.15%
Commercial	53.96	58.45	64.64	66.00	64.58
Industrial	34.96	30.92	24.03	22.52	22.52
Other	10.98	10.52	11.20	11.34	12.75
Total	100.00%	100.00%	100.00%	100.00%	100.00%

[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, 2020.

Lansing Board of Water and Light
Steam Utility
Ten Largest Steam Customers[1]
Fiscal Year Ended June 30, 2020

Name	Product /Service	Revenue	% of Revenues[2]	Mlbs	% of Mlbs[3]
State of Michigan	State Government	$3,986,087	31.82%	194,844	29.16%
General Motors	Automotive Manufacturing	3,038,830	24.26%	178,705	26.75%
Lansing Comm. College	Education	803,409	6.41%	39,701	5.94%
City of Lansing	Municipal Government	458,828	3.66%	22,407	3.35%
LEPFA	Entertainment	339,124	2.71%	16,730	2.50%
Boji Group	Real Estate Management	293,472	2.34%	13,724	2.05%
Blue Cross/Blue Shield	Insurance	248,898	1.99%	11,581	1.73%
Ingham County	Municipal Government	242,531	1.94%	11,962	1.79%
Gentilozzi Real Estate Inc.	Real Estate Managers	131,154	1.05%	6,121	0.92%
Bock 100 LP/Radisson	Property Management	111,465	0.89%	5,160	0.77%
Total		$9,653,798	77.07%	500,935	74.98%

(1) Due to rounding, values may not add up or percentages may not precisely calculate.
(2) Based on total revenues of $12,526,499 for the fiscal year ended June 30, 2020.
(3) Based on total sales of 668,094 thousand pounds ("Mlbs") for the fiscal year ended June 30, 2020.
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.

A new 8,000 ton hour chilled water production facility was completed in September 2009. The facility was constructed at 625 West Allegan Street on land leased from the State of Michigan. The facility was completed on time and within budget resulting in no adverse financial impact on the BWL or its customers. The project was also completed without disruption of chilled water service. The decommissioning of the original chilled water facility was completed shortly thereafter and is no longer an asset of the BWL.

Service Area and Customer Base

During the fiscal year ended June 30, 2020, 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, 2016 through 2020. 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, 2016 through 2020

	Fiscal Year Ended June 30				
	2016	2017	2018	2019	2020
Commercial Customers	19	19	19	19	19
Sales	11,970	12,037	10,339	10,103	9,481

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.

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.

Historic 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, 2014, and it does not anticipate any change to the chilled water rate prior to November 1, 2021. Any additional rate adjustments will be subject to the Board's rate approval process.

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

Effective Date	5/1/2009	3/1/2011	11/1/2014	2/1/2018	2/1/2019	2/1/2020
Rate Increase	2.50%	5.00%	3.00%	0.00%	0.00%	0.00%

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
Historic and Existing Rates

Gen. Chilled Water Service	January 1 2001	May 1 2009	March 1 2011	November 1 2014*
Capacity Charge per Thrs Up to 105% of Contract Demand	$40.64	$41.66	$43.74	$45.05
Over 105% of Contract Demand	$56.90	$58.32	$61.24	$63.08
Commodity Charge per Thrs	$0.115	$0.118	$0.124	$0.128

*Rates approved November 1, 2014 are still in effect. BWL anticipates no change to the chilled water rate prior to November 1, 2021.
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, 2016 through 2020.

Lansing Board of Water and Light
Chilled Water Utility
Chilled Water Revenues by Classification(1)
Fiscal Years Ended June 30, 2016 through 2020

	Fiscal Year Ended June 30				
Customer Classification	2016	2017	2018	2019	2020
Residential	$ 0	$ 0	$ 0	$ 0	$ 0
Commercial	6,275,583	6,361,721	6,225,356	6,191,942	6,210,769
Industrial	0	0	0	0	0
Other	0	587	0	455	406
Total	$6,275,583	$6,362,308	$6,225,356	$6,192,397	$6,211,175

(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, 2020.

Lansing Board of Water and Light
Chilled Water Utility
Five Largest Chilled Water Customers by Volume and Revenues[(a)]
Fiscal Year Ended June 30, 2020

	Name	Industry	Revenue	% Total Chilled Water Revenue[(b)]	Thrs	% Total Thrs[(c)]
1	State of Michigan[(d)]	Government	$4,710,165	75.83%	7,009,099	73.9%
2	Accident Fund	Insurance	438,797	7.06	702,810	7.4
3	Grand Tower	Government	417,693	6.72	826,102	8.7
4	River St. Triangle	Government	221,793	3.57	218,093	2.3
5	Ingham County Financial Services	Government	148,893	2.40	535,691	5.7
			$5,937,340	95.59%	9,291,795	98.0%

(a) Due to rounding, values may not add up or percentages may not precisely calculate.
(b) Based on total chilled water revenues of $6,211,175 for the fiscal year ended June 30, 2020.
(c) Based on total chilled water sales of 9,481 MThrs for the fiscal year ended June 30, 2020.
(d) The State of Michigan has multiple service leads.
Source: Lansing Board of Water and Light

SYSTEM FINANCIAL INFORMATION

Historic and Projected Operating Cash Flows and Debt Service Coverage

The following tables set forth the historic operating cash flow and debt service coverage for the fiscal years ended June 30, 2016 through 2020, 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, 2021 through 2026. 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
Historic Operating Cash Flow and Debt Service Coverage
Fiscal Years Ended June 30, 2016 through 2020

	2016	2017[2]	2018	2019	2020
Operating Revenues					
Water	$38,730,602	$40,738,054	$41,524,143	$42,851,399	$45,923,607
Electric	303,245,766	312,925,177	293,261,408	294,100,606	299,951,673
Steam	12,683,463	11,404,174	12,072,018	13,740,119	12,526,499
Chilled Water	6,275,583	6,362,308	6,225,356	6,192,397	6,211,175
Total Operating Revenues	**360,935,414**	**371,429,713**	**353,082,924**	**356,884,521**	**364,612,954**
Operating Expenses					
Production	178,958,141	180,513,276	159,154,089	144,276,591	142,923,305
Transmission and distribution	21,593,598	25,978,934	27,913,404	29,875,256	29,072,031
Administrative and general	64,007,040	71,417,820	73,638,904	70,664,307	72,827,369
Return on equity[1]		21,862,457	20,561,871	21,110,884	23,100,000
Depreciation	41,541,561	42,598,423	44,255,255	46,123,865	50,618,741
Total Operating Expenses	**306,100,340**	**342,370,910**	**325,523,523**	**312,050,903**	**318,541,446**
Operating Income (Loss)	**54,835,074**	**29,058,803**	**27,559,401**	**44,833,618**	**46,071,508**
Non-Operating Revenues (Expenses)					
Investment income	1,913,873	914,829	834,087	5,464,438	11,006,985
Other (Expense) Income	(4,588,160)	478,719	(883,318)	(2,373,022)	(1,096,805)
Impairment of Power Stations	(15,763,520)	(9,337,129)	-	-	-
System capacity fee	3,351,392	-	-	-	-
Bonded debt interest expense	(14,861,300)	(14,703,367)	(13,331,897)	(15,443,098)	(26,208,473)
Amortization-Central Utilities Complex	(2,902,715)	-	-	-	-
Payment in lieu of taxes[1]	(21,033,531)	-	-	-	-
Other interest expense	(51,049)	(51,446)	(62,210)	(78,810)	(91,671)
Net Income (Loss)	**900,064**	**6,360,409**	**14,116,063**	**32,403,126**	**29,681,544**
Add:					
Depreciation and impairment	57,305,081	51,935,552	44,255,255	46,123,865	50,618,741
Interest on long-term debt-revenue bonds	14,861,300	14,703,367	13,331,897	15,443,098	26,208,473
Total Additions/Deductions	**72,166,381**	**66,638,919**	**57,587,152**	**61,566,963**	**76,827,214**
NET INCOME AVAILABLE FOR DEBT SERVICE	**$73,066,445**	**$72,999,328**	**$71,703,215**	**$93,970,089**	**$106,508,758**
Debt Service Requirements					
2005A Bonds	-	-	-	-	-
2008A Bonds	2,978,400	2,967,800	1,814,800	-	-
2009A Bonds	3,191,802	-	-	-	-
2011A Bonds	12,814,050	12,813,900	12,813,750	16,438,600	9,751,502
2012A Bonds	6,146,750	5,583,750	5,575,500	-	-
2013A Bonds	2,323,250	2,320,500	2,321,900	2,320,900	2,327,500
2017A Bonds	-	573,561	1,518,250	3,123,250	3,113,000
2019A Bonds[3]	-	-	-	-	-
2019B Bonds	-	-	-	-	4,132,435
Total Existing Revenue Bond Debt Service	**$27,454,252**	**$24,259,511**	**$24,044,200**	**$21,882,750**	**$19,324,437**
Total Debt Service Coverage	**2.66x**	**3.01x**	**2.98x**	**4.29x**	**5.51x**
Unrestricted Cash Balance[4]	**$161,427,422**	**$169,495,761**	**$139,513,201**	**$129,178,530**	**$155,623,370**
Days Cash on Hand	**223**	**206**	**181**	**177**	**212**

[1] Payment in lieu of taxes is now reflected in Return on equity.
[2] Due to GASB 75, Fiscal Year 2017 has been modified.
[3] Net of capitalized interest.
[4] Unrestricted Cash includes the Operating Fund and Unrestricted Cash Investments. It excludes some dollars set aside per Board policy requirements.
Source: Lansing Board of Water and Light

Lansing Board of Water & Light

Projected Operating Cash Flow and Debt Service Coverage

Fiscal Years Ending June 30, 2021 Through 2026[1]

	2021	2022	2023	2024	2025	2026
Operating Revenues						
Water	$ 47,465,832	$ 49,777,751	$ 53,468,690	$ 57,421,482	$ 59,140,309	$ 59,611,655
Electric	315,849,222	335,721,361	344,218,644	340,249,455	340,095,414	340,825,583
Steam	12,740,332	13,488,415	14,008,693	14,832,259	15,134,783	15,460,492
Chilled Water	6,286,925	6,326,657	6,326,657	6,326,657	6,326,657	6,326,657
Total Operating Revenues	$ 382,342,311	$ 405,314,183	$ 418,022,683	$ 418,829,853	$ 420,697,162	$ 422,224,387
Operating Expenses						
Production	157,600,682	174,005,382	180,065,983	172,070,029	171,361,413	173,373,049
Transmission and Distribution	32,064,971	31,622,891	31,378,697	31,396,540	32,127,550	33,282,103
Administrative and General	80,324,880	79,217,440	78,605,718	78,650,415	80,481,643	83,373,877
Return on Equity	25,000,000	25,000,000	26,374,962	26,384,118	26,567,477	26,694,764
Depreciation	59,427,516	68,865,269	69,460,177	64,745,338	60,315,356	61,148,703
Total Operating Expenses	$ 354,418,049	$ 378,710,981	$ 385,885,537	$ 373,246,439	$ 370,853,440	$ 377,872,496
Operating Income (Loss)	$ 27,924,262	$ 26,603,202	$ 32,137,146	$ 45,583,413	$ 49,843,723	$ 44,351,892
Non-Operating Revenues (Expenses)						
Investment Income	$ 1,420,186	$ 1,343,595	$ 1,411,898	$ 1,456,892	$ 1,537,165	$ 1,625,943
Other (Expense) Income	(559,005)	14,565	4,686	(1,731,152)	(15,368)	(25,546)
System Capacity Fee	-	-	-	-	-	-
Bonded Debt Interest Expense	(26,978,018)	(27,089,378)	(26,634,359)	(26,152,457)	(25,647,497)	(25,111,143)
Amortization-Central Utilities Complex	-	-	-	-	-	-
Other Interest Expense	(308,698)	(250,680)	(230,977)	(216,673)	(217,206)	(54,145)
Net Income (Loss)	$ 1,498,728	$ 621,304	$ 6,688,394	$ 18,940,022	$ 25,500,817	$ 20,787,001
Add:						
Depreciation	$ 59,427,516	$ 68,865,269	$ 69,460,177	$ 64,745,338	$ 60,315,356	$ 61,148,703
Interest on long-term debt--revenue bonds[2]	26,978,018	27,089,378	26,634,359	26,152,457	25,647,497	25,111,143
Total Additons/ Deductions	$ 86,405,534	$ 95,954,647	$ 96,094,536	$ 90,897,795	$ 85,962,853	$ 86,259,846
NET INCOME AVAIL. FOR DEBT SERVICE	$ 87,904,261	$ 96,575,951	$ 102,782,930	$ 109,837,818	$ 111,463,670	$ 107,046,847
Bonded Debt Service Requirements[3]						
2011A Bonds	$ 4,163,250	$ -	$ -	$ -	$ -	$ -
2013A Bonds	2,324,750	2,323,000	2,322,000	2,316,500	2,321,500	2,336,250
2017A Bonds	3,094,250	3,087,250	3,076,250	3,071,250	3,061,750	3,052,750
2019A Bonds[4]	602,496	14,992,161	18,993,800	18,991,300	18,991,050	18,992,550
2019B Bonds	7,748,315	14,063,315	14,075,046	14,086,144	14,090,935	14,082,330
2021A Bonds[4]	820	2,101,100	2,801,000	2,801,000	2,951,000	2,943,500
2021B Bonds[4]	415	1,063,302	1,417,500	1,417,500	1,417,500	1,422,500
Total Bonded Debt Service	$ 17,934,296	$ 37,630,128	$ 42,685,596	$ 42,683,694	$ 42,833,735	$ 42,829,880
Bonded Debt Service Coverage[5]	**4.90x**	**2.57x**	**2.41x**	**2.57x**	**2.60x**	**2.50x**
Unrestricted Cash Balance[6]	$ 152,618,915	$ 149,889,628	$ 154,553,800	$ 150,673,194	$ 157,113,682	$ 161,231,614
Days Cash on Hand	189	177	178	178	185	186

[1] All revenues, operating expenses, and non-operating revenues (expenses) are based upon the LBWL 2021-2026 budget and forecast.

[2] Prior to the issuance of the Bonds.

[3] Based on annual periods ending July 1.

[4] Net of capitalized interest and subject to estimates/market conditions for investment returns in the Capitalized Interest Fund.

[5] The current Debt Service Coverage requirement is 1.25x Coverage. See Appendix D, Section 16, "Rate Covenant" herein.

[6] Unrestricted Cash includes the Operating Fund and Unrestricted Cash Investments.

Recent Financial Performance

Despite the economic impact of the COVID-19 pandemic (see "IMPACT OF THE COVID-19 PANDEMIC" herein), the BWL's financial results for the fiscal year ended June 30, 2020 were more favorable than projected in its budget. For fiscal year 2020, BWL's operating income exceeded its budget by approximately $900,000, and its net income exceeded its budget by approximately $11,300,000. The following tables summarize electric retail sales from April 2020 through September 2020.

Lansing Board of Water and Light
Electric Utility
Variances in Actual Electric Sales (kWh) vs. Weather-Adjusted Expectation
April 2020 through September 2020

Month	Commercial	Industrial	Residential
April	-12.75%	-60.79%	-1.07%
May	-20.74	-54.32	-6.03
June	-22.50	-12.40	-13.71
July	-11.67	-6.63	2.84
August	-5.16	-3.56	21.50
September	-1.28	5.38	35.34

Lansing Board of Water and Light
Electric Utility
Variances in Actual Electric Sales (kWh) vs. Budget
April 2020 through September 2020

Month	Commercial	Industrial	Residential
April	-12.56%	-55.72%	-1.16%
May	-17.37	-43.44	4.17
June	-20.23	4.64	1.95
July	-4.52	33.71	24.60
August	-6.44	20.14	15.77
September	-9.83	18.98	12.64

Electric retail sales volume has rebounded since Michigan's Stay-at-Home Orders were lifted. Since June, residential and industrial sales have exceeded BWL's budget. Residential sales have seen the highest rebound, with actual sales well exceeding weather-adjusted expected sales. The following table compares the BWL's budgeted financial performance with its actual financial performance for the fiscal year ended June 30, 2020.

Lansing Board of Water and Light
Comparison of Actual and Budgeted Financial Performance
Fiscal Year Ended June 30, 2020

	Budget	Actual	Variance	Variance (%)
Electric Retail (MWh)	2,120,349	1,959,546	(160,803)	-8%
Electric Wholesale (MWh)	503,506	184,261	(319,245)	-63%
Water (CCF)	8,557,493	8,255,445	(302,048)	-4%
Steam (MLB)	701,802	668,094	(33,708)	-5%
Chilled Water (MThrs)	10,864	9,481	(1,382)	-13%
Operating Revenue	$400,114,291	$364,612,954	$(35,501,336)	-9%
Operating Expense	355,508,808	318,541,446	(36,967,362)	-10%
Operating Income	44,605,483	46,071,508	1,466,025	3%
Non-Operating Income/(Expense)	(26,222,911)	(16,389,964)	9,832,947	37%
Net Income	$18,382,572	$29,681,544	$11,298,972	61%

The variance in BWL's Non-Operating Income/(Expense) was attributable to lower than anticipated interest costs on the Outstanding 2019A Bonds and the Outstanding 2019B Bonds, and to unrealized gains on BWL's portfolio of investments.

The following table compares the BWL's budgeted financial performance with its actual financial performance for the first quarter of the fiscal year ending June 30, 2021.

Lansing Board of Water and Light
Comparison of Actual and Budgeted Financial Performance
First Quarter of Fiscal Year Ending June 30, 2021

	Budget	**Actual**	**Variance**	**Variance (%)**
Electric Retail (MWh)	561,661	589,301	27,640	5%
Electric Wholesale (MWh)	145,472	58,036	(87,436)	-60%
Water (CCF)	2,556,723	2,785,754	229,031	9%
Steam (MLB)	64,521	69,360	4,839	7%
Chilled Water (MTHR)	4,523	4,516	(7)	0%
Operating Revenue	$103,142,637	$103,234,002	$91,365	0%
Operating Expense	90,577,692	75,647,661	(14,930,031)	-16%
Operating Income	12,564,945	27,586,340	15,021,396	120%
Non-Operating Income/(Expense)	(6,247,484)	(5,099,765)	1,147,718	18%
Net Income	$6,317,461	$22,486,575	$16,169,114	256%

The variance in BWL's Operating Expense was caused by the following factors: (1) Departmental spending across BWL has been slowed or otherwise deferred by the COVID-19 pandemic; (2) Budgeted OPEB/VEBA cost was set at approximately the same time as the investment market bottomed, so budgeted cost estimates and investment return estimates were very conservative. With the rebound in investment returns, new estimated costs are running approximately $1 million per month under budget; and (3) Delay in the operational date of the Pegasus wind project and an unplanned outage at Belle River caused purchased power costs to be significantly under budget for the first quarter. The Pegasus wind project is now online, so BWL expects purchased power costs to be much closer to budget moving forward. For information about OPEB and VEBA, see "PENSION AND RETIREMENT SYSTEMS" herein. For information about purchased power costs, see "THE ELECTRIC UTILITY—Purchased Power" herein.

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, 2019 and 2020.

Net Pension Liability – The components of the net pension liability of the BWL at June 30, 2019 and June 30, 2020 were as follows:[(1)]

	2019	2020
Total pension liability	$53,826,119	$52,198,422
Plan fiduciary net position	$60,421,847	$55,586,895
Plan's net pension liability	($6,595,727)	($3,388,473)
Funded Status	112.25%	106.49%

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

Actuarial Assumptions – The total pension liability in the June 30, 2020 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, 6.50%; discount rate, 6.50%. Mortality rates were based on the Pre and Post retirement – PUB-2010 General Employees Mortality Table, Male and Female, projected generationally using the MP-2019 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, 2019 and 2020, the BWL contributed $6,618,384 and $6,733,020, 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 754 participants eligible to receive benefits as of June 30, 2020.

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, 2019 and 2020, the cost to the BWL of maintaining the Retiree Benefit Plan was $9,277,538 and $9,156,565, respectively.

The required VEBA contribution is based on a projected pay-as-you-go financing requirement with an additional amount to prefund benefits. The pay-as-you-go retiree benefits paid were more than the actuarial determined contribution ("ADC") in 2020 and therefore, expensed on the statement of changes in trust net position.

Funding status and funding progress trend information is as follows:

Valuation Date	Market Value Of Assets	Total OPEB Liability	Net OPEB Liability	Funded Status	Covered Payroll	Net OPEB Liability as a % of Covered Payroll
6/30/20	$198,804,802	$154,602,686	($44,202,116)	128.59%	$58,198,143	(75.95%)

Actuarial Assumptions – The total OPEB liability in the June 30, 2020 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 4.50-8.25% annually; amortization method, level dollar over a 27-year period; investment rate of return, 7.50% annually; discount rate, 7.00% 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-2019 improvement scale.

RETURN ON CITY EQUITY

The City of Lansing 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, 2020, the parties amended the agreement as follows. The BWL agreed to pay a fixed, base amount of $23.1 million to the City for fiscal year 2020, and $25 million each for fiscal years 2021 and 2022. For each fiscal year 2021 and 2022, to the extent that the revenues described in the preceding paragraph may exceed $409,836,066, the BWL will pay the City an additional 3% of the excess revenue amount. This amended agreement is valid for two years, through June 30, 2022.

Fiscal Year Ended June 30	Payment to City
2016	$21,033,531
2017	21,862,457
2018	20,561,871
2019	21,110,884
2020	23,100,000

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, and (x) restructuring of the electric industry. Some of these factors are discussed in greater detail below.

Regional Transmission Organization, Midwest Market, and Wholesale Competition

General. The electric utility industry in the United States has undergone fundamental change prompted by (i) the Energy Policy Act of 2005 (the "Energy Policy Act"), (ii) policies of the FERC regarding transmission access and pricing, (iii) increased consolidation and mergers of electric utilities, (iv) the rise of regional transmission organizations ("RTOs") as market entities, (v) the proliferation of merchant or self-generators, (vi) substantial changes in pricing and structures for electric services by RTOs, and (vii) many regulatory commissions and legislative bodies promoting increased competition in the electric utility industry.

To promote wholesale competition, four RTOs, ISO New England, PJM Interconnection, the MISO, and the southwest Power Pool span the Northeast, Mid-Atlantic, Great Lakes and mid-continent states. These RTOs together with Independent System Operators ("ISOs") in New York, Texas and California assure non-discriminatory open access transmission and transparent, liquid energy and ancillary services markets. These organizations have changed the way many electric generating and transmission systems have been operated in the past. RTOs and ISOs have been created by FERC or the states to promote and assure vibrant wholesale electricity competition. However large sections of the country, predominately in the Southeast and West, are not served by an RTO or ISO, but, instead, maintain traditional wholesale and retail markets.

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"). 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.

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 the remaining three operational Eckert units, Erickson Plant, and 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 Michigan Public Service Commission ("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). The percentage of renewable energy required starting in 2015 and thereafter was 10%.

Each megawatt hour ("MWh") produced by a qualifying renewable energy facility creates one renewable energy credit ("REC") that can be used to meet the renewable energy standard. Incentive renewable energy credits ("IRECs") 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.

PA 295 also adopted rate impact limits on compliance costs, defined as the incremental costs incurred in procuring the energy and RECs necessary to meet the renewable energy standards. The rate limits are $3.00 per residential customer per month, $16.58 per commercial secondary customer meter per month, and $187.50 per commercial primary customer per meter month.

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. Like the renewable energy program, the energy waste reduction goals were increased each year for four years. The goals have been structured as energy savings as a percentage of total retail sales and are incremental each year. Each year after 2012, PA 295 required electric utilities to save 1% of retail energy sales through energy waste reduction programs.

In December 2016, the Michigan Legislature passed Public Act 342 ("PA 342"), also known as the "Clean and Renewable Energy and Energy Waste Reduction Act," which modified PA 295. PA 342 adopted a renewable energy standard of 12.5% in 2019 and 2020, and 15% by 2021, but will no longer mandate energy waste reduction goals for municipal utilities after 2021. It also combined cumulative energy waste reduction and renewable energy into "clean energy" and requires that the state's electric needs be met by at least 35% clean energy by 2025.

The BWL's 2016 Strategic Plan ensures that BWL will reach the goal of 30% electric retail sales from clean energy by the end of 2020 (see also, "Strategic Plan"). That measure is composed of approximately 20% renewables plus 10% cumulative savings from energy waste reductions since 2009. Though BWL's energy waste reduction program dates to 2007, measurements of such gains began in 2009.

The Electric Utility has already secured multiple sources of qualifying renewable energy, consisting of two landfill gas generation facilities, multiple solar installations, and a wind project. Collectively, these sources provide approximately 8% of the Electric Utility's retail load based on 2019 data. PA 295 and PA 342 permit the Electric Utility to carry forward unused RECs for three years. Based on current generation levels and contracted projects, the Electric Utility exceeded the State standard in 2019 and is projected to exceed the State standard each year thereafter.

The Electric Utility has successfully complied with the energy waste reduction standards required by PA 295 and its replacement, PA 342, each year from 2009 until 2019, and programs are currently active.

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 BWL customers. These programs will remain important components of the Electric Utility's resource portfolio in future years.

IMPACT OF THE COVID-19 PANDEMIC

The World Health Organization declared a pandemic following the outbreak of COVID-19, a respiratory disease caused by a new strain of the coronavirus. On March 10, 2020, Michigan Governor Gretchen Whitmer declared a state of emergency across the State of Michigan, directing State agencies to use all resources necessary to prepare for and respond to the outbreak. On March 13, 2020, President Trump declared a national emergency to unlock federal funds to help states and local governments fight the pandemic. The current spread of COVID-19 and actions taken by the federal, state and local governments in response thereto are altering the behavior of businesses and people in a manner that may have a long-term negative effect on economic activity, and therefore could adversely affect the future financial condition of the BWL, directly or indirectly.

State of Emergency – Legislative Authority and Executive Orders

In response to the effect of COVID-19 in Michigan, the Governor has exercised broad authority under the Emergency Powers of the Governor Act, Act 302, Public Acts of Michigan, 1945, as amended ("Act 302") and the Emergency Management Act, Act 390, Public Acts of Michigan, 1976, as amended ("Act 390"). Beginning on March 10, 2020, the Governor issued a series of executive orders declaring a state of emergency and a state of disaster in the State in response to COVID-19, indicating that the state of emergency and state of disaster will terminate on the earlier of a specified date or when emergency and disaster conditions no longer exist.[*]

Act 390 requires approval of the Legislature to extend an executive order issued pursuant to that statute to continue beyond 28 days. Act 302 is silent on legislative approval. On April 7, 2020, the Michigan Legislature approved the Governor's extension of the state of emergency and state of disaster through April 30, 2020. On April 30, the Legislature did not extend the state of emergency and state of disaster under Act 390.

Subsequent to April 30, 2020, the Governor continued to issue executive orders under Act 302 and Act 390 (see "—*Stay Home Practices and Restricted Activity – Executive Orders*" herein). On May 5, 2020, the Legislature filed suit against the Governor challenging the validity and constitutionality of her executive orders related to COVID-19.

On October 12, 2020, the Michigan Supreme Court issued an order finding that (i) the Governor did not have authority after April 30, 2020, to issue or renew any executive orders related to the COVID-19 pandemic under Act 390 and (ii) the Governor did not possess the authority to exercise emergency powers under Act 302 because the statute unlawfully delegates legislative power to the executive branch in violation of the Michigan Constitution. The Court's order was given immediate effect.

The Court's October 12, 2020 order incorporated by reference the analysis and conclusions from its October 2, 2020 opinion in response to a request to answer certified questions in *Midwest Institute of Health, PLLC v. Governor*, a case pending in the Federal District Court for the Western District of Michigan, which likewise found the Governor's actions invalid.

Stay-Home Practices and Restricted Activity – Executive Orders

Beginning on March 23, 2020, the Governor issued a series of executive orders directing Michigan businesses and other venues to temporarily suspend or reduce in-person operations that are not necessary to sustain or protect life and further directed individuals to stay in their homes unless they are part of the critical infrastructure workforce. In light of the recent Michigan Supreme Court decisions, those orders are no longer legally effective (see "*—State of Emergency – Legislative Authority and Executive Orders*" herein); however, beginning on October 9, 2020, the Michigan Department of Health and Human Services ("DHHS") has issued statewide orders limiting attendance at various types of gatherings and capacity at

[*] All COVID-19-related Executive Orders and Executive Directives issued by the Governor, Michigan Department of Health and Human Services epidemic orders and other releases and information regarding COVID-19 in the State, can be accessed at www.michigan.gov/coronavirus.

various types of venues, including a variety of businesses. The current DHHS emergency order became effective December 21, 2020 and remains in effect through January 15, 2021.

Impact on the BWL and the Bonds

The Bonds are payable solely from and secured by the Net Revenues of the System. "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 BWL does not currently anticipate that its Net Revenues, its primary revenue source for the repayment of the Bonds, will be materially affected by the COVID-19 pandemic; however, the BWL cannot predict the effect the spread of COVID-19 will have on future collections of those Net Revenues.

The outbreak of COVID-19 and subsequent responses to the outbreak by various government entities impacted BWL's ability to collect past due balances. In compliance with state orders and to help reduce the risk of further spread of COVID-19, BWL restored service to all water customers who were shut off as of the onset of the COVID-19 pandemic and suspended water shut-off for nonpayment through the end of calendar year 2020. BWL placed a moratorium on all collection activity, including service interruptions and late fees, on March 12, 2020. Collection activities, except for water service interruptions, resumed on July 14, 2020. BWL resumed electric service interruptions beginning August 17, 2020. BWL has observed an 8% increase in the number of past-due customer accounts since the onset of the pandemic.*

The BWL is offering deferred payment plans to customers with delinquent accounts, including 6-month payment plans. The BWL is also working with the DHHS and its State Emergency Relief program to assist customers with payment of delinquent accounts. Additionally, the BWL has increased its reserve for uncollectible accounts due to the impact of COVID-19 on customers. Although the BWL does not expect a material impact on collections overall, it continues to monitor account balances.

To ensure the health and safety of its water service customers, BWL has also offered guidance to businesses reopening after COVID-19 shut-downs on prudent reopening procedures, including by encouraging flushing of internal water lines.

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, 2019. 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.

---

* March through October 2020 compared to March through October 2019.

TAX MATTERS

Since the respective Bond Purchase Agreements for the Bonds and the 2021A Bonds were executed within 15 days of each other, the Bonds and the 2021A Bonds will be treated as one issue for certain federal income tax purposes. As a result, failures to comply with federal tax law requirements with respect to either the Bonds or the 2021A Bonds may cause interest on all of the Bonds to be included in gross income for federal income tax purposes.

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 inheritance and 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 opinions on federal and State of Michigan tax matters are 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 and State of Michigan 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 and State of Michigan 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 and State of Michigan 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 and State of Michigan income tax purposes of interest on the Bonds or the market prices of the Bonds.

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, 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.

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 six-month accrual period. The amount of amortizable bond premium allocable to each taxable year is deducted from the taxpayer's 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 Underwriter by its counsel, Dykema Gossett PLLC, Lansing, Michigan.

Miller, Canfield, Paddock and Stone, P.L.C. is presently representing BofA Securities, Inc., the Underwriter, in connection with matters unrelated to the BWL or the issuance of the Bonds. Miller, Canfield, Paddock and Stone, P.L.C. has not, and will not, represent the Underwriter 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, Inc. (the "Underwriter" or "BofA Securities"). The Bond Purchase Agreement provides for the Underwriter to purchase all of the Bonds, if any are purchased, at a purchase price of $75,817,022.57, representing the $70,875,000.00 principal amount of the Bonds, plus premium of $5,171,040.00, less an underwriter's discount of $229,017.43.

The Bond Purchase Agreement provides that the obligations of the Underwriter 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 Underwriter and its 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 Underwriter and its 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 the 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.

In the ordinary course of their various business activities, the Underwriter and its 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.

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. 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 Municipal Securities Rulemaking Board ("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 Agent's obligation to deliver the information at the times and with the contents described in the Disclosure Dissemination Agreement is limited to the extent the BWL has provided such information to the Disclosure Dissemination Agent as required by the Disclosure Dissemination Agreement. The Disclosure Dissemination Agent has no duty with respect to the content of any disclosures or notice made pursuant to the terms of 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's 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 Agent may conclusively rely upon certifications of the BWL at all times.

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 HShawa
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]

CITY OF LANSING
GENERAL FINANCIAL, ECONOMIC & STATISTICAL INFORMATION

LOCATION AND DESCRIPTION

The City of Lansing, Counties of Ingham and Eaton, 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 and the northeastern corner of Eaton County.

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

63	miles northwest of Ann Arbor
65	miles southeast of Grand Rapids
73	miles northeast of Kalamazoo
85	miles northwest of Detroit

POPULATION

The U.S. Census Bureau estimated and reported population for the City is as follows:

	City of Lansing	% Change
2019 Estimate[1]	118,210	3.42%
2010 U.S. Census	114,297	-4.06
2000 U.S. Census	119,128	-6.43
1990 U.S. Census	127,321	--

[1] Based on population estimate as of July 1, 2019.

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. 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 constitution amendment added a new measure of property value known as "Taxable Value." Since 1995, taxable property has had two valuations—State Equalized Value ("SEV") and Taxable Value. Property taxes are levied on Taxable Value. Generally, the Taxable Value of property is the lesser of: (a) the Taxable Value of property in the immediately preceding year, adjusted for losses, multiplied by the lesser of 1.05 or the inflation rate, 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 and SEV of new construction are equal to current SEV. The 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, the local Board of Review and ultimately to the Michigan Tax Tribunal.

In addition to limiting the annual increase in Taxable Value, the Michigan Constitution mandates a system of equalization for assessments. Although the assessor for each local unit of government within a county is responsible for actually assessing at 50% of true cash value, 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 by the County 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 of its role in 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 (churches, governmental property, public schools) is not included in the SEV or Taxable Value in this Official Statement. Property granted tax abatements under Act 198, Public Acts of Michigan, 1974, as amended, is recorded on a separate tax roll which is 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 in the Official Statement except as noted.

History of Valuations

A history of the property valuations in the City is shown below:

Tax Year	Fiscal Year Ending June 30	Total Taxable Value[1]	Real Property State Equalized Value	Personal Property State Equalized Value	Total State Equalized Value
2020	2021	$2,327,970,340	$2,680,302,476	$157,132,900	$2,837,435,376
2019	2020	2,177,263,492	2,423,395,000	143,567,100	2,566,962,100
2018	2019	2,078,506,415	2,218,070,700	131,685,690	2,349,756,390
2017	2018	2,022,923,906	2,123,515,400	144,076,700	2,267,592,100
2016	2017	1,978,013,387	1,996,672,985	151,357,000	2,148,029,985

[1] The City has a 425 agreement with Clinton County.
Source: Ingham, Eaton, and Clinton Counties Equalization Departments

A summary of the 2020 valuation subject to taxation is as follows:

2020 Taxable Value	$2,327,970,340
Plus: 2020 Equivalent IFT Taxable Value[1]	17,579,729
Total 2020 Equivalent Taxable Value	$2,345,550,069

[1] See "INDUSTRIAL FACILITY TAX ABATEMENTS" herein.
Source: Ingham, Eaton, and Clinton Counties Equalization Departments

Per Capita Valuation

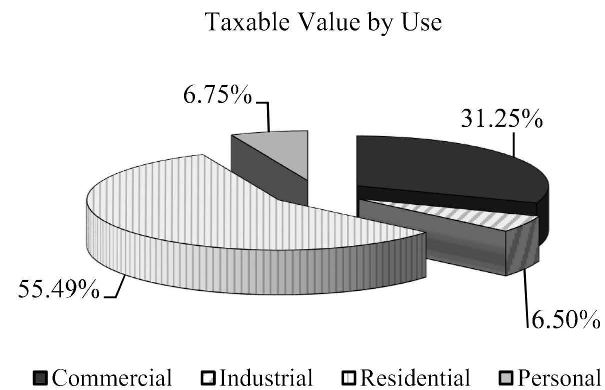
Using the City's estimated 2019 Census population of 118,210, the per capita valuation by type of valuation shown in the table below.

Per Capita 2020 Taxable Value	$19,693.51
Per Capita 2020 State Equalized Value	$24,003.34
Per Capita 2020 True Cash Value	$48,006.69

Valuation Composition[1]

A breakdown of the City's 2020 Taxable Value by class and use is as follows:

By Class:	2020 Taxable Value[1]	Percent of Total
Real Property	$2,170,837,440	93.25%
Personal Property	157,132,900	6.75
TOTAL	$2,327,970,340	100.00%
By Use:		
Agricultural	$169,056	0.01%
Commercial	727,400,674	31.25
Industrial	151,498,364	6.50
Residential	1,291,769,346	55.49
Personal	157,132,900	6.75
TOTAL	$2,327,970,340	100.00%



[1] The City has a 425 agreement with Clinton County.
Source: Ingham, Eaton, and Clinton Counties Equalization Departments

INDUSTRIAL FACILITY TAX ABATEMENTS

Under the provisions of Act 198 of the Public Acts of Michigan, 1978, as amended ("Act 198"), plant rehabilitation districts and/or industrial development districts may be established. Businesses in these districts are offered certain property tax incentives to encourage restoration or replacement of obsolete facilities and to attract new facilities in the area. The industrial facilities tax ("IFT") is paid, at a lesser effective rate and in lieu of ad valorem property taxes, in such facilities for a period of up to 12 years. Qualifying facilities are issued abatement certificates for this period.

After expiration of the abatement certificate, the then-current SEV of the facility is returned to the ad valorem tax roll. The owner of such facility may obtain a new certificate, provided it has complied with the provisions of Act 198.

The City has several IFT abatements outstanding with a total 2020 Equivalent IFT Taxable Value of $17,579,729, all of which is taxed at half rate. For purposes of computing "Equivalent" Taxable Value, it has been shown in the "History of Valuations" table above as 50% of the IFT Taxable Value.

Source: Ingham, Eaton, and Clinton Counties Equalization Departments

TAX INCREMENT AUTHORITIES

The Recodified Tax Increment Financing Act, Act 57 of the Public Acts of Michigan, 2018 (the "RTIFA Act") authorizes the designation of specific districts known as Tax Increment Finance Authority ("TIFA") Districts, Downtown Development Authority ("DDA") Districts, Local Development Finance Authority ("LDFA") Districts and 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 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 the TIFA, DDA, LDFA or BRA to capture tax revenues attributable to increases in value ("TIF Captured Value") of real and personal property located within an approved development area while any tax increment financing plans by an established district are in place. These captured revenues are used by the District and are not passed on to the local taxing jurisdictions.

Source: City of Lansing

MICHIGAN PROPERTY TAX REFORM

The voters of the State approved enactment of Michigan Public Acts 153 and 154 of 2013 and Acts 80 and 86 through 93 of 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 industrial and commercial Personal Property with a total true cash value of $80,000 or less 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 has to 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. By 2022, all eligible manufacturing Personal Property will be at least 10 years old or purchased after December 31, 2012, so that it 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 the 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 $1,546,177.58 from the LCSA to replace personal property tax revenues lost during its fiscal year 2020.

The ultimate nature, extent and impact of any other future amendments to Michigan's property tax laws on the City'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 therefor and the operations of the City.

MAJOR TAXPAYERS

The top ten taxpayers in the City and their 2020 Taxable Valuations and equivalent Industrial Facilities Tax Valuations are as follows:

Top Ten Taxpayers - City of Lansing

Taxpayer	Product/Service	Taxable Valuation	Equivalent IFT Valuation[1]	Total Valuation
General Motors Corp.	Automotive	$64,837,788	$4,438,959	$69,276,747
Consumers Energy	Utility	46,076,843	-	46,076,843
Jackson National Life Ins Co	Insurance	37,280,474	-	37,280,474
Phoenix Development Partners LLC	Office (AF Group)	27,170,056	-	27,170,056
Lansing Properties LLC	Apartments (SkyVue)	24,590,660	-	24,590,660
Lansing Retail Center LLC	Shopping Center	12,170,056	-	12,170,056
McLaren Health Care Corp	Medical	11,878,066	-	11,878,066
Emergent Biodefense Operations	Research/Industrial	7,384,360	2,758,637	10,142,997
Eyde Knapp Redevelopment LLC	Office/Residential	8,699,322	-	8,699,322
WP Lansing-MI Owner LLC	Apartments	8,685,000	-	8,685,000
Edward Rose Reality Inc.	Apartments	7,456,488	-	7,456,488
TOTAL		**$256,229,113**	**$7,197,596**	**$263,426,709**

[1] Represents 50% of the actual IFT Taxable Value. See "Industrial Facility Tax Abatements" herein.

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

The Total Valuation of the above taxpayers represent 11.23% of the City's 2020 Taxable & equivalent IFT Valuation of $2,345,550,049.

MAJOR EMPLOYERS

Within the Lansing Region (500+ employees)

Employer	Product or Service	Approx. No. of Employees
State of Michigan	Government	14,390
Michigan State University	Education	10,253
Sparrow Health System	Healthcare	7,600
General Motors	Manufacturing	4,549
Lansing Community College	Education	3,144
McLaren Health	Healthcare	3,000
Auto-Owners Insurance	Insurance	2,578
Peckham	Manufacturing	2,510
Jackson National Life Insurance	Insurance	2,500
Dart Container Corp.	Manufacturing	2,000
Meijer Inc. & its Distribution Center	Retail and Logistics	2,000
Lansing School District	Education	1,300
U.S. Postal Service	Postal Service & Delivery	1,200
Leona Group LLC	Education & Consulting	1,200
Walmart	Retails	1,185
Ingham County	Government	1,100
Lansing, City of	Government	870
Dean Transportation Inc.	Transportation Equipment	800
Delta Dental	Insurance	800
MSUFCU	Financial Services	800
Michigan Farm Bureau	Insurance	750
Quality Dairy	Food Processing & Retail	730
Spartan Motors	Automotive	730
Lansing Board of Water and Light	Utility	700
Dakkota Integrated Systems	Automotive	670
Multi-Packaging Solutions	Logistics	600
Neogen Corporation	Biotech	550
Bridgewater Interiors	Automotive	500
Orchid Orthopedic Solutions	Medical Device	500
Pratt & Whitney	Aerospace	500
PNC Bank	Financial Services	500

Source: Top Employers - Lansing Economic Area Partnership (LEAP); 2019 Michigan Manufacturers Directory; Lansing Chamber website; www.gm.com; Michigan Economic Development Council; Manta via www.manta.com; and individual employers.

EMPLOYMENT BREAKDOWN

The U.S. Census Bureau, 2014-2018 American Community Survey reports the occupational breakdown of persons 16 years and over for the City and the County of Ingham are as follows:

	City of Lansing		County of Ingham	
	Number	Percent	Number	Percent
PERSONS BY OCCUPATION	55,844	100.00%	140,932	100.00%
Management, Business, Science & Arts	17,751	31.79	57,135	40.54
Service	12,793	22.91	27,330	19.39
Sales & Office	12,281	21.99	30,791	21.85
Natural Resources, Construction & Maintenance	3,447	6.17	7,710	5.47
Production, Transportation & Material Moving	9,572	17.14	17,966	12.75

The U.S. Census Bureau, 2014-2018 American Community Survey reports the breakdown by industry for persons 16 years and over for the City and the County of Ingham are as follows:

	City of Lansing		County of Ingham	
	Number	Percent	Number	Percent
PERSONS BY INDUSTRY	55,844	100.00%	140,932	100.00%
Agriculture, Forestry, Fishing, Hunting & Mining	157	0.28	812	0.58
Construction	2,172	3.89	4,981	3.53
Manufacturing	6,275	11.24	14,038	9.96
Wholesale Trade	900	1.61	2,563	1.82
Retail Trade	6,793	12.16	14,282	10.13
Transportation	2,755	4.93	5,256	3.73
Information	869	1.56	2,170	1.54
Finance, Insurance & Real Estate	3,241	5.80	9,636	6.84
Professional & Management Services	5,758	10.31	14,059	9.98
Educational, Health & Social Services	13,465	24.11	40,720	28.89
Arts, Entertainment, Recreation & Food Services	6,549	11.73	16,265	11.54
Other Professional & Related Services	3,295	5.90	6,546	4.64
Public Administration	3,615	6.47	9,604	6.81

UNEMPLOYMENT RATES

The U.S. Department of Labor, Bureau of Labor Statistics reports unemployment averages for the City and the County of Ingham as compared to the State of Michigan as follows:

Annual Average	City of Lansing	County of Ingham	State of Michigan
2020 (November)*	5.9%	4.2%	6.3%
2019	5.0	3.5	4.1
2018	5.2	3.6	4.1
2017	6.1	4.3	4.6
2016	6.1	4.3	5.0
2015	6.6	4.7	5.4

SOURCE: Website: http://milmi.org/
NOTE: Not Seasonally Adjusted

POPULATION BY AGE

The 2019 estimated population by age for total population for the City and the County of Ingham are as follows:

	City of Lansing		County of Ingham	
	Number	Percent	Number	Percent
Total Population	118,210	100.0%	292,406	100.0%
0 through 17 years	27,543	23.3%	57,605	19.7%
18 through 64 years	72,226	61.1%	194,157	66.4%
65 years and over	18,441	11.6%	40,644	13.9%
Median Age	33.3 years*		32.4 years	

*Represents the median age within the portion of the City of Lansing located in the County of Ingham.

INCOME

The U.S. Census Bureau, 2014-2018 American Community Survey estimate of household income for the City and the County of Ingham are as follows:

	City of Lansing		County of Ingham	
	Number	Percent	Number	Percent
HOUSEHOLDS BY INCOME	46,833	100.00%	112,200	100.00%
Less than $ 10,000	4,951	10.10	9,814	8.75
$ 10,000 to $ 14,999	3,318	6.78	5,496	4.90
$ 15,000 to $ 24,999	6,669	13.63	12,467	11.11
$ 25,000 to $ 34,999	6,270	12.82	11,543	10.29
$ 35,000 to $ 49,999	8,372	17.11	15,847	14.12
$ 50,000 to $ 74,999	9,576	19.57	20,491	18.26
$ 75,000 to $ 99,999	4,693	9.59	12,376	11.03
$100,000 to $149,999	3,726	7.62	14,271	12.72
$150,000 to MORE	1,351	2.76	9,985	8.82
Median Income	$40,619*		$50,940	

*Represents the median income within the portion of the City of Lansing located in the County of Ingham.

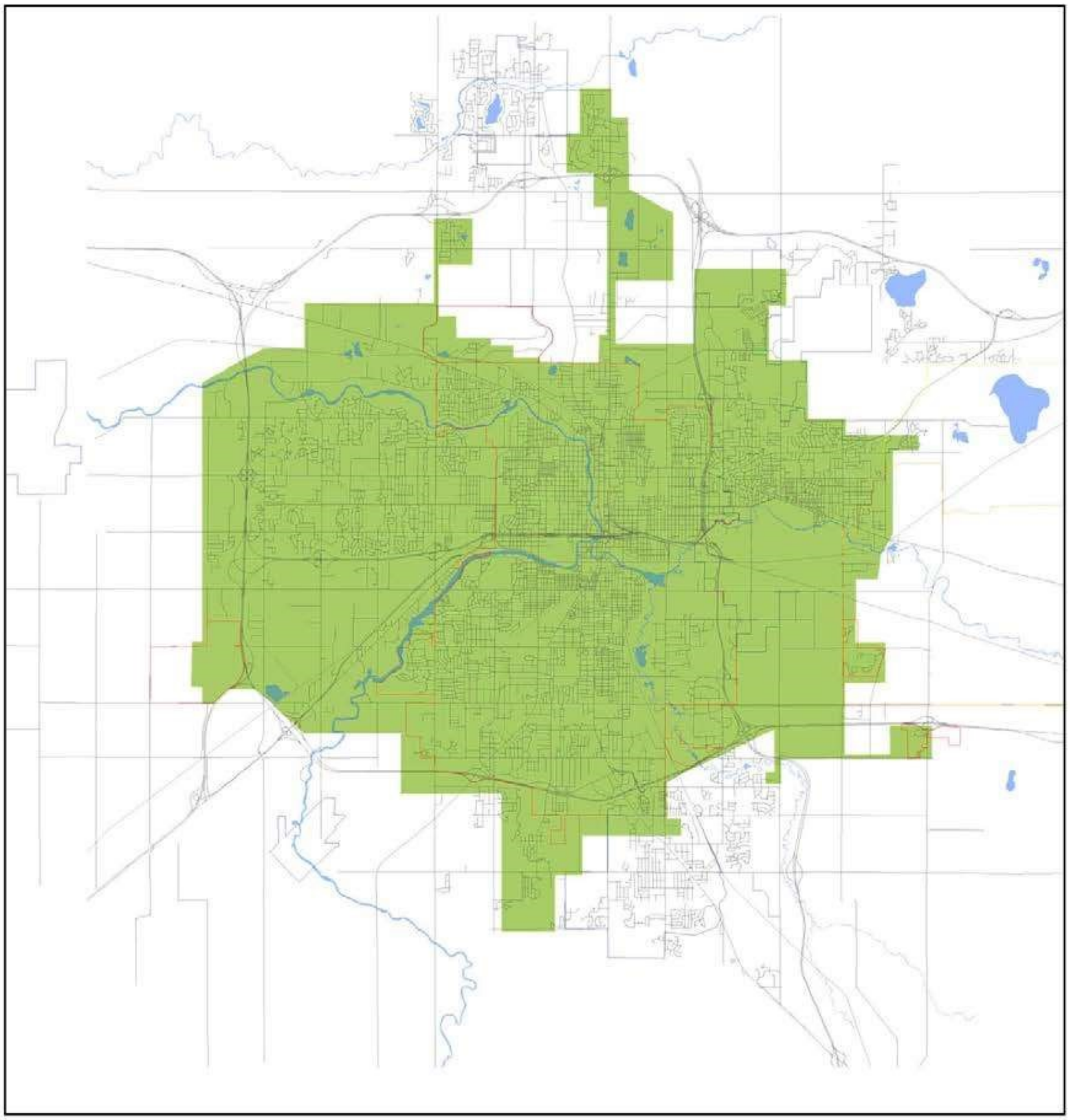
[THIS PAGE INTENTIONALLY LEFT BLANK]

Appendix B

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

[THIS PAGE INTENTIONALLY LEFT BLANK]

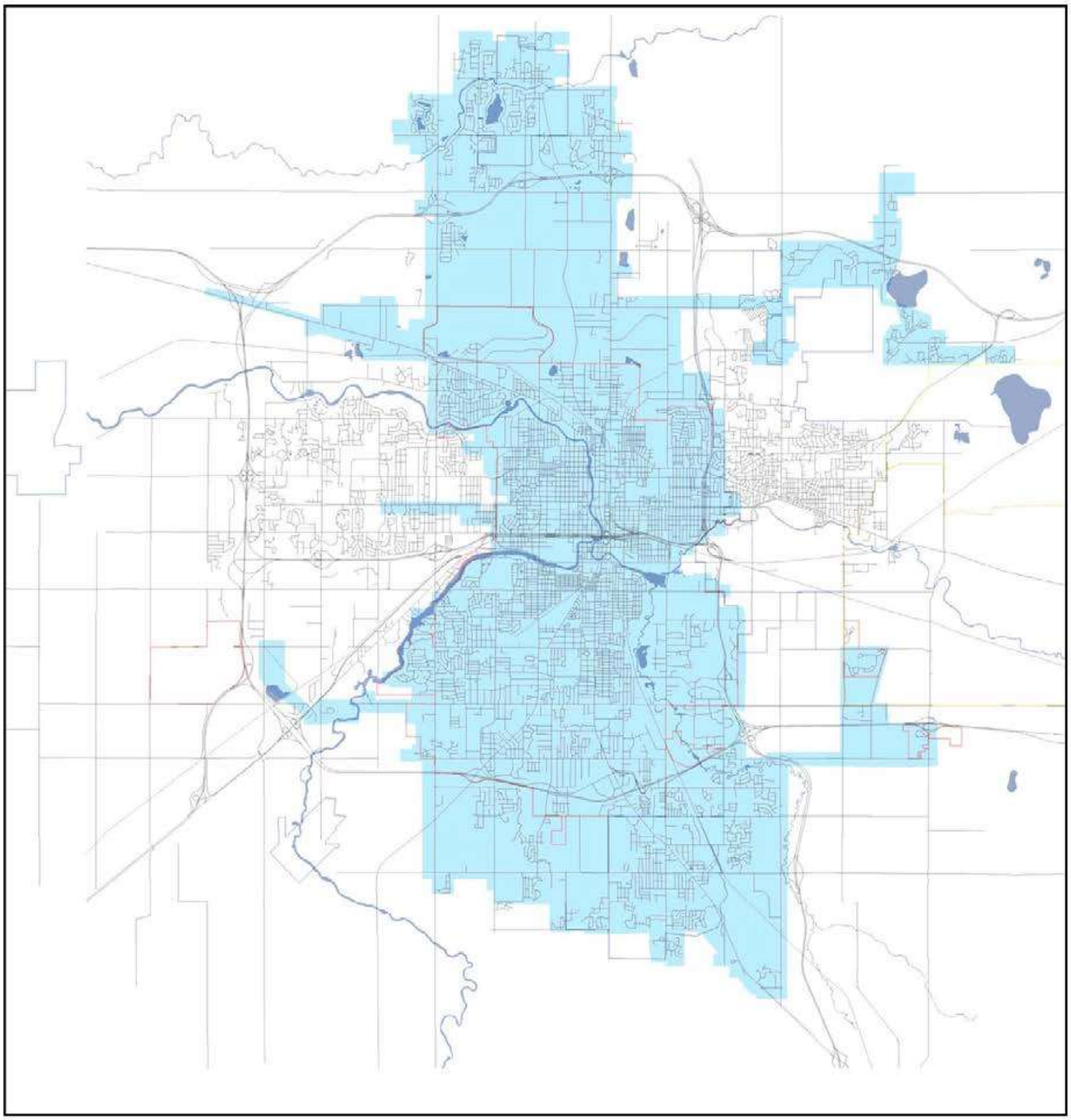
ELECTRIC SERVICE AREA



Lansing Board of Water & Light Records Management - GIS	Date: 10/9/2020

BWL Electric Service Area

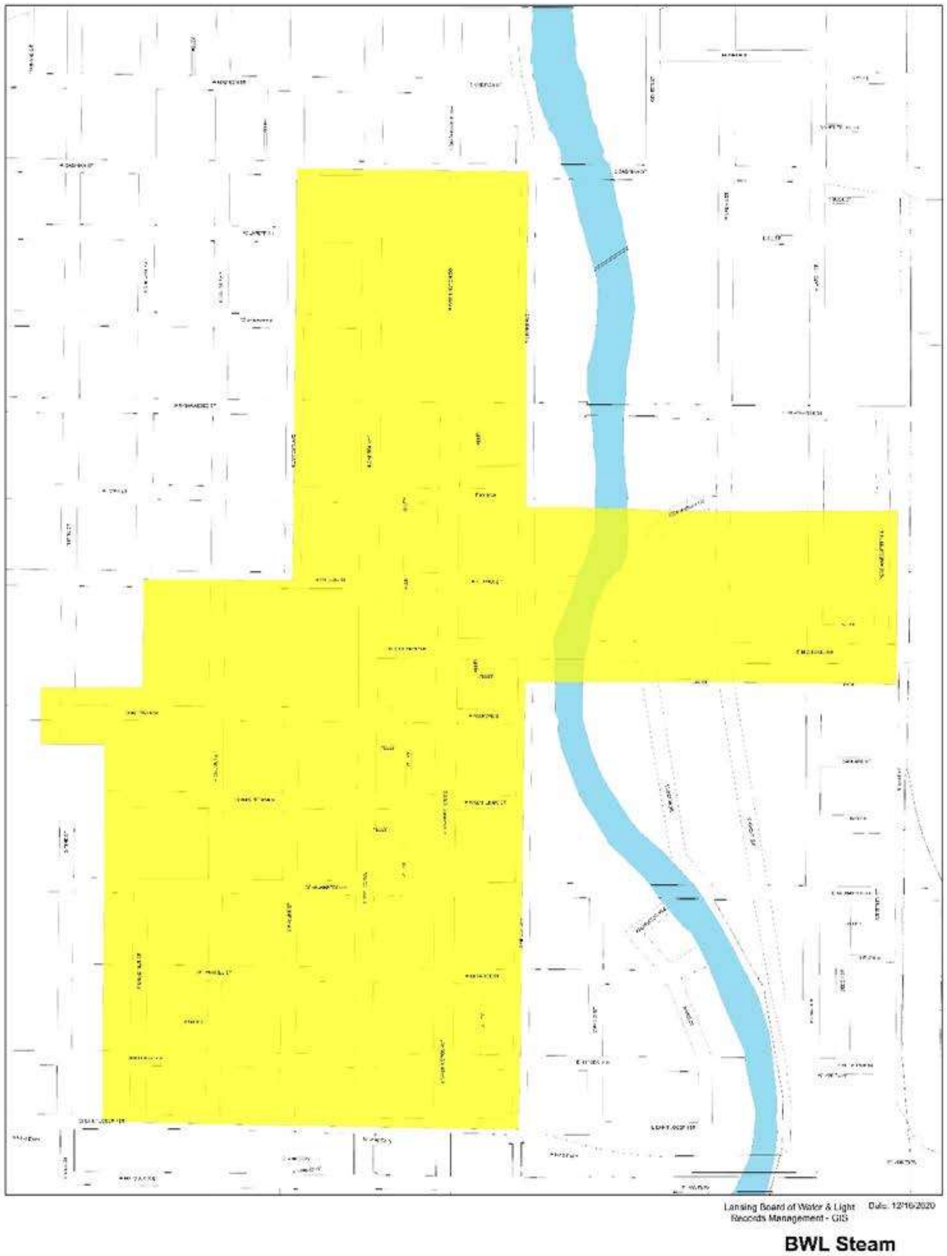
WATER SERVICE AREA



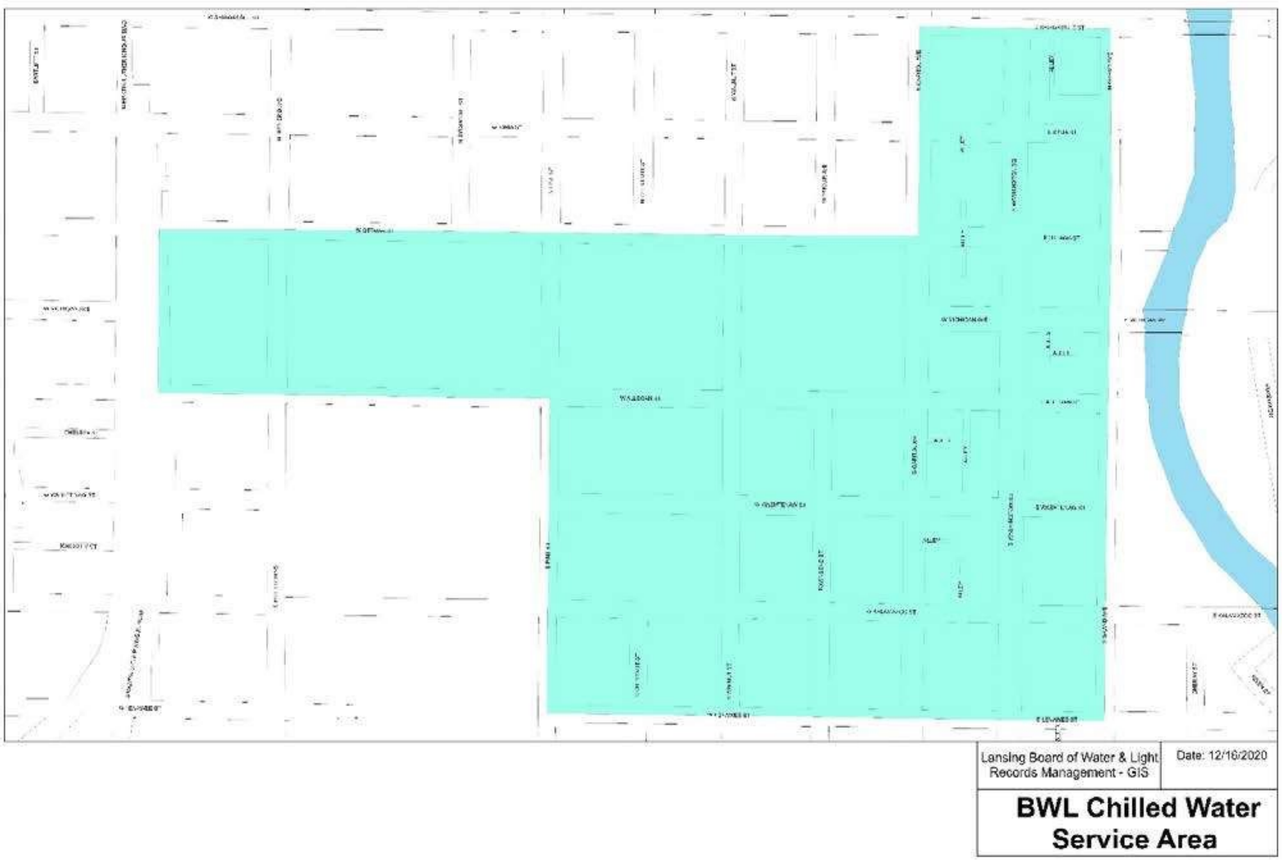
Lansing Board of Water & Light Records Management - GIS	Date: 10/9/2020

BWL 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, 2020 and 2019. 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.

[THIS PAGE INTENTIONALLY LEFT BLANK]

Board of Water and Light – City of Lansing, Michigan

Financial Report

with Additional Information

As of and for the Years Ended June 30, 2020 and 2019

Contents

INDEPENDENT AUDITORS' REPORT

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

Report on the Financial Statements

We have audited the accompanying financial statements of Lansing Board of Water and Light enterprise fund and its fiduciary funds, as of and for the years ended June 30, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the Lansing Board of Water and Light's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Lansing Board of Water and Light's preparation and fair presentation of the financial statements 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 Lansing Board of Water and Light's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the enterprise fund and fiduciary funds of the Lansing Board of Water and Light as of June 30, 2020 and 2019, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

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, 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.

Additional Information

Our audits were conducted for the purpose of forming opinions on the financial statements as a whole. The supplemental information, listed in the table of contents as additional information, 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 additional information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Baker Tilly US, LLP

Baker Tilly US, LLP (formerly known as Baker Tilly Virchow Krause, LLP)
Madison, Wisconsin
September 2, 2020

This section explains the general financial condition and results of operations for the Lansing Board of Water and 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, 2020 and 2019.

Overview of Business

The BWL owns and operates an electric system which generates, purchases, and distributes electric energy to over 99,000 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 61percent 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, and through MISO. The BWL maintains a diversified renewable energy portfolio which includes wind, solar, landfill gas, and hydro-electric generation. The combination of renewable energy generation and energy efficiency programs support BWL's 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 over 57,000 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 151 customers, and a chilled water facility and distribution piping system serving 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 $204.6 and $131.4 million in fiscal years 2020 and 2019, respectively.

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.

Condensed Financial Information (dollars in millions)

	As of June 30			% Change
	2020	2019	2018	2019 to 2020
Assets				
Utility plant	$ 945.5	$ 798.7	$ 719.3	% 18.4
Other assets	538.4	661.8	296.8	(18.6)
Total assets	1483.9	1,460.5	1,016.1	1.6
Deferred Outflow of Resources	27.7	5.2	7.4	432.7
Liabilities				
Long-term liabilities	710.1	712.6	355.6	(0.4)
Other liabilities	97.4	63.3	61.3	53.9
Total liabilities	807.5	775.9	416.9	4.1
Deferred Inflow of Resources	71.5	86.9	36.2	(17.7)
Net Position				
Net investment in capital assets	395.0	381.0	418.1	3.7
Restricted for debt service	56.6	72.1	42.8	(21.5)
Unrestricted	181.0	149.8	109.6	20.8
Net position	**$ 632.6**	**$ 602.9**	**$ 570.5**	**% 4.9**

Capital expenditures in FY2020 exceeded depreciation, impairments and retirements thereby increasing utility plant by $146.8 million. The increase in utility plant is primarily due to construction progress on the Delta Energy Park facilities. Deferred outflows grew by $22.5 million because of bond refunding loss amortization, and differences between projected and actual earnings on future retirement expense. The increase in Other liabilities of $34.1 million is primarily due to an increase in current accounts payables associated with construction of the Delta Energy Park facilities.

Condensed Financial Information (dollars in millions) (Continued)

	For the Year Ended June 30			% Change
	2020	2019	2018	2019 to 2020
Result of Operations				
Operating Revenue	$ 364.6	$ 356.9	$ 353.1	% 2.2
Operating Expense	318.5	312.1	325.5	2.1
Nonoperating expense - Net	(16.4)	(12.4)	(13.4)	32.3
Changes in Net Position	**$ 29.7**	**$ 32.4**	**$ 14.1**	**% (8.30)**

Operating revenue increased by $7.7 million primarily due to changes in rates. Net Income decreased by $2.7 million primarily due to increased operating and nonoperating expenses which included an increase of bonded debt interest expense of $10.8 million.

Budget – The BWL Commissioners approved a $283.3 million operating expense budget (excluding depreciation) for fiscal year 2020. Actual expenses (excluding depreciation) were $244.8 million. The capital improvement budget, net of customer contributions in aid of construction, was $265.9 million for FY2020, and actual net capital expenditures were $200.5 million. The difference between the capital budget and actual spend is due to a change within the project timeline due to the COVID-19 pandemic for the new combined cycle natural gas power plant, Delta Energy Park.

Financing Activities - In June of 2019, $319,875,000 of Utility System Revenue Refunding Bonds, Series 2019A were issued for the purposes of: paying costs to acquire and construct a combined cycle natural gas power plant (Delta Energy Park) and other system improvements, paying a portion of the BWL's outstanding 2018 Note Series, and paying costs of issuance of the Series 2019 Bonds. The cost of Delta Energy Park is budgeted at up to $500 million and is scheduled to begin operation in FY 2022.

In December of 2019, $251,995,000 of Utility System Revenue Refunding Taxable Bonds, Series 2019B were issued for the purposes of advanced refunding most of the Series 2011A Bonds. The advance refunding has reduced the cash flow requirements for repayment of the bonds from 2020 through 2041.

COVID-19 Global Pandemic – In response to national, state and local mandates, in mid-March the BWL ordered its non-essential employees to work remotely and reduced critical workforce onsite. BWL began phased return to work of all critical staff in June.

BWL continues to support its customers during the COVID-19 pandemic. BWL provided its electric customers with a temporary moratorium on shutoffs through July and temporary suspension of delayed payment charges. BWL is working proactively with electric customers to create payment arrangements for those who need them.

BWL has suspended water shutoffs for non-pay through December 31, 2020 as directed by a State of Michigan Executive Order.

The effects of the pandemic and economic contraction will likely result in an increase in the number of accounts treated as bad debt. As a result, BWL increased its uncollectable reserve for account write-offs from $1.5 million annually to $2.5 million annually.

Potential impacts to BWL associated with COVID-19 include, increased costs related to keeping customers and employees safe, supply chain disruptions, and disruptions to the regional and local economy with corresponding decreases in utility revenue.

Statements of Net Position

	As of June 30	
	2020	2019
Assets		
Current Assets		
Restricted cash and investments (Notes 2 and 3)	$ 69,960,767	$ 79,607,052
Cash and investments (Notes 1 and 2)	60,857,820	37,546,971
Designated cash and investments (Notes 1 and 2)	94,765,550	91,631,559
Accounts receivable - Net (Note 1)	24,968,123	24,087,240
Estimated unbilled accounts receivable (Note 1)	19,993,423	18,131,906
Inventories (Note 1)	24,658,695	29,966,809
Other	4,698,464	5,278,743
Total current assets	299,902,842	286,250,280
Other Assets		
Recoverable environmental remediation (Note 6)	1,158,112	2,435,729
Special deposit (Note 1)	46,321,165	34,361,165
Net pension asset (Note 8)	3,388,473	6,595,727
Net OPEB asset (Note 8)	44,202,116	46,608,898
Other (Note 1)	2,595,524	2,590,845
Total other assets	97,665,390	92,592,364
Noncurrent Restricted Assets (Investments) (Notes 2 and 3)	140,848,613	282,919,314
Utility Plant (Notes 1 and 4)		
Water	336,328,287	328,004,577
Electric	808,880,819	795,361,687
Steam	82,102,414	80,233,333
Chilled water	34,085,016	34,083,868
Common facilities	106,256,804	103,276,137
Total	1,367,653,340	1,340,959,602
Less accumulated depreciation	648,979,613	611,749,762
Net	718,673,727	729,209,840
Construction in progress (Note 9)	226,845,122	69,536,946
Total utility plant	945,518,849	798,746,786
Total assets	1,483,935,694	1,460,508,744
Deferred Outflows of Resources -		
Bond refunding loss being amortized (Note 1)	8,770,739	1,699,549
Net pension deferred outflows (Note 8)	1,642,478	337,272
Net OPEB deferred outflows (Note 8)	17,275,643	3,180,635
Total deferred outflows of resources	27,688,860	5,217,456

See Notes to Financial Statements.

Statements of Net Position (Continued)

	As of June 30	
	2020	2019
Liabilities and Net Position		
Current Liabilities		
Accounts payable	$ 64,194,086	$ 38,323,009
Current portion of long-term debt (Note 5)	7,942,341	7,608,792
Accrued payroll and related taxes	3,098,859	2,415,744
Customer deposits	2,827,209	2,474,310
Accrued compensated absences (Note 1)	5,908,604	4,843,676
Accrued interest	79,471	84,772
Accrued interest (payable from restricted assets)	13,350,348	7,531,375
Total current liabilities	97,400,918	63,281,678
Compensated Absences - Less current portion (Note 1)	7,651,447	7,497,367
Other Long-term Liabilities		
Workers' compensation	2,200,000	2,200,000
Environmental remediation liability (Note 9)	6,388,002	6,902,174
Other	1,631,239	1,305,804
Total other long-term liabilities	10,219,241	10,407,978
Long-term Debt - Less current portion (Note 5)	692,227,682	694,699,953
Total liabilities	807,499,288	775,886,976
Deferred Inflows of Resources		
Revenue intended to cover future costs (Note 6)	11,915,884	15,377,770
Recoverable energy asset (Note 6)	3,322,683	8,087,614
Net OPEB deferred inflows (Note 8)	56,304,152	63,472,837
Total deferred inflows of resources	71,542,719	86,938,221
Net Position		
Net investment in capital assets	394,968,178	381,056,904
Restricted for debt service (Note 3)	56,610,419	72,075,677
Unrestricted	181,003,950	149,768,422
Total net position	**$ 632,582,547**	**$ 602,901,003**

Board of Water and Light - City of Lansing, Michigan

Statements of Revenues, Expenses, and Changes in Net Position

	For the Year Ended June 30	
	2020	2019
Operating Revenues (Note 1)		
Water	$ 45,923,606	$ 42,851,399
Electric	299,951,673	294,100,606
Steam	12,526,501	13,740,119
Chilled water	6,211,174	6,192,397
Total operating revenues	364,612,954	356,884,521
Operating Expenses		
Production:		
Fuel, purchased power, and other operating expenses	125,348,562	125,335,173
Maintenance	17,574,743	18,941,418
Transmission and distribution:		
Operating expenses	8,763,274	8,186,690
Maintenance	20,308,757	21,688,566
Administrative and general	72,827,369	70,664,307
Return on equity (Note 7)	23,100,000	21,110,884
Depreciation (Note 1)	50,618,741	46,123,865
Total operating expenses	318,541,446	312,050,903
Operating Income	46,071,508	44,833,618
Nonoperating Income (Expenses)		
Investment income	11,006,985	5,464,438
Other expense	(1,096,805)	(2,373,022)
Bonded debt interest expense	(26,208,473)	(15,443,098)
Other interest expense	(91,671)	(78,810)
Total nonoperating expenses - Net	(16,389,964)	(12,430,492)
Net Income (Changes in Net Position)	29,681,544	32,403,126
Net Position - Beginning of year	602,901,003	570,497,877
Net Position - End of year	**$ 632,582,547**	**$ 602,901,003**

Statements of Cash Flows

	For the Year Ended June 30	
	2020	2019
Cash Flows from Operating Activities		
Cash received from customers	352,546,933	359,151,859
Cash paid to suppliers	(205,199,739)	(240,801,534)
Cash paid to employees	(59,635,713)	(54,272,072)
Return on equity (Note 7)	(23,100,000)	(21,110,884)
Cash from customer deposits	352,899	271,531
Interest on customer deposits	(91,671)	(78,810)
Net cash provided by operating activities	64,872,709	43,160,090
Cash Flows from Capital and Related Financing Activities		
Proceeds from new borrowings	13,425,000	450,883,509
Planned, bonded, and annual construction	(171,547,126)	(126,190,596)
Principal payments on debt	(15,012,580)	(74,960,459)
Bond issuance costs	-	(1,915,598)
Interest on debt	(28,017,133)	(16,341,797)
Net cash used in capital and related financing activities	(201,151,839)	231,475,059
Cash Flows from Investing Activities		
Proceeds from the sale and maturity of investments	275,710,208	150,921,330
Interest received	2,241,284	831,335
Purchase of investments	(70,931,911)	(297,210,832)
Net cash provided by investing activities	207,019,581	(145,458,167)
Net Increase in Cash and Cash Equivalents	70,740,451	129,176,982
Cash and Cash Equivalents - Beginning of year	209,377,897	80,200,915
Cash and Cash Equivalents - End of year	**$ 280,118,348**	**$ 209,377,897**

Statements of Cash Flows (Continued)

	For the Year Ended June 30 2020	For the Year Ended June 30 2019
Balance Sheet Classifications		
Restricted cash and investments	$ 69,960,767	$ 79,607,052
Cash and investments	60,857,820	37,546,971
Designated cash and investments	94,765,550	91,631,559
Noncurrent restricted assets	140,848,613	282,919,314
Total cash and investments	$ 366,432,750	$ 491,704,896
Less noncash investments	(86,314,402)	(282,326,999)
Cash and Cash Equivalents - End of year	**$ 280,118,348**	**$ 209,377,897**

Reconciliation of Operating Income to Net Cash from Operating Activities	For the Year Ended June 30 2020	For the Year Ended June 30 2019
Operating income	$ 46,071,508	$ 44,833,618
Adjustments to reconcile operating income to net cash from operating activities:		
Other nonoperating	(2,061,724)	(1,477,359)
Depreciation	50,618,741	46,123,865
Sewerage collection fees	964,920	1,019,935
Interest on customer deposits	(91,671)	(78,810)
Decrease (increase) in assets:		
Accounts receivable (Note 1)	(880,883)	473,046
Unbilled accounts receivable (Note 1)	(1,861,517)	1,616,388
Inventories	5,308,114	(6,045,081)
Other postemployment benefits asset and deferrals	(18,856,911)	(15,503,751)
Special deposit	(11,960,000)	(34,320,000)
Net pension asset	3,207,254	20,755
Other	1,853,217	14,285
(Decrease) increase in liabilities and deferred outflows/inflows of resources:		
Accounts payable and other accrued expenses	(64,956)	3,809,162
Customer deposits	352,899	271,531
Net pension asset deferrals	(1,305,206)	1,595,057
Other	(6,421,076)	807,449
Total adjustments	18,801,201	(1,673,528)
Net cash provided by operating activities	**$ 64,872,709**	**$ 43,160,090**

	2020	2019
Noncash Capital and Financing Activities		
Increase in noncash investment valuations	$ 8,765,700	$ 4,633,103
Bond proceeds used in the refunding of prior debt issuance	$ 238,570,000	$ -
Loss on refunding of bonds	$ (7,403,786)	$ -

Board of Water and Light - City of Lansing, Michigan

Pension Trust Funds - Statements of Net Position

	As of June 30	
	2020	2019
Assets		
Receivable - investment interest receivable	$ 28,851	$ 346,702
Trade receivable - due from broker	13,252	1,539
Investments at fair value:		
Cash and money market trust fund	1,980,661	5,400,601
U.S. government obligations	-	23,867,491
Fixed income securities	285	26,488,080
Mutual funds	248,475,224	253,772,223
Stable value	36,833,694	36,352,914
Guaranteed income fund	8,975,990	8,940,026
Common collective funds	56,792,990	15,855,280
Common stock	95,715,429	77,698,376
Self-directed brokerage account	6,330,405	3,787,956
Participant notes receivable	3,251,182	3,422,076
Total investments	458,355,860	455,585,023
Liabilities		
Trade payable - due to broker	1,057	81,828
Net Position - Held in trust for pension and other employee benefits	**$ 458,396,906**	**$ 455,851,436**

Pension Trust Funds - Statements of Changes in Net Position

	For the Year Ended June 30	
	2020	2019
Increases		
Investment income:		
Net appreciation in		
fair value of investments	$ 5,145,608	$ 10,999,681
Interest and dividend income	9,362,805	16,112,845
Net investment income	14,508,413	27,112,526
Employer contributions	15,889,585	15,895,922
Participant rollover contributions	466,139	1,786,985
Interest from participant notes receivable	172,695	210,373
Total increases	31,036,832	45,005,806
Decreases		
Retiree benefits paid	27,416,448	29,059,604
Loan defaults	232,785	247,237
Participants' note and administrative fees	842,129	921,703
Total decreases	28,491,362	30,228,544
Change in Net Position Held in Trust	2,545,470	14,777,262
Net Position Held in Trust for Pension		
and Other Employee Benefits		
Beginning of year	455,851,436	441,074,174
End of year	**$ 458,396,906**	**$ 455,851,436**

Note 1 – Significant Accounting Policies

The following is a summary of the significant accounting policies used by the Board of Water and 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 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 Defined Contribution Plan and Defined Benefit Plan, which accumulate resources for benefit payments to retirees.

2. The Voluntary Employees' Beneficiary Association ("VEBA"), which accumulates resources for future retiree health care payments to retirees.

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.

Note 1 – Significant Accounting Policies (Continued)

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 and liabilities 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.

In March 2018, the GASB issued Statement No. 88 - Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements. This statement defines debt for purposes of disclosure in notes to financial statements and establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings and direct placements. This standard was implemented effective July 1, 2019 for the enterprise fund.

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.

Note 1 – Significant Accounting Policies (Continued)

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. Market values may have changed significantly after year end.

Note 1 – Significant Accounting Policies (Continued)

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 commercial paper and United States government securities and are segregated as follows:

	Carrying Value	
	2020	2019
Designated purpose:		
Coal inventory fluctuation	$ 5,162,129	$ 4,885,785
Litigation, environmental, and uninsured losses	20,876,355	19,754,722
Future water facilities	4,209,979	3,982,401
Subtotal	30,248,463	28,622,908
Special purpose – Future construction	64,517,087	63,008,651
Total	$ 94,765,550	$ 91,631,559

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 receivable are not deemed uncollectible until they are approximately 270 days past due and have remained completely unpaid throughout the BWL's collection policy. The components of accounts receivable for 2020 and 2019 are as follows:

	2020	2019
Customer receivables	$ 22,856,130	$ 20,283,557
Sewerage collections	2,557,134	2,472,766
Miscellaneous	2,054,859	2,830,917
Less allowance for doubtful accounts	(2,500,000)	(1,500,000)
Net	$ 24,968,123	$ 24,087,240

Note 1 – Significant Accounting Policies (Continued)

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 will make installment payments totaling $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. As of June 30, 2020, the BWL estimates it will recover at least $46,280,000 of the installment payments based on expected usage. The long-term other asset for the Consumer's Energy deposit recorded was $46,280,000 and $34,320,000 in 2020 and 2019, respectively. The BWL has $41,165 of miscellaneous other deposits as of June 30, 2020 and 2019.

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

	2020	2019
Coal	$ 10,689,363	$ 15,002,110
Gas	327,236	663,786
Materials and supplies	13,642,096	14,300,913
Total	$ 24,658,695	$ 29,966,809

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.

Note 1 – Significant Accounting Policies (Continued)

Depreciation – Depreciation of the utility plant is computed using the straight-line method based on estimated useful lives. The resulting provisions for depreciation in 2020 and 2019, expressed as a percentage of the average depreciable cost of the related assets, are as follows:

		Average Rate (Percent)	
	Life (Years)	2020	2019
Classification of utility plant			
Water	4-100	2.2	2.1
Electric	4-50	4.1	4.2
Steam	5-50	3.3	3.2
Chilled water	5-50	3.5	3.5
Common facilities	4-50	7.1	5.3

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 $13,560,051 and $12,341,043 as of June 30, 2020 and 2019, 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 liability 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.

Note 1 – Significant Accounting Policies (Continued)

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, and 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.

- **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.

Note 1 – Significant Accounting Policies (Continued)

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 in the balance sheet.

Unbilled Accounts Receivable and Revenue – Unbilled accounts receivable at June 30, 2020 and 2019 represents the estimated amount of accounts receivable for services that have not been billed as of the balance sheet 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.

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 trust 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.

Note 1 – Significant Accounting Policies (Continued)

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 $9,712,203 and $9,350,898 in 2020 and 2019, 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.

Note 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.

Note 2 – Cash, Investments, and Fair Value Disclosure (Continued)

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, 2020 and 2019, the fair value of the MI CLASS' assets were substantially equal to the utility'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:

<u>BWL's Cash and Investments (exclusive of fiduciary funds)</u>

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, 2020 and 2019, the BWL had $27,134,118 and $15,777,227, 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.

Note 2 – Cash, Investments, and Fair Value Disclosure (Continued)

At June 30, 2020, 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	Cost Basis	How Held
U.S. government or agency bond or notes	$136,319,717	Counterparty
State and local bonds	2,887,393	Counterparty

At June 30, 2019, 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	Cost Basis	How Held
U.S. government or agency bond or notes	$360,476,059	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, 2020, the average maturities of investments are as follows:

Investment	Fair Value	Less than 1 year	1-5 years	6+ years
Pooled investment funds	$ 26,717,968	$ 26,717,968	$ -	$ -
U.S. treasury bonds	89,467,364	65,498,632	23,968,732	-
State and local bonds	2,887,393	-	2,887,393	-
U.S. agency bonds/notes	41,231,236	2,455,728	26,734,560	12,040,948
Supra national agency bonds	5,621,116	3,710,439	1,910,677	-
Mutual funds	136,024,571	136,024,571	-	-
Total	$ 301,949,648	$ 234,407,338	$ 55,501,362	$ 12,040,948

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

At June 30, 2019, the average maturities of investments are as follows:

Investment	Fair Value	Less than 1 year	1-5 years	6+ years
Pooled investment funds	$ 19,221,298	$ 19,221,298	$ -	$ -
U.S. treasury bonds	324,831,542	223,453,298	101,378,244	-
U.S. agency bonds/notes	29,217,335	7,323,628	15,385,570	6,508,137
Supra national agency bonds	6,427,183	758,658	5,668,525	-
Mutual funds	82,303,978	82,303,978	-	-
Total	$ 462,001,336	$ 333,060,860	$ 122,432,339	$ 6,508,137

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, 2020, the credit quality ratings of debt securities are as follows:

Investment	Fair Value	Rating	Rating Organization
Pooled investment funds	$26,717,967	AAAm	S&P
U.S. treasury bonds	89,467,365	AA+ (Aaa)	S&P (Moody's)
U.S. agency bonds/notes	41,231,236	AA+ (Aaa)	S&P (Moody's)
Supra national agency bonds	5,621,116	AAA (Aaa)	S&P (Moody's)
State and local bonds	2,887,393	AAA (Aaa)	S&P (Moody's)
Mutual funds	136,024,571	AAAm	S&P

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

As of June 30, 2019, the credit quality ratings of debt securities are as follows:

Investment	Fair Value	Rating	Rating Organization
Pooled investment funds	$ 19,221,298	AAAm	S&P
U.S. treasury bonds	324,831,542	AA+ (Aaa)	S&P (Moody's)
U.S. agency bonds/notes	29,217,335	AA+	S&P
Supra national agency bonds	6,427,182	AAA	S&P
Mutual funds	82,303,978	AAAm	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. As of June 30, 2020 and 2019, the BWL's investment portfolio was concentrated as follows:

Investment	2020	2019
Fannie Mae	9%	1%
Freddie Mac	12%	2%

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.

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

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

	June 30, 2020			
Investment	Level 1	Level 2	Level 3	Total
U.S. Treasury Bonds	$ –	$ 89,467,364	$ –	$ 89,467,364
Supra National Agency Bonds	–	5,621,116	–	5,621,116
Federal Agency Mortgage-Backed Security	–	7,454,646	–	7,454,646
Federal Agency Collateralized Mortgage Obligation	–	14,806,748	–	14,806,748
State and local bonds	–	2,887,393	–	2,887,393
Federal Agency Bond/Note	–	18,969,842	–	18,969,842
Total investments at fair value level	$ –	$139,207,109	$ –	$139,207,109

	June 30, 2019			
Investment	Level 1	Level 2	Level 3	Total
U.S. Treasury Bonds	$ –	$324,831,542	$ –	$324,831,542
Supra National Agency Bonds	–	6,427,183	–	6,427,183
Federal Agency Mortgage-Backed Security	–	7,466,746	–	7,466,746
Federal Agency Collateralized Mortgage Obligation	–	8,878,500	–	8,878,500
Federal Agency Bond/Note	–	12,872,088	–	12,872,088
Total investments at fair value level	$ –	$360,476,059	$ –	$360,476,059

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

Fiduciary Fund Investments

Interest Rate Risk - Pension Trust Funds

At June 30, 2020, the average maturities of investments are as follows:

Investment	Fair Value	Weighted Average Maturity (in years)
U.S. government obligations	$ 2	1.2
Fixed income securities	283	20.8
Mutual Fund - Bond Funds	18,651,741	5.9
Money market trust funds	1,980,661	Less than 1 year

At June 30, 2019, the average maturities of investments are as follows:

Investment	Fair Value	Weighted Average Maturity (in years)
U.S. government or agency bond	$ 23,867,491	13.44
Fixed income securities	26,488,080	12.68
Mutual Fund - Bond Funds	17,172,978	4.9
Money market trust funds	5,400,601	Less than 1 year

Note 2 – Cash, Investments, and Fair Value Disclosure (Continued)

Credit Risk – Pension Trust Funds

As of June 30, 2020, the credit quality ratings of debt securities (other than the U.S. government) are as follows:

Investment	Fair Value	Rating	Rating Organization
Mutual funds	$ 148,613,938	Not rated	Not rated
U.S. government – implicitly guaranteed	2	AA+	S&P
U.S. government – implicitly guaranteed	427,308	AA-	S&P
Stable value	36,833,694	AA-	S&P
Fixed income securities	283	AA	S&P
Money market trust funds	1,980,661	Not rated	Not rated

Note 2 – Cash, Investments, and Fair Value Disclosure (Continued)

As of June 30, 2019, the credit quality ratings of debt securities (other than the U.S. government) are as follows:

Investment	Fair Value	Rating	Rating Organization
Mutual funds	$ 147,768,040	Not rated	Not rated
U.S. government - implicitly guaranteed	9,377,989	AA+	S&P
U.S. government - implicitly guaranteed	427,308	AA-	S&P
Stable value	36,352,914	AA-	S&P
Fixed income securities	3,152,282	AAA	S&P
Fixed income securities	8,465,822	AA+	S&P
Fixed income securities	1,272,217	AA	S&P
Fixed income securities	573,505	AA-	S&P
Fixed income securities	1,013,214	A+	S&P
Fixed income securities	2,058,948	A	S&P
Fixed income securities	2,648,909	A-	S&P
Fixed income securities	3,955,061	BBB+	S&P
Fixed income securities	2,125,469	BBB	S&P
Fixed income securities	1,135,991	BBB-	S&P
Fixed income securities	8,000	BB+	S&P
Fixed income securities	3,092	B+	S&P
Fixed income securities	75,570	B-	S&P
Money market trust funds	5,400,601	Not rated	Not rated

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.

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

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;
- 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, 2020 and 2019:

Money market fund, growth funds, and international funds: Valued at the quoted net asset value ("NAV") of shares held by the Plan at year end.

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.

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

Stable value fund: The Plus Fund is a collective fund that seeks to maintain a stable net asset value. It invests primarily in a diversified portfolio of stable-value investments, including traditional guaranteed investment contracts (traditional GICs), separate account GICs, synthetic GICs backed by fixed income securities or investments, and short-term investment funds, including money market mutual funds.

Guaranteed Lifetime Income fund: The Retirement Income Advantage Fund seeks both moderate capital growth and current income. It invests in a separate account under a group variable annuity. The separate account, in turn, invests in a mix of registered funds and a collective trust fund with an allocation of approximately 60% domestic and foreign equities and 40% fixed income.

Self-directed brokerage account: The self-directed brokerage account allows participants of the Plan the option of selecting a more personalized and broad range of investment choices. The investments within the account consist of corporate stocks, which are valued at the most recent closing price reported on the market on which individual securities are traded.

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.

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of June 30, 2020 and 2019:

	June 30, 2020			
Investment Type	Level 1	Level 2	Level 3	Total
Cash and money market trust fund	$ –	$ 1,980,661	$ –	$ 1,980,661
U.S. government obligations	–	283	–	283
Fixed income securities	–	2	–	2
Mutual funds	148,613,938	99,861,286	–	248,475,224
Common collective funds	–	56,792,990	–	56,792,990
Common stocks	95,715,429	–	–	95,715,429
Self-directed brokerage account	6,330,405	–	–	6,330,405
Total investments by fair value level	$ 250,659,772	$ 158,635,222	$ –	$ 409,294,994
Investments measured at the net asset value (NAV)				
Stable value				$ 36,833,694
Guaranteed lifetime income				8,975,990
Total investments measured at fair value				$ 455,104,678

	June 30, 2019			
Investment Type	Level 1	Level 2	Level 3	Total
Cash and money market trust fund	$ –	$ 5,400,601	$ –	$ 5,400,601
U.S. government obligations	–	23,867,491	–	23,867,491
Fixed income securities	–	26,488,080	–	26,488,080
Mutual funds	147,768,040	106,004,183	–	253,772,223
Common collective funds	–	15,855,280	–	15,855,280
Common stocks	77,698,376	–	–	77,698,376
Self-directed brokerage account	3,787,956	–	–	3,787,956
Total investments by fair value level	$ 229,254,372	$ 177,615,635	$ –	$ 406,870,007
Investments measured at the net asset value (NAV)				
Stable value				$ 36,352,914
Guaranteed lifetime income				8,940,026
Total investments measured at fair value				$ 452,162,947

Note 2 - Cash, Investments, and Fair Value Disclosure (Continued)

Investments Measured Using NAV per Share Practical Expedient: The stable value fund and guaranteed lifetime income fund use NAV per share as a practical expedient to measuring fair value. The stable value fund had a fair value of $36,833,694 and $36,352,914 as of June 30, 2020 and 2019, respectively and the guaranteed lifetime income fund had a fair value of $8,975,990 and $8,940,026, respectively. These funds have no unfunded commitments, the redemption frequency is daily, and there is no redemption notice period.

Note 3 - Restricted Assets

Restricted assets are required under the 2011A, 2013A, 2017A, 2018A, 2019A and 2019B Revenue Bond resolutions and the related Nonarbitrage and Tax Compliance Certificates. These assets, which consist of cash, commercial paper, and United States government securities, are segregated into the following funds:

	Required at June 30, 2020	Carrying Value 2020	Carrying Value 2019
Current			
Operations and Maintenance Fund	$ 33,287,100	$ 94,144,920	$ 71,340,480
Bond and Interest Redemption Fund	36,673,667	36,673,667	45,813,543
Total current	69,960,767	130,818,587	117,154,023
Noncurrent			
Construction Fund	140,848,613	140,848,613	282,919,314
Total noncurrent	140,848,613	140,848,613	282,919,314
Total	$ 210,809,380	$ 271,667,200	$ 400,073,337

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 2020 and 2019.

Note 3 – Restricted Assets (Continued)

The restrictions of the various funds 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 2011A, 2013A, 2017A, 2018A, 2019A and 2019B Revenue Bonds.
- **Construction Fund** – Restricted for utility system upgrades as required by the 2019A Revenue Bonds.

Note 4 – Utility Plant

The tables below reflect the capital asset activity of the utility plant categories for the years ended June 30, 2020 and 2019:

Capital Asset Activity for Year Ended June 30, 2020

	Capital Assets FY Start	Transfers	Acquisition	Retirement	Capital Assets FY End
Water	$ 328,004,577	$ 1,402,047	$ 10,681,177	$ (3,759,514)	$ 336,328,287
Electric	795,361,687	2,332,302	20,516,823	(9,329,993)	808,880,819
Steam	80,233,333	1,367,468	1,061,240	(559,627)	82,102,414
Chilled	34,083,868	69	1,079	–	34,085,016
Common	103,276,137	708,809	5,250,156	(2,978,298)	106,256,804
AUC	69,536,946	(43,321,170)	200,629,346	–	226,845,122
Total	$ 1,410,496,548	$ (37,510,475)	$ 238,139,821	$ (16,627,432)	$ 1,594,498,462

Note 4 - Utility Plant (Continued)

Accumulated Depreciation for Year Ended June 30, 2020

	Accum. Depr. FY Start	Depreciation Transfer	Depr. / Amort. and Impairment for Year	Depreciation Retirement	Accum. Depr. FY End
Water	$ (114,060,990)	$ 137,488	$ (7,146,494)	$ 2,820,610	$ (118,249,387)
Electric	(409,140,094)	18,296	(33,090,181)	8,618,831	(433,593,153)
Steam	(23,575,250)	(26,453)	(2,705,591)	103,549	(26,203,745)
Chilled	(13,766,590)	-	(1,177,948)	-	(14,944,537)
Common	(51,206,838)	(129,331)	(7,481,152)	2,828,525	(55,988,791)
Total	$ (611,749,762)	$ -	$ (51,601,366)	$ 14,371,515	$ (648,979,613)

Non-depreciable assets - Included in the table above are non-depreciable assets of $1,216,026 for water, $14,865,816 for electric, $124,224 for steam, and $412,339 for common facilities.

Capital Asset Activity for Year Ended June 30, 2019

	Capital Assets FY Start	Transfers	Acquisition	Retirement	Capital Assets FY End
Water	$ 316,440,019	$ 1,995,266	$ 10,247,352	$ (678,060)	$ 328,004,577
Electric	730,148,451	25,919,804	44,845,110	(5,551,678)	795,361,687
Steam	78,115,677	197,023	2,024,979	(104,346)	80,233,333
Chilled	34,078,066	-	5,802	-	34,083,868
Common	92,072,756	6,790,434	5,948,456	(1,535,509)	103,276,137
AUC	38,518,401	(97,974,227)	128,992,772	-	69,536,946
Total	$ 1,289,373,370	$ (63,071,700)	$ 192,064,471	$ (7,869,593)	$ 1,410,496,548

Note 4 – Utility Plant (Continued)

Accumulated Depreciation for Year Ended June 30, 2019

	Accum. Depr. FY Start	Depreciation Transfer	Depr. / Amort. and Impairment for Year	Depreciation Retirement	Accum. Depr. FY End
Water	$ (107,665,385)	$ (19,329)	$ (6,841,324)	$ 465,048	$ (114,060,990)
Electric	(381,167,741)	53,687	(31,412,860)	3,386,820	(409,140,094)
Steam	(21,083,078)	–	(2,528,928)	36,756	(23,575,250)
Chilled	(12,588,805)	–	(1,177,785)	–	(13,766,590)
Common	(47,533,853)	(34,358)	(5,145,595)	1,506,968	(51,206,838)
Total	$ (570,038,862)	$ –	$ (47,106,492)	$ 5,395,592	$ (611,749,762)

Non-depreciable assets – Included in in the table above are non-depreciable assets of $1,216,026 for water, $14,865,816 for electric, $124,224 for steam, and $412,339 for common facilities.

Note 5 - Long-term Debt

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

	2020	2019
Water Supply, Steam, Chilled Water, and Electric Utility System Revenue Refunding Taxable Bonds, Series 2019B, due in annual principal installments beginning July 1, 2023 and continuing through July 1, 2041, plus interest at rates ranging from 1.95% to 3.53%. Original amount of issue $251,995,000.	$ 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, 2020 and continuing through July 1, 2048, plus interest at rates ranging from 4.00% to 5.00%. Original amount of issue $319,875,000.	319,875,000	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.	28,760,000	30,365,000
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.	13,450,000	15,035,000
Water Supply, Steam, Chilled Water, and Electric Utility System Revenue Bonds, Series 2011A, due in annual principal installments beginning July 1, 2015 through July 1, 2041, plus interest at rates ranging from 3.00% to 5.50%. Original amount of issue $250,000,000.	7,780,000	249,980,000

Note 5 - Long-term Debt (Continued)

	2020	2019
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.	$ 6,087,135*	$ 6,745,123
Lansing Economic Development Corp due in annual installments of $4,500 through 2022.	9,000*	13,500
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.	3,157,634*	3,283,939
Total	631,113,769	625,297,562
Less current portion	(7,942,341)	(7,608,792)
Plus unamortized premium	69,056,254	77,011,183
Total long-term portion	$ 692,227,682	$ 694,699,953

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.

Note 5 - Long-term Debt (Continued)

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

	Principal	Interest	Total
2021	$ 7,145,000	$ 22,418,248	$ 29,563,248
2022	10,435,000	25,698,115	36,133,115
2023	13,105,000	25,271,365	38,376,365
2024	13,565,000	24,804,346	38,369,346
2025	14,055,000	24,310,194	38,365,194
2026-2030	77,810,000	113,616,085	191,426,085
2031-2035	92,885,000	98,814,002	191,699,002
2036-2040	111,665,000	80,669,551	192,334,551
2041-2045	169,895,000	52,474,121	222,369,121
2046-2048	111,300,000	11,311,000	122,611,000
Total	$ 621,860,000	$ 479,387,027	$1,101,247,027

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

	Principal	Interest	Total
2021	$ 797,341	$ 263,733	$ 1,061,074
2022	807,081	244,108	1,051,189
2023	808,537	224,219	1,032,756
2024	819,635	204,237	1,023,872
2025	777,438	184,669	962,107
2026-2030	3,136,441	657,930	3,794,371
2031-2035	844,244	374,508	1,218,752
2036-2040	631,527	227,170	858,697
2041-2045	631,525	85,189	716,714
Total	$ 9,253,769	$ 2,465,763	$ 11,719,532

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.

Note 5 - Long-term Debt (Continued)

The 2019B Bonds are payable in annual installments in the years 2023 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 are on July 1, 2022.

Note 5 - Long-term Debt (Continued)

On December 19, 2019, bonds in the amount of $251,995,000 were issued with an average interest rate of 2.89% to advance refund $238,570,000 of outstanding bonds with an average interest rate of 4.95%. The net proceeds were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to provide for a portion of the future debt service payments on the old bonds. As a result, that portion of the old bonds are considered defeased and the liability for that portion of the old bonds has been removed from the statement of net position.

The cash flow requirements on the old bonds prior to the advance refunding was $422,836,632 from 2020 through 2041. The cash flow requirements on the new bonds are $367,760,439 from 2020 through 2041. The advance refunding resulted in an economic gain of $40,383,561.

The long-term debt activity for the year ended June 30, 2020 is as follows:

	Revenue Bonds	Other Notes	Total
Beginning balance	$ 692,266,183	$ 10,042,562	$ 702,308,745
Additions	251,995,000	-	251,995,000
Reductions	(253,344,929)	(788,793)	(254,133,722)
Ending balance	$ 690,916,254	$ 9,253,769	$ 700,170,023
Due within one year	$ 7,145,000	$ 797,341	$ 7,942,341

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. The remaining principal and interest to be paid on the bonds total $1,101,247,027. During the current year, net revenues of the BWL were $106,340,000 compared to the annual debt requirements of $35,585,000.

Note 5 – Long-term Debt (Continued)

The long-term debt activity for the year ended June 30, 2019 is as follows:

	Revenue Bonds	Other Notes	Total
Beginning balance	$ 316,373,336	$ 10,868,022	$ 327,241,358
Additions	385,333,509	65,550,000	450,883,509
Reductions	(9,440,662)	(66,375,460)	(75,816,122)
Ending balance	$ 692,266,183	$ 10,042,562	$ 702,308,745
Due within one year	$ 6,820,000	$ 788,792	$ 7,608,792

Note 6 – Costs/Credits Recoverable in Future Years

Environmental Remediation

During the 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, 2020 and 2019 was $359,813 and $485,811, 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, 2020 and 2019 for additional sites was $798,299 and $1,949,918, respectively. The BWL reviews the adequacy of its rates to recover its cost of service on an annual basis.

Note 6 – Costs/Credits Recoverable in Future Years (Continued)

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), and fuel cost adjustment (FCA). These affect the amount to be billed to retail electric, water, and steam customers to reflect the difference between the BWL's actual material costs and the amounts incorporated into rates. This resulted in recoverable assets of $(3,322,683) and $(8,087,614) at June 30, 2020 and 2019, 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 $1,552,783 and $3,811,772 as of June 30, 2020 and 2019, 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 $1,101,358 and $1,321,629 as of June 30, 2020 and 2019, respectively. The BWL will recognize this as revenue monthly over the life of the new chilled water plant to offset depreciation expense.

Note 6 – Costs/Credits Recoverable in Future Years (Continued)

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, 2020 and 2019 was $8,761,743 and $9,744,369, respectively.

Other Items

Other items recognized as recoverable inflows total $500,000 and $500,000 at June 30, 2020 and 2019, respectively.

Note 7 – Transactions with the City of Lansing, Michigan

Operations – The BWL recognized revenue of $9,359,715 and $12,714,325 in 2020 and 2019, respectively, for water, electric, and steam services provided to the City. The BWL incurred expenses for sewerage services purchased from the City of $573,138 and $824,634 in 2020 and 2019, respectively.

Additionally, the BWL bills and collects sewerage fees for the City. In connection with these services, the BWL received sewerage collection fees of $964,920 and $1,019,935 in 2020 and 2019, 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. The return on equity represents compensation to the City for a permanent easement granted to the BWL. Effective March 1, 2002, the formula to calculate the amount owed to the City for return on equity will also 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 fee for fiscal years 2020 through 2022. Under terms of these agreements, the BWL paid to the City $23,100,000 in 2020 and $21,110,884 in 2019 of operational cash flow in excess of debt service requirements.

Note 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, defined benefit plan to administer and fund retiree healthcare 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, Chief Financial Officer, 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, 2020 and 2019.

Note 8 – Retirement Plans (Continued)

Employees Covered by Benefit Terms – At February 29, 2020 and February 28, 2019 (the most recent actuarial valuation for funding purposes), Defined Benefit Plan membership consisted of the following:

	2020	2019
Inactive plan members or beneficiaries currently receiving benefits	318	337
Inactive plan members entitled to but not yet receiving benefits	3	3
Active plan members	3	5
Total	324	345

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 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.

Note 8 – Retirement Plans (Continued)

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 percent 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 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, 2019 and 2020. Plan documents do not require participant contributions.

Note 8 – Retirement Plans (Continued)

Net Pension Asset – The components of the net pension asset of the BWL at June 30, 2020 and June 30, 2019 were as follows (in thousands):

	2020	2019
Total pension liability	$ 52,198	$ 53,826
Plan fiduciary net pension	55,586	60,422
Plan's net pension asset	$ (3,388)	$ (6,596)
Plan fiduciary net position, as a percentage of the total pension liability	106.49%	112.25%

The BWL has chosen to use June 30, 2020 as its measurement date for fiscal year 2020. The June 30, 2020 reported net pension asset was determined using a measure of the total pension liability and the pension net position as of June 30, 2020. The June 30, 2020 total pension liability was determined by an actuarial valuation as of February 29, 2020, which used update procedures to roll forward the estimated liability to June 30, 2019.

The BWL has chosen to use June 30, 2019 as its measurement date for fiscal year 2019. The June 30, 2019 reported net pension asset was determined using a measure of the total pension liability and the pension net position as of June 30, 2019. The June 30, 2019 total pension liability was determined by an actuarial valuation as of February 28, 2019, which used update procedures to roll forward the estimated liability to June 30, 2018.

Note 8 – Retirement Plans (Continued)

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

	(in thousands)		
	Total Pension Liability	Plan Net Position	Net Pension Asset
Balance at June 30, 2018	$ 55,751	$ 62,367	$ (6,616)
Changes for the year:			
Service cost	60	–	60
Interest	3,691	–	3,691
Differences between expected and actual experience	(743)	–	(743)
Changes in assumptions	1,210	–	1,210
Net investment income	–	4,381	(4,381)
Benefit payments, including refunds	(6,143)	(6,143)	–
Administrative expenses	–	(183)	183
Miscellaneous other charges	–	–	–
Net changes	(1,925)	(1,945)	20
Balances at June 30, 2019	$ 53,826	$ 60,422	$ (6,596)
Changes for the year:			
Service cost	$ 42	$ –	$ 42
Interest	3,566	–	3,566
Change in benefit terms			–
Differences between expected and actual experience	(919)	–	(919)
Changes in assumptions	1,555	–	1,555
Net investment income	–	1,658	(1,658)
Benefit payments, including refunds	(5,872)	(5,872)	–
Administrative expenses	–	(145)	145
Miscellaneous other charges	–	(477)	477
Net changes	(1,628)	(4,836)	3,208
Balance at June 30, 2020	$ 52,198	$ 55,586	$ (3,388)

Note 8 – Retirement Plans (Continued)

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions – For the year ended June 30, 2020, the BWL recognized pension expense of $1,902,048. At June 30, 2020, the BWL reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on pension plan investments	$ 1,642,478	$ –

For the year ended June 30, 2019, the BWL recognized pension expense of $1,615,810. At June 30, 2019, the BWL reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on pension plan investments	$ 337,272	$ –

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	
2021	$ 9,300
2022	740,430
2023	423,105
2024	469,643
Total	$ 1,642,478

Note 8 - Retirement Plans (Continued)

Actuarial Assumptions - The total pension liability in the June 30, 2020 and June 30, 2019 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2020	2019
Inflation	2.25%	2.50%
Salary increases	3.50%	3.50%
Investment rate of return	6.50%	7.00%

Mortality rates were based on the PUB-2010 General Mortality Table with MP-2019 Improvement Scale for the June 30, 2020 valuation. The June 30, 2019 valuation used the PUB-2010 General Employees Mortality Table and projected using the MP-2018 scale.

The most recent experience review was completed in 2014. Since the Defined Benefit Plan covered 3 active participants in fiscal year 2020 and 5 active participants in fiscal year 2019, 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 6.50 percent in 2020 and 7 percent in 2019. 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.

Note 8 - Retirement Plans (Continued)

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, 2020 and 2019 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	2020 Long-term Expected Real Rate of Return	2019 Long-term Expected Real Rate of Return
Core bonds	2.60%	2.62%
Multi-sector	3.43%	3.49%
Liquid absolute return	3.25%	3.75%
U.S. large cap equity	7.14%	7.21%
U.S. small cap equity	8.43%	8.42%
Non-U.S. equity	8.37%	8.34%
Core real estate	6.73%	6.78%

Note 8 - Retirement Plans (Continued)

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, 2020, calculated using the discount rate of 6.50 percent, 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 (5.5 percent) or 1 percentage-point higher (7.5 percent) than the current rate:

	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
Net pension liability (asset) of the BWL	$ (1,477,448)	$ (3,388,473)	$ (6,060,344)

The following presents the net pension asset of the BWL at June 30, 2019, calculated using the discount rate of 7.0 percent, 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 (6.0 percent) or 1 percentage point higher (8.0 percent) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net pension liability (asset) of the BWL	$ (1,697,353)	$ (6,595,727)	$ (9,364,768)

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.

Note 8 – Retirement Plans (Continued)

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 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, Chief Financial Officer, 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 percent of the employees' compensation. For employees hired after January 1, 1997, the BWL is required to contribute 9.5 percent of the employees' compensation. In addition, the BWL is required to contribute 3.0 percent of the employees' compensation for all employees who are not eligible to receive overtime pay and 0.5 percent of the employees' compensation for all nonbargaining employees. No participant contributions are required.

During the years ended June 30, 2020 and 2019, the BWL contributed $6,733,020 and $6,618,384, 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.*

Note 8 – Retirement Plans (Continued)

Valuation of Investments and Income Recognition – The Defined Contribution Plan investments are stated at 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 defined benefit healthcare 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 working for the BWL. There were 754 participants eligible to receive benefits at June 30, 2020 and 745 participants eligible at June 30, 2019.

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, 2020 and 2019, the cost to BWL of maintaining the Retiree Benefit Plan and Trust was $9,156,565 and $9,277,538, 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 Lansing Board of Water and Light, Chief Financial Officer, P.O. Box 13007, Lansing, Michigan 48901-3007.

Note 8 – Retirement Plans (Continued)

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, and the full cost of the benefits is covered by the plan.

Employees covered by benefit terms. At June 30, 2020, the following employees were covered by the benefit terms:

Active plan members (not eligible to receive benefits)	676
Disabled participants	75
Retired participants	532
Surviving spouses	147
Total	1,430

At June 30, 2019, the following employees were covered by the benefit terms:

Active plan members (not eligible to receive benefits)	690
Disabled participants	78
Retired participants	523
Surviving spouses	144
Total	1,435

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, 2020 and 2019, the actual contribution rates of the BWL were 15.7 percent and 16.3 percent of covered-employee payroll, respectively.

Net OPEB Liability (Asset) – The BWL has chosen to use June 30, 2020 as its measurement date for fiscal year 2020. The June 30, 2020 reported net OPEB liability (asset) was determined using a measure of the total OPEB liability and the OPEB net position as of June 30, 2020. The June 30, 2020 total OPEB liability was determined by an actuarial valuation as of February 29, 2020, which used update procedures to roll forward the estimated liability to June 30, 2020.

Note 8 – Retirement Plans (Continued)

The BWL has chosen to use June 30, 2019 as its measurement date for fiscal year 2019. The June 30, 2019 reported net OPEB liability was determined using a measure of the total OPEB liability and the OPEB net position as of June 30, 2019. The June 30, 2019 total OPEB liability was determined by an actuarial valuation as of February 28, 2019, which used update procedures to roll forward the estimated liability to June 30, 2019.

Actuarial Assumptions – The total OPEB liability in the June 30, 2020 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurements, unless otherwise specified:

Inflation	2.25 percent
Payroll Growth	9.3% growth at age 25 and decreases to 6.4% for ages 60+. This percentage includes general wage inflation and merit/productivity increases.
Investment rate of return	7.0 percent, net of OPEB plan investment expense, including inflation
Healthcare cost trend rates	

FYE	Medical / RX		Part B	Dental
	Pre-65	Post-65		
2020	8.25%	6.50%	3.25%	4.75%
2021	8.00%	6.25%	3.50%	4.50%
2022	7.75%	6.00%	3.75%	4.25%
2023	7.50%	5.75%	4.00%	4.00%
2024	7.25%	5.50%	4.25%	4.00%
2025	7.00%	5.25%	4.50%	4.00%
2026	6.75%	5.00%	4.75%	4.00%
2027	6.50%	4.75%	5.00%	4.00%
2028	6.25%	4.50%	5.00%	4.00%
2029	6.00%	4.50%	5.00%	4.00%
2030	5.75%	4.50%	5.00%	4.00%
2031	5.50%	4.50%	5.00%	4.00%
2032	5.25%	4.50%	5.00%	4.00%
2033	5.00%	4.50%	5.00%	4.00%
2034	4.75%	4.50%	5.00%	4.00%
2035	4.50%	4.50%	5.00%	4.00%

Note 8 - Retirement Plans (Continued)

The total OPEB liability in the June 30, 2019 actuarial valuation were determined using the following actuarial assumptions, applied to all periods included in the measurements, unless otherwise specified:

Inflation	3.0 percent
Payroll Growth	9.3% growth at age 25 and decreases to 6.4% for ages 60+. This percentage includes general wage inflation and merit/productivity increases.
Investment rate of return	7.5 percent, net of OPEB plan investment expense, including inflation
Healthcare cost trend rates	

FYE	Medical / RX Pre-65	Medical / RX Post-65	Part B	Dental
2019	8.50%	7.00%	3.00%	5.00%
2020	8.25%	6.75%	3.25%	4.75%
2021	8.00%	6.50%	3.50%	4.50%
2022	7.75%	6.25%	3.75%	4.25%
2023	7.50%	6.00%	4.00%	4.00%
2024	7.25%	5.75%	4.25%	4.00%
2025	7.00%	5.50%	4.50%	4.00%
2026	6.75%	5.25%	4.75%	4.00%
2027	6.50%	5.00%	5.00%	4.00%
2028	6.25%	4.75%	5.00%	4.00%
2029	6.00%	4.50%	5.00%	4.00%
2030	5.75%	4.25%	5.00%	4.00%
2031	5.50%	4.25%	5.00%	4.00%
2032	5.25%	4.25%	5.00%	4.00%
2033	5.00%	4.25%	5.00%	4.00%
2034	4.75%	4.25%	5.00%	4.00%
2035	4.50%	4.25%	5.00%	4.00%

Note 8 - Retirement Plans (Continued)

2020 Mortality rates were based on the PUBH-2010 General Employee Mortality Table fully generational using Scale MP-2019.

2019 Mortality rates were based on the PUBH-2010 General Employee Mortality Table fully generational using Scale MP-2018.

Best actuarial practices call for a periodic assumption review and BWL completed an experience study in 2017.

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, 2020 and 2019:

Asset Class	2020 Target Allocation	2019 Target Allocation
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 RE	7.00%	7.00%

Note 8 - Retirement Plans (Continued)

The long-term expected rate of return on OPEB 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 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, 2020 and June 30, 2019 are summarized in the following table:

Asset Class	2020 Long-term Expected Real Rate of Return	2019 Long-term Expected Real Rate of Return
Core bonds	2.60%	2.62%
Multi-sector	3.43%	3.49%
Liquid absolute return	3.25%	3.75%
U.S. large cap equity	7.14%	7.21%
U.S. small cap equity	8.43%	8.42%
Non-U.S. equity	8.37%	8.34%
Core real estate	6.73%	6.78%
Value add RE	8.23%	7.29%

Note 8 - Retirement Plans (Continued)

For the June 30, 2020 valuation, the long-term expected rate of return was 7.00%. 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, 2020 valuation was 7.00% with the expectation that BWL will continue contributing the actuarially determined contribution and/or paying for the pay-go cost.

Asset Class	Long-Term Expected Real Rate of Return
Fidelity 20-year Go Municipal Bond Index	2.21%
Actual Discount Rate Used	7.00%

Discount rate - The discount rate used to measure the total OPEB liability as of June 30, 2020 and June 30, 2019 was 7.0 percent and 7.5 percent respectively. 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.

Note 8 – Retirement Plans (Continued)

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)
Balances at 6/30/2019	$ 148,549,677	$ 195,158,575	$ (46,608,898)
Changes for the year:			
Service cost	3,244,596	-	3,244,596
Interest	10,804,062	-	10,804,062
Change in benefit terms	-	-	-
Differences between expected and actual experience	(6,092,830)	-	(6,092,830)
Changes in assumptions	7,253,746	-	7,253,746
Contributions-employer	-	9,156,565	(9,156,565)
Contributions-employee	-	-	-
Net investment income	-	4,158,328	(4,158,328)
Benefit payments	(9,156,565)	(9,156,565)	-
Administrative expense	-	(512,101)	512,101
Net changes	6,053,009	3,646,227	2,406,782
Balances at 6/30/2020	**$ 154,602,686**	**$ 198,804,802**	**$ (44,202,116)**

Note 8 - Retirement Plans (Continued)

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)
Balances at 6/30/2018	$ 203,487,065	$ 184,039,624	$ 19,447,441
Changes for the year:			
Service cost	4,402,631	-	4,402,631
Interest	14,919,912	-	14,919,912
Change in benefit terms	(414,594)	-	(414,594)
Differences between expected and actual experience	(5,231,311)	-	(5,231,311)
Changes in assumptions	(59,336,488)	-	(59,336,488)
Contributions-employer	-	9,277,538	(9,277,538)
Contributions-employee	-	-	-
Net investment income	-	11,687,551	(11,687,551)
Benefit payments	(9,277,538)	(9,277,538)	-
Administrative expense	-	(568,600)	568,600
Net changes	(54,937,388)	11,118,951	(66,056,339)
Balances at 6/30/2019	**$ 148,549,677**	**$ 195,158,575**	**$ (46,608,898)**

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 (6.0 percent) or 1 percentage point higher (7.0 percent) than the current discount rate (7.0 percent) as of June 30, 2020:

Note 8 – Retirement Plans (Continued)

	June 30, 2020		
	1% Decrease	Current Discount Rate	1% Increase
Net OPEB Liability (asset)	$(26,376,741)	$(44,202,116)	$(59,182,348)

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 (6.5 percent) or 1 percentage point higher (8.5 percent) than the current discount rate (7.5 percent) as of June 30, 2019:

	June 30, 2019		
	1% Decrease	Current Discount Rate	1% Increase
Net OPEB Liability (asset)	$(30,506,982)	$(46,608,898)	$(60,250,506)

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, 2020:

	June 30, 2020		
	1% Decrease	Healthcare Cost Trend Rates	1% Increase
Net OPEB Liability (asset)	$(60,529,722)	$(44,202,116)	$(24,480,910)

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, 2019:

Note 8 - Retirement Plans (Continued)

	June 30, 2019		
	1% Decrease	Healthcare Cost Trend Rates	1% Increase
Net OPEB Liability (asset)	$(61,585,517)	$(46,608,898)	$(28,613,760)

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, 2020 GASB 74/75 Report, issued July 14, 2020.

For the year ended June 30, 2020, the Plan recognized OPEB expense of $(9,700,346). At June 30, 2020, the Plan reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 2,030,980	$ 13,937,809
Changes of assumptions	6,093,332	42,366,343
Net difference between projected and actual earnings on OPEB plan investments	9,151,331	-
Total	$ 17,275,643	$ 56,304,152

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

Year Ended June 30:	
2021	$(9,643,068)
2022	(8,385,798)
2023	(9,028,095)
2024	(8,569,218)
2025	(3,448,944)
Thereafter	46,614

Note 8 – Retirement Plans (Continued)

For the year ended June 30, 2019, the Plan recognized OPEB expense of $(6,226,213).

At June 30, 2019, the Plan reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 2,843,372	$ 11,190,994
Changes of assumptions	–	52,281,843
Net difference between projected and actual earnings on OPEB plan investments	337,263	–
Total	**$ 3,180,635**	**$ 63,472,837**

Other Postretirement 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.

Note 9 – Commitments and Contingencies

At June 30, 2020, and 2019, 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 postclosure monitoring and maintenance of a landfill site operated by the BWL.

Note 9 – Commitments and Contingencies (Continued)

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 postclosure cost of the landfills, and has recorded a liability of $6,388,002 and $6,902,174 for the years ended June 30, 2020 and 2019, respectively. Certain remediation activities have commenced and are in progress. The landfill sites are no longer receiving waste products. Landfill closure and postclosure requirements are associated with the Michigan Department of Environmental Quality. Annual postclosure 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, 2020 and 2019 in regard to specific pending legal cases.

The BWL has entered into contracts to purchase coal totaling $12,024,000 through December 31, 2022. In addition, the BWL has entered into contracts for the rail services related to shipping the coal. Commitments for future rail services to be purchased are approximately $19,363,000 through December 2022.

Note 9 – Commitments and Contingencies (Continued)

Construction in progress consists of projects for expansion or additions to the utility plant. The estimated additional cost to complete various projects is approximately $381,296,000 and $463,704,000 at June 30, 2020 and 2019, respectively, including commitments on existing construction contracts approximating $96,692,000 and $139,992,000 at June 30, 2020 and 2019, respectively. These projects will be funded through revenue bonds and operational cash flow, including the project funds reported as other assets. There are additional commitments on projects in the process of being constructed that are not included above.

Environmental Protection Agency (EPA) Notice of Finding of Violation

On March 19, 2015, the EPA served the BWL with a Notice of Finding of Violation specifically focused on BWL's Erickson capital projects. These cases were settled during fiscal year 2020, with total mitigation costs totaling $610,000. The mitigation costs will be incurred over 3 years once the matter is settled and the entire cost is included in the financial statements as presented.

Note 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 percent of the energy generated by MPPA's 37.22 percent 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 percent annual inflation of fixed operating costs, which include expected major maintenance projects.

Year	Capital	Estimated Fixed Operating Costs	Total Required
2021	$ 321,450	$ 14,050,498	$ 14,371,948
Total	$ 321,450	$ 14,050,498	$ 14,371,948

Note 10 - Power Supply Purchase (Continued)

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 2020 and 2019 of $22,136,209 and $28,650,463, 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.

The BWL has entered into agreements with Energy Developments Limited, formerly Granger Electric Company, to purchase power generated from landfill gases. The agreements will expire as of June 30, 2028 and September 30, 2028, and includes an early termination option. The power to be purchased in the contract is 11.2 megawatts. On September 30, 2020, the BWL agreed to utilize the early termination option. The total termination payment paid was $14,135,424. The estimated total cost of electricity expected to be purchased is $2,905,355.

Note 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 2011A, 2013A, 2017A, and 2019A 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 June 30, 2020 and 2019. 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.

Note 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		
	2020	2019	2018	2020	2019	2018
Unpaid claims - Beginning of year	$ 2,200,000	$ 2,200,000	$ 2,200,000	$ 1,167,466	$ 1,167,466	$ 1,167,466
Incurred claims, including claims incurred but not reported	75,235	390,707	128,524	14,848,056	11,990,226	14,494,539
Claim payments	(75,235)	(390,707)	(128,524)	(14,697,982)	(11,990,226)	(14,494,539)
Unpaid claims - End of year	$ 2,200,000	$ 2,200,000	$ 2,200,000	$ 1,317,540	$ 1,167,466	$ 1,167,466

The liability for health insurance is included with accounts payable on the statement of net position.

Note 13 - Upcoming Pronouncements

GASB has approved Statement No. 84 *Fiduciary Activities*, Statement No. 87 *Leases,* Statement No. 90 *Majority Equity Interests*, Statement No. 91 *Conduit Debt Obligations,* Statement No. 92 *Omnibus*, Statement No. 96 *Subscription-Based Information Technology Arrangements*, and Statement No. 97 *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans - an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32*

The statements listed above through Statement No. 93 had their required effective dates postponed by one year with the issuance of Statement No. 95, *Postponement of Effective Dates of Certain Authoritative Guidance*, with the exception of Statement No. 87 which was postponed by one and a half years.

Required Supplemental 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)

	2020	2019	2018	2017	2016	2015	2014	2013	2012*	2011*
Total Pension Liability										
Service cost	$ 42	$ 60	$ 50	$ 113	$ 223	$ 274	$ 349	$ 407	$ -	$ -
Interest	3,566	3,691	4,031	4,317	4,625	4,919	4,751	5,085	-	-
Changes in benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(919)	(743)	(230)	(383)	299	(1,093)	964	(1,716)	-	-
Changes in assumptions	1,555	1,210	1,419	(857)	(1,468)	-	4,538	-	-	-
Benefit payments, including refunds	(5,872)	(6,143)	(6,414)	(7,473)	(7,896)	(8,046)	(8,541)	(7,777)	-	-
Net Change in Total Pension Liability	(1,628)	(1,925)	(1,144)	(4,283)	(4,217)	(3,946)	2,061	(4,001)	-	-
Total Pension Liability - Beginning of year	53,826	55,751	56,895	61,178	65,395	69,341	67,280	71,281	-	-
Total Pension Liability - End of year	52,198	53,826	55,751	56,895	61,178	65,395	69,341	67,280	-	-
Plan Net Position										
Contributions - Employer	-	-	-	-	-	-	-	-	-	-
Contributions - Member	-	-	-	-	-	-	-	-	-	-
Net investment income	1,658	4,381	3,112	8,272	47	1,771	14,243	10,170	-	-
Administrative expenses	(145)	(183)	(255)	(317)	(388)	(576)	(596)	(536)	-	-
Benefit payments, including refunds	(5,872)	(6,143)	(6,414)	(7,473)	(7,896)	(8,045)	(8,541)	(7,777)	-	-
Other	(477)	-	-	-	-	-	-	-	-	-
Net change in Net Position Held in Trust	(4,836)	(1,945)	(3,557)	482	(8,237)	(6,850)	5,106	1,857	-	-
Net Position Restricted for Pensions - Beginning of year	60,422	62,367	65,924	65,442	73,679	80,529	75,424	73,567	-	-
Net Position Restricted for Pensions - End of year	55,586	60,422	62,367	65,924	65,442	73,679	80,530	75,424	-	-
BWL Net Pension Asset - Ending	**$ (3,388)**	**$ (6,596)**	**$ (6,616)**	**$ (9,029)**	**$ (4,264)**	**$ (8,284)**	**$ (11,189)**	**$ (8,144)**	**$ -**	**$ -**
Plan Net Position as a % of Total Pension Liability	106.49%	112.25%	111.87%	115.87%	106.97%	112.67%	116.14%	112.10%	- %	- %
Covered Employee Payroll	$ 240	$ 406	$ 603	$ 586	$ 772	$ 1,018	$ 1,225	$ 1,684	$ -	$ -
BWL's Net Pension Asset as a % of Covered Employee Payroll	(1,412%)	(1,625%)	(1,097%)	(1,541%)	(552%)	(814%)	(913%)	(484%)	- %	- %

*GASB Statement No. 67 was implemented as of June 30, 2014. Information from 2011 - 2012 is not available and this schedule will be presented on a prospective basis.

Required Supplemental Information (Unaudited)
Schedule of Employer Contributions
Last Ten Fiscal Years
(in thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 86
Contributions in relation to the actuarially determined contribution	-	-	-	-	-	-	-	-	-	86
Contribution Deficiency (Excess)	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Covered Employee Payroll	$ 240	$ 406	$ 603	$ 586	$ 772	$ 1,018	$ 1,225	$ 1,684	$ 2,101	$ 2,398
Contributions as a Percentage of Covered Employee Payroll	- %	- %	- %	- %	- %	- %	- %	- %	- %	3.59%

See Notes to Required Supplemental Information

Required Supplemental Information (Unaudited)
Schedule of Changes in BWL's
Net OPEB Liability and Related Ratios
Last Ten Fiscal Years
(in thousands)

	2020	2019	2018	2017	2016*	2015*	2014*	2013*	2012*	2011*
Total OPEB Liability										
Service cost	$ 3,245	$ 4,403	$ 4,827	$ 3,130	$ -	$ -	$ -	$ -	$ -	$ -
Interest	10,804	14,920	15,039	14,226	-	-	-	-	-	-
Changes in benefit terms	-	(415)	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(6,093)	(5,231)	(9,880)	5,281	-	-	-	-	-	-
Changes in assumptions	7,254	(59,336)	(1,728)	(2,027)	-	-	-	-	-	-
Benefit payments, including refunds	(9,157)	(9,278)	(10,395)	(9,574)	-	-	-	-	-	-
Net Change in Total OPEB Liability	6,053	(54,937)	(2,137)	11,036	-	-	-	-	-	-
Total OPEB Liability - Beginning of year	148,550	203,487	205,624	194,588	-	-	-	-	-	-
Total OPEB Liability - End of year	154,603	148,550	203,487	205,624	-	-	-	-	-	-
Trust Net Position										
Contributions - Employer	9,157	9,278	10,395	9,574	-	-	-	-	-	-
Contributions - Member	-	-	-	-	-	-	-	-	-	-
Net investment income	4,158	11,688	11,039	18,040	-	-	-	-	-	-
Administrative expenses	(512)	(569)	(634)	(705)	-	-	-	-	-	-
Benefit payments, including refunds	(9,157)	(9,278)	(10,395)	(9,574)	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Net change in Net Position Held in Trust	3,646	11,119	10,405	17,335	-	-	-	-	-	-
Trust fiduciary net position - Beginning of year	195,159	184,040	173,635	156,300	-	-	-	-	-	-
Trust fiduciary net position - End of year	198,805	195,159	184,040	173,635	-	-	-	-	-	-
BWL Net OPEB Liability (Asset) - Ending	$ (44,202)	$ (46,609)	$ 19,447	$ 31,989	$ -	$ -	$ -	$ -	$ -	$ -
Trust Fiduciary Net Position as a % of Total OPEB Liability (Asset)	128.59%	131.38%	90.44%	84.44%	- %	- %	- %	- %	- %	- %
Covered Employee Payroll	$ 58,198	$ 56,785	$ 55,650	$ 54,383	$ -	$ -	$ -	$ -	$ -	$ -
BWL's Net OPEB Liability (Asset) as a % of Covered Employee Payroll	(75.95%)	(82.08%)	34.95%	58.82%	- %	- %	- %	- %	- %	- %

*GASB Statement No. 74 was implemented as of June 30, 2017. Information from 2011 - 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)
Schedule of Employer Contributions
Last Ten Fiscal Years
(in thousands)

Fiscal Year Ended	Employer Contributions Required	Employer Contributions Actual	Difference of Required to Actual Contributions	Covered Employee Payroll	Percentage of Actual Contributions to Covered Payroll
6/30/2011	17,300	17,236	(64)	47,213	37%
6/30/2012	15,774	15,854	80	46,885	34%
6/30/2013	13,994	14,045	51	47,468	30%
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%

Defined Benefit Plan:

Actuarial valuation information relative to the determination of contributions:

Valuation date	June 30, 2020, based on roll-forward of February 29, 2020 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 percent
Salary increases	3.5 percent per year
Investment rate of return	6.0 percent per year compounded annually
Mortality	PUB-2010 General Mortality Table with MP-2019 Improvement Scale

Changes to assumptions: The mortality improvement scale was updated to the MP-2019 improvement scale. The discount rate was decreased from 7.00% to 6.50%.

Actuarial valuation information relative to the determination of contributions:

Valuation date	June 30, 2019, based on roll-forward of February 28, 2019 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	2.5 percent
Salary increases	3.5 percent per year
Investment rate of return	7.0 percent per year compounded annually
Mortality	PUB-2010 General Mortality Table with MP-2018 Improvement Scale

Changes to assumptions: The mortality table was changed to the PUB-2010 General Mortality Table and the improvement scale was updated to the MP-2018 improvement scale.

Significant Changes:

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.

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.

Significant Changes (Continued):

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, 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.

Post Retirement Benefit Plan:

Actuarial valuation information relative to the determination of contributions:

Valuation date	June 30, 2020, based on roll-forward of February 29, 2020 valuation

Methods and assumptions used to determine 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	27 years
Inflation	2.25 percent
Salary increases	9.3 percent growth at age 25 and decreases to 6.4 percent for ages 60+. This percentage includes general wage inflation and merit / productivity increases.
Investment rate of return	7.0 percent per year compounded annually
Mortality	PUBH-2010 General Employees Mortality Table projected generationally using MP-2019 scale

Actuarial valuation information relative to the determination of contributions:

Valuation date	June 30, 2019, based on roll-forward of February 28, 2019 valuation

Methods and assumptions used to determine 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	28 years
Inflation	3.0 percent
Salary increases	9.3 percent growth at age 25 and decreases to 6.4 percent for ages 60+. This percentage includes general wage inflation and merit / productivity increases.
Investment rate of return	7.5 percent per year compounded annually
Mortality	PUBH-2010 General Mortality Table projected generationally using MP-2018 scale

Significant Changes:

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 2020. The 2019 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 EnvisionInsurance 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.

June 30, 2019 (Continued)

> 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 6/30/2018 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 6/30/2017 valuation.

> Assumption change - The mortality improvement scale was updated to the MP-2017 scale.

Additional Information

Income Available for Revenue Bond Debt Retirement

	For the Year Ended June 30	
	2020	2019
Income - Before capital contributions per statement of revenues, expenses, and changes in net position	$ 29,681,544	$ 32,403,126
Adjustments to Income		
Depreciation	50,618,741	46,123,865
Interest on long-term debt:		
Notes	91,671	78,810
Revenue bonds	26,208,473	15,443,098
Total additional income	76,918,885	61,645,773
Income Available for Revenue Bonds and Interest Redemption	**$ 106,600,429**	**$ 94,048,899**
Debt Retirement Pertaining to Revenue Bonds		
Principal	$ 7,145,000	$ 6,820,000
Interest	22,418,248	31,160,284
Total	**$ 29,563,248**	**$ 37,980,284**
Percent Coverage of Revenue Bonds and Interest Requirements	**361**	**248**

Board of Water and Light - City of Lansing, Michigan

Detail of Statements of Revenues and Expenses
For the Years Ended June 30, 2020 and 2019

	Combined		Water		Electric		Steam		Chilled Water	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Operating Revenues										
Water	$ 45,923,606	$ 42,851,399	$ 45,923,606	$ 42,851,399	$ -	$ -	$ -	$ -	$ -	$ -
Electric:										
Retail	293,119,138	280,612,893	-	-	293,119,138	280,612,893	-	-	-	-
Sales for resale	6,832,535	13,487,713	-	-	6,832,535	13,487,713	-	-	-	-
Steam	12,526,501	13,740,119	-	-	-	-	12,526,501	13,740,119	-	-
Chilled water	6,211,174	6,192,397	-	-	-	-	-	-	6,211,174	6,192,397
Total operating revenues	364,612,954	356,884,521	45,923,606	42,851,399	299,951,673	294,100,606	12,526,501	13,740,119	6,211,174	6,192,397
Operating Expenses										
Production:										
Fuel, purchased power, and other operating expenses	125,348,562	125,335,173	9,695,385	10,128,854	109,995,796	108,114,467	4,005,108	5,322,283	1,652,273	1,769,569
Maintenance	17,574,743	18,941,418	3,916,954	3,803,622	12,112,190	14,084,591	754,373	482,628	791,226	570,577
Transmission and distribution:										
Operating expenses	8,763,274	8,186,690	1,617,516	1,883,305	6,991,104	6,002,627	154,654	300,758	-	-
Maintenance	20,308,757	21,688,566	3,576,179	3,118,051	16,247,240	18,132,525	485,338	437,990	-	-
Administrative and general	72,827,369	70,664,307	14,818,670	12,314,058	54,579,769	55,896,376	2,449,988	1,830,404	978,942	623,469
Return on Equity	23,100,000	21,110,884	2,922,783	2,600,113	19,049,861	17,391,645	723,211	734,501	404,145	384,625
Depreciation	50,618,741	46,123,865	7,930,917	7,276,010	38,163,899	35,007,435	3,141,742	2,650,473	1,382,183	1,189,947
Total operating expenses	318,541,446	312,050,903	44,478,404	41,124,013	257,139,859	254,629,666	11,714,414	11,759,037	5,208,769	4,538,187
Operating Income	46,071,508	44,833,618	1,445,202	1,727,386	42,811,814	39,470,940	812,087	1,981,082	1,002,405	1,654,210
Nonoperating Income (Expenses)										
Investment income	11,006,985	5,464,438	850,937	928,249	9,601,244	3,900,767	416,510	417,796	138,294	217,626
Other (expense) income	(1,096,805)	(2,373,022)	191,043	967,508	(883,306)	(3,498,560)	(625,823)	(62,737)	221,281	220,767
Bonded debt interest expense	(26,208,473)	(15,443,098)	(1,316,694)	(1,386,974)	(22,783,371)	(11,476,150)	(1,644,702)	(2,053,740)	(463,706)	(526,234)
Other interest expense	(91,671)	(78,810)	(11,792)	(13,648)	(79,738)	(65,057)	(141)	(105)	-	-
Total nonoperating expense	(16,389,964)	(12,430,492)	(286,506)	495,135	(14,145,171)	(11,139,000)	(1,854,156)	(1,698,786)	(104,131)	(87,841)
Net Income (Loss)	**$ 29,681,544**	**$ 32,403,126**	**$ 1,158,696**	**$ 2,222,521**	**$ 28,666,643**	**$ 28,331,940**	**$ (1,042,069)**	**$ 282,296**	**$ 898,274**	**$ 1,566,369**

Detail of Statements of Changes in Net Position

	Combined	Water	Electric	Steam	Chilled Water
Net Position - June 30, 2018	$ 570,497,877	$ 94,105,009	$ 475,074,999	$ (5,860,414)	$ 7,178,283
Income (loss) before contributions	32,403,126	2,222,521	28,331,940	282,296	1,566,369
Net Position - June 30, 2019	602,901,003	96,327,530	503,406,939	(5,578,118)	8,744,652
Income (loss) before contributions	29,681,544	1,158,696	28,666,643	(1,042,069)	898,274
Net Position - June 30, 2020	$ 632,582,547	$ 97,486,226	$ 532,073,582	$ (6,620,187)	$ 9,642,926

Board of Water and Light - City of Lansing, Michigan

Pension Trust Funds - Detail of Statements of Net Position

	As of June 30, 2020			
	Defined Contribution Plan	Defined Benefit Plan	VEBA	Total
Assets				
Receivable - investment interest receivable	$ -	$ 2,247	$ 26,604	$ 28,851
Trade receivable - due from broker	-	-	13,252	13,252
Investments at fair value:				
Cash and money market trust fund	-	1,402,445	578,216	1,980,661
Fixed income securities	-	2	283	285
Mutual funds	148,613,938	27,724,349	72,136,937	248,475,224
Stable value	36,833,694	-	-	36,833,694
Guaranteed income fund	8,975,990	-	-	8,975,990
Common collective funds	-	15,936,209	40,856,781	56,792,990
Common stock	-	10,521,643	85,193,786	95,715,429
Self-directed brokerage account	6,330,405	-	-	6,330,405
Participants note receivable	3,251,182	-	-	3,251,182
Total investments	204,005,209	55,584,648	198,766,003	458,355,860
Liabilities				
Trade payable - due to broker	-	-	1,057	1,057
Net Position - Held in trust for pension and other employee benefits	**$ 204,005,209**	**$ 55,586,895**	**$ 198,804,802**	**$ 458,396,906**

	As of June 30, 2019			
	Defined Contribution Plan	Defined Benefit Plan	VEBA	Total
Assets				
Receivable - investment interest receivable	$ -	$ 85,635	$ 261,067	$ 346,702
Trade receivable - due from broker	-	-	1,539	1,539
Investments at fair value:				
Cash and money market trust fund	-	1,963,325	3,437,276	5,400,601
U.S. government obligations	-	4,873,353	18,994,138	23,867,491
Fixed income securities	-	6,379,674	20,108,406	26,488,080
Mutual funds	147,768,040	30,566,813	75,437,370	253,772,223
Stable value	36,352,914	-	-	36,352,914
Guaranteed income fund	8,940,026	-	-	8,940,026
Common collective funds	-	6,029,465	9,825,815	15,855,280
Common stock	-	10,529,824	67,168,552	77,698,376
Self-directed brokerage account	3,787,956	-	-	3,787,956
Participants note receivable	3,422,076	-	-	3,422,076
Total investments	200,271,012	60,342,454	194,971,557	455,585,023
Liabilities				
Trade payable - due to broker	-	6,242	75,586	81,828
Net Position - Held in trust for pension and other employee benefits	**$ 200,271,012**	**$ 60,421,847**	**$ 195,158,577**	**$ 455,851,436**

Board of Water and Light - City of Lansing, Michigan

Pension Trust Funds - Detail of Statement of Changes in Net Position
For the Year Ended June 30, 2020

	Defined Contribution Plan	Defined Benefit Plan	VEBA	Total
Increases				
Investment income:				
Net appreciation in				
fair value of investments	$ 3,326,676	$ 492,124	$ 1,326,808	$ 5,145,608
Interest and dividend income	5,365,500	1,165,787	2,831,518	9,362,805
Net investment income	8,692,176	1,657,911	4,158,326	14,508,413
Employer contributions	6,733,020	-	9,156,565	15,889,585
Participant rollover contributions	466,139	-	-	466,139
Interest from participant notes receivable	172,695	-	-	172,695
Total increases	16,064,030	1,657,911	13,314,891	31,036,832
Decreases				
Retiree benefits paid	11,912,104	6,347,779	9,156,565	27,416,448
Loan defaults	232,785	-	-	232,785
Participants' note and administrative fees	184,944	145,084	512,101	842,129
Total decreases	12,329,833	6,492,863	9,668,666	28,491,362
Change in Net Position Held in Trust	3,734,197	(4,834,952)	3,646,225	2,545,470
Net Position Held in Trust for Pension and Other Employee Benefits				
Beginning of year	200,271,012	60,421,847	195,158,577	455,851,436
End of year	**$ 204,005,209**	**$ 55,586,895**	**$ 198,804,802**	**$ 458,396,906**

Board of Water and Light - City of Lansing, Michigan

Pension Trust Funds - Detail of Statement of Changes in Net Position
For the Year Ended June 30, 2019

	Defined Contribution Plan	Defined Benefit Plan	VEBA	Total
Increases				
Investment income:				
Net appreciation in				
fair value of investments	$ 1,406,649	$ 2,540,532	$ 7,052,500	$ 10,999,681
Interest and dividend income	9,637,603	1,840,190	4,635,052	16,112,845
Net investment income	11,044,252	4,380,722	11,687,552	27,112,526
Employer contributions	6,618,384	-	9,277,538	15,895,922
Participant rollover contributions	1,786,985	-	-	1,786,985
Interest from participant notes receivable	210,373	-	-	210,373
Total increases	19,659,994	4,380,722	20,965,090	45,005,806
Decreases				
Retiree benefits paid	13,639,444	6,142,622	9,277,538	29,059,604
Loan defaults	247,237	-	-	247,237
Participants' note and administrative fees	169,865	183,238	568,600	921,703
Total decreases	14,056,546	6,325,860	9,846,138	30,228,544
Change in Net Position Held in Trust	5,603,448	(1,945,138)	11,118,952	14,777,262
Net Position Held in Trust for Pension and Other Employee Benefits				
Beginning of year	194,667,564	62,366,985	184,039,625	441,074,174
End of year	**$ 200,271,012**	**$ 60,421,847**	**$ 195,158,577**	**$ 455,851,436**

[THIS PAGE INTENTIONALLY LEFT BLANK]

Appendix D

AMENDED AND RESTATED UTILITY SYSTEM REVENUE BOND RESOLUTION CONSOLIDATED VERSION

The Bonds are being issued by the Lansing Board of Water and Light under the provisions of an Amended and Restated Utility System Revenue Bond Resolution adopted by the Board on March 27, 2018, as amended on March 26, 2019, and on November 17, 2020 (the "Bond Resolution"). The Bond Resolution is presented in this Appendix D in consolidated form, and certain details with respect to the Bonds have been omitted.

The series-specific provisions of the Bond Resolution refer to "Series 2019" throughout. Those provisions apply to all series of bonds issued pursuant to the authorization under Section 5 of the Bond Resolution, which were intended to be issued over multiple years. To that end, Section 6 of the Bond Resolution provides for "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 . . . ." Therefore, all references to "Series 2019" apply to "Series 2021B."

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.

LANSING BOARD OF WATER AND LIGHT

BOND RESOLUTION

A RESOLUTION TO AUTHORIZE UTILITY SYSTEM REVENUE BONDS FOR A NATURAL GAS COMBINED FACILITY AND SYSTEM IMPROVEMENTS AND REPLACEMENT OF 1989 BOND RESOLUTION AND SUPPLEMENTAL RESOLUTIONS BY THIS RESOLUTION.

Section 1. Definitions. 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.

(l) 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 premium, if any, on the bonds or other obligations described in this definition of Municipal Obligation on the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to in subclause (i) of 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) “Series 2019 Bonds” means the Utility System Revenue Bonds, Series 2019 issued pursuant to this Amended and Restated Utility System Revenue Bond Resolution.

(ee) “Series 2019 Construction Fund” means the Series 2019 Construction Fund established pursuant to this Bond Resolution.

(ff) “Series 2019 Project” means the project described in the Notice of Intent published in the Lansing State Journal on January 27, 2018, comprised of (a) the acquisition and construction of a natural gas combined cycle facility to produce electricity, including all equipment and any appurtenances and attachments thereto and any related site acquisition or improvements, and the construction, improvement, and renovation of transmission and distribution infrastructure (the “Power Plant Project”), and (b) construction, improvement, and renovation of transmission and distribution lines and related utility system facilities for the water supply, steam, and chilled water systems and electric transmission and distribution lines and related electric utility system facilities, together with any appurtenances and attachments thereto and any related site acquisition or improvements (the “System Improvements Project”).

(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.

ISSUANCE OF SERIES 2019 BONDS

Section 2. Necessity and Statement of Purpose. It is hereby determined to be a necessary public purpose of the Board to acquire and construct the Series 2019 Project.

Section 3. Costs; Useful Life. The total cost of the Series 2019 Project is estimated to be not-to-exceed $500,000,000 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 Series 2019 Project is estimated to be not less than thirty (30) years.

Section 4. Conditions Permitting Issuance of Additional Bonds. The Bond Resolution establishes requirements for the issuance of Additional Bonds of equal standing and priority of lien with the Outstanding Bonds. The Series 2019 Bonds can be issued as Additional Bonds pursuant to the requirements of the Bond Resolution if the Board determines that 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 Series 2019 Bonds.

The Board hereby determines that the Series 2019 Bonds shall be issued only if the Chief Financial Officer determines (a) that the Board is not in default in making its required payments to the Operation and Maintenance Fund or the Redemption Fund, and (b) that 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 Series 2019 Bonds. It is anticipated that at the time the Series 2019 Bonds are issued, the Outstanding Bonds will be the Utility System Revenue Bonds, Series 2011A, Utility System Revenue Refunding Bonds, Series 2013A, and Utility System Revenue Refunding Bonds, Series 2017A.

Section 5. Series 2019 Bonds Authorized. To pay part of the cost of acquiring and constructing all or a portion of the Series 2019 Project, including payment of all legal, engineering, financial and other expenses incident thereto and incident to the issuance and sale of the Series 2019 Bonds and capitalized interest in the amount to be determined at the time of sale of the Series 2019 Bonds, the City, acting by and through the Board, shall borrow the sum of not-to-exceed Five Hundred Million Dollars ($500,000,000) and shall issue the Series 2019 Bonds therefor pursuant to the provisions of Act 94. The remaining cost of the Series 2019 Project in excess of $500,000,000, 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 Series 2019 Bonds shall be sold and the proceeds applied in accordance with the provisions of Act 94. The Series 2019 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 2019 Bonds.

The capitalized interest, if any, to be paid from proceeds of the Series 2019 Bonds shall not exceed the amount necessary to pay interest for three years, as finally determined at the time of sale of the Series 2019 Bonds by the Chief Financial Officer.

Section 6. Series 2019 Bond Details. The Series 2019 Bonds shall be designated as the "UTILITY SYSTEM REVENUE BONDS, SERIES 2019" 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 2019 Bonds.

The Series 2019 Bonds shall be issued as fully registered bonds registered in the denomination of $1,000 or integral multiples thereof and shall be numbered in consecutive order of registration or authentication from 1 upwards. The Series 2019 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 2019 Bonds, shall mature as serial bonds or term bonds on such dates as shall be determined at the time of sale of the Series 2019 Bonds but not-to-exceed thirty (30) annual maturities.

The Series 2019 Bonds shall be subject to optional or mandatory redemption prior to maturity at the times and prices finally determined at the time of sale of the Series 2019 Bonds.

The Series 2019 Bonds shall bear interest at a rate or rates to be determined on sale thereof, payable semi-annually on January 1st and July 1st of each year beginning on such date as determined at the time of sale of the Series 2019 Bonds provided that the first interest payment date shall be not later than ten months following the delivery date of the Series 2019 Bonds.

The Series 2019 Bonds shall be executed by the manual or facsimile signature of the Chairperson and the Corporate Secretary of the Board. No Series 2019 Bond shall be valid until authenticated by an authorized representative of the Transfer Agent. The Series 2019 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 2019 Bonds.

Section 7. Registration and Transfer. *[Series 2019 Bond registration and transfer details omitted]*

Section 8. Creation of Series 2019 Bonds Construction Fund. There shall be established and maintained a separate depositary fund designated as the SERIES 2019 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. At the discretion of the Chief Financial Officer, separate accounts may be established within the Series 2019 Bonds Construction Fund for proceeds of the Series 2019 Bonds issued to pay the costs of the Power Plant and costs of the System Improvements Project. Moneys deposited in the Series 2019 Bonds Construction Fund shall be applied solely in payment of the cost of the Series 2019 Project and any costs of engineering, legal, issuance and other expenses incident thereto. Any unexpended balance remaining in the Series 2019 Bonds Construction Fund after completion of the Series 2019 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. Series 2019 Bond Proceeds. From the proceeds of sale of the Series 2019 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 Series 2019 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 Series 2019 Bonds may be deposited in either the Redemption Fund or the 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 Series 2019 Bonds.

[defeasance of 2018 notes omitted]

There shall next be deposited from the proceeds of sale of the Series 2019 Bonds to the Bond Reserve Account an amount, if any, designated by the Chief Financial Officer at the time of sale as necessary to meet the requirements of the bond purchasers.

The remaining proceeds of sale of the Series 2019 Bonds shall be deposited to the Construction Fund.

There shall next be deposited in the Bond Reserve Account an amount, if any, designated at the time of sale of the Series 2019 Bonds as necessary to cause the amount on deposit in the Bond Reserve Account to be equal to the Reserve Requirement.

Section 10. Covenants Regarding Series 2019 Bonds. The Board covenants and agrees as follows with the holders of the Series 2019 Bonds as long as any of the Series 2019 Bonds remain outstanding and unpaid as to either principal or interest:

(a) The Board will cause the portion of the Series 2019 Project being financed with proceeds of the Series 2019 Bonds to be acquired and constructed promptly and in accordance with the plans and specification therefor.

(b) The Board covenants and agrees with the Registered Owners of the Series 2019 Bonds that as long as any of the Series 2019 Bonds remain outstanding and unpaid as to either principal or interest, the Board shall not invest, reinvest or accumulate any moneys deemed to be proceeds of the Series 2019 Bonds pursuant to the Internal Revenue Code in such a manner as to cause the Series 2019 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 exemption of interest on the Series 2019 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 Tax Compliance Certificate to be delivered by the Board with the Series 2019 Bonds.

Section 11. Series 2019 Bond Form. [*Series 2019 Bond form omitted*]

Section 12. Payment of Bonds; Defeasance. 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 any 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 Municipal 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. Management. The operation, repair and management of the System shall be under the supervision and control of the Board.

Section 14. Charges. 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. No Free Service. 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. Rate Covenant. 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. Operating Year. 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. Funds and Accounts: Flow of Funds. 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. OPERATION AND MAINTENANCE 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.

B. BOND AND INTEREST REDEMPTION FUND: 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:

(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 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. JUNIOR LIEN REDEMPTION FUND: 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. SURPLUS MONEYS: 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. Rebate Fund. 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. Priority of Funds. 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. Investments. 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. Applicable Law. The Bonds shall be sold and the proceeds applied in accordance with the provisions of Act 94.

Section 23. Covenants. 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. Additional Bonds. 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 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. Appointment of Receiver and Statutory Rights. 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. Effect of Waiver and Other Circumstances. 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.

Section 29. Negotiated Sale of the Bonds; Appointment of Senior Managing Underwriter. *[2019 Bond details omitted]*

Section 30. Bond Ratings and Bond Insurance. 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. *[2019 Bonds Official Statement details omitted]*

Section 32. Continuing Disclosure. *[2019 Bonds continuing disclosure details omitted]*

Section 33. Sale of Series 2019 Bonds. The Chief Financial Officer is authorized, in consultation with the Municipal Advisor, to accept an offer to purchase the Series 2019 Bonds without further resolution of this Board. This authorization includes, but is not limited to, determination of original principal amount of the Series 2019 Bonds; the prices at which the Series 2019 Bonds are sold; the date of the Series 2019 Bonds; the schedule of principal maturities and whether the Series 2019 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 2019 Bonds; and application of the proceeds of the Series 2019 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 2019 Bonds or other offer to purchase the Series 2019 Bonds, or a certificate of award of sale, or the Official Statement.

The maximum interest rate of the Series 2019 Bonds sold as fixed rate Bonds shall not exceed 5.50% per annum. The maximum interest rate of the Series 2019 Bonds sold as variable rate Bonds shall not exceed the maximum rate permitted by law, and in the case of any variable rate Bonds issued initially in a fixed rate mode, such initial fixed rate shall not exceed 5.50%. The purchase price for the Series 2019 Bonds, exclusive of any original issue discount or premium, shall not be less than 97% of the principal amount of the Series 2019 Bonds, plus accrued interest, if any. In making such determinations the Chief Financial Officer is authorized to rely upon data and computer runs provided by the Municipal Advisor.

In making such determinations the Chief Financial Officer is authorized to rely upon data and computer runs provided by the Municipal Advisor.

Section 34. Other Actions. In the event that the Chief Financial Officer is not available at the time that it becomes necessary to take actions directed or authorized under this resolution, then a person designated by the Chief Financial Officer is authorized to take such actions. The officers, administrators, agents and attorneys of the Board are authorized and directed to take all other actions necessary and convenient to facilitate issuance, sale and delivery of the Series 2019 Bonds within the parameters of this resolution, and to execute and deliver all other agreements, documents and certificates and to take all other actions necessary or convenient in accordance with this resolution, and to pay costs of issuance including but not limited to rating agency fees, credit facility fees, insurance premiums, transfer agent fees, municipal advisor fees, bond counsel fees, and any other costs necessary to accomplish sale and delivery of the Series 2019 Bonds within the parameters of this resolution.

Section 35. Applicability of the Outstanding Bond Resolutions. *[Omitted]*

Section 36. Conflicting Resolutions. All resolutions and parts of resolutions insofar as they conflict with the provisions of this resolution are rescinded as of the effective date of this Resolution.

Section 37. Severability and Paragraph Headings. *[Omitted]*

Section 38 Publication and Recordation. *[Omitted]*

Section 39. Effective Date. *[Omitted]*

[This Page Intentionally Left Blank]

Appendix E

FORM OF APPROVING OPINION

[THIS PAGE INTENTIONALLY LEFT BLANK]

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: $70,875,000 Utility System Revenue Bonds, Series 2021B (Mandatory Put Bonds) (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 Issuer is also issuing its Utility System Revenue Bonds, Series 2021A (the "Series 2021A Bonds") on the date hereof.

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, numbered in order of registration, bearing original issue date of January 26, 2021, 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.

Capitalized terms used but not otherwise defined in this opinion shall have the meanings given thereto in the order approving the sale of the Bonds executed and delivered by an authorized officer of Issuer on January 12, 2021.

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 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 Bonds, Series 2011A, 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) and Series 2021A Bonds (together the "Outstanding Bonds"). The Issuer has reserved the right to issue additional bonds of equal standing with the Bonds and the Outstanding 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 Bonds and all other bonds payable from the revenues of the System, and to provide for such other expenditures and funds for the Bonds and the Outstanding Bonds and the System as 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. Further, 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 inheritance and estate taxes and taxes on gains realized from the sale, payment or other disposition thereof. The opinions set forth in this paragraph are 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 and Series 2021A Bonds in order that interest thereon be (or continue to be) excludable from gross income for federal and State of Michigan income tax purposes. Failure to comply with such requirements could cause the interest on the Bonds to be included in gross income retroactively to the date of issuance of the Bonds. The Issuer has covenanted to comply with all such requirements. We express no opinion regarding the effect on the exclusion of interest on the Bonds from gross income for federal income tax purposes of (i) the establishment of a new Term Interest Rate Period for the Bonds following the termination of the Initial Term Interest Rate Period commencing on the date hereof or (ii) any future conversion of the Bonds to a different interest rate mode.

Except as stated in paragraph 4 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.

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

[THIS PAGE INTENTIONALLY LEFT BLANK]

$70,875,000
LANSING BOARD OF WATER AND LIGHT
City of Lansing, Michigan
UTILITY SYSTEM REVENUE BONDS, SERIES 2021B
(MANDATORY PUT BONDS)

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 $70,875,000 Utility System Revenue Bonds, Series 2021B (Mandatory Put Bonds) (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, 2021, 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;
(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 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 26, 2021

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 – Total Estimated Monthly Billing;

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 - Historic 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 Thrs by Classification;

Rates and Charges:
Chilled Water Utility - Historic 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:

Historic and Projected Operating Cash Flows and Debt Service Coverage.

[THIS PAGE INTENTIONALLY LEFT BLANK]

Appendix G

BOOK-ENTRY-ONLY SYSTEM

[THIS PAGE INTENTIONALLY LEFT BLANK]

The information set forth in this Appendix G is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC currently in effect. The information set forth in this Appendix G concerning DTC 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 Underwriter takes any responsibility for the accuracy, completeness or adequacy of the information in this section. Investors wishing to use the facilities of DTC are advised to confirm the continued applicability of the rules, regulations and procedures of the DTC. 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 DTC 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 Underwriter 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 Underwriter 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 Direct and Indirect Participants.

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 Underwriter 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 Underwriter 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.

[THIS PAGE INTENTIONALLY LEFT BLANK]

Appendix H

SALE ORDER TERMS AND PROVISIONS

[THIS PAGE INTENTIONALLY LEFT BLANK]

Terms and Provisions Applicable to the Series 2021B Bonds

ARTICLE I. DEFINITIONS

As used in this exhibit, the following terms shall have the following meanings:

"Adjusted SIFMA Rate" means the SIFMA Index plus the Index Floating Rate Spread.

"Alternate Credit Facility" means a letter of credit, insurance policy, line of credit, surety bond or other security issued as a replacement or substitute for any Credit Facility then in effect.

"Applicable Factor" means during any Direct Purchase Period, a percentage designated by the Market Agent or, with a Favorable Opinion of Bond Counsel, such other percentage as may be designated as the Applicable Factor for such Direct Purchase Period pursuant to Section 2.08 hereof.

"Applicable Spread" means, with respect to each Direct Purchase Period, the number of basis points determined on or before the first day of such Direct Purchase Period and designated in writing by the Board, the Market Agent or the Direct Purchaser in accordance with Section 2.08 hereof (which may include a schedule for the Applicable Spread based upon the ratings assigned to the unenhanced, long term debt of the Obligated Group) that, when added to the product of (x) the Direct Purchase Index multiplied by (y) the Applicable Factor, would equal the minimum interest rate per annum that would enable the Direct Purchase Bonds to be sold on such date at a price equal to the principal amount thereof (without regard to accrued interest, if any, thereon).

"Authorized Denominations" means, with respect to any (a) Fixed Rate Bonds and any Bonds bearing interest at the Term Interest Rate or Index Floating Rate, $5,000 or any integral multiple thereof within a series and maturity, (b) Bonds bearing interest in the Flexible Rate, Daily Interest Rate or Weekly Interest Rate, $100,000 or any integral multiple of $5,000 in excess of $100,000 within a series and maturity and (c) Direct Purchase Bonds, $250,000 and any integral multiple of $5,000 in excess of $250,000.

"Bank Bond" means a Bond that is purchased by the Registrar with amounts paid or provided by a Credit Provider under a Credit Facility.

"Bank Rate" means that rate of interest borne by a Bank Bond, as specified and/or determined in accordance with a Credit Facility.

"Beneficial Owner" means any person that has or shares the power, directly or indirectly to make investment decisions concerning ownership of any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries).

"Bloomberg Page BBAM1" means the display designated on page "BBAM1" on the Bloomberg Service (or such other page as may replace the BBAM1 page on that service, any successor service or such other service or services as may be nominated by the Intercontinental Exchange ("ICE") Benchmark Administration for the purpose of displaying London Interbank offered rates for U.S. dollar deposits.

"Bond Fund" means the Bond and Interest Redemption Fund created by the Bond Resolution.

"Bond Purchase Agreement" means for each series of Bonds, the contract for the purchase of such Bonds between the applicable Underwriter and the Board.

"Bond Purchase Account" means the account with that name established pursuant to Section 6.07.

“Bondholder Agreement” means during any Direct Purchase Period, any continuing covenant agreement, bondholder agreement or similar agreement between the Board and a Direct Purchaser.

“Bond Register” means the records kept by the Registrar on behalf of the Board containing the name and mailing address of each owner of the Bonds or nominee of such owner, and such other information as the Registrar shall determine.

“Bonds” mean the Series 2021B Bonds.

“Business Day” means any day other than a Saturday or Sunday that is (a) neither a legal holiday nor a day on which banking institutions are authorized or required by law or regulation to close in the City of New York, New York and (b) a London Business Day.

“Code” means the Internal Revenue Code of 1986, as amended, and shall include all applicable regulations and rulings relating thereto.

“Continuing Disclosure Undertaking” means a written undertaking for the benefit of the owners and Beneficial Owners of such Bonds as required by Section (b)(5) of the Rule.

“Conversion” means a conversion of a series of Variable Rate Bonds or a portion of a series of Variable Rate Bonds from one Interest Rate Period to another Interest Rate Period (including the establishment of a new Term Interest Rate or Index Floating Rate).

“Conversion Date” means the effective date of a Conversion of a series of Variable Rate Bonds or a portion of Variable Rate Bonds.

“Credit Facility” means any letter of credit, insurance policy, line of credit, surety bond or other security, if any, to be issued by the Credit Provider in connection with the Conversion of Variable Rate Bonds to a Weekly Interest Rate, a Daily Interest Rate, or other interest rate mode, that secures the payment when due of the principal and Purchase Price of and interest on the Variable Rate Bonds, including any Alternate Credit Facility, or any extensions, amendments or replacements thereof pursuant to its terms.

“Credit Facility Purchase Account” means the account with that name established pursuant to Section 6.07.

“Credit Provider” means any bank, insurance company, pension fund or other financial institution which provides a Credit Facility or Alternate Credit Facility for Variable Rate Bonds.

“Daily Interest Rate” means a variable interest rate for the Variable Rate Bonds established in accordance with the Resolution.

“Daily Interest Rate Period” means each period during which a Daily Interest Rate is in effect.

“Delayed Remarketing Period” means the period during which some or all of the Variable Rate Bonds bearing interest at an Index Floating Rate or all of the Variable Rate Bonds bearing interest at a Term Interest Rate are not remarketed as set forth herein.

“Designated Representative” means the Chief Financial Officer and any successor to the functions of such office.

“Direct Purchase Bonds” means Bonds that bear interest at a Direct Purchase Rate, and any Unremarketed Bonds, if any.

"Direct Purchase Index" means during any Direct Purchase Period, One Month LIBOR or, with a Favorable Opinion of Bond Counsel, such other index as may be designated by the Market Agent as the Direct Purchase Index for such Direct Purchase Period pursuant to Section 2.08.

"Direct Purchase Interest Rate Period" means each period during the Direct Purchase Period for which a particular Direct Purchase Rate is in effect.

"Direct Purchase Period" means the entire period during which Bonds constitute Direct Purchase Bonds, which Direct Purchase Period shall generally be comprised of multiple Direct Purchase Interest Rate Periods, during which Direct Purchase Rates are in effect. A Direct Purchase Period shall also include any period during which any Unremarketed Bonds remain Outstanding.

"Direct Purchase Period Earliest Redemption Date" means during any Direct Purchase Period, the date or dates on which Direct Purchase Bonds are subject to optional redemption during the applicable Direct Purchase Period, as established by the Board, the Market Agent or the Direct Purchaser or as set forth in the applicable Bondholder Agreement in accordance with the provisions of Section 2.08.

"Direct Purchase Rate" means the interest rate per annum on Direct Purchase Bonds determined on a periodic basis as provided in Section 2.08.

"Direct Purchase Rate Determination Date" means during any Direct Purchase Period, such date established as such by the Board, the Market Agent or the Direct Purchaser as set forth in the applicable Bondholder Agreement.

"Direct Purchase Rate Mandatory Purchase Date" means the first day following the last day of each Direct Purchase Interest Rate Period, or any other date established as such in a Bondholder Agreement.

"Direct Purchaser" means, during any Direct Purchase Period, the Holder of the Direct Purchase Bonds, if there is a single Holder of all of the Direct Purchase Bonds and provided, however, that the Bonds are not then held under the book-entry system. If there is more than one Holder of the Direct Purchase Bonds, "Direct Purchaser" means the Holders owning a majority in aggregate principal amount of the Direct Purchase Bonds then Outstanding. If the Direct Purchase Bonds are then held under the book-entry system, "Direct Purchaser" means the Beneficial Owner of the Direct Purchase Bonds, if there is a single Beneficial Owner of all of the Direct Purchase Bonds. If there is more than one Beneficial Owner of the Direct Purchase Bonds, "Direct Purchaser" means the Beneficial Owners who are the Beneficial Owners of a majority in aggregate principal amount of the Direct Purchase Bonds then Outstanding.

"DTC" means The Depository Trust Company, New York, New York, a limited purpose trust company organized under the laws of the State of New York, as depository for the Bonds pursuant to the Resolution.

"Electronic Means" means the following communications methods: e-mail as a portable document format ("pdf") or other replicating image attached to an e-mail, facsimile transmission, secure electronic transmission containing applicable authorization codes, passwords and/or authentication keys issued by the Registrar, or another method or system specified by the Registrar as available for use in connection with its services hereunder.

"Favorable Opinion of Bond Counsel" means a written legal opinion of bond counsel and/or tax counsel to the Board, as applicable, addressed to the Board, the Registrar, the Credit Provider, if any, and the Remarketing Agent, if any, as applicable, to the effect that (a) such action is permitted under the Resolution and (b) will not impair the exclusion of interest on the Tax-Exempt Bonds of such series from gross income for purposes of federal income taxation (subject to customary exceptions).

"Fiscal Year" means the Fiscal Year used by the Board at any time. At the time of the adoption of the Resolution, the Fiscal Year is the 12-month period beginning July 1 of each year.

"Fixed Rate Bonds" means, Bonds that bear interest at a fixed rate(s) of interest for the term of such bonds from the Issuance Date to the date of maturity or payment in full. Fixed Rate Bonds shall not be subject to Conversion to a different interest rate mode while such Bonds are outstanding.

"Flexible Rate" means the per annum interest rate on Flexible Rate Bonds determined for such Bonds pursuant to Section 2.09 hereof. Flexible Rate Bonds may bear interest at different Flexible Rates.

"Flexible Rate Bonds" means Bonds that bear interest at a Flexible Rate.

"Flexible Rate Determination Date" means the first day of each Flexible Rate Period.

"Flexible Rate Period" means the period of from one to 270 calendar days (which period must end on a day preceding a Business Day) during which a Flexible Rate Bond shall bear interest at a Flexible Rate, as established pursuant to Section 2.09 hereof. Flexible Rate Bonds may be in different Flexible Rate Periods.

"Governmental Authority" means the government of the United States or any other nation, or of any political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including, without limitation, any supra-national bodies exercising such powers or functions, such as the European Union or the European Central Bank).

"Holder,**" "Bondholder**,**" "Registered Owner**,**" "owner"** or **"holder"** whenever used herein with respect to a Bond, means the Person in whose name such Bond is registered; provided, however, that any time the Bonds are held in a book-entry system, "Holder" or "Bondholder" shall mean Beneficial Owner of the Bonds.

"Index" means any of (a) One Month LIBOR, (b) Three Month LIBOR, (c) the SIFMA Index, or (d) any other index chosen by the Board.

"Index Floating Rate" means a variable interest rate for a series of Variable Rate Bonds established in accordance with the Resolution.

"Index Floating Rate Percentage" means the percentage of One Month LIBOR or Three Month LIBOR determined by a Designated Representative pursuant to the Resolution.

"Index Floating Rate Period" means each period during which an Index Floating Rate is in effect for a series of Variable Rate Bonds.

"Index Floating Rate Spread" means, for any Bonds issued hereunder as Variable Rate Bonds initially bearing interest at the Index Floating Rate, initially the amount specified in the Bond Purchase Agreement, and with respect to any Conversion to an Index Floating Rate Period, the spread determined by the Remarketing Agent on or prior to the Conversion Date pursuant to the Resolution.

"Initial Term Interest Rate" means, if any, the initial fixed rate(s) of interest for any series of Variable Rate Bonds issued hereunder initially bearing interest at a Term Interest Rate.

"Initial Term Interest Rate Period" means, if any, the period commencing on the Issuance Date and ending on the first Purchase Date or at the end of a Delayed Remarketing Period, if applicable.

"Interest Accrual Date" with respect to any Bonds of a series issued as Variable Rate Bonds means:

(a) for any Weekly Interest Rate Period or Daily Interest Rate Period, the first day thereof and, thereafter, each Interest Payment Date during such period, other than the last such Interest Payment Date;

(b) for each Term Interest Rate Period, the first day thereof and, thereafter, each January 1 and July 1 during that Term Interest Rate Period;

(c) for each Index Floating Rate Period, the first day thereof and, thereafter, the first Business Day of each calendar month during such Index Floating Rate Period;

(d) with respect to any Flexible Rate Period, the first day thereof; and

(e) with respect to any Direct Purchase Interest Rate Period, either the first calendar day of each month or the first Business Day of each calendar month.

"Interest Accrual Period" means, during any Direct Purchase Period, the Interest Accrual Period established in the applicable Bondholder Agreement.

"Interest Determination Date" means:

(a) for any Index Floating Rate Period during which the Index is the SIFMA Index, the first day of such Index Floating Rate Period and, thereafter, each Wednesday during such Index Floating Rate Period or, if any such Wednesday is not a Business Day, the succeeding Business Day;

(b) for any Index Floating Rate Period during which the Index is One Month LIBOR or Three Month LIBOR, the second London Business Day preceding the first day of such Index Floating Rate Period and, thereafter, each Interest Reset Date during such Index Floating Rate Period; and

(c) for any Index Floating Rate Period during which a different Index is selected by the Board, the date selected by a Designated Representative and, thereafter, each Interest Reset Date during such Index Floating Rate Period.

"Interest Payment Date" means:

(a) for any Variable Rate Bonds issued hereunder, interest accrued in:

(1) any Weekly Interest Rate Period or Daily Interest Rate Period, the first Business Day of each calendar month;

(2) any Term Interest Rate Period, each January 1 and July 1, or if any January 1 or July 1 is not a Business Day, the next succeeding Business Day;

(3) any Index Floating Rate Period, the first Business Day of each month;

(4) any Flexible Rate Period, each Mandatory Purchase Date applicable thereto;

(5) any Direct Purchase Period, the first Business Day of each calendar month, or as may otherwise be established in the applicable Bondholder Agreement.

(b) for any Fixed Rate Bonds issued hereunder, each January 1 and July 1, or if any January 1 or July 1 is not a Business Day, the next succeeding Business Day.

"Interest Rate Period" means, for any Variable Rate Bonds, each Daily Interest Rate Period, Weekly Interest Rate Period, Term Interest Rate Period, Flexible Rate Period, Direct Purchase Interest Rate Period or Index Floating Rate Period.

"Interest Reset Date" with respect to any Bonds of a series issued as Variable Rate Bonds means:

(a) for each Index Floating Rate Period during which the Index is One Month LIBOR or Three Month LIBOR, the first Business Day of each month during such Index Floating Rate Period;

(b) for each Index Floating Rate Period during which the Index is the SIFMA Index, each Thursday during such Index Floating Rate Period; and

(c) for each Index Floating Rate Period during which an Index other than as set forth in (a) or (b) is selected, the date selected by the Designated Representative during such Index Floating Rate Period.

"Issuance Date" means the date the Bonds of a series are initially delivered to the applicable Underwriter.

"London Business Day" means a day on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in London.

"LIBOR Successor Rate" has the meaning specified in Section 2.14.

"LIBOR" means One Month LIBOR or Three Month LIBOR, as applicable to Variable Rate Bonds during an Interest Rate Period.

"Mandatory Purchase Date" means any Purchase Date on which Bonds are subject to mandatory purchase pursuant to Section 2.08 or 2.09, including as set forth in the applicable Bondholder Agreement.

"Market Agent" means the Person, if any, appointed by the Board to serve as market agent in connection with any Direct Purchase Period.

"Maximum Interest Rate" means, (a) with respect to any Bonds of a series issued as Variable Rate Bonds, 12% per annum, calculated in the same manner as interest is calculated for the interest rate on such Bonds then in effect.

"One Month LIBOR" means, on each Interest Determination Date, (a) the rate determined by the ICE Benchmark Administration ("ICE LIBOR") for deposits in U.S. dollars for a one-month maturity which appears on Bloomberg Page BBAM1 as of 11:00 a.m., London time, on such Interest Determination Date, or, from and after such date as ICE LIBOR is no longer calculated and published, the Registrar shall use instead the LIBOR Successor Rate; or (b) if a rate is not available on such Interest Determination Date from the selected index, One Month LIBOR shall mean a rate determined on the basis of the rates at which deposits in U.S. dollars for a one-month maturity and in a principal amount of at least U.S. $1,000,000 are offered at approximately 11:00 a.m., London time, on such Interest Determination Date, to prime banks in the London interbank market by three Reference Banks. The Registrar shall request the principal London office of each of such Reference Banks to provide a quotation of its rate. If at least two such quotations are provided, One Month LIBOR will be the arithmetic mean of such quotations. If fewer than two quotations are provided, One Month LIBOR will be the arithmetic mean of the rates quoted by three (if three quotations are not provided, two or one, as applicable) major banks in New York City, selected by the Board, at approximately 11:00 a.m. on the Interest Determination Date for loans in U.S. dollars to leading European banks in a principal amount of at least U.S. $1,000,000 having a one-month maturity. If none of the banks in New York City selected by the Board is then quoting rates for such loans, then One Month LIBOR will mean One Month LIBOR as determined for the preceding Interest Determination Date.

"Par Call Date" for any Variable Rate Bonds issued hereunder:

(a) during the Initial Term Interest Rate Period and subsequent Term Interest Rate Periods, the first Business Day on which the Bonds are subject to call for optional redemption at a price of 100% of the principal amount thereof plus interest accrued to the date fixed for redemption, if and as set forth in the applicable Bond Purchase Agreement;

(b) during any Index Floating Rate Period that is two years or longer in duration, the first Business Day that is on or after the date that is six months prior to the end of such Index Floating Rate Period or the date established by a Designated Representative with a Favorable Opinion of Bond Counsel; and

(c) during any other Index Floating Rate Period, the first Business Day after the end of such Index Floating Rate Period.

"Purchase Date" means each date on which Bonds issued as Variable Rate Bonds are required to be purchased pursuant to the Resolution or a Bond Purchase Agreement.

"Purchase Price" means the purchase price to be paid to the Registered Owners of Bonds issued as Variable Rate Bonds and purchased pursuant to the Resolution or a Bond Purchase Agreement, which shall be equal to the principal amount thereof tendered for purchase, without premium, plus accrued interest from the immediately preceding Interest Accrual Date to the Purchase Date (if the Purchase Date is not an Interest Payment Date); provided, however, that in the case of a proposed Conversion from a Term Interest Rate Period on a date on which the Variable Rate Bonds being converted would otherwise be subject to optional redemption pursuant to the Resolution if such Conversion did not occur, the Purchase Price shall also include the optional redemption premium, if any, provided for such date under the Resolution.

"Qualified Letter of Credit" means any irrevocable letter of credit issued by a financial institution for the account of the Board on behalf of the owners of the Bonds, which institution maintains an office, agency or branch in the United States and as of the time of issuance of such letter of credit, is rated in one of the two highest rating categories by Moody's Investors Service or S&P Global Ratings or their comparably recognized business successors.

"Record Date" means (a) with respect to any Interest Payment Date in a Daily Interest Rate Period, the last Business Day of each calendar month or, in the case of the last Interest Payment Date in a Daily Interest Rate Period, the Business Day immediately preceding such Interest Payment Date, (b) with respect to any Interest Payment Date for Fixed Rate Bonds or during in any Index Floating Rate Period or any Term Interest Rate Period, the 15th day immediately preceding that Interest Payment Date, and (c) with respect to any Interest Payment Date in any Weekly Interest Rate Period, the Business Day preceding the Interest Payment Date.

"Redemption Price" means, when used with respect to any Bonds issued as Variable Rate Bonds hereunder, the principal amount thereof plus the applicable premium, if any, plus accrued interest, if any, payable upon redemption thereof pursuant to the Resolution.

"Reference Bank" means any of the four largest U.S. Banks with an office in London, based upon consolidated total asset size, as listed by the Federal Reserve in its most current statistical release on its website with respect thereto.

"Registrar" means the registrar, authenticating agent, paying agent, calculation agent and transfer agent appointed pursuant to the Resolution, its successor or successors and any other entity which may at any time be substituted in its place pursuant to the Resolution.

"Reimbursement Agreement" means any agreement between the Board and a Credit Provider, pursuant to which a Credit Facility is issued by the Credit Provider, as the same may be amended or supplemented.

“Relevant Governmental Body” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York.

“Remarketing Account” means the account with that name established pursuant to Section 6.07.

“Remarketing Agent” means each remarketing firm qualified under the terms of the Resolution to act as Remarketing Agent for the Bonds and appointed by a Designated Representative.

“Remarketing Agreement” means any Remarketing Agreement between the Board and the Remarketing Agent whereby the Remarketing Agent undertakes to perform the duties of the Remarketing Agent under the Resolution.

“Resolution” means the Amended and Restated Bond Resolution approved by the Board on March 27, 2018, as amended on March 26, 2019 and November 17, 2020., together with the Sale Order.

“Rule” means Rule 15c2-12 of the SEC promulgated under the Securities and Exchange Act of 1934, as the same may be amended from time to time.

“Sale Order” means the order of the Chief Financial Officer executed and delivered on January 12, 2021 approving the sale and terms of the Bonds, and to which this exhibit is attached and into which the provisions herein are incorporated by reference.

“SEC” means the Securities and Exchange Commission.

“Serial Bonds” mean Bonds other than Term Bonds.

“SIFMA” means the Securities Industry and Financial Markets Association.

“SIFMA Index” means the seven-day high grade market index of tax-exempt variable rate demand obligations produced by Municipal Market Data and published or made available by SIFMA or any person acting in cooperation with or under the sponsorship of SIFMA. If such index is no longer published or otherwise not available, the SIFMA Rate for any day will mean the level of the “S&P Weekly High Grade Index” (formerly the J.J. Kenny Index) maintained by Standard & Poor's Securities Evaluations Inc. for a 7-day maturity as published on the Interest Reset Date or most recently published prior to the Interest Reset Date. If at any time neither such index is available, the Registrar shall use instead an index that the Registrar, after consultation with the Remarketing Agent, if any, and the Board, determines most closely approximates the SIFMA Index.

“SIFMA Rate” means for any day the level of the most recently effective index rate which is compiled from the weekly interest rate resets of tax-exempt variable rate issues included in a database maintained by Municipal Market Data which meet specific criteria established from time to time by SIFMA and is issued on Wednesday of each week, or if any Wednesday is not a Business Day, the next succeeding Business Day

“Sinking Fund Requirement” means, for any Fiscal Year, the principal amount and premium, if any, of Term Bonds required to be purchased, redeemed or paid at maturity in such Fiscal Year as established by the resolution of the Board authorizing the issuance of such Term Bonds.

“SOFR” with respect to any Business Day means the secured overnight financing rate published for such day by the Federal Reserve Bank of New York, as the administrator of the benchmark (or a successor administrator) on the Federal Reserve Bank of New York’s website (or any successor source) at approximately 8:00 a.m. (New York City time) on the immediately succeeding Business Day and, in each case, that has been selected or recommended by the Relevant Governmental Body.

"Stepped Interest Rate" means, for the period beginning on the applicable Purchase Date, a per annum interest rate or rates set forth in the applicable Bond Purchase Agreement.

"Tax-Exempt Bonds" means any Bonds determined to be issued on a tax-exempt basis under the Code pursuant to the Resolution.

"Term Bonds" means Bonds of any principal maturity which are subject to mandatory distribution or redemption or for which mandatory sinking fund payments are required.

"Term Interest Rate" means a term, non-variable interest rate established in accordance with the Resolution.

"Term Interest Rate Period" means each period during which a Term Interest Rate is in effect.

"Term Out Period" means, during any Direct Purchase Period, the Term Out Period, if any, established by the Direct Purchaser or the Market Agent or as otherwise set forth in the applicable Bondholder Agreement.

"Term Out Rate" means, during any Direct Purchase Period, the Term Out Rate, if any, established by the Direct Purchaser or the Market Agent or as otherwise set forth in the applicable Bondholder Agreement.

"Term SOFR" means the forward-looking term rate for any one month period that is based on SOFR and that has been selected or recommended by the Relevant Governmental Body, in each case as published on an information service as selected by the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, from time to time in its reasonable discretion.

"Three Month LIBOR" means, on each Interest Determination Date, (a) the rate determined by the ICE Benchmark Administration ("ICE LIBOR") for deposits in U.S. dollars with a three-month maturity as published by Reuters (or such other service as may be nominated by the ICE Benchmark Administration, for the purpose of displaying London interbank offered rates for U.S. dollar deposits) as of 11:00 a.m., London time, on the Interest Determination Date, or, from and after such date as ICE LIBOR is no longer calculated and published, the Registrar shall use instead the LIBOR Successor Rate; or (b) except that, if a rate is not available on the Interest Determination Date from the selected index, Three Month LIBOR shall mean a rate determined on the basis of the rates at which deposits in U.S. dollars for a three-month maturity and in a principal amount of at least U.S. $1,000,000 are offered at approximately 11:00 a.m., London time, on the Interest Determination Date, to prime banks in the London interbank market by three Reference Banks. The Registrar shall request the principal London office of each of such Reference Banks to provide a quotation of its rate. If at least two such quotations are provided, Three Month LIBOR will be the arithmetic mean of such quotations. If fewer than two quotations are provided, Three Month LIBOR will be the arithmetic mean of the rates quoted by three (if three quotations are not provided, two or one, as applicable) major banks in New York City, selected by the Board, at approximately 11:00 a.m., on the Interest Determination Date for loans in U.S. dollars to leading European banks in a principal amount of at least U.S. $1,000,000 having a three month maturity. If none of the banks in New York City selected by the Board is then quoting rates for such loans, then Three Month LIBOR will mean Three Month LIBOR as determined for the immediately preceding Interest Determination Date.

"Undelivered Bond" means any Bond which constitutes an Undelivered Bond under the provisions of the Resolution.

"Underwriter" means the underwriter or underwriters for a series of Bonds as selected by a Designated Representative pursuant to the Resolution.

"Unremarketed Bonds" means Direct Purchase Bonds for which the Holders have not received the full Purchase Price of all of their Bonds on the applicable Direct Purchase Rate Mandatory Purchase Date.

"Variable Rate" means a variable interest rate or rates to be borne by the Bonds or any one or more maturities of the Bonds. Such variable interest rate shall be subject to a Maximum Interest Rate and there may be an initial rate specified, in each case as provided in such resolution. Such resolution shall also specify either (i) the particular period or periods of time or manner of determining such period or periods of time for which each value of such variable interest rate shall remain in effect or (ii) the time or times upon which any change in such variable interest rate shall become effective.

"Variable Rate Bonds" means, for any period of time the Bonds, which during such period bear interest at a Variable Rate, provided that Bonds the interest rate on which shall have been fixed for the remainder of the term to the maturity thereof shall no longer be Variable Rate Bonds.

"Weekly Interest Rate" means a variable interest rate for the Bonds established in accordance with the Resolution.

"Weekly Interest Rate Period" means each period during which a Weekly Interest Rate is in effect for a series of Bonds.

Rules of Interpretation. In the Sale Order, unless the context otherwise requires:

(a) The terms "hereby," "hereof," "hereto," "herein, "hereunder" and any similar terms, as used in the Resolution, refer to the Resolution as a whole and not to any particular article, section, subdivision or clause hereof, and the term "hereafter" shall mean after, and the term "heretofore" shall mean before, the date of the Resolution;

(b) Words of any gender shall mean and include correlative words of any other genders and words importing the singular number shall mean and include the plural number and vice versa;

(c) Words importing persons shall include firms, associations, partnerships (including limited partnerships), trusts, corporations and other legal entities, including public bodies, as well as natural persons;

(d) Any headings preceding the text of the several articles and sections of the Sale Order, and any table of contents or marginal notes appended to copies hereof, shall be solely for convenience of reference and shall not constitute a part of the Resolution, nor shall they affect its meaning, construction or effect;

(e) All references herein to "articles," "sections" and other subdivisions or clauses are to the corresponding articles, sections, subdivisions or clauses hereof; and

(f) Words importing the singular number include the plural number and vice versa.

ARTICLE II. Interest Rate on Variable Rate Bonds; Conversion Provisions.

Section 2.01 General. The interest rate and Interest Rate Period for any series of Bonds issued under the Resolution as Variable Rate Bonds may be adjusted as set forth in this Article II. All Variable Rate Bonds of a series issued hereunder initially shall bear the same interest rate for the same Interest Rate Period. The initial interest rate mode, Interest Rate Period and other interest rate provisions for any series of Variable Rate Bonds shall be determined by a Designated Representative and set forth in the applicable Bond Purchase Agreement.

At any given time, any Variable Rate Bonds issued hereunder or any portion of such Variable Rate Bonds may bear interest at a Daily Interest Rate, a Weekly Interest Rate, a Term Interest Rate or at an Index Floating Rate. If portions of the Variable Rate Bonds of issued hereunder bear interest at different rates, references to Variable Rate Bonds in a particular rate shall mean those Variable Rate Bonds of such series bearing interest at the applicable interest rate mode. The Interest Rate

Period for any Variable Rate Bonds of a series issued hereunder may not be adjusted as set forth in this Article II prior to a Purchase Date.

Section 2.02 Payment of Interest. Interest on any Variable Rate Bonds shall be paid on each Interest Payment Date, on any redemption date, on any Purchase Date and on the maturity date.

Section 2.03 Interest Accrual and Payment.

(a) Interest on Variable Rate Bonds issued hereunder during a Daily Interest Rate Period, a Weekly Interest Rate Period or an Index Floating Rate Period during which the Index is the SIFMA Index shall accrue on the basis of the actual number of days elapsed in a 365-day year (or a 366-day year in a leap year). Interest on the Variable Rate Bonds during a Term Interest Rate Period shall accrue on the basis of a 360-day year composed of twelve 30-day months. Interest on the Variable Rate Bonds during an Index Floating Rate Period during which the Index is One Month LIBOR or Three Month LIBOR shall accrue on the basis of the actual number of days elapsed in a 360-day year.

(b) Each Variable Rate Bond shall bear interest from and including the Interest Accrual Date preceding the date of authentication thereof or, if such date of authentication is an Interest Accrual Date to which interest on such Variable Rate Bond has been paid in full or duly provided for, from such date of authentication. However, if, as shown by the records of the Registrar, interest on such Variable Rate Bonds is in default, Bonds issued in exchange for Bonds surrendered for registration or transfer or exchange shall bear interest from the date to which interest on such surrendered Bonds had been paid or duly provided for or, if no interest has been paid on such surrendered Bonds, from the date of authentication of such surrendered Bonds.

(c) During each Daily Interest Rate Period, interest on such Variable Rate Bonds shall be payable on each Interest Payment Date for the period commencing on the Interest Accrual Date preceding the prior Interest Payment Date and ending on the last day of the month in which such Interest Accrual Date occurs.

(d) During each Weekly Interest Rate Period, interest on such Variable Rate Bonds shall be payable on each Interest Payment Date for the period commencing on the preceding Interest Accrual Date (or, if any such Interest Payment Date is not a Wednesday, commencing on the second preceding Interest Accrual Date) and ending on and including the Tuesday preceding such Interest Payment Date (or, if sooner, the last day of such Weekly Interest Rate Period).

(e) During each Index Floating Rate Period, interest on such Variable Rate Bonds shall be payable on each Interest Payment Date for the period commencing on the Interest Accrual Date of the preceding month, and ending on the day preceding such Interest Payment Date.

(f) During each Term Interest Rate Period, interest on such Variable Rate Bonds shall be payable on each Interest Payment Date for the period commencing on the Interest Accrual Date that occurs at the beginning of the immediately preceding six-month period and ending on the day preceding the Interest Accrual Date that occurs at the end of such six-month period.

(g) For any Direct Purchase Period, interest shall be payable on each Interest Payment Date for each Interest Accrual Period.

(h) In any event, interest on such Variable Rate Bonds shall be payable for the final Interest Rate Period to the date on which such Bonds have been paid in full.

Section 2.04 Weekly Interest Rate and Weekly Interest Rate Period.

(a) Determination of Weekly Interest Rate. During each Weekly Interest Rate Period, the Variable Rate Bonds of a series shall bear interest at the Weekly Interest Rate, which shall be determined by the Remarketing Agent by 5:00 p.m., New York time, on Tuesday of each week, or if such day is not a Business Day, then on the succeeding Business Day. The first Weekly Interest Rate for each Weekly Interest Rate Period shall be determined on or prior to the first day of such Weekly Interest Rate Period and shall be in effect for the period commencing on and including the first day of such Weekly Interest Rate Period and ending on and including the succeeding Tuesday. Thereafter, each Weekly Interest Rate shall be in effect for the period commencing on and including Wednesday and ending on and including the succeeding Tuesday, unless such Weekly Interest Rate Period ends on a day other than Tuesday, in which event the last Weekly Interest Rate for such Weekly Interest Rate Period shall be in effect for the period commencing on and including the Wednesday preceding the last day of such Weekly Interest Rate Period and ending on and including the last day of such Weekly Interest Rate Period.

(i) Each Weekly Interest Rate shall be the rate of interest per annum determined by the Remarketing Agent (based on an examination of obligations comparable, in the judgment of the Remarketing Agent, to the Variable Rate Bonds and known by the Remarketing Agent to have been priced or traded under then-prevailing market conditions) to be the minimum interest rate which, if borne by such Variable Rate Bonds, would enable the Remarketing Agent to sell all of such Variable Rate Bonds on such Business Day at a price (without regard to accrued interest) equal to the principal amount thereof.

(ii) If the Remarketing Agent fails to establish any Weekly Interest Rate, then the Weekly Interest Rate shall be the same as the preceding Weekly Interest Rate if such Weekly Interest Rate was determined by the Remarketing Agent. If the preceding Weekly Interest Rate was not determined by the Remarketing Agent, or if the Weekly Interest Rate determined by the Remarketing Agent is held to be invalid or unenforceable by a court of law, then the Weekly Interest Rate shall be equal to a percentage of the SIFMA Index to be defined in the applicable Bond Purchase Agreement, or if such index is no longer available, an alternative interest rate to be defined in the applicable Bond Purchase Agreement.

(b) Conversion to Weekly Interest Rate. Subject to Section 2.13, the Board may, from time to time, by written notice to the Credit Provider (if any), the Registrar and the Remarketing Agent (if any), elect that a series of Variable Rate Bonds issued hereunder shall bear interest at a Weekly Interest Rate. The notice of the Designated Representative shall (i) specify the proposed Conversion Date, which shall be (A) in each case, a Business Day not earlier than the 30th day following the second Business Day after receipt by the Registrar of such notice; (B) in the case of a Conversion from a Term Interest Rate Period, the day following the last day of such Term Interest Rate Period or a day on which the Bonds would otherwise be subject to optional redemption pursuant to the Resolution if such Conversion did not occur; and (C) in the case of a Conversion from an Index Floating Rate Period, the day following the last day of such Index Floating Rate Period or on or after a Par Call Date; and (ii) state whether a Credit Facility is to be in effect on the Conversion Date.

(c) Notice of Conversion to Weekly Interest Rate Period. The Registrar shall give notice of a Conversion to a Weekly Interest Rate Period to the Registered Owners of such Variable Rate Bonds not less than 30 days prior to the proposed Conversion Date. Such notice shall state (i) that the interest rate shall be converted to a Weekly Interest Rate unless the Board rescinds its election to convert the interest rate to a Weekly Interest Rate as provided herein; (ii) the proposed Conversion Date; (iii) that such Variable Rate Bonds are subject to mandatory tender for purchase on the proposed Conversion Date and setting forth the Purchase Price and the place of delivery for purchase of such Variable Rate Bonds; and (iv) the information set forth in Section 5.05.

Section 2.05 Daily Interest Rate and Daily Interest Rate Period.

(a) Determination of Daily Interest Rate. During each Daily Interest Rate Period, the Variable Rate Bonds of a series shall bear interest at the Daily Interest Rate, which shall be determined by the Remarketing Agent by 9:30 a.m., New York time, on each Business Day. The Daily Interest Rate for any day which is not a Business Day shall be the same as the Daily Interest Rate for the preceding Business Day.

(i) Each Daily Interest Rate shall be the rate of interest per annum determined by the Remarketing Agent (based on an examination of obligations comparable, in the judgment of the Remarketing Agent, to the Variable Rate Bonds and known by the Remarketing Agent to have been priced or traded under then-prevailing market conditions) to be the minimum interest rate which, if borne by such Variable Rate Bonds, would enable the Remarketing Agent to sell all of such Variable Rate Bonds on such Business Day at a price (without regard to accrued interest) equal to the principal amount thereof.

(ii) If the Remarketing Agent fails to establish any Daily Interest Rate, then the Daily Interest Rate for such Business Day shall be the same as the preceding Daily Interest Rate and such Daily Interest Rate shall continue to be in effect until the earlier of (i) the date on which the Remarketing Agent determines a new Daily Interest Rate or (ii) the seventh day succeeding the first day on which the Daily Interest Rate was not determined by the Remarketing Agent. If the Daily Interest Rate is held to be invalid or unenforceable by a court of law, or the Remarketing Agent fails to determine the Daily Interest Rate for a period of seven days as described in clause (ii) of the preceding sentence, then the Daily Interest Rate shall be equal to a percentage of the SIFMA Index to be defined in the applicable Bond Purchase Agreement, or if such index is no longer available, an alternative interest rate to be defined in the applicable Bond Purchase Agreement.

(b) Conversion to Daily Interest Rate. Subject to Section 2.13, the Board may, from time to time, by written notice to the Credit Provider (if any), the Registrar and the Remarketing Agent (if any), elect that Variable Rate Bonds issued hereunder shall bear interest at a Daily Interest Rate. The notice of the Designated Representative shall (i) specify the proposed Conversion Date, which shall be (A) in each case, a Business Day not earlier than the 30th day following the second Business Day after receipt by the Registrar of such notice; (B) in the case of a Conversion from a Term Interest Rate Period, the day following the last day of such Term Interest Rate Period or a day on which the Bonds would otherwise be subject to optional redemption pursuant to the Resolution if such Conversion did not occur; and (C) in the case of a Conversion from an Index Floating Rate Period, the day following the last day of such Index Floating Rate Period or on or after a Par Call Date; and (ii) state whether a Credit Facility is to be in effect on the Conversion Date.

(c) Notice of Conversion to Daily Interest Rate Period. The Registrar shall give notice of a Conversion to a Daily Interest Rate Period to the Registered Owners of such Variable Rate Bonds not less than 30 days prior to the proposed Conversion Date. Such notice shall state (i) that the interest rate shall be converted to a Daily Interest Rate unless the Board rescinds its election to convert the interest rate to a Daily Interest Rate as provided herein; (ii) the proposed Conversion Date; (iii) that the Bonds are subject to mandatory tender for purchase on the proposed Conversion Date and setting forth the Purchase Price and the place of delivery for purchase of such Variable Rate Bonds; and (iv) the information set forth in Section 5.05.

Section 2.06 Term Interest Rate and Term Interest Rate Period.

(a) Determination of Term Interest Rate.

(i) During each Term Interest Rate Period, the Variable Rate Bonds shall bear interest at the Term Interest Rate. The Business Day following the last day of each Term Interest Rate Period shall be a Purchase Date on which such Variable Rate Bonds are subject to mandatory tender pursuant to the Resolution. If Variable Rate Bonds issued under the Resolution are to initially bear interest at a Term Interest Rate, the Initial Term Interest Rate shall be set forth in the applicable Bond Purchase Agreement. The Term Interest Rate for each additional Term Interest Rate Period shall be determined by the Remarketing Agent on a Business Day no later than the first day of such Term Interest Rate Period.

(ii) For other than the Initial Term Interest Rate, the Term Interest Rate shall be the rate of interest per annum determined by the Remarketing Agent (based on an examination of obligations comparable, in the judgment of the Remarketing Agent, to the Bonds and known by the Remarketing Agent to have been priced or traded under then-prevailing market conditions) to be the minimum interest rate at which the Remarketing Agent will agree to purchase the Bonds on the effective date of that rate for resale at a price (without regard to accrued interest) equal to the principal amount thereof.

(b) Conversion to Term Interest Rate.

(i) Subject to Section 2.13, the Board may, from time to time, by written notice to the Credit Provider (if any), the Registrar and the Remarketing Agent (if any), elect that Variable Rate Bonds issued hereunder shall bear, or continue to bear, interest at the Term Interest Rate. The notice of the Designated Representative shall specify (1) the proposed Conversion Date, which shall be (a) in each case, a Business Day not earlier than the 30th day following the second Business Day after receipt by the Registrar of such notice; (b) in the case of a Conversion from a Term Interest Rate Period, the day following the last day of such Term Interest Rate Period or a day on which the Bonds would otherwise be subject to optional redemption pursuant to the Resolution if such Conversion did not occur; and (c) in the case of a Conversion from an Index Floating Rate Period, the day following the last day of such Index Floating Rate Period or on or after a Par Call Date; and (2) the last day of the Term Interest Rate Period, which shall be either the day prior to the maturity date or a day which both immediately precedes a Business Day and is at least 181 days after the proposed Conversion Date.

(ii) If, by the second Business Day preceding the 29th day prior to the last day of any Term Interest Rate Period, the Registrar has not received notice of the Board's election to effect a Conversion to a new Interest Rate Period, such Variable Rate Bonds shall nevertheless be subject to mandatory tender for purchase as provided in the Resolution on the Business Day following the last day of each Term Interest Rate Period.

(c) Notice of Conversion to a Term Interest Rate Period. The Registrar shall give notice of a Conversion to a Term Interest Rate Period to the Registered Owners of such Variable Rate Bonds not less than 30 days prior to the proposed Conversion Date. Such notice shall state (i) that the interest rate shall be converted to, or continue to be, a Term Interest Rate unless (A) the Board rescinds its election to convert the interest rate to the Term Interest Rate as provided in Section 2.13 or (B) all such Variable Rate Bonds are not remarketed on the proposed Conversion Date, in which case the provisions of Sections 2.12 and 5.05 shall apply; (b) the proposed Conversion Date, the Par Call Date (if any), the last day of the new Term Interest Rate Period; (c) that such Variable Rate Bonds are subject to mandatory tender for purchase on the proposed Conversion Date and setting forth the Purchase Price and the place of delivery for purchase of such Variable Rate Bonds; and (d) the information set forth in Section 5.05. In addition, the Designated Representative may provide for such additional terms and conditions to apply to a Term Interest Rate Period (subsequent to the Initial Term Interest Rate Period) as are substantially similar to the terms provided for the Initial Term Interest Rate Period or are not otherwise inconsistent with the Resolution.

Section 2.07 Index Floating Rate and Index Floating Rate Period.

(a) Determination of Index Floating Rate. During each Index Floating Rate Period, the Variable Rate Bonds shall bear interest at the Index Floating Rate, which shall be (i) if the Index is One Month LIBOR or Three Month LIBOR, the sum of (a) the product of the Index multiplied by the Index Floating Rate Percentage plus (b) the Index Floating Rate Spread, and (ii) if the Index is the SIFMA Index, the Adjusted SIFMA Rate. The Index Floating Rate Spread to be in effect during each Index Floating Rate Period shall be determined by the Remarketing Agent, on the initial Interest Determination Date for such Index Floating Rate Period, and such Index Floating Rate shall be in effect for the period commencing on the first day of such Index Floating Rate Period to but excluding the first Interest Reset Date of such Index Floating Rate Period. Thereafter, the Index Floating Rate shall be calculated by the Registrar on each Interest Determination Date, and such Index Floating Rate shall be in effect for the period commencing on each Interest Reset Date to but excluding the following Interest Reset Date.

(i) Each Index Floating Rate Spread shall be the spread determined by the Underwriter or Remarketing Agent (based on an examination of obligations comparable, in the judgment of the Remarketing Agent, to the Bonds and known by the Remarketing Agent to have been priced or traded under then-prevailing market conditions) to be the minimum spread which, when added to the Index (multiplied, if applicable, by the Index Floating Rate Percentage), equals the interest rate which, if borne by the Bonds, would enable the Remarketing Agent to sell all of the Bonds on the Interest Reset Date at a price (without regard to accrued interest) equal to the principal amount thereof.

(ii) If a Designated Representative selects an alternate index other than the One Month LIBOR, Three Month LIBOR or SIFMA Index, a Favorable Opinion of Bond Counsel shall be obtained and a certificate signed by a Designated Representative shall be prepared and sent to the Registrar setting forth the Index, the Index Floating Rate Spread, if any, and other appropriate terms.

(b) Conversion to Index Floating Rate.

(i) Subject to Section 2.13, the Board may, from time to time, by written notice to the Credit Provider (if any), the Registrar and the Remarketing Agent (if any), elect that Variable Rate Bonds issued hereunder shall bear, or continue to bear, interest at an Index Floating Rate. The notice of the Designated Representative shall specify (A) the proposed Conversion Date, which shall be (x) in each case, a Business Day not earlier than the 30th day following the second Business Day after receipt by the Registrar of such notice; (y) in the case of a Conversion from a Term Interest Rate Period, the day following the last day of such Term Interest Rate Period or a day on which the Bonds would otherwise be subject to optional redemption pursuant to the Resolution if such Conversion did not occur; and (z) in the case of a Conversion from an Index Floating Rate Period, the day following the last day of such Index Floating Rate Period or on or after a Par Call Date; (B) the Conversion Date on which the Index Floating Rate Period is to end or, if applicable, that the Index Floating Rate

Period is to end on the day prior to the maturity date; (C) the Index to be in effect and, if applicable, the Index Floating Rate Percentage; and (D) each Par Call Date for such Index Floating Rate Period.

(ii) If, by the second Business Day preceding the 29th day prior to the last day of any Index Floating Rate Period, the Registrar has not received notice of the Board's election that, during the succeeding Interest Rate Period, such Variable Rate Bonds shall bear interest at the Weekly Interest Rate, the Daily Interest Rate, the Term Interest Rate or another Index Floating Rate, (A) the next Interest Rate Period shall be an Index Floating Rate Period, (B) the Index (and, if applicable, the Index Floating Rate Percentage) for such Index Floating Rate Period shall remain the same and (C) the term of such Index Floating Rate Period shall be the same as the preceding Index Floating Rate Period (but which shall not extend beyond the day prior to the maturity date).

(c) Notice of Conversion to Index Floating Rate Period. The Registrar shall give notice of a Conversion to an Index Floating Rate Period to the Registered Owners of the Bonds not less than 30 days prior to the proposed Conversion Date. Such notice shall state (i) that the interest rate shall be converted to, or continue to be, an Index Floating Rate, unless the Board rescinds its election to convert the interest rate to an Index Floating Rate as provided in Section 2.13); (ii) the proposed Conversion Date and the Conversion Date on which the Index Floating Rate Period is to end or, if applicable, that the Index Floating Rate Period is to end on the day prior to the maturity date; and (iii) that the Variable Rate Bonds are subject to mandatory tender for purchase on the proposed Conversion Date and setting forth the Purchase Price and the place of delivery for purchase of the Variable Rate Bonds; and (iv) the information set forth in Section 5.05.

Section 2.08 Direct Purchase Rate and Direct Purchase Rate Period.

(a) Direct Purchase Bonds. The following shall apply during each Direct Purchase Period:

(i) The Direct Purchase Bonds shall be in Authorized Denominations.

(ii) Unless the Direct Purchaser gives a written direction otherwise, all payments with respect to the Direct Purchase Bonds are to be made directly by the Board to the Direct Purchaser for so long as it is the Holder of all of the Direct Purchase Bonds.

(iii) The Direct Purchase Bonds shall be registered in the name of the Direct Purchaser, and shall not have a CUSIP number assigned thereto (unless the Direct Purchaser consents thereto or directs that the Bonds be in book-entry form), and shall not be held under a Securities Depository system, including but not limited to the book-entry only system of DTC and (unless the Direct Purchaser consents thereto or directs that the Bonds be in book-entry form) shall not be registered in the name of "Cede & Co." or otherwise be DTC eligible. The Direct Purchase Bonds, without the prior written consent of the Direct Purchaser, shall not be rated by any Rating Agency and shall not be marketed during any period in which the Direct Purchase Bonds are held by the Direct Purchaser pursuant to any official statement, offering memorandum or any other disclosure documentation (other than in connection with any Conversion to an Interest Rate Period other than a Direct Purchase Period).

(iv) Unless otherwise directed by the Direct Purchaser, the Board shall cause physical delivery of the Direct Purchase Bonds to the Direct Purchaser in the form attached hereto as Exhibit A. Each Bond bearing interest at the Direct Purchase Rate shall contain a legend indicating that the transferability of such Bond is subject to the restrictions set forth in the Resolution.

(v) No modifications or amendments to, or waivers of, the terms of the Direct Purchase Bonds, the Resolution, the Bondholder Agreement, or any related documents, by the Direct Purchaser shall be made or granted without the receipt by the Board of a Favorable Opinion of Bond Counsel.

(vi) Subject to the provisions of the Resolution, during any Direct Purchase Period, the Direct Purchaser, as the sole Holder of such Direct Purchase Bonds, shall have the right to enforce the rights and remedies provided to Bondholders under the Resolution and to control all proceedings relating to the exercise of such rights and remedies in its own name and not subject to the restrictions contained herein.

(b) Determination of Direct Purchase Rates. During each Direct Purchase Period with respect to the Bonds, the Bonds shall bear interest at the Direct Purchase Rate. For any Direct Purchase Period, interest on the Bonds shall be payable on each Interest Payment Date for each applicable Interest Accrual Period commencing on the Interest Accrual Date preceding such Interest Payment Date. For any Direct Purchase Period, the Direct Purchase Rate shall be determined by utilizing the Applicable Spread, the Applicable Factor and the Direct Purchase Index for such Direct Purchase Period, all in a manner determined by the Direct Purchaser or the Market Agent prior to the Conversion to any Direct Purchase Period or as otherwise set forth in the applicable Bondholder Agreement (the Direct Purchase Rate, unless otherwise established in a Bondholder Agreement, to be the sum of (i) the Applicable Factor multiplied by the Direct Purchase Index plus (ii) the Applicable Spread, per annum). The Market Agent shall determine the Direct Purchase Rate on each Direct Purchase Rate Determination Date to become effective on the immediately succeeding Index Reset Date during the Direct Purchase Period, and interest shall accrue at such rate for each day during the Interest Accrual Period commencing on the Index Reset Date. The Direct Purchase Rate shall be rounded, if necessary, to the third decimal place. For each Direct Purchase Period, prior to the commencement of such Direct Purchase Period, the Direct Purchaser or the Market Agent shall also determine the Direct Purchase Period, the Interest Accrual Period, the Direct Purchase Rate Mandatory Purchase Date, the Direct Purchase Period Earliest Redemption Date (if applicable), the Term Out Period (if applicable), and the Term Out Rate (if applicable). During each Direct Purchase Period, the Direct Purchase Bonds shall be subject to optional redemption as provided in Section 4.01(e) hereof.

(c) Conversion to Direct Purchase Period. Subject to Section 2.13, at any time, the Board, by Electronic Notice to the Registrar, the Credit Facility Provider, if any, the Liquidity Facility Provider, if any, and the Remarketing Agent, may direct that all, but not less than all, Bonds shall be converted to bear interest at a Direct Purchase Rate. Such direction of the Board shall specify the proposed Conversion Date, which shall be (1) a Business Day not earlier than the twentieth (20th) day following receipt by the Registrar of such direction and (2) in the case of a Conversion of Fixed Rate Bonds, only on any date during the period such Fixed Rate Bonds are subject to optional redemption pursuant to Section 4.01(a) hereof. In addition, such direction shall be accompanied by a letter of Bond Counsel that it expects to be able to render a Favorable Opinion of Bond Counsel on the proposed Conversion Date. In addition, such direction shall specify the duration of the Direct Purchase Period immediately following the proposed Conversion Date.

(d) Notice of Conversion to Direct Purchase Period. The Registrar shall give notice of a Conversion to a Direct Purchase Period to the Registered Owners of such Variable Rate Bonds not less than 30 days prior to the proposed Conversion Date. Such notice shall state (i) that the interest rate shall be converted to a Direct Purchase Period unless the Board rescinds its election to convert the interest rate to a Direct Purchase Period as provided herein; (ii) the proposed Conversion Date; (iii) that such Variable Rate Bonds are subject to mandatory tender for purchase on the proposed Conversion Date and setting forth the Purchase Price and the place of delivery for purchase of such Variable Rate Bonds; and (iv) the information set forth in Section 5.05.

Section 2.09 Flexible Rate and Flexible Rate Period

(a) Determination of Flexible Rate Periods. A Flexible Rate Period for Flexible Rate Bonds shall be of such duration of from one to 270 calendar days, ending on a day preceding a Business Day or the maturity date, as the Remarketing Agent shall determine in accordance with the provisions of this Section; provided, however, that no Flexible Rate Period set after delivery by the Board of the notice of the intention to effect a Conversion pursuant to Section 2.15 hereof that has been received by the Remarketing Agent shall extend beyond the Mandatory Purchase Date of the Bonds subject to such Conversion. A Flexible Rate Bond can have a Flexible Rate Period and bear interest at a Flexible Rate, different than another Flexible Rate Bond. In making the determinations with respect to Flexible Rate Periods, subject to limitations imposed by the second preceding sentence and in Section 2.02 hereof, on each Flexible Rate Determination Date for a Flexible Rate Bond, the Remarketing Agent, in consultation with the Board, shall select for such Bond the Flexible Rate Period which would result in the Remarketing Agent being able to remarket such Bond at par in the secondary market at the lowest average interest cost for all Flexible Rate Bonds; provided, however, that if the Remarketing Agent has received notice from the Board that the Bonds are to be converted from the Flexible Rate Period to any other Interest Rate Period, the Remarketing Agent shall select Flexible Rate Periods which do not extend beyond the resulting applicable Mandatory Purchase Date of the Bonds. The Remarketing Agent shall notify the Registrar in writing of the terms of the Flexible Rate Period and the Bonds affected.

(b) Determination of Flexible Rates. By 1:00 p.m., New York City time, on each Flexible Rate Determination Date, the Remarketing Agent, with respect to each Bond in the Flexible Rate Period which is subject to adjustment on such date, shall determine the Flexible Rate Period then selected for such Bond as described above and shall give notice by Electronic Means to the Registrar and the Board, of the Flexible Rate Period, the Mandatory Purchase Date and the Flexible Rate for such Bond. The Remarketing Agent shall make the Flexible Rate and Flexible Rate Period available after 2:00 p.m., New York City time, on each Flexible Rate Determination Date by telephone or Electronic Means to any Beneficial Owner requesting such information.

(c) Conversion to Flexible Rate Period. Subject to Section 2.13, the Board may, from time to time, by written notice to the Credit Provider (if any), the Registrar and the Remarketing Agent (if any), elect that all, but not less than all, Bonds shall be converted to bear interest at a Flexible Rate. Such direction of the Board shall specify the proposed Conversion Date, which shall be (1) a Business Day not earlier than the twentieth (20th) day following receipt by the Registrar of such direction and (2) in the case of a Conversion of Fixed Rate Bonds, only on any date during the period such Fixed Rate Bonds are subject to optional redemption pursuant to Section 4.01(a) hereof. In addition, such direction shall be accompanied by a letter of Bond Counsel that it expects to be able to render a Favorable Opinion of Bond Counsel on the proposed Conversion Date. In addition, such direction shall specify the duration of the Flexible Rate Period immediately following the proposed Conversion Date.

(d) Notice of Conversion to Flexible Rate Period. The Registrar shall give notice of a Conversion to a Flexible Rate Period to the Registered Owners of such Variable Rate Bonds not less than 30 days prior to the proposed Conversion Date. Such notice shall state (i) that the interest rate shall be converted to a Flexible Rate Period unless the Board rescinds its election to convert the interest rate to a Flexible Rate Period as provided herein; (ii) the proposed Conversion Date; (iii) that such Variable Rate Bonds are subject to mandatory tender for purchase on the proposed Conversion Date and setting forth the Purchase Price and the place of delivery for purchase of such Variable Rate Bonds; and (iv) the information set forth in Section 5.05.

Section 2.10 Determinations of Remarketing Agent and Registrar Binding. All percentages resulting from any calculation of any interest rate for Variable Rate Bonds shall be truncated to the nearest one thousandth of a percentage point and all dollar amounts rounded to the nearest cent, with one-half cent being rounded upward. The Remarketing Agent, if any, and the Registrar shall provide prompt notice of each determination of the interest rate for the Variable Rate Bonds to the Board, the Registrar and the Remarketing Agent (if any). The Registrar shall provide notice of any such determination to each Registered Owner or Beneficial Owner of the Variable Rate Bonds upon request. Absent manifest error, each such determination shall be conclusive and binding upon the Board, the Registrar, the Remarketing Agent and the Registered Owners and Beneficial Owners of the Variable Rate Bonds.

Section 2.11 Maximum Interest Rate. Notwithstanding any provision in the Resolution to the contrary, at no time shall the Variable Rate Bonds issued hereunder bear interest at a rate higher than the Maximum Interest Rate.

Section 2.12 Delayed Remarketing Period. If the entire amount of the Purchase Price of all of the Variable Rate Bonds bearing interest at a Term Interest Rate that are required to be purchased on the Purchase Date occurring at the end of the Initial Term Interest Rate Period cannot be paid, none of the Variable Rate Bonds will be purchased and a Delayed Remarketing Period will commence on such date with respect to such Variable Rate Bonds. If the Purchase Price of all of the Variable Rate Bonds bearing interest at an Index Floating Rate that are required to be purchased on a Purchase Date cannot be paid, only a portion of such Variable Rate Bonds (selected pro rata) in an amount equal to the funds available to pay the Purchase Price thereof in accordance with Section 6.08 will be purchased on such Purchase Date, and the remainder of such Variable Rate Bonds for which there are not sufficient available funds to pay the full Purchase Price thereof will not be purchased and a Delayed Remarketing Period will commence on such date with respect only to such Variable Rate Bonds. In such an event, a Delayed Remarketing Period will not commence for any Variable Rate Bonds that were not subject to mandatory tender on such Purchase Date. During a Delayed Remarketing Period, the following will apply to the Variable Rate Bonds subject to such Delayed Remarketing Period:

(a) All of the applicable Variable Rate Bonds will bear interest at the Stepped Interest Rate;

(b) The Remarketing Agent will continue to be obligated to remarket the applicable Variable Rate Bonds;

(c) The applicable Variable Rate Bonds will continue to be subject to optional redemption by the Board as described herein;

(d) The Designated Representative, by notice to the Registrar and the Remarketing Agent, may direct a Conversion of the applicable Variable Rate Bonds as described in Section 2.13;

(e) Interest on the applicable Variable Rate Bonds shall continue to be due and payable on each Interest Payment Date and also shall be payable on the last day of the Delayed Remarketing Period; and

(f) If the applicable Variable Rate Bonds are successfully remarketed as described in Section 6.06, the Registered Owners of the applicable Variable Rate Bonds will be obligated to tender their Variable Rate Bonds to the Registrar.

Section 2.13 Conversion of Interest Rate Periods.

(a) Rescission of Election. A Designated Representative may rescind any election to effect a Conversion by delivering to the Credit Provider (if any), the Registrar and the Remarketing Agent (if any), on or prior to 10:00 a.m., New York time, on the second Business Day preceding a proposed Conversion Date, a notice to the effect that the Board elects to rescind its election to effect such Conversion. If the Board rescinds its election to effect a Conversion at the end of a Term Interest Rate Period, a Delayed Remarketing Period shall commence on the Purchase Date and the Variable Rate Bonds shall bear interest at a Stepped Interest Rate as set forth herein or, (i) if a Daily Interest Rate Period is in effect immediately prior to the proposed Conversion, the Variable Rate Bonds shall continue to bear interest at the Daily Interest Rate or (ii) if an Index Floating Rate Period is in effect immediately prior to the proposed Conversion, the Variable Rate Bonds shall continue to bear interest at the applicable Index Floating Rate. If notice of a Conversion has been mailed to the Registered Owners of the Variable Rate Bonds as provided in Section 2.04(c), 2.05(c), 2.06(c), 2.07(c), 2.08(d) or 2.09(d), as applicable, and the Board rescinds its election to effect such Conversion, the Variable Rate Bonds shall nevertheless be subject to mandatory tender for purchase on the proposed Conversion Date.

(b) Certain Additional Conditions. No Conversion shall take effect unless each of the following conditions, to the extent applicable, shall have been satisfied:

(i) The Board shall have obtained the written consent of the Credit Provider, if any.

(ii) If required pursuant to the notice of Conversion, a Credit Facility shall be in effect on the Conversion Date.

(iii) The Board shall have received a Favorable Opinion of Bond Counsel with respect to such Conversion dated the Conversion Date.

(iv) The Registrar shall have sufficient remarketing or refunding proceeds, proceeds of a draw on the Credit Facility or other funds made available by the Board to pay the Purchase Price of the Variable Rate Bonds on the Conversion Date.

Section 2.14 Inability to Ascertain Rate.

(a) Notwithstanding anything to the contrary in this Resolution, if the Registrar or, in the case of Direct Purchase Bonds, the Market Agent, determines (which determination shall be conclusive absent manifest error), or the Board notifies the Direct Purchaser that the Board has determined, that:

(i) adequate and reasonable means do not exist for ascertaining LIBOR for any Interest Period hereunder or any other tenors of LIBOR, including, without limitation, because the LIBOR Screen Rate is not available or published on a current basis and such circumstances are unlikely to be temporary; or

(ii) the administrator of the LIBOR Screen Rate or a Governmental Authority having or purporting to have jurisdiction over the Lender or such administrator has made a public statement identifying a specific date after which LIBOR or the LIBOR Screen Rate shall no longer be made available, or used for determining the interest rate of loans, provided that, at the time of such statement, there is no successor administrator that is satisfactory to the Registrar or Purchaser, as applicable, that will continue to provide LIBOR after such specific date (such specific date, the "**Scheduled Unavailability Date**"); or

(iii) the administrator of the LIBOR Screen Rate or a Governmental Authority having jurisdiction over such administrator has made a public statement announcing that all Interest Periods and other tenors of LIBOR are no longer representative; or

(iv) commercial loans currently being executed, or that include language similar to that contained in this Section 2.14, are being executed or amended (as applicable) to incorporate or adopt a new benchmark interest rate to replace LIBOR:

then, in the case of clauses (i)-(iii) above, on a date and time determined by the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser (any such date, the "**LIBOR Replacement Date**"), which date shall be at the end of an Interest Period or on the relevant interest payment date, as applicable, for interest calculated and shall occur reasonably promptly upon the occurrence of any of the events or circumstances under clauses (i), (ii) or (iii) above and, solely with respect to clause (ii) above, no later than the Scheduled Unavailability Date, LIBOR will be replaced hereunder and under any Related Document with, subject to the proviso below, the first available alternative set forth in the order below for any payment period for interest calculated that can be determined by the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, in each case, without any amendment to, or further action or consent of any other party to, the Resolution or any other Related Document (the "**LIBOR Successor Rate**"; and any such rate before giving effect to the Related Adjustment, the "**Pre-Adjustment Successor Rate**"):

(x) Term SOFR *plus* the Related Adjustment; and

(y) SOFR *plus* the Related Adjustment;

and in the case of clause (iv) above, on the fifth Business Day after the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, provides notice to the Board of the occurrence of the circumstances described in clause (iv) above, LIBOR under the Resolution and under any other Related Document shall be replaced in accordance with the definition of "LIBOR Successor Rate;"

provided that, if the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, determines that Term SOFR has become available, is administratively feasible for the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, and would have been identified as the Pre-Adjustment Successor Rate in accordance with the foregoing if it had been so available at the time that the LIBOR Successor Rate then in effect was so identified, and the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, notifies the Board of such availability, then from and after the beginning of the Interest Period, relevant interest payment date or payment period for interest calculated, in each case, commencing no less than thirty (30) days after the date of such notice, the Pre-Adjustment Successor Rate shall be Term SOFR and the LIBOR Successor Rate shall be Term SOFR *plus* the relevant Related Adjustment.

The Purchaser will promptly (in one or more notices) notify the Board of (x) any occurrence of any of the events, periods or circumstances under clauses (i) through (iii) above, (y) a LIBOR Replacement Date and (z) the LIBOR Successor Rate.

Any LIBOR Successor Rate shall be applied in a manner consistent with market practice; *provided* that to the extent such market practice is not administratively feasible for the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, such LIBOR Successor Rate shall be applied in a manner as otherwise reasonably determined by the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser,.

In connection with the implementation of a LIBOR Successor Rate, the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, will have the right to make LIBOR Successor Rate Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Related Document, any amendments implementing such LIBOR Successor Rate Conforming Changes will become effective without any further action or consent of any other party to the Resolution; provided that, with respect to any such amendment effected, the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, shall provide each such amendment implementing such LIBOR Successor Rate Conforming Changes to the Board reasonably promptly after such amendment becomes effective.

If the events or circumstances of the type described in Section 2.14(a)(i)-(iii) have occurred with respect to the LIBOR Successor Rate then in effect, then the successor rate thereto shall be determined in accordance with the definition of "LIBOR Successor Rate."

(b) Notwithstanding anything to the contrary herein, (i) after any such determination by the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, or receipt by the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, of any such notice described under Section 2.14(a)(i)-(iii), as applicable, if the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, determines that none of the LIBOR Successor Rates is available on or prior to the LIBOR Replacement Date, (ii) if the events or circumstances described in Section 2.14(a)(iv) have occurred but none of the LIBOR Successor Rates is available, or (iii) if the events or circumstances of the type described in Section 2.14(a)(i)-(iii) have occurred with respect to the LIBOR Successor Rate then in effect and the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, determines that none of the LIBOR Successor Rates is available, then in each case, solely for the purpose of replacing LIBOR or any then current LIBOR Successor Rate in accordance with this Section 2.14 at the end of any Interest Period, relevant interest payment date or payment period for interest calculated, as applicable, the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, may designate by prior notice to the Board another alternate benchmark rate to be effective under the Resolution on the fifth Business Day following notice, giving due consideration to any evolving or then existing convention for similar U.S. dollar denominated commercial credit facilities for such alternative benchmarks and, in each case, including any Related Adjustments and any other mathematical or other adjustments to such benchmark giving due consideration to any evolving or then existing convention for similar U.S. dollar denominated commercial credit facilities for such benchmarks, which adjustment or method for calculating such adjustment shall be published on an information service as selected by the Registrar or, in the case of Direct Purchase Bonds, the Direct Purchaser, from time to time in its reasonable discretion and may be periodically updated. For the avoidance of doubt, any such alternative rate and adjustments shall constitute a LIBOR Successor Rate.

ARTICLE III. REPURCHASE OF BONDS.

Subject to the terms of the Resolution, the Board reserves the right to use money in the Receiving Fund or any other funds legally available therefor at any time to purchase any of the Bonds in the open market if such purchase shall be found by the Board to be economically advantageous and in the best interest of the Board. Any purchases of Bonds may be made with or without tenders of Bonds and at either public or private sale in such amount and at such price as the Board shall, in its discretion, deem to be in its best interest. Any money which is to be applied to the purchase or redemption of Bonds shall, prior to such purchase or redemption, be transferred to and deposited in the Bond Fund to the credit of the appropriate account therein. Purchases of Term Bonds may be credited against the Sinking Fund Requirement for such Term Bonds. Bonds purchased pursuant to this Article III shall be cancelled.

ARTICLE IV. REDEMPTION OF BONDS.

Section 4.01 Optional Redemption.

(a) Fixed Rate Bonds. Fixed Rate Bonds issued hereunder shall be subject to optional redemption on the dates, at the prices and under the terms set forth in the applicable Bond Purchase Agreement approved by a Designated Representative.

(b) Weekly Interest Rate Period, Daily Interest Rate Period and Index Floating Rate Period.

(i) During a Daily Interest Rate Period or a Weekly Interest Rate Period, Bonds shall be subject to optional redemption at the written direction of a Designated Representative on any Business Day, in whole or in part, at a Redemption Price of 100% of the principal amount thereof plus interest, if any, accrued to the date fixed for redemption.

(ii) During an Index Floating Rate Period, Bonds shall be subject to optional redemption at the written direction of a Designated Representative on or after any Par Call Date, in whole or in part, at a Redemption Price of 100% of the principal amount thereof plus interest, if any, accrued to the date fixed for redemption.

(c) Term Interest Rate Period.

(i) During the Initial Term Interest Rate Period, Bonds shall be subject to optional redemption at the written direction of a Designated Representative on or after the Par Call Date specified in the Bond Purchase Agreement, in whole or in part, at a Redemption Price of 100% of the principal amount thereof plus interest accrued to the date fixed for redemption.

(ii) For any Term Interest Rate Period other than the Initial Term Interest Rate Period, Bonds shall be subject to optional redemption at the written direction of a Designated Representative, at the Redemption Price or Redemption Prices set forth in the applicable Bond Purchase Agreement.

(iii) Notwithstanding anything herein to the contrary, the above table may be amended by a Designated Representative prior to a Conversion to a Term Interest Rate Period upon delivery of a Favorable Opinion of Bond Counsel.

(iv) In the event that the Conversion Date for Bonds converted to a Term Interest Rate Period is other than a day which would be an Interest Payment Date during such Term Interest Rate Period, then the date on which such Bonds shall first be subject to redemption pursuant to the foregoing table (after the first day of such Term Interest Rate Period) shall be the first Interest Payment Date succeeding the date on which such Bonds otherwise would be subject to redemption, and the Redemption Price shall be adjusted on each anniversary of that Interest Payment Date as provided in such table.

(d) Flexible Rate Bonds. During a Flexible Rate Period, Bonds are not subject to optional redemption prior to their respective Purchase Dates. Flexible Rate Bonds shall be subject to redemption at the option of the Board, in whole or in part on their respective Purchase Dates at a Redemption Price equal to the principal amount thereof, plus interest accrued thereon, if any, to the date fixed for redemption, without premium.

(e) Direct Purchase Bonds. Direct Purchase Bonds are subject to redemption prior to their maturity date, at the option of the Board, in whole or in part at any time on or after their Direct Purchase Period Earliest Redemption Date, if any, at a Redemption Price equal to the principal amount thereof, plus interest accrued thereon, if any, to the date fixed for redemption, without premium, or, with a Favorable Opinion of Bond Counsel, as is set forth in the applicable Bondholder Agreement.

Section 4.02 Mandatory Redemption. A Designated Representative may specify in the Bond Purchase Agreement or in a notice of Conversion that all or a portion of the Bonds are Term Bonds subject to mandatory sinking fund redemption at a Redemption Price of 100% of the principal amount thereof plus interest, if any, accrued to the date fixed for redemption, on the dates and with the Sinking Fund Requirements specified in the Bond Purchase Agreement or the notice of Conversion. If a Term Bond is redeemed under the optional redemption provisions, defeased or purchased by the Board and surrendered for cancellation, the principal amount of the Term Bond so redeemed, defeased or purchased (irrespective of its actual redemption or purchase price) shall be credited against one or more scheduled Sinking Fund Requirements for that Term Bond. The Designated Representative shall determine the manner in which the credit is to be allocated and shall notify the Registrar in writing of its allocation prior to the earliest mandatory redemption date for that Term Bond for which notice of redemption has not already been given.

Section 4.03 Effect of Notice; Bonds Due. If an unconditional notice of redemption has been given and not rescinded, or if the conditions set forth in a conditional notice of redemption have been satisfied or waived, the Bonds of a series or portions of Bonds to be redeemed shall, on the redemption date, become due and payable at the price therein specified, and, if the Registrar then holds sufficient funds to effect such redemption, then from and after such date such Bonds or portions of Bonds shall cease to bear interest. Upon surrender of such Bonds for redemption in accordance with said notice, such Bonds shall be paid by the Registrar. Installments of interest due on or prior to the redemption date shall be payable as herein provided for payment of interest. All Bonds which have been redeemed shall be canceled by the Registrar and shall not be reissued.

Section 4.04 Additional Notice. In addition to the foregoing notice, further notice shall be given by the Board as set out below, but no defect in said further notice nor any failure to give all or any portion of such further notice shall in any manner defeat the effectiveness of a call for redemption if notice thereof is given as above prescribed. Each further notice of redemption given hereunder shall contain the information required above for an official notice of redemption plus (i) the CUSIP numbers of all Bonds being redeemed; (ii) the Issuance Date of the Bonds as originally issued; (iii) the rate of interest borne by each Bond being redeemed; (iv) the maturity date of each Bond being redeemed; and (v) any other descriptive information needed to identify accurately the Bonds being redeemed. Each further notice of redemption may be sent at least 30 days before the redemption date to each party entitled to receive notice pursuant to a Continuing Disclosure Undertaking and with such additional information as the Board shall deem appropriate, but such mailings shall not be a condition precedent to the redemption of such Bonds.

Section 4.05 Amendment of Notice Provisions. The foregoing notice provisions of this Section, including, but not limited to, the information to be included in redemption notices and the persons designated to receive notices, may be amended by additions, deletions and changes in order to maintain compliance with duly promulgated regulations and recommendations regarding notices of redemption of municipal securities.

ARTICLE V. PURCHASE OF VARIABLE RATE BONDS.

Section 5.01 Optional Tender for Purchase During Weekly Interest Rate Period.

(a) During any Weekly Interest Rate Period that the Variable Rate Bonds are not in a book-entry only system, such Variable Rate Bonds shall be purchased in an Authorized Denomination (provided that the amount of any such Variable Rate Bonds not to be purchased shall also be in an Authorized Denomination) from their respective Registered Owner at the option of the Registered Owner on any Business Day at the Purchase Price, from the sources specified in Section 5.07, payable in immediately available funds, upon delivery to the Registrar at its designated office for delivery of Variable Rate Bonds and to the Remarketing Agent of an irrevocable written notice which states the principal amount of such Variable Rate Bonds to be purchased and the Purchase Date, which shall be a Business Day not prior to the seventh day after the date of the delivery of such notice to the Registrar and the Remarketing Agent. Any notice delivered to the Registrar or the Remarketing Agent after 4:00 p.m., New York time, shall be deemed to have been received on the succeeding Business Day. Variable Rate Bonds to be so purchased must be delivered at or prior to 10:00 a.m., New York time, on the Purchase Date to the Registrar at its designated office for delivery of Variable Rate Bonds accompanied by an instrument of transfer, in form satisfactory to the Registrar.

(b) If during any Weekly Interest Rate Period the Variable Rate Bonds are in a book-entry only system, the Variable Rate Bonds shall be purchased in an Authorized Denomination (provided that the amount of any such Variable Rate Bonds not to be purchased shall also be in an Authorized Denomination) from the Registered Owner or respective Participant (subject to confirmation by DTC to the Registrar that the Participant has the required ownership interest in the Variable Rate Bonds) at the option of the Registered Owner or Participant on any Business Day at the Purchase Price, from the sources specified in Section 5.07, payable in immediately available funds to the Registered Owner, and not to the Participant, upon delivery to the Registrar at its designated office for delivery of Variable Rate Bonds and to the Remarketing Agent of an irrevocable written notice which states the principal amount of such Variable Rate Bonds to be purchased and the Purchase Date, which shall be a Business Day not prior to the seventh day after the date of the delivery of such notice to the Registrar and the Remarketing Agent. Any notice delivered to the Registrar or the Remarketing Agent after 4:00 p.m., New York time, shall be deemed to have been received on the succeeding Business Day.

(c) Payment of the Purchase Price of such Variable Rate Bonds shall be made by the Registrar by 3:00 p.m., New York time, on the Purchase Date specified in such notice, or as soon as practicable thereafter, upon the receipt by the Registrar of the Purchase Price as set forth in Section 6.08 on the Purchase Date.

Section 5.02 Optional Tender for Purchase During Daily Interest Rate Period.

(a) During any Daily Interest Rate Period in which the Variable Rate Bonds of a series are not subject to a book-entry only system, such Variable Rate Bonds shall be purchased in an Authorized Denomination (provided that the amount of any such Variable Rate Bonds not to be purchased shall also be in an Authorized Denomination) from their respective Registered Owner at the option of the Registered Owner on any Business Day at the Purchase Price, from the sources specified in Section 5.07, payable in immediately available funds, upon delivery to the Registrar at its designated office for delivery of Variable Rate Bonds and to the Remarketing Agent by no later than 11:00 a.m., New York time, on such Business Day, of an irrevocable written notice or an irrevocable telephonic notice, promptly confirmed by telecopy or other writing, which states the principal amount of such Variable Rate Bonds to be purchased and the Purchase Date. Any notice delivered to the Registrar or the Remarketing Agent after 11:00 a.m., New York time, shall be deemed to have been received on the succeeding Business Day. Variable Rate Bonds to be so purchased must be delivered at or prior to 12:00 noon, New York time, on the Purchase Date to the Registrar at its designated office for delivery of Variable Rate Bonds accompanied by an instrument of transfer, in form satisfactory to the Registrar.

(b) During any Daily Interest Rate Period the Variable Rate Bonds of a series are in a book-entry only system, the Variable Rate Bonds shall be purchased in an Authorized Denomination (provided that the amount of any such Variable Rate Bonds not to be purchased shall also be in an Authorized Denomination) from the respective Registered Owner or Participant at the option of the Registered Owner or Participant on any Business Day at the Purchase Price, from the sources specified in Section 5.07, payable in immediately available funds to the Registered Owner (and not to the Participant), upon delivery to the Registrar at its designated office for delivery of Variable Rate Bonds and to the Remarketing Agent by no later than 11:00 a.m., New York time, on such Business Day, of an irrevocable written notice or an irrevocable telephonic notice, promptly confirmed by telecopy or other writing, which states the principal amount of such Variable Rate Bonds to be purchased and the Purchase Date. Any notice delivered to the Registrar or the Remarketing Agent after 11:00 a.m., New York time, shall be deemed to have been received on the succeeding Business Day.

(c) Payment of the Purchase Price of such Variable Rate Bonds shall be made by the Registrar by 3:00 p.m., New York time, on the Purchase Date specified in such notice, or as soon as practicable thereafter, upon the receipt by the Registrar of the Purchase Price as set forth in Section 6.08 on the Purchase Date.

Section 5.03 Mandatory Tender for Purchase.

(a) Except as provided in the next paragraph, the Variable Rate Bonds shall be subject to mandatory tender for purchase at the Purchase Price on the first day of each Interest Rate Period, on each proposed Conversion Date for which notice has been given to the Registered Owners and on or after each Par Call Date for which notice has been given to the Registered Owners. During the Initial Term Interest Rate Period or any subsequent Term Interest Rate Period if elected by the Designated Representative, the Variable Rate Bonds shall be subject to mandatory tender for purchase on the Business Day following the last day of such Term Interest Rate Period, regardless of whether the Board has provided (or rescinded) notice of intent to effect a Conversion to a new Interest Rate Period. If insufficient funds are available to the Registrar to pay the Purchase Price of all of such Variable Rate Bonds, none of the Variable Rate Bonds may be purchased and a Delayed Remarketing Period shall commence with respect to such Variable Rate Bonds in accordance with Section 2.12, and the failure to pay the Purchase Price on such Purchase Date shall not constitute an Event of Default under the Resolution.

(b) For any Purchase Date occurring during the Initial Term Interest Rate Period (including the Purchase Date occurring at the end of such Initial Term Interest Rate Period), unless all of the applicable Variable Rate Bonds are purchased, none of such Variable Rate Bonds will be purchased. In such event, the Registrar will return all of the Variable Rate Bonds to the owners thereof and the Variable Rate Bonds will remain outstanding and bear interest at the then- effective Term Interest Rate; provided, however, that if the Variable Rate Bonds are not purchased on the Purchase Date occurring on the Business Day succeeding the last day of the Initial Term Interest Rate Period, a Delayed Remarketing Period shall commence on such Purchase Date and from and after such date the Variable Rate Bonds shall accrue interest at the Stepped Interest Rate until such Variable Rate Bonds are purchased pursuant to a Conversion, redeemed or paid at maturity.

(c) Payment of the Purchase Price of such Variable Rate Bonds shall be made by the Registrar by 3:00 p.m., New York time, on the Purchase Date specified in the notice of Conversion or call, or as soon as practicable thereafter, upon the receipt by the Registrar of the Purchase Price as set forth in Section 6.08 on the Purchase Date. Variable

Rate Bonds to be so purchased that are not subject to a book-entry only system must be delivered at or prior to 10:00 a.m., New York time, on the Purchase Date to the Registrar at its designated office for delivery of Variable Rate Bonds accompanied by an instrument of transfer, in form satisfactory to the Registrar.

Section 5.04 Mandatory Tender for Purchase upon Termination, Replacement or Expiration of the Credit Facility.

(a) The Variable Rate Bonds shall be subject to mandatory tender for purchase at the Purchase Price if at any time the Registrar receives notice that the Variable Rate Bonds shall cease to be subject to purchase pursuant to the Credit Facility then in effect as a result of (1) the termination, replacement or expiration of such Credit Facility, including termination at the option of the Board in accordance with the terms of any Reimbursement Agreement or upon an event of default under the Reimbursement Agreement or (2) a Conversion. The Purchase Date shall be (i) the fifth Business Day preceding any such expiration or termination of such Credit Facility if no Alternate Credit Facility is to be delivered to the Registrar, (ii) the date such Alternate Credit Facility is delivered to the Registrar or (iii) the Conversion Date.

(b) Payment of the Purchase Price of such Variable Rate Bonds shall be made by the Registrar by 3:00 p.m., New York time, on the Purchase Date specified in the notice given pursuant to Section 5.05, or as soon as practicable thereafter, upon the receipt by the Registrar of the Purchase Price as set forth in Section 5.5 on the Purchase Date. Variable Rate Bonds to be so purchased that are not subject to a book-entry only system must be delivered at or prior to 10:00 a.m., New York time, on the Purchase Date to the Registrar at its designated office for delivery of Variable Rate Bonds accompanied by an instrument of transfer, in form satisfactory to the Registrar.

Section 5.05 Notice of Mandatory Tender for Purchase. In connection with any mandatory tender for purchase of Variable Rate Bonds in accordance with Sections 5.03 or 5.04, the Registrar shall give the notice required by this Section 5.05 (if applicable, as a part of the notice given pursuant to Section 2.04(c), 2.05(c), 2.06(c), 2.07(c), 2.08(d) or 2.09(d)). Such notice shall state (1) in the case of a mandatory tender for purchase pursuant to Section 5.03, the type of Interest Rate Period to which the Variable Rate Bonds will be converted on the Purchase Date; (2) in the case of a mandatory tender for purchase pursuant to Section 5.04, that the Credit Facility will expire, terminate or be replaced and that after the Purchase Date, the Variable Rate Bonds will no longer be purchased pursuant to the Credit Facility then in effect and that the short-term ratings applicable to the Variable Rate Bonds may be reduced or withdrawn; (3) that, provided the Purchase Price shall have been provided to the Registrar from remarketing or refunding proceeds, proceeds of a draw on the Credit Facility or other funds made available by the Board, the Variable Rate Bonds shall be purchased on the Purchase Date; and (4) that in the case of Variable Rate Bonds that are not subject to a book-entry only system, the Purchase Price shall be payable only upon surrender of the Variable Rate Bonds to the Registrar at its designated office for delivery of Variable Rate Bonds, accompanied by an instrument of transfer, in form satisfactory to the Registrar, executed in blank by the Registered Owner or its duly-authorized attorney, with such signature guaranteed by a commercial bank, trust company or member firm of the New York Stock Exchange, and that if the Registered Owner of any such Variable Rate Bond does not surrender that Variable Rate Bond to the Registrar for purchase on the Purchase Date, then that Variable Rate Bond shall be deemed to be an Undelivered Bond, no interest shall accrue on such Bond on and after the Purchase Date and that the Registered Owner shall have no rights under the Resolution other than to receive payment of the Purchase Price.

Section 5.06 Irrevocable Notice Deemed to be Tender of Bonds; Undelivered Bonds.

(a) The giving of optional tender to purchase notice by a Registered Owner of Bonds or Participant as provided in Section 5.01 or 5.02 shall constitute the irrevocable tender for purchase of each Variable Rate Bond with respect to which such notice is given regardless of whether that Variable Rate Bond is delivered to the Registrar for purchase on the applicable Purchase Date.

(b) If the Registered Owner of a Variable Rate Bond subject to mandatory tender for purchase that is not subject to a book-entry only system shall fail to deliver its Variable Rate Bond to the Registrar at the place and on the Purchase Date and by the time specified, or shall fail to deliver its Variable Rate Bond properly endorsed, such Variable Rate Bond shall constitute an Undelivered Bond. If funds in the amount of the Purchase Price of the Undelivered Bond are available for payment to the Registered Owner thereof on the Purchase Date and at the time specified, then from and after the Purchase Date and time of that required delivery (i) the Undelivered Bond shall be deemed to be purchased and shall no longer be deemed to be outstanding under the Resolution; (ii) interest shall no longer accrue on the Undelivered Bond; and (iii) funds in the amount of the Purchase Price of the Undelivered Bond shall be held uninvested and without liability for interest by the Registrar for the benefit of the Registered Owner thereof, to be paid on delivery (and proper endorsement) of the Undelivered Bond to the Registrar at its designated office for delivery of Variable Rate Bonds.

Section 5.07 Source of Funds for Payment of Purchase Price. The Purchase Price of Variable Rate Bonds to be purchased on any Purchase Date shall be made from the following sources and in the following order of priority:

(a) proceeds of the remarketing of the Variable Rate Bonds;

(b) proceeds of refunding bonds issued by the Board;

(c) proceeds of a draw on the Credit Facility, if any; and

(d) other funds made available by the Board.

ARTICLE VI. CREDIT FACILITY; BANK BONDS.

Section 6.01 Draws on Credit Facility. When a Credit Facility is in effect, the Registrar shall draw on the Credit Facility in accordance with the terms of the Credit Facility and the provisions of the Reimbursement Agreement to the extent necessary to pay when due the principal and Purchase Price of and interest on the Variable Rate Bonds.

Section 6.02 Acceptance by Registrar. If at any time there are delivered to the Registrar (1) a Credit Facility, (2) all required opinions and information, and (3) all information required to give the notice of mandatory tender for purchase of the Variable Rate Bonds, then the Registrar shall accept such Credit Facility and, after the date of the mandatory tender for purchase established pursuant to Section 5.03 or 5.04, promptly surrender any Credit Facility then in effect to the issuer thereof for cancellation in accordance with its terms.

Section 6.03 Notice of Termination. The Registrar shall give notice to the Remarketing Agent and the Registered Owners of the Variable Rate Bonds of the termination or expiration of any Credit Facility in accordance with its terms.

Section 6.04 Bank Bonds. A Credit Facility may provide that a Variable Rate Bond that is purchased by the Board with amounts paid or provided by a Credit Provider under a Credit Facility shall become a Bank Bond and shall bear interest at the Bank Rate for each day from and including the day such Bank Bond becomes a Bank Bond to and excluding the day such Bank Bond ceases to be a Bank Bond or is paid in full. Interest on each Bank Bond shall be calculated and be payable on the dates and in the manner specified in the Credit Facility or Reimbursement Agreement. To the extent there are not remarketing proceeds or refunding bond proceeds available to pay a Bank Bond on any interest or principal payment date for those Bank Bonds, the Board shall make such payment to the Registrar from the Bond Fund.

Section 6.05 Remarketing Agent. A Designated Representative shall appoint a Remarketing Agent for Variable Rate Bonds to be converted to a Daily Interest Rate, Weekly Interest Rate or Term Interest Rate or to remarket Variable Rate Bonds upon a Purchase Date and enter into a Remarketing Agreement with such Remarketing Agent. Each Remarketing Agent appointed by the Board shall designate its principal office in the Remarketing Agreement. The Remarketing Agent shall signify its acceptance of the duties and obligations imposed upon it under the Resolution by a written instrument of acceptance (which may be the Remarketing Agreement) delivered to the Board, the Registrar and the Credit Provider, if any, under which the Remarketing Agent shall agree to keep such books and records related to the remarketing of the Variable Rate Bonds as shall be consistent with prudent industry practice and to make such books and records related to the remarketing of the Variable Rate Bonds available for inspection by the Board, the Registrar and the Credit Provider, if any, at all reasonable times.

Each Remarketing Agent shall be a member of the National Association of Securities Dealers, having a combined capital stock, surplus and undivided profits of at least $50,000,000 and authorized by law to perform all the duties imposed upon it by the Resolution and the Remarketing Agreement. Each Remarketing Agent shall be acceptable to the Credit Provider, if any. A Remarketing Agent may at any time resign and be discharged of the duties and obligations created by the Resolution by giving notice to the Board, the Registrar and the Credit Provider, if any. Such resignation shall take effect on the 30th day after the receipt by the Board of the notice of resignation. A Remarketing Agent may be removed at any time on 15 days prior written notice, by an instrument signed by the Board, approved by the Credit Provider, if any, and delivered to the Remarketing Agent, the Registrar and the Credit Provider.

Section 6.06 Remarketing of Variable Rate Bonds; Notice of Interest Rates.

(a) Remarketing. Upon a mandatory tender for purchase of the Variable Rate Bonds as required by Section 5.03 or 5.04 or notice of optional tender for purchase of Variable Rate Bonds under Section 5.01 or 5.02, the Remarketing Agent shall offer for sale and use its best efforts to sell such Variable Rate Bonds on the Purchase Date and, if not remarketed on the Purchase Date, thereafter until sold, at the Purchase Price. Variable Rate Bonds shall not be remarketed to the Board.

(b) Notice of Purchase and Remarketing. The Remarketing Agent shall give notice, in no event later than 9:30 a.m., New York time, on the Purchase Date, by facsimile transmission, telephone, telecopy, e-mail or similar electronic means promptly confirmed by a written notice, to the Registrar and the Board on each date on which Variable Rate Bonds have been purchased pursuant to Article V, specifying the principal amount of such Variable Rate Bonds, if any, remarketed, and if the Variable Rate Bonds are not in book-entry form, a list of the purchasers showing the names and denominations in which such Variable Rate Bonds are to be registered, and the addresses and social security or taxpayer identification numbers of such purchasers.

Section 6.07 Bond Purchase Account. There shall be created and established a separate an account within the Bond Fund to be designated the "Bond Purchase Account." The Registrar shall further establish within the Bond Purchase Account a separate subaccount to be designated the "Remarketing Account" and, if a Credit Facility is delivered in connection with a Conversion, a separate trust account to be designated the "Credit Facility Purchase Account." Amounts contributed by the Board to the Purchase Price as provided in Article III shall be transferred from the Bond Fund to the Registrar and deposited into the Bond Purchase Account.

Section 6.08 Remarketing Account. Upon receipt of the proceeds of a remarketing of Variable Rate Bonds on a Purchase Date pursuant to Section 6.06, the Registrar shall deposit such proceeds in the Remarketing Account of the Bond Purchase Account for application to the Purchase Price of such Bonds in accordance with Section 6.06.

Section 6.09 Credit Facility Purchase Account. Upon receipt from the Credit Provider of funds drawn on a Credit Facility, the Board shall deposit such funds in the Credit Facility Purchase Account of the Bond Purchase Account for application to the Purchase Price of the Variable Rate Bonds required to be purchased on a Purchase Date to the extent that the money on deposit in the Remarketing Account of the Bond Purchase Account shall not be sufficient. Any amounts deposited in the Credit Facility Purchase Account and not needed on any Purchase Date for the payment of the Purchase Price for any Variable Rate Bonds shall be immediately returned to the Credit Provider. Any amounts in the Credit Facility Purchase Account shall only be used to repay the Variable Rate Bonds.

Section 6.10 Reimbursement Obligations. In the event that the Board elects additionally to secure Variable Rate Bonds through the use of a letter of credit, insurance or other credit enhancement device, the Board may contract with the entity providing such letter of credit, insurance or other credit enhancement device that the Board's reimbursement obligation, if any, to such entity ranks on a parity of lien with the Bonds; provided that the payments due under such reimbursement obligation are such that if such reimbursement obligation were a series of additional bonds under the Bond Resolution and assuming that such credit enhancement device were to be drawn upon for the full amount available, such additional could be issued in compliance with the provisions of Section 24 of the Bond Resolution excluding Annual Debt Service on the Variable Rate Bonds.

$70,875,000

LANSING BOARD OF WATER AND LIGHT

CITY OF LANSING, MICHIGAN

UTILITY SYSTEM REVENUE BONDS, SERIES 2021B

(MANDATORY PUT BONDS)

Mixed Sources
Product group from well managed forests, controlled sources and recycled wood or fiber.

Printed by: ImageMaster, LLC
www.imagemaster.com

LANSING BOARD OF WATER AND LIGHT, CITY OF LANSING, MICHIGAN • UTILITY SYSTEM REVENUE BONDS, SERIES 2021B (MANDATORY PUT BONDS)