COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF THE MARION)	
COUNTY WATER DISTRICT FOR THE ISSUANCE)	
OF A CERTIFICATE OF PUBLIC CONVENIENCE)	
AND NECESSITY TO CONSTRUCT A WATER)	CASE NO.
SYSTEM IMPROVEMENTS PROJECT AND AN)	2021-00303
ORDER AUTHORIZING THE ISSUANCE OF)	
SECURITIES PURSUANT TO THE PROVISIONS)	
KRS 278.020, KRS 278.300 AND 807 KAR 5:001)	

ORDER

On July 26, 2021, Marion County Water District (Marion District) filed an electronic application, pursuant to KRS 278.020, KRS 278.300, and 807 KAR 5:001 for a Certificate of Public Convenience and Necessity (CPCN) to install system zone meters and to replace its existing Automated Meter Reading (AMR) system. Marion District is also requesting authorization to issue long-term debt in the aggregate amount of \$2,100,000 (subject to an adjustment of up to 10 percent). No party has sought intervention in this matter. Marion District responded to one round of discovery. This matter now stands ready for a decision based on the written record.

BACKGROUND

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¹ Application at 7.

Marion District, a water district organized under KRS Chapter 74, provides retail water service to approximately 6,172 customers in Marion and Nelson counties, Kentucky.²

PROPOSED PROJECT

Marion District's proposed construction project includes: (1) the replacement of 6,000 Sensus SR meters;³ (2) the replacement of concrete or tar meter boxes;⁴ (3) two Neptune AMR Truck Reading Systems;⁵ and (3) the installation of zone meters on its distribution mains.⁶ Marion District intends to replace 2,000 meters per year and will complete the meter replacement project in three-years.⁷ The estimated total cost of Marion District's proposed construction project is \$1,538,508.⁸

Marion District intends to finance the \$1,538,508 construction project through the issuance of a \$1,600,000 loan from the Farmers National Bank of Lebanon (Farmers Bank) that will mature over a ten-year term, and will bear an interest rate of 2.14 percent per annum.⁹ In addition to the \$1,600,000 loan, Marion District requests to borrow an additional \$500,000 from Farmers Bank which Marion District proposes to apply to an

² Annual Report of Marion County Water District to the Kentucky Public Service Commission for the Year Ended December 31, 2020 (2020 Annual Report) at 12 and 49.

³ Marion District's Supplemental Filing (filed Oct. 28, 2021), Item 1.a.

⁴ Application, Exhibit A, Project Description and Need.

⁵ Marion District's Supplemental Filling (filed Oct. 28, 2021), Item 3.c.

⁶ Application, Exhibit A, Project Description and Need.

⁷ Id.

⁸ *Id.* Exhibit D, Project Cost Breakdown.

⁹ *Id.*, Exhibit C, Bank Commitment Letter.

existing loan with Citizens National Bank (Citizens Bank).¹⁰ The Commission authorized Marion District to obtain the Citizens Bank loan in Case No. 2013-00093¹¹ in the original principal amount of \$726,051, bearing an interest rate of 3.50 percent per annum.¹² Marion District estimated that its proposed refinancing will result in a present value savings and a net present value (NPV) savings of \$22,067 and \$48,926, respectively.¹³

Marion District did not prepare any plans for its proposed construction project and the project did not require a permit to be issued by the Kentucky Division of Water (KDOW).¹⁴ Construction of the proposed project is being performed within the existing boundaries of Marion District and will not compete with any other public utilities or result in any wasteful duplication.¹⁵

UNACCOUNTED-FOR WATER LOSS

The Commission notes that in its 2020 Annual Report Marion District reported a water loss of 19.67 percent. ¹⁶ Commission Regulation 807 KAR 5:066 Section 6(3) states that for ratemaking purposes a utility's unaccounted-for water loss shall not exceed 15 percent of total water produced and purchased, excluding water consumed by a utility in its own operations.

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¹¹ Case No. 2013-00093, Application of Marion County Water District for Authority to Enter Into a Loan Agreement with Citizens National Bank of Lebanon, Kentucky (Ky. PSC April 8, 2013).

 $^{^{\}rm 12}$ Application, Exhibit G, Outstanding Loan Amortization Schedule.

¹³ Marion District's Responses to Commission Staff's First Request for Information (Staff's First Request) (filed Aug. 17, 2021), Item 2, Excel Spreadsheet: Present_Value_Calculations.

¹⁴ Application at 2–3.

¹⁵ *Id.* at 3.

¹⁶ 2020 Annual Report at 57.

If Marion District reduced its unaccounted-for water loss to 15 percent, Marion District's annual cost of water production would decrease by approximately \$91,119.¹⁷ If Marion District eliminates all its water loss the cost of water production could be decreased by \$383,794.¹⁸

The Commission is placing greater emphasis on monitoring utilities that consistently exceed the 15 percent unaccounted-for water loss threshold and strongly encourages Marion District to pursue reasonable actions to reduce its unaccounted-for water loss. Failure by Marion District to make significant progress towards reducing unaccounted-for water loss may cause the Commission to pursue additional action with the utility.

LEGAL STANDARD

The Commission's standard of review of a request for a CPCN is well settled. No utility may construct or acquire any facility to be used in providing utility service to the public until it has obtained a CPCN from this Commission except as provided in KRS 278.020(1) and (2) and 807 KAR 5:001, Section 15(3), which are provisions not

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	Purc	hased Water	 Electricty	Total
Allowable Purchases	\$	1,918,514	\$ 32,652	\$ 1,951,166
Multiplied by: Excess Water Loss Over 15 Percent		-4.67%	 -4.67%	-4.67%
Cost of Water Loss Over 15 Percent	\$	(89,595)	\$ (1,525)	\$ (91,119)
18				
	Purc	hased Water	Electricty	Total
Allowable Purchases	\$	1,918,514	\$ 32,652	\$ 1,951,166
Multiplied by: Water Loss	-	-19.67%	 -19.67%	 -19.67%
Cost of Water Loss	\$	(377,372)	\$ (6,423)	\$ (383,794)

applicable to this matter. To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication.¹⁹

"Need" requires:

[A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated.

[T]he inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.²⁰

"Wasteful duplication" is defined as "an excess of capacity over need" and "an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties."²¹ To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed.²² Selection of a

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¹⁹ Kentucky Utilities Co. v. Public Service Comm'n, 252 S.W.2d 885 (Ky. 1952).

²⁰ *Id.* at 890.

²¹ *Id.*

²² Case No. 2005-00142, Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky (Ky. PSC Sept. 8, 2005).

proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.²³ All relevant factors must be balanced.²⁴

KRS 278.300 requires Commission authorization before a utility may "issue any securities or evidences of indebtedness, or assume any obligation or liability in respect to the securities or evidences of indebtedness of any other person." KRS 278.300(3) establishes the legal standard and clarifies the scope of Commission review, stating:

The Commission shall not approve any issue or assumption unless, after investigation of the purposes and uses of the proposed issue and proceeds thereof, or of the proposed assumption of obligation or liability, the commission finds that the issue or assumption is for some lawful object within the corporate purposes of the utility, is necessary or appropriate for or consistent with the proper performance by the utility of its service to the public and will not impair its ability to perform that service, and is reasonably necessary and appropriate for such purpose.

DISCUSSION

From 2016 to 2020, Marion District's water loss percentage has increased from 12.56 percent²⁶ to 19.67 percent. Marion District explained that approximately 1 percent of the increase in its water loss is due to the change in the way its system flushing is calculated.²⁷ The prior general manager estimated Marion District's system flushing, but

²³ See Kentucky Utilities Co. v. Public Service Comm'n, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 138 kV Electric Transmission Line in Rowan County, Kentucky (Ky. PSC Aug. 19, 2005), final Order.

²⁴ Case No. 2005-00089, *East Kentucky Power Cooperative, Inc.* (Ky. PSC Aug. 19, 2005), final Order at 6.

²⁵ KRS 278.300(1).

²⁶ Annual Report of Marion County Water District to the Kentucky Public Service Commission for the Year Ended December 31, 2016 at 56.

²⁷ Marion District's Responses to Staff's First Request (filed Aug. 17, 2021), Item 6.a.

its current general manager calculates the system flushing by using the master meter readings while the system is being flushed.²⁸ In addition, Marion District noted that the water district's water loss has increased due to the termination of a long-term employee in January of 2019. This employee played a key role in Marion District's ability to detect system water leaks due to his vast knowledge of the location of the systems mains and water meters.²⁹

However, the primary reason given by Marion District for the increase in its water loss is its old, under-registering meters.³⁰ The Sensus manufactured SR meters between the years of 1954 to 2008, with the majority of Marion District's Sensus SR meters being manufactured between the years of 1975 to 1980.³¹ Marion District's 6,000 Sensus SR meters have been in service for approximately 35 to 40 years,³² but originally the expected service life of the Sensus SR meters was only 20 years.³³ Marion District claimed that it's unaccounted for water loss has increased year after year as its Sensus SR meters have aged.³⁴

To gauge the impact its aging meters has on unaccounted for water loss, Marion District performed two limited meter tests.³⁵ The first meter test used a sample size of 50

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ Marion District's Supplemental Filing (filed Oct. 28, 2021), Item 1.a.

³² Marion District's Responses to Staff's First Request (filed August 17, 2021), Item 6.a.

³³ *Id.*, Item 6.b.

³⁴ *Id*.

³⁵ Marion District's Supplemental Filling (filed Oct. 28, 2021), Item 1.c.

customers in the Sulphur Springs master meter area (Sulphur Springs Area); and the second meter test used a sample size of 40 customers in the Fairgrounds Road master meter area (Fairgrounds Road Area).³⁶ Replacing the 50 Sensus SR meters in the Sulphur Springs Area resulted in a decrease in the unaccounted for water loss from 10.73 percent to 5.01 percent for a reduction in the unaccounted for water loss of 5.72 percent.³⁷ Replacing the 40 Sensus SR meters in the Fairgrounds Road Area resulted in a decrease in the unaccounted for water loss from 13.68 percent to 8.05 percent for a reduction in the unaccounted for water loss of 5.63 percent.³⁸

Marion District also noted that since 2010, replacement parts are not available due to the fact that the Sensus SR meters are not currently being manufactured and are not being supported by Sensus.³⁹ Marion District has been forced to salvage replacement meter bottoms from old meters that they have in stock.⁴⁰ Further, Marion District's Sensus R MXU AMR system is also currently unavailable and if the AMR reading system fails, replacement parts are unavailable.⁴¹

Due to the high level of maintenance issues in the field with the Sensus SR meters and that the Sensus MXU AMR system is no longer under warranty, Marion District's board of commissioners decided to replace all of the aging Sensus SR meters within three

³⁶ *Id*.

 $^{^{37}}$ 10.73% - 5.01% = 5.72%.

 $^{^{38}}$ 13.68% - 8.05% = 5.63%.

³⁹ Marion District's Supplemental Filling (filed Oct. 28, 2021), Item 1.a.

⁴⁰ *Id*.

⁴¹ *Id.*

years.⁴² Marion District explained that processing bills while utilizing multiple AMR systems would be problematic and that this three year timeframe would make the transition between the AMR systems substantially less difficult.⁴³

The meter manufacturers that met Marion District's bid specifications were Neptune, Badger, and Sensus. The table below is a comparison of Marion District's bid tabulations.⁴⁴

		NECCO			Core & Main			CITCO					
Description	Quantity	Ī	Jnit Price		Total Cost	\Box	Jnit Price		Total Cost		Jnit Price		Total Cost
5/8 x 3/4 -Inch Meters	2,000	\$	172.62	\$	345,240.00	\$	231.20	\$	462,400.00	\$	240.00	\$	480,000.00
1-Inch Meters	28	\$	348.81		9,766.68	\$	311.53		8,722.84	\$	345.00		9,660.00
5/8 x 3/4 -Inch Meters	2,000	\$	172.62		345,240.00	\$	238.35		476,700.00	\$	250.00		500,000.00
5/8 x 3/4 -Inch Meters	2,000	\$	172.62		345,240.00	\$	238.35		476,700.00	\$	260.00		520,000.00
Truck Reading System (AMR)	2	\$	6,875.00		13,750.00	\$	7,899.34		15,798.68	\$	20,400.00		40,800.00
Retrofit Existing Meters	680	\$	108.70		73,916.00	\$	104.95		71,366.00	\$	-		0.00
2-Inch CMIU Ultrasonic Meters	4	\$	797.62		3,190.48	\$	901.85		3,607.40	\$	4,164.50		16,658.00
2-Inch Ultrasonic Radio Meters	25	\$	773.81		19,345.25	\$	880.60		22,015.00	\$	4,164.50		104,112.50
3-Inch CMIU Ultrasonic Meters	14	\$	2,172.62		30,416.68	\$	2,110.98		29,553.72	\$	4,337.00		60,718.00
4-Inch CMIU Ultrasonic Meters	9	\$	2,750.00		24,750.00	\$	2,546.60		22,919.40	\$	4,682.00		42,138.00
1st Year Software Subscription	1	\$	2,312.00		2,312.00	\$	4,314.84		4,314.84	\$	-		0.00
Setup and Training	1	\$	500.00		500.00	\$	18,333.34		18,333.34	\$	1,500.00		1,500.00
CMIU Units for Campbellsville Meters	3	\$	142.86	_	428.58	\$	132.76		398.28	\$	135.00	_	405.00
Bid Totals				\$	1,214,095.67			\$	1,612,829.50			\$	1,775,991.50

Marion District currently has 700 Neptune meters in service and they have provided exceptional customer service during the three-year service period.⁴⁵ Ultimately Marion District awarded the lowest bidder to NECCO for Neptune meters for a total final cost of \$1,538,508 broken down as follows:⁴⁶

⁴² *Id.*, Item 2.a.

⁴³ *Id*.

⁴⁴ Application, Exhibit L, Bid Tabulations.

⁴⁵ Marion District's Supplemental Filling (filed Oct. 28, 2021), Item 2.b.

⁴⁶ Application, Exhibit D, Project Cost Breakdown.

Description	Quantity	Ų	Unit Price		Total Cost
5/8 x 3/4 -Inch Meters	2,000	\$	172.62	\$	345,240.00
1-Inch Meters	28	\$	348.81		9,766.68
5/8 x 3/4 -Inch Meters	2,000	\$	172.62		345,240.00
5/8 x 3/4 -Inch Meters	2,000	\$	172.62		345,240.00
Truck Reading System (AMR)	2	\$	6,875.00		13,750.00
Retrofit Existing Meters	680	\$	108.70		73,916.00
2-Inch CMIU Ultrasonic Meters	4	\$	797.62		3,190.48
2-Inch Ultrasonic Radio Meters	25	\$	773.81		19,345.25
3-Inch CMIU Ultrasonic Meters	14	\$	2,172.62		30,416.68
4-Inch CMIU Ultrasonic Meters	9	\$	2,750.00		24,750.00
1st Year Software Subscription	1	\$	2,312.00		2,312.00
Setup and Training	1	\$	500.00		500.00
CMIU Units for Campbellsville Meters	3	\$	142.86		428.58
Meter Lids	6,500	\$	26.00		169,000.00
Meter Boxes	8,000	\$	14.88		119,040.00
Master Meter Appruntenances	1	\$	36,372.00		36,372.00
Total				\$	1,538,507.67

Marion District's service area covers all of Marion County and six miles into Nelson County. Currently Marion District's system is divided into 11 master meter zones that cover up to 300 square miles each. The size of each master meter zone makes it difficult for Marion District to identify where the water leaks in its system are occurring. The installation of the zone meters will divide the current master meter areas into smaller zones and will enable Marion District to correlate the residential meters within a smaller zone to the water being fed into each zone. The smaller zones will allow for quicker leak detection and should result in a reduction in Marion District's water loss.

⁴⁷ *Id.*, Exhibit A, Project Description and Need.

⁴⁸ *Id.*

⁴⁹ *Id*.

⁵⁰ *Id*.

⁵¹ *Id*.

<u>FINDINGS</u>

Having reviewed the application, supporting materials, and being otherwise sufficiently advised, the Commission finds that:

- 1. The proposed construction will not result in wasteful duplication of existing facilities. Marion District provided an analysis that estimated the impact the meter replacement will have on its water loss. Also, Marion District adequately explained how the proposed zone meters will improve its ability to detect line leaks on its distribution system.⁵² Marion District provided data that this will help it address its water loss.
- 2. The proposed construction does not conflict with any existing certificates or the service of any other utility operating in the area. Marion District's proposed construction project to replace 6,000 Sensus SR meters and to install new zone meters is being performed within the current boundaries of Marion District.⁵³
- 3. Public convenience and necessity require the proposed project because the existing meters have either approached or have passed the 40-year depreciable life that would be used by the Commission coupled with Marion District's inability to find replacement parts. The proposed construction project will allow Marion District to address its water loss problem, to continue to provide adequate, reliable, and safe service to its customers.
- 4. KDOW is not required to approve the plans and specifications of the proposed project.⁵⁴

⁵² *Id*.

⁵³ Application at 3.

⁵⁴ Id. at 2.

- 5. Marion District satisfied the legal standard for Commission approval of the financing. Marion District's lawful purpose is to provide safe, adequate, and reliable service to the public. The financing will enable Marion District to construct the proposed projects, which, as discussed above, are necessary to provide water service to the public consistent with Marion District's lawful purpose.
- 6. The Commission has reviewed the proposed refinancing and finds Marion District's proposal to be reasonable due to the lower effective interest rate and cash flow savings Marion District would realize over the period of the loan. However, if the new interest rate on the proposed refinancing is higher than the interest rate set forth in the application, Marion District should not proceed with the refinancing unless the NPV of the refinancing results in positive cash flow.
- 7. The proposed Farmers Bank loan is for lawful objects within the corporate purposes of Marion District; is necessary and appropriate for and consistent with the proper performance by the utility of its service to the public; will not impair its ability to perform that service; is reasonable, necessary, and appropriate for such purposes; and should be approved.
- 8. Within ten days of the execution of the new Farmers Bank loan documents, Marion District should file with the Commission an electronic version of the loan documents. The Commission directs Marion District to the Commission's July 22, 2021 Order in Case No. 2020-00085 regarding filings with the Commission.
- 9. The proceeds from the proposed loan should be used only for the lawful purposes set out in Marion District's application.

10. The terms and conditions of the new Farmers Bank loan should be consistent with loan documents as described in Marion District's application.

IT IS THEREFORE ORDERED that:

- 1. Marion District is granted a CPCN to proceed with the proposed construction.
- 2. Marion District shall notify the Commission prior to performing any additional construction not expressly authorized by this Order.
- 3. Any deviation from the approved construction shall be undertaken only with prior approval of the Commission.
- 4. Marion District is authorized to enter into the Farmers Bank loan to borrow no more than \$505,000⁵⁵ to pay off the indebtedness proposed to be refinanced as identified in the application on the condition that the final NPV of the savings, determined upon closing, generate positive cash flow. The loan maturity date and interest rate shall be in accordance with the Farmers Bank loan agreement as described in Marion District's application.
- 5. Marion District is authorized to execute the loan agreement with Farmers Bank and, under the terms of that Agreement, to borrow from Farmers Bank an amount not to exceed \$2,310,100,⁵⁶ said amount to be repaid over a ten-year period at an interest rate of 2.14 percent per annum.
- 6. Marion District shall file a copy of the "as-built" drawings and a certified statement from the engineer that the construction has been satisfactorily completed in

⁵⁵ \$500,000 x 10% = \$5,000 + \$500,000 = \$505,000.

⁵⁶ \$2,100,000 (Farmers Bank loan amount) x 10% = \$210,000 + \$2,100,000 = \$2,310,000.

accordance with the contract plans and specifications within 60 days of substantial completion of the construction certified herein.

- 7. Marion District shall file with the Commission documentation of the total costs of this project, including the cost of construction and all other capitalized costs (e.g., engineering, legal, and administrative), within 60 days of the date that construction is substantially completed. Construction costs shall be classified into appropriate plant accounts in accordance with the Uniform System of Accounts for water utilities prescribed by the Commission.
- 8. Marion District shall comply with all matters set out in finding paragraphs 6 and 8 as if they were individually so ordered.
- 9. Any documents filed in the future pursuant to ordering paragraphs 2, 6, 7, and 8 of this Order shall reference this case number and shall be retained in the utility's post-case correspondence file.
- 10. The Executive Director is delegated authority to grant reasonable extensions of time for filing of any documents required by this Order upon Marion District's showing of good cause for such extension.
 - 11. This case is closed and removed from the Commission's docket.

Nothing contained herein shall be deemed a warranty or finding of value of securities or financing authorized herein on the part of the Commonwealth of Kentucky, or any agency thereof.

By the Commission

DEC 06 2021
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KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Jude G. Bridaell

Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2021-00303 DATED DEC 06 2021

Marion County Water District

	Actual DSC - Le	nders		_
	2017	2018	2019	2020
Net Income per Audit Add:	(62,900)	(161,587)	(61,203)	(511,046)
Long - Term Interest Expense	61,173	58,818	58,261	65,727
Depreciation Expense	500,242	420,890	462,122	496,808
Cash Available for Debt Service	498,515	318,121	459,180	51,489
Projected Debt Service	202,060	202,060	202,060	202,060
•		<u> </u>	<u> </u>	,
DSC	2.47	1.57	2.27	0.25
Projecte	ed DSC - Lenders			
·	2022	2023	2024	
Net Projected Loss	(375,182)	(453,023)	(423,958)	
Add:				
Long - Term Interest Expense	69,260	77,550	85,770	
Depreciation Expense	511,670	538,330	565,000	
Cash Available for Debt Service	205,748	162,857	226,812	
Projected Debt Service	229,723	337,908	374,256	
DSC	0.90	0.48	0.61	
Projected	DSC - Commission	l		
	2022	2023	2024	
Net Projected Loss Add:	(375,182)	(453,023)	(423,958)	
Long - Term Interest Expense	69,260	77,550	85,770	
Cash Available for Debt Service	(305,922)	(375,473)	(338,188)	
Projected Debt Service	229,723	337,908	374,256	
DSC	(1.33)	(1.11)	(0.90)	

Actual Debt Service

	2017	2018	2019	2020
Debt Service-KIA	32,603	32,603	32,603	32,603
Debt Service-KIA	56,502	56,502	56,502	56,502
Debt Service-Build America Bonds	50,223	50,223	50,223	50,223
Debt Service-Citizens National Bank	62,732	62,732	62,732	62,732
	202,060	202,060	202,060	202,060

	2022	2023	2024
Debt Service-KIA	32,603	32,603	32,603
Debt Service-KIA	56,502	56,502	56,502
Debt Service-Build America Bonds	52,037	52,498	52,938
Debt Service-Proposed Farmers Bank	88,581	196,305	232,213
			_
Projected Debt Service	229,723	337,908	374,256

*Lee Mudd, P.E. Monarch Engineering, Inc. 556 Carlton Drive Lawrenceburg, KENTUCKY 40342

*Marion County Water District 1835 Campbellsville Road P. O. Box 528 Lebanon, KY 40033

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