Preliminary New Bond Issue Report

Issue: State Property & Buildings Commission Revenue Bonds, Project No. 122 Series A; Revenue Refunding Bonds, Project No.

122 Series B; Revenue Refunding Bonds, Project No. 122 Series C (Forward Delivery); Revenue Refunding Bonds, Project

No. 122 Federally Taxable Series D

Purpose of Issue: To (i) provide permanent financing for approximately \$175 million General Fund supported capital projects authorized by

> the General Assembly of the Commonwealth of Kentucky in H.B. 380 and H.B. 557 (2006 Session), H.B. 1 (2010 Special Session), H.B. 265 (2012 Session), H.B. 235 (2014 Session), H.B. 303 (2016 Session) H.B. 13 (2017 Session), H.B. 200 (2018 Session) and H.B. 268 (2019 Session); (ii) refund certain outstanding SPBC Bonds for present value savings; and, (iii) pay

costs of issuance.

Please see Exhibit A for the list of projects expected to be financed in this issue.

Proposed Date of Sale: October 9, 2019 October 30, 2019 Proposed Date of Delivery: Proposed Date of Forward Delivery: May 4, 2020

Ratings:

TBD Moody's Fitch **TBD**

Saurage	<u>Serie</u> :	s A: New Money	<u>Serie</u>	s B: Refunding	-	es C: Refunding rward Delivery)	<u>.</u>	Series D: Taxable Refunding		<u>Total</u>
Sources: Par amount of bonds:	ć	143,580,000	\$	2,275,000	ċ	69,520,000	\$	101,785,000	ċ	317,160,000
Premium:	Ş	33,000,319	Ş	604,531	Ş	3,354,340	Ş	101,765,000	Ş	36,959,190
Total Sources:	\$	176,580,319	\$	2,879,531	\$	72,874,340	\$	101,785,000	\$	354,119,190
Uses:										
Project Fund Deposit:	\$	175,000,000							\$	175,000,000
Refunding Escrow Deposit:			\$	2,849,288	\$	72,107,225	\$	100,661,408		175,617,920
Issuance Cost:		1,580,319		30,243		767,115		1,123,592		3,501,270
Total Uses:	\$	176,580,319	\$	2,879,531	\$	72,874,340	\$	101,785,000	\$	354,119,190

All-in True Interest Cost: 2.674% Final Maturity Date: 11/1/2039 Average Annual Debt Service: \$21,446,500 **Total Debt Service:** \$428,989,582 Average Life (years): 8.53

Refunding Summary:

Bond Issue Being Refininanced: See Summary of Bonds Refunded (attached) Par Amount of Refunded Bonds: \$2,790,000 \$70,360,000 \$93,990,000 \$534,615 \$1,224,708 \$11,730,664 Net PV Savings: 19.162% 1.741% 12.481% Percentage Savings of Refunded Bonds:

Negotiated Method of Sale: **Kutak Rock LLP Bond Counsel:** Underwriter: Citigroup

Frost Brown Todd LLC **Underwriters' Counsel:** Trustee: **TBD**

Office of Financial

Financial Advisor: Management

Based off cashflows as of 8/28/2019 Preliminary Subject to Change

EXHIBIT A

PROJECT NO. 122

Agency	Project Title	Amount
2006-08 Economic Development	Economic Development Bond Pool	1,932,873.81
Leonomic Development	Leonomic Development Bond 1 001	1,732,673.61
2010-12		
Local Government	Flood Control - State Match 2010-12	10,486.40
Economic Development	BRAC Water/Sewer Projects	11,495,000.00
Economic Development	Economic Development Bonds 2010-12	5,389,083.36
Economic Development	KY Economic Development Authority Loan Pool 2010-12	22,050,000.00
2012-14		
Local Government	Flood Control Matching 2012-14	2,000,000.00
Environmental Protection	Maxey Flats Cap	1,833,049.46
Natural Resources	State Owned Dam Repair 2012-14	1,044,800.00
Finance and Administration - Facilities and Support Services	Maintenance Pool 2012-14	60,594.21
Finance and Administration - Facilities and Support Services	Statewide Microwave Network (KEWS) Maintenance	667,606.66
Finance and Administration - Facilities and Support Services	Council of State Government's Building Complex	77,387.02
Health and Family Services	Electrical System Upgrade at Western State Hospital- Design	468,528.99
2014-16		
Ky Infrastructure Authority	KIA Fund F - Federally Assisted DWRL Program - 2014-16	288,468.74
Military Affairs	Maintenance Pool - 2014-16	105,513.48
Veterans' Affairs	Construct Fourth State Veterans' Nursing Home - Additional	903,266.56
Economic Development	High Tech Construction/Investment Pool - 2014-2016	2,250,000.00
Department of Education	Maintenance Pool - 2014-2016	5,000.00
Environmental Protection	State-Owned Dam Repair - 2014-2016	600,000.00
Finance and Administration	Next Generation Kentucky Information Highway	12,960,950.29
Finance and Administration	Business-One Stop Portal - Phase II	28,329.94
Finance and Administration - Facilities and Support Services	Maintenance Pool - 2014-16	32,902.65

Agency	Project Title	Amount
Finance and Administration - Facilities and Support Services	Upgrade State Data Center Readiness	112,349.41
Health and Family Services	Maintenance Pool - 2014-16	169.12
Health and Family Services	Radiation Monitoring Equipment	816,694.60
Eastern Ky University	Construct Science Building - Phase II & III	1,763,054.21
Ky State University	Replace Boilers and Repair Aging Distribution Lines	1,426,582.44
Morehead State University	Renovate/Expand Student Services Facility	1,578,203.12
Murray State University	Construct New Breathitt Veterinary Center	2,304,754.16
University of Kentucky	Expand/Renovate/Upgrade Law Building	8,633,794.44
University of Louisville	Construct Belknap Classroom/Academic Building	3,657,469.72
Western Ky University	Renovate Science Campus - Phase IV	1,188,426.61
KY Community & Technical	Construct Advanced Manufacturing Facility - Georgetown	852,117.66
College System		
Kentucky Center for the Arts	Roof Replacement	496,240.76
Kentucky Historical Society	Digital Initiatives	989,334.99
Parks	Maintenance Pool - 2014-16	45,334.52
Parks	Upgrade Guest Accommodations	912,406.80
State Fair Board	Ky International Convention Center Renovation and	12,055,462.78
	Expansion	
State Fair Board	Freedom Hall Sewer Line Replacement	983,090.38
2016-18		
Ky Infrastructure Authority	KIA Fund A -Federally Assisted Wastewater Program-2016-	5,213,668.74
Ky mnastructure Authority	2018	
Ky Infrastructure Authority	KIA Fund F - Federally Assisted DWRL Program-2016- 2018	1,237,200.00
Economic Development	Economic Development Bond Program - 2016-2018	7,000,000.00
Economic Development	High-Tech Construction/Investment Pool - 2016-2018	7,000,000.00
Economic Development	Kentucky Economic Development Finance Authority Loan Pool - 2016-2018	7,000,000.00
Education and Workforce-Gen	Workforce Development Construction Pool	60,900,715.16
Admin & Program Support		
Dept of Education-Operations & Support Services	Maintenance Pool 2016-2018	1,125,600.00
Dept of Education-Operations & Support Services	Kentucky School for the Blind Howser Hall Renovation	4,805,750.00
Dept of Education-Operations & Support Services	Kentucky School for the Deaf New Elementary Building	5,671,374.42
Dept of Education-Operations & Support Services	Kentucky School for the Deaf McDaniel/Scoggin Education Building	595,162.75
Environmental Protection	State-Owned Dam Repair - 2016-2018	4,000,000.00
Finance and Administration	Business One-Stop Portal-Phase III	12,000,000.00
Finance and Administration	Lexington Convention Center Replacement	60,000,000.00
Finance and Administration -	Maintenance Pool 2016-2018	1,666,294.49
Facilities and Support Services		1,000,27117
and appoint services		

Agency	Project Title	Amount
Finance and Administration - Facilities and Support Services	Upgrade L&N Building	4,327,192.32
Finance and Administration - Facilities and Support Services	HVAC Replacement-CHR Building	4,390,850.00
Health & Family Services	Maintenance Pool 2016-2018	646,853.90
Health & Family Services	Western State Hospital-Electrical Upgrade-Phase I	3,348,259.56
Justice Cabinet-Corrections-Adult Institutions	Maintenance Pool 2016-2018	310,997.82
Justice Cabinet-Corrections-Adult Institutions	Kentucky Correctional Institution for Women-Sewer Plant/Lines	2,508,154.00
Parks	Maintenance Pool 2016-2018	1,978,393.24
Parks	Life Safety Maintenance Pool	5,000,000.00
State Fair Board	Kentucky Exposition Center Roof Repair	8,000,000.00
2017		
KY Department of Veterans' Affairs	Bowling Green Veterans Center	10,500,000.00
2018 Ky Infrastructure Authority	KIA Fund A - Federally Assisted Wastewater Program - 2018-2020	6,802,000.00
Ky Infrastructure Authority	KIA Fund F - Federally Assisted Drinking Water Revolving Loan Program - 2018-2020	5,176,000.00
Education and Workforce Development-KET	FCC Transmitter Repack 2018-2020	2,100,000.00
Environmental Protection	State-Owned Dam Repair - 2018-2020	10,000,000.00
Finance and Administration - Facilities and Support Services	Maintenance Pool - 2018-2020	5,700,000.00
	L&N Building Security and Structural Repairs	9,800,000.00
Facilities and Support Services Finance and Administration -	Upgrade Capitol Mechanical and Electrical System, Phase I	4,500,000.00
Facilities and Support Services Finance and Administration - Facilities and Support Services Finance and Administration -		4,500,000.00 2,600,000.00
Facilities and Support Services Finance and Administration - Facilities and Support Services Finance and Administration - Facilities and Support Services	Upgrade Capitol Mechanical and Electrical System, Phase I	
Facilities and Support Services Finance and Administration - Facilities and Support Services Finance and Administration - Facilities and Support Services Health & Family Services	Upgrade Capitol Mechanical and Electrical System, Phase I Emergency Generator Replacement COT/CHR	2,600,000.00
Finance and Administration - Facilities and Support Services Finance and Administration - Facilities and Support Services Finance and Administration - Facilities and Support Services Health & Family Services Health & Family Services-BHDID Health & Family Services-BHDID	Upgrade Capitol Mechanical and Electrical System, Phase I Emergency Generator Replacement COT/CHR Maintenance Pool - 2018-2020 Electrical & Telecommunications Upgrade-Western State	2,600,000.00 4,750,000.00
Facilities and Support Services Finance and Administration - Facilities and Support Services Finance and Administration - Facilities and Support Services Health & Family Services Health & Family Services-BHDID	Upgrade Capitol Mechanical and Electrical System, Phase I Emergency Generator Replacement COT/CHR Maintenance Pool - 2018-2020 Electrical & Telecommunications Upgrade-Western State Hospital, Phase II	2,600,000.00 4,750,000.00 3,410,000.00

Agency	Project Title	Amount
Justice Cabinet-Corrections-Adult Institutions	Maintenance Pool - 2018-2020	6,000,000.00
Justice Cabinet-Corrections-Adult Institutions	Demolish and Repair Tower Ky State Reformatory	7,871,000.00
Justice Cabinet-Corrections-Adult Institutions	Replace Perimeter Fence, Kentucky State Reformatory	3,116,000.00
Justice Cabinet - State Police	Two-Way Radio System Replacement, Phase I	35,100,000.00
Military Affairs	Armory Modernization Pool - 2018-2020	2,000,000.00
Parks	Maintenance Pool - 2018-2020	20,000,000.00
State Fair Board	Kentucky International Convention Center East Roof Replacement	5,000,000.00
State Fair Board	Maintenance Pool - 2018-2020	6,000,000.00
Revenue	Integrated Tax System	92,500,000.00
Finance - COT	Legacy System Replacement	20,000,000.00
KYTC	Kentucky Aviation Economic Development Fund	18,750,000.00
University of Kentucky	HealthCare Disparities Initiative	36,973,122.26
2019		
Economic Development	Economic Development Bond Program-2020	25,000,000.00
Parks	Waste Water Treatment and Infrastructure Upgrades Pool	20,100,000.00
Parks	Lodge Roof Replacements and Repairs Pool	11,600,000.00
Parks	Utilities and Communications Cabling Infrastructure Replacement Pool	10,800,000.00
Parks	Life Safety System Upgrade and ADA Improvements Pool	4,100,000.00
Parks	Hospitality Upgrades Pool	3,400,000.00
	Grand Total	716,393,915.95

BOND DEBT SERVICE

Kentucky State Property and Buildings Commission Revenue and Revenue Refunding Bonds, Project No. 122 Rates as of August 28, 2019 ***Preliminary - Subject to Change***

Period Ending	Principal	Coupon	Interest	Debt Service
06/30/2020			4,809,809.28	4,809,809.28
06/30/2021	5,735,000	** %	12,892,604.83	18,627,604.83
06/30/2022	75,500,000	** %	10,935,665.25	86,435,665.25
06/30/2023	6,240,000	** %	8,937,535.00	15,177,535.00
06/30/2024	14,885,000	** %	8,582,422.50	23,467,422.50
06/30/2025	15,340,000	** %	8,127,573.00	23,467,573.00
06/30/2026	15,820,000	** %	7,650,400.00	23,470,400.00
06/30/2027	16,325,000	** %	7,147,104.00	23,472,104.00
06/30/2028	17,570,000	** %	6,598,573.00	24,168,573.00
06/30/2029	18,170,000	** %	6,002,444.00	24,172,444.00
06/30/2030	18,795,000	** %	5,374,319.00	24,169,319.00
06/30/2031	18,625,000	** %	4,733,385.00	23,358,385.00
06/30/2032	19,270,000	** %	4,079,122.00	23,349,122.00
06/30/2033	7,805,000	5.000%	3,549,125.00	11,354,125.00
06/30/2034	8,205,000	5.000%	3,148,875.00	11,353,875.00
06/30/2035	8,625,000	5.000%	2,728,125.00	11,353,125.00
06/30/2036	9,070,000	5.000%	2,285,750.00	11,355,750.00
06/30/2037	9,535,000	5.000%	1,820,625.00	11,355,625.00
06/30/2038	10,025,000	5.000%	1,331,625.00	11,356,625.00
06/30/2039	10,540,000	5.000%	817,500.00	11,357,500.00
06/30/2040	11,080,000	5.000%	277,000.00	11,357,000.00
	317,160,000		111,829,581.86	428,989,581.86

SAVINGS

Kentucky State Property and Buildings Commission Revenue and Revenue Refunding Bonds, Project No. 122 Rates as of August 28, 2019 ***Preliminary - Subject to Change***

		•		_	
					Present Value
_	Prior	Refunding		Annual	to 10/30/2019
Date	Debt Service	Debt Service	Savings	Savings	@ 1.9829249%
11/01/2019	59,287.50		59,287.50		59,284.25
02/01/2020	2,329,930.63		2,329,930.63		2,318,338.55
05/01/2020	59,287.50	1,200,367.61	-1,141,080.11		-1,129,815.87
06/30/2020	39,207.30	1,200,307.01	-1,141,000.11	1,248,138.02	-1,129,013.07
08/01/2020	4,077,155.63		4,077,155.63	1,240,130.02	4,017,043.12
11/01/2020	59,287.50	4,352,769.08	-4,293,481.58		-4,209,363.95
02/01/2021	4,077,155.63	4,332,707.00	4,077,155.63		3,977,606.65
05/01/2021	59,287.50	2,917,960.75	-2,858,673.25		-2,775,151.71
06/30/2021	37,207.30	2,717,700.75	-2,050,075.25	1,002,156.43	-2,775,151.71
08/01/2021	74,437,155.63		74,437,155.63	1,002,130.43	71,906,748.57
11/01/2021	59,287.50	73,912,960.75	-73,853,673.25		-70,992,039.33
02/01/2022	2,329,930.63	73,712,700.73	2,329,930.63		2,228,631.23
05/01/2022	59,287.50	1,165,579.50	-1,106,292.00		-1,052,986.16
06/30/2022	37,207.30	1,105,577.50	-1,100,272.00	1,807,121.01	-1,052,700.10
08/01/2022	2,329,930.63		2,329,930.63	1,007,121.01	2,206,752.11
11/01/2022	59,287.50	2,670,579.50	-2,611,292.00		-2,461,068.30
02/01/2023	2,329,930.63	2,070,377.30	2,329,930.63		2,185,087.78
05/01/2023	59,287.50	1 150 920 50			
06/30/2023	39,207.30	1,150,830.50	-1,091,543.00	957,026.26	-1,018,648.66
08/01/2023	10,834,930.63		10,834,930.63	937,020.20	10,061,607.51
11/01/2023	59,287.50	11 060 920 50			
02/01/2024		11,060,830.50	-11,001,543.00		-10,166,056.22
05/01/2024	2,117,305.63 59,287.50	1,053,217.00	2,117,305.63 -993,929.50		1,946,884.23 -909,431.15
06/30/2024	39,287.30	1,033,217.00	-993,929.30	956,763.76	-909,431.13
	11 042 205 62		11.042.205.62	930,703.70	10.052.922.25
08/01/2024 11/01/2024	11,042,305.63 59,287.50	11,163,217.00	11,042,305.63 -11,103,929.50		10,053,833.25 -10,060,192.24
02/01/2025	1,907,330.63	11,103,217.00	1,907,330.63		1,719,543.78
05/01/2025	59,287.50	951,106.00	-891,818.50		-800,057.87
06/30/2025	39,207.30	931,100.00	-071,010.30	953,888.26	-800,037.87
08/01/2025	11,277,330.63		11,277,330.63	755,000.20	10,067,204.84
11/01/2025	59,287.50	11 271 106 00	-11,211,818.50		-9,959,472.12
02/01/2026	1,674,327.50	11,271,106.00	1,674,327.50		1,479,988.50
05/01/2026	59,287.50	844,294.00	-785,006.50		-690,476.42
06/30/2026	39,207.30	044,254.00	-785,000.50	954,833.13	=050,470.42
08/01/2026	11,524,327.50		11,524,327.50	754,055.15	10,086,694.35
11/01/2026	59,287.50	11,384,294.00	-11,325,006.50		-9,863,462.52
02/01/2027	1,428,077.50	11,364,294.00	1,428,077.50		1,237,657.23
05/01/2027	59,287.50	729,935.00	-670,647.50		-578,363.11
06/30/2027	39,207.30	129,933.00	-070,047.50	956,751.00	-576,303.11
08/01/2027	11,778,077.50		11,778,077.50	930,731.00	10,107,374.43
11/01/2027	949,287.50	12,219,935.00	-11,270,647.50		-9,624,329.50
02/01/2028	1,169,327.50	12,217,733.00	1,169,327.50		993,608.85
05/01/2028	40,375.00	592,388.00	-552,013.00		-466,752.08
06/30/2028	40,373.00	392,388.00	-552,015.00	1,124,744.50	-400,732.08
08/01/2028	12,054,327.50		12,054,327.50	1,124,744.30	10,142,327.06
11/01/2028	970,375.00	12,372,388.00	-11,402,013.00		-9,546,272.47
02/01/2029	897,202.50	12,372,300.00	897,202.50		747,481.48
05/01/2029	20,612.50	445,556.00	-424,943.50		-352,288.79
06/30/2029	20,012.30	445,550.00	-424,743.30	1,124,573.50	-332,200.77
08/01/2029	12,337,202.50		12,337,202.50	1,124,575.50	10,177,520.72
11/01/2029	990,612.50	12,520,556.00	-11,529,943.50		-9,464,771.87
02/01/2030	611,202.50	12,520,550.00	611,202.50		499,258.84
05/01/2030	011,202.30	292,013.00	-292,013.00		
06/30/2030		292,013.00	-292,013.00	1,126,448.50	-237,356.15
08/01/2030	12 641 202 50		12 641 202 50	1,120,446.50	10 224 552 99
11/01/2030	12,641,202.50	11 852 012 00	12,641,202.50 -11,852,013.00		10,224,553.88 -9,539,064.12
02/01/2031	310,452.50	11,852,013.00	310,452.50		-9,539,064.12 248,637.41
05/01/2031	310,432.30	149,247.00	-149,247.00		-118,941.82
06/30/2031		147,247.00	-147,247.00	950,395.00	-110,941.82
08/01/2031	12 945 452 50		12,945,452.50	220,222.00	10,266,062.23
11/01/2031	12,945,452.50	11,994,247.00	-11,994,247.00		-9,464,928.00
06/30/2032		11,774,447.00	-11,774,247.00	951,205.50	-7,404,720.00
00/30/2032				751,205.30	
	212,381,435.06	198,267,390.19	14,114,044.87	14,114,044.87	13,478,440.43
	2.2,501,755.00	1,0,201,3,0.17	. 7, 1 17,077.07	. r,117,077.07	.5,770,770.45

Savings Summary

13,489,986.93

Deliv Date	Refunding Funds on Hand	Total	Present Value to 10/30/2019 @ 1.9829249%
10/30/2019	9,175.53	9,175.53	9,175.53
05/04/2020	2,395.00	2,395.00	2,370.97
			11,546.50
PV of sav	rings from cash flow	13	3,478,440.43
Adiustme	nts		11.546.50

Net PV Savings

SUMMARY OF BONDS REFUNDED

Kentucky State Property and Buildings Commission Revenue and Revenue Refunding Bonds, Project No. 122 Rates as of August 28, 2019 ***Preliminary - Subject to Change***

	Maturity	Interest	Par	Call	Call
Bond	Date	Rate	Amount	Date	Price
Project No. 100A (Ta	x-Exempt), PROJ1	00A:			
RETAIL4	08/01/2024	4.000%	2,630,000.00	08/01/2021	100.000
	08/01/2025	4.125%	285,000.00	08/01/2021	100.000
	08/01/2031	4.700%	3,615,000.00	08/01/2021	100.000
INSTIT	08/01/2023	5.000%	8,505,000.00	08/01/2021	100.000
	08/01/2024	5.000%	6,295,000.00	08/01/2021	100.000
	08/01/2025	5.000%	9,085,000.00	08/01/2021	100.000
	08/01/2026	5.000%	9,850,000.00	08/01/2021	100.000
	08/01/2027	5.000%	10,350,000.00	08/01/2021	100.000
	08/01/2028	5.000%	10,885,000.00	08/01/2021	100.000
	08/01/2029	5.000%	11,440,000.00	08/01/2021	100.000
	08/01/2030	5.000%	12,030,000.00	08/01/2021	100.000
	08/01/2031	5.000%	9,020,000.00	08/01/2021	100.000
		_	93,990,000.00		
Project No. 96 (Tax-I	Exempt), PROJ96T	Έ:			
TERM A	11/01/2027	4.250%	890,000.00	11/01/2019	100.000
_	11/01/2028	4.250%	930,000.00	11/01/2019	100.000
	11/01/2029	4.250%	970,000.00	11/01/2019	100.000
		_	2,790,000.00		
Project No. 98 (Tax-I	Exempt), PROJ98:				
SERIAL2N	08/01/2021	4.000%	2,355,000.00	08/01/2020	100.000
SERIAL3N	08/01/2021	5.000%	68,005,000.00	08/01/2020	100.000
			70,360,000.00		
			167,140,000.00		

Preliminary New Bond Issue Report

Issue: \$39,575,000 (est.) Northern Kentucky University General Receipts Bonds, 2019 Series A

Purpose of Issue: Bond proceeds of the 2019 Series A will be used to 1.) finance the projects listed as

"Construct/Acquire New Res Hall 2016-2018 Add'l Reauth," "Renew Kenton Garage," and

"Reconsturct West Side Parking" in H.B. 200 of the 2018 Regular Session of the Kentucky General

Assembly; and 2.) pay associated costs of issuance.

Proposed Date of Sale: October 14, 2019
Proposed Date of Delivery: November 6, 2019

Ratings:

Moody's TBD

Sources:

 Par amount of bonds:
 \$ 39,635,000

 Total Sources:
 \$ 39,635,000

Uses:

 Project Fund Deposit:
 \$ 37,000,000

 Capitalized Interest Fund:
 1,723,334

 Cost of Issuance:
 118,966

 Underwriter Discount:
 792,700

 Total Uses:
 \$ 39,635,000

All-in True Interest Cost:

2.865%
Final Maturity Date:
9/1/2044
Average Annual Debt Service:
\$2,218,647
Total Debt Service:
\$55,096,396
Average Life (years):
14.491

Method of Sale: Competitive
Bond Counsel: Dinsmore & Shohl, LLP
Financial Advisor: Hilliard Lyons, A Baird Company
Trustee: U.S. Bank

Based off cashflows as of 8/22/2019 Preliminary Subject to Change

BOND DEBT SERVICE

Northern Kentucky University
NKU General Reciepts, Series 2019
25 Years Total
(Capitalized Interest Through 9/1/21; Principal Payments Through 9/1/44)

Dated Date 11/01/2019
Delivery Date 11/01/2019

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
03/01/2020			323,003.33	323,003.33	
06/30/2020			323,003.33	323,003.33	222 002 22
09/01/2020			484,505.00	494 EOE OO	323,003.33
03/01/2020			484,505.00	484,505.00 484,505.00	
06/30/2021			464,303.00	464,303.00	060 010 00
09/01/2021	1 200 000	1.450%	484,505.00	1,764,505.00	969,010.00
03/01/2021	1,280,000	1.450%	475,225.00	475,225.00	
06/30/2022			475,225.00	475,225.00	2 220 720 00
09/01/2022	1,300,000	1.500%	475,225.00	1 775 225 00	2,239,730.00
03/01/2022	1,300,000	1.500%	465,475.00	1,775,225.00 465,475.00	
06/30/2023			403,473.00	403,473.00	2,240,700.00
09/01/2023	1,320,000	1.550%	465,475.00	1,785,475.00	2,240,700.00
03/01/2023	1,320,000	1.550%	455,245.00	455,245.00	
06/30/2024			455,245.00	455,245.00	2,240,720.00
09/01/2024	1,340,000	1.600%	455,245.00	1,795,245.00	2,240,720.00
03/01/2024	1,340,000	1.000%	444,525.00	444,525.00	
06/30/2025			444,323.00	444,323.00	2,239,770.00
09/01/2025	1,365,000	1.700%	444,525.00	1,809,525.00	2,239,770.00
03/01/2025	1,303,000	1.700%	432,922.50	432,922.50	
06/30/2026			432,322.30	432,322.30	2,242,447.50
09/01/2026	1,390,000	1.800%	432,922.50	1,822,922.50	2,242,447.30
03/01/2027	1,390,000	1.800%	432,922.50		
06/30/2027			420,412.30	420,412.50	2,243,335.00
09/01/2027	1 415 000	1 000%	420 412 E0	1,835,412.50	2,245,555.00
03/01/2027	1,415,000	1.900%	420,412.50 406,970.00	406,970.00	
			400,970.00	400,970.00	2 242 202 50
06/30/2028	1 440 000	2 000%	406 070 00	1 946 070 00	2,242,382.50
09/01/2028	1,440,000	2.000%	406,970.00	1,846,970.00	
03/01/2029 06/30/2029			392,570.00	392,570.00	2 220 540 00
09/01/2029	1 475 000	2 1500/	202 570 00	1 967 570 00	2,239,540.00
03/01/2029	1,475,000	2.150%	392,570.00 376,713.75	1,867,570.00 376,713.75	
06/30/2030			3/0,/13./3	3/0,/13./3	2,244,283.75
09/01/2030	1,505,000	2.250%	376,713.75	1,881,713.75	2,244,203.73
03/01/2030	1,303,000	2.250%	· ·		
06/30/2031			359,782.50	359,782.50	2 241 406 25
09/01/2031	1,540,000	2.350%	250 792 50	1 900 792 50	2,241,496.25
03/01/2031	1,340,000	2.550%	359,782.50 341,687.50	1,899,782.50 341,687.50	
06/30/2032			341,067.30	341,067.30	2 241 470 00
09/01/2032	1,580,000	2.450%	341,687.50	1 021 697 50	2,241,470.00
03/01/2032	1,360,000	2.450%	322,332.50	1,921,687.50 322,332.50	
06/30/2033			322,332.30	322,332.30	2,244,020.00
09/01/2033	1,620,000	2.550%	322,332.50	1,942,332.50	2,244,020.00
	1,020,000	2.550%			
03/01/2034 06/30/2034			301,677.50	301,677.50	2,244,010.00
09/01/2034	1,660,000	2.600%	301,677.50	1,961,677.50	2,244,010.00
03/01/2034	1,000,000	2.00076	280,097.50	280,097.50	
06/30/2035			280,037.30	280,037.30	2,241,775.00
09/01/2035	1,705,000	2.650%	280,097.50	1,985,097.50	2,241,773.00
03/01/2035	1,703,000	2.05070	257,506.25	257,506.25	
06/30/2036			237,300.23	237,300.23	2,242,603.75
09/01/2036	1,750,000	2.700%	257,506.25	2,007,506.25	2,242,003.73
03/01/2037	1,730,000	2.700/0	233,881.25	233,881.25	
06/30/2037			233,001.23	233,001.23	2,241,387.50
09/01/2037	1,800,000	2.750%	233,881.25	2,033,881.25	2,241,307.30
03/01/2037	1,000,000	2.730/0	209,131.25	209,131.25	
03/01/2030			203,131.23	203,131.23	



BOND DEBT SERVICE

Northern Kentucky University NKU General Reciepts, Series 2019 25 Years Total

(Capitalized Interest Through 9/1/21; Principal Payments Through 9/1/44)

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
06/30/2038					2,243,012.50
09/01/2038	1,850,000	2.800%	209,131.25	2,059,131.25	
03/01/2039			183,231.25	183,231.25	
06/30/2039					2,242,362.50
09/01/2039	1,900,000	2.850%	183,231.25	2,083,231.25	
03/01/2040			156,156.25	156,156.25	
06/30/2040					2,239,387.50
09/01/2040	1,960,000	2.900%	156,156.25	2,116,156.25	
03/01/2041			127,736.25	127,736.25	
06/30/2041					2,243,892.50
09/01/2041	2,015,000	2.950%	127,736.25	2,142,736.25	
03/01/2042			98,015.00	98,015.00	
06/30/2042					2,240,751.25
09/01/2042	2,075,000	3.000%	98,015.00	2,173,015.00	
03/01/2043			66,890.00	66,890.00	
06/30/2043					2,239,905.00
09/01/2043	2,140,000	3.050%	66,890.00	2,206,890.00	
03/01/2044			34,255.00	34,255.00	
06/30/2044					2,241,145.00
09/01/2044	2,210,000	3.100%	34,255.00	2,244,255.00	
06/30/2045					2,244,255.00
	39,635,000		15,461,395.83	55,096,395.83	55,096,395.83





MATTHEW G. BEVIN
Governor

Commonwealth of Kentucky FINANCE AND ADMINISTRATION CABINET Office of Financial Management

702 Capital Avenue Suite 76 Frankfort, Kentucky 40601 (502) 564-2924 (502) 564-7416 Facsimile WILLIAM M. LANDRUM III
Secretary

RYAN BARROW Executive Director

August 14, 2019

Mr. Eugene Hutchins
Executive Director & Chief Executive Officer
Kentucky Higher Education Assistance Authority/
Kentucky Higher Education Student Loan Corporation
P.O. Box 798
Frankfort, KY 40602-0798

Dear Mr. Hutchins:

Pursuant to KRS 42.420, the Office of Financial Management is required to review and approve the issuance of bonds by all state agencies. The attached information constitutes our review and approval of the issuance by the Kentucky Higher Education Student Loan Corporation of its \$104,965,000 Student Loan Backed Notes, consisting of \$59,560,000 Student Loan Backed Notes, Series 2019-1-1-A and \$45,405,000 Student Loan Backed Notes, Series 2019-1-2-A.

Sincerely,

Ryan Barrow Executive Director

Office of Financial Management

Attachments

c: David Carlsen

Kentucky Higher Education Student Loan Corporation

Kenneth Roberts

Hawkins Delafield & Wood LLP



OFM APPROVAL PURSUANT TO KRS 42.420

\$104,965,000

KENTUCKY HIGHER EDUCATION STUDENT LOAN CORPORATION STUDENT LOAN BACKED NOTES

SERIES:

Series 2019-1-1-A (Tax-Exempt) and Series 2019-1-2-A (Taxable)

DESCRIPTION:

The Direct Purchase Student Loan Backed Notes are being issued for the purpose of financing Federal Family Education Loan Program ("FFELP") Student Loans and rehabilitated FFELP Student Loans.

PAR AMOUNT:

PRICING DATE:

\$104,965,000 08/15/2019

CLOSING DATE: FINAL MATURITY:

08/15/2019 08/01/2039

INTEREST RATE:

Tax-Exempt - 1 month LIBOR + 0.25%

Taxable -

1 month LIBOR + 0.90%

1-MONTH LIBOR:

2.19% (08/09/2019) Direct Purchase

METHOD OF SALE: PURCHASER:

Bank of America Merrill Lynch

BOND COUNSEL:

Hawkins Delafield & Wood LLP

FINANCIAL ADVISOR:

S L Capital Strategies LLC

TRUSTEE:

Bank of New York Mellon Trust Company, N.A.

RATINGS:

None

SOURCES AND USES OF FUNDS:

SOURCES OF FUNDS:

Note Proceeds	\$ 104,965,000
Equity	 7,400,802
Total Sources	\$ 112,365,802

USES OF FUNDS:

Total Uses	\$ 112,365,802
Reserve Account	 398,867
Accrued Interest	6,452,043
Principal Balance of Loans	\$ 105,514,892



PROFESSIONAL SERVICES:

Pursuant to KRS Chapter 45, the Issuer is providing information on all costs associated, either directly or indirectly, with this bond issuance. Costs are actual or estimated as of the date of closing of the issue.

<u>Firm</u>	<u>Service</u>	Fee
Bank of America	Up-Front Fee	\$ 314,895
	Admin Fee	5,000
Chapman and Cutler	Purchaser Counsel	65,000
Hawkins Delafield and Wood	Bond Counsel	100,000
PNC	Counsel Fee	5,000
S L Capital Strategies	Financial Advisor	90,000
BNY Mellon	Trustee Acceptance Fee	2,500
	Counsel Fee	25,000
Office of Financial Management	OFM Fee	13,121
Misc Corporation Costs		 5,000
TOTAL		\$ 625,516





CABINET FOR ECONOMIC DEVELOPMENT

Matthew G. Bevin Governor

Old Capitol Annex 300 West Broadway Frankfort, Kentucky 40601 ThinkKentucky.com

Vivek K. Sarin
Interim Secretary

August 28, 2019

The Honorable Christian McDaniel, Co-Chair The Honorable Steven Rudy, Co-Chair Joint Committee on Appropriations and Revenue Room 160, Capitol Annex 702 Capital Avenue Frankfort, Kentucky 40601

Dear Senator McDaniel and Representative Rudy:

Pursuant to KRS 45.816, I have enclosed information relative to the costs associated with the issuance of revenue bonds issued by the Kentucky Economic Development Finance Authority (KEDFA) for the CommonSpirit Health Project, Series 2019.

The listing of costs associated with the bond issue is submitted to KEDFA and the Office of Financial Management (OFM) from bond counsel and is commonly referred to as "Exhibit B" (see attached form). The Commonwealth is not responsible for the payment of costs for the revenue bond issue; however, KRS 45.816 requires the cost information to be furnished to the Capital Projects and Bond Oversight Committee (CPBOC) and the Interim Joint Committee on Appropriations and Revenue.

If you have any questions or if I can be of assistance to you, please contact me at (502) 782-1987.

Sincerely,

Katie Smith, Commissioner

Department for Financial Services

Enclosure

cc:

Jennifer Hays



KEDFA BOND INFORMATION FORM

Name of Issue:

Kentucky Economic Development Finance Authority Revenue Bonds

CommonSpirit Health, Series 2019A-1 and 2019 A-2

Name of project(s)

covered by Issue:

CommonSpirit Health (the "Corporation")

Purpose of Issue:

(i) acquisition finance all or a portion of projects financed and/or refinanced by the Kentucky Economic Development Finance Authority's (the "Authority's") Revenue Bonds (Catholic Health Initiatives) Series 2013A (the "2013A Bonds"), and/or refinance all of the Authority's Revenue Bonds (Catholic Health Initiatives) 2009A, 2011B-1 and 2011B-2 (collectively with the 2013A Bonds, the "Existing Bonds"), and (ii) pay costs of issuance. The proceeds of the Existing Bonds were used to pay or reimburse certain affiliates of the Corporation (the "System Affiliates") for, or refinance, the costs of acquisition, construction, renovation and installation of certain additions and improvements to and equipment at certain health care and health related facilities (collectively, the "Health Care Facilities") owned and/or operated by certain System Affiliates and located in or near Lexington, Bardstown, Mt. Sterling, London, and Nicholasville (collectively, the "Projects").

Size:

\$176,195,000

Proposed date of Sale:

August 7, 2019

Proposed date of issue:

August 21, 2019

Maturity:

<u>August 1, 2049</u>

Ratings:

Baa1 / BBB+ / BBB+

Security:

Revenue pledge from CommonSpirit Health Obligated Group

Date authorization(s):

March 28, 2019 (Inducement); May 30, 2019 (Amended

Inducement) and June 27, 2019 (Final)

Net Proceeds for Refinancing:

\$209,724,837.49

Plus: Bond Fund Additional

\$21,850.71

Proceeds

GROSS PROCEEDS:

\$209,746,688.20

Terms of issue:

8/1/2025 - 8/1/2049

Net interest rate: 4.06%

Length of term: 3

30 years

Gross debt service amount:

<u>\$361,037,750.00</u>

Average annual debt service:

<u>\$12,056,919.29</u>

First call date: 8/1/2029 Premium at first call: 100%

Method of sale: Negotiated

Purchasers: Retail and Institutional Investors

Professional Services

Pursuant to the provisions of KRS Chapter 47, the

Agency: CommonSpirit Health

Issue: CommonSpirit Health, Series 2019

is providing information on all costs associated, either directly or indirectly, with the issuance of revenue bonds or notes.

Payee Name/Address*	Participation

Fees, commissions, or any other economic benefits received or anticipated to be received

Citigroup 388 Greenwich Street, 8th Floor New York, NY 10013

Morgan Stanley 1585 Broadway, 11th Floor New York, NY 10036

Underwriter's Discount

\$4.38/\$1,000 principal amount based on agreed upon fee schedule of \$4.21/\$1,000 takedown and preliminary underwriter expenses estimated at \$0.17/\$1,000

JP Morgan 383 Madison Ave, 3rd Floor New York, NY 10179

Cost of Issuance Overview				
	Total Estimate			
Expense	Fee (\$)			
Issuer - KEDFA	35,000.00			
Borrower's Counsel - Dentons	39,519.42			
Bond Counsel - Polsinelli	38,838.05			
Underwriter's Counsel - Norton Rose Fulbright	36,112.57			
Pricing Advisor - Swap Financial Group	4,769.58			
Auditor - EY	6,813.69			
Verification Agent - Causey	204.41			
Rating Agency - Moody's	6.459.38			
Rating Agency - S&P	11,842.20			
Rating Agency - Fitch	5,723.50			
Master Trustee - U.S. Bank	59.96			
Master Trustee Counsel - Dorsey & Whitney	817.64			
Bond Trustee - BNY Mellon	1,022.05			
Bond Trustee Counsel - Samuel Waldman	763.13			
Printing - ImageMaster	436.08			
Roadshow - ImageMaster	129.46			
CSH Travel Expenses	3,492.71			

* Payees listed shall include issuers, underwriters, placement agents and advisors, financial advisors, remarketing agents, credit enhancers, trustees, accountants, and the counsel of all such persons, bond counsel, special tax counsel, and any other persons receiving financing benefit from the issuance of revenue bonds or notes.

All costs of issuance paid from proceeds of a separate taxable bond issuance by CommonSpirit Health, or from cash of CommonSpirit Health.

Note: Changes or additions in amounts or names of payees or recipients shall be furnished to the Capital Projects and Bond Oversight Committee and the Interim Joint Committee on Appropriations and Revenue, and shall be made available to the public, within three (3) days following such change or addition.

SOURCES AND USES (attach)

Sources:

Bond Proceeds

Total Sources

Debt Service:

(Attach)

Uses:

Capital Improvements and Equipment Legal, Accounting, Printing, Underwriter's

Discount and Incidental Expenses

Total Uses

FOR REFUNDING ONLY

Bond issue being refinanced:

The Authority's Revenue Bonds (Catholic Health Initiatives) Series 2009A (the

"2009A Bonds")

The Authority's Revenue Bonds (Catholic Health Initiatives) Series 2013A (the

"2013A Bonds")

The Authority's Revenue Bonds (Catholic Health Initiatives) Series 2011B-1

and 2011B-2 (the "2011B Bonds")

Amount of principal:

\$176,195,000

Amount to be refunded:

Up to \$201,705,000

Terms of existing

2009A Bonds final maturity: 2029

bond issue:

2013A Bonds final maturity: 2045

2011B Bonds final maturity: 2046

Net interest rate:

4.06%

Length of term:

Up to 40 years

First call date:

8/01/2029

Call at par

100%

Average annual

\$12,056,919.29

debt service

REFUNDING ACTIVITY

Funds to apply to refunding:

\$209,731,817.41

Proceeds from New Bonds

\$209,731,817.41

Total Available to Pay Old Bond Issue \$209,731,817.41

SAVINGS RESULTING FROM REFINANCING

Average annual debt service savings:

\$593,557.74

Number of years savings will accrue:

25

Total present value savings:

\$1,497,086.89



MATTHEW G. BEVIN
Governor

Commonwealth of Kentucky FINANCE AND ADMINISTRATION CABINET Office of Financial Management

702 Capital Avenue Suite 76 Frankfort, Kentucky 40601 (502) 564-2924 (502) 564-7416 Facsimile WILLIAM M. LANDRUM III
Secretary

RYAN BARROW Executive Director

August 8, 2019

Ms. Jackie Dudley Murray State University Sparks Hall, Room 232 Murray, KY 42071

Dear Ms. Dudley,

Pursuant to KRS 42.420, the Office of Financial Management is required to review and approve the issuance of debt by all state agencies. The attached constitutes the review and approval of the recent Murray State University debt issuance of the \$4,110,000 General Receipts Refunding Bonds, 2019 Series A.

Sincerely.

Ryan Barrow Executive Director

Attachments



OFM APPROVAL PURSUANT TO KRS 42.420

MURRAY STATE UNIVERSITY

\$4,110,000 GENERAL RECEIPTS REFUNDING BONDS, 2019 SERIES A DATED AUGUST 8, 2019

DESCRIPTION:

Bond proceeds of the 2019 Series A will be used to 1.) currently refund certain outstanding Murray State General Receipts Bonds, 2009 Series A; and 2.) pay associated costs of issuance.

 PAR AMOUNT:
 \$4,110,000

 PRICING DATE:
 07/09/2019

 CLOSING DATE:
 08/08/2019

 DATED DATE:
 08/08/2019

 FINAL MATURITY:
 09/01/2028

 ARBITRAGE YIELD:
 1.972%

 NIC:
 2.197%

 TIC:
 2.112%

 All-In TIC:
 2.409%

BENCHMARK:

(as of 7/11/2019) 3.460% BBWK20GO

METHOD OF SALE: Competitive

PURCHASER: Series A – Morgan Stanley & CO, LLC

RATINGS: Moody's: A2 Stable Underlying Rating

SOURCES AND USES OF FUNDS

Sources and uses of funds in connection with the issuance of the 2019 Series A Bonds:

Sources of Funds

Principal Amount of Series A Bonds	\$4,110,000.00
Plus Net Original Issue Premium	344,816.10
Total Sources of Series A Bond Funds	\$4,454,816.10

Uses of Funds

Refunding Escrow Deposits	\$4,361,236.88
Deposit to 2019 Series A Cost of Issuance Account*	63,637.87
Underwriter's Discount	29,941.35
Total Sources of Series A Bond Funds	\$4,454,816.10

^{*}Includes financial advisor, legal, printing, rating agency fees, and other expenses of issuance and offering of the Series 2019 Bonds

REFUNDING:

Par Amount of Refunded Bonds:	\$ 4,110,000.00
Net PV Savings:	\$ 353,060.25
Percentage Savings of Refunded Bonds:	8.259%

PROFESSIONAL SERVICES:

Pursuant to KRS Chapter 45, the Issuer is providing information on all costs associated, either directly or indirectly, with this bond issuance. Costs are actual or estimated as of the date of closing of the issue.

<u>Firm</u>	<u>Service</u>	<u>Fee</u>
Hilliard Lyons	Financial Advisor	\$20,000.00
Dinsmore & Shohl	Bond Counsel	20,000.00
	Legal Expenses/Advertising	1,600.29
Moody's	Rating Service	18,500.00
US Bank	Trustee	1,000.00
OFM	Financial Advisor	1,027.50
Misc./Contingency		<u>1,510.08</u>
TOTAL		\$63,637.87

ATTACHMENTS:

Official Statement Cover Debt Service Schedule Summary of Bonds Refunded Savings NEW ISSUE Book-Entry-Only Bank Qualified RATING: Moody's: "A1" (Underlying A2) (See "Rating" herein)

In the opinion of Bond Counsel for the 2019 Series A Bonds, based upon an analysis of laws, regulations, rulings and court decisions, and assuming continuing compliance with certain covenants made by the University, and subject to the conditions and limitations set forth herein under the caption "TAX EXEMPTION," interest on the 2019 Series A Bonds (defined below) is excludable from gross income for Federal income tax purposes and is not a specific item of tax preference for purposes of the Federal alternative minimum tax. Interest on the 2019 Series A Bonds (defined below) is exempt from Kentucky income tax and the 2019 Series A Bonds are exempt from ad valorem taxation by the Commonwealth of Kentucky and any of its political subdivisions. See "TAX EXEMPTION" herein.



OFFICIAL STATEMENT RELATING TO

\$4,110,000 MURRAY STATE UNIVERSITY GENERAL RECEIPTS REFUNDING BONDS, 2019 SERIES A

Dated: Date of delivery

Due: March 1 and September 1, as shown below

The 2019 Series A Bonds will be issued only as fully registered bonds, and when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the 2019 Series A Bonds. Purchasers will not receive certificates representing their ownership interest in the 2019 Series A Bonds purchased. So long as DTC or its nominee is the registered owner of the 2019 Series A Bonds, payments of the principal of and interest due on the Bonds will be made directly to DTC. The 2019 Series A Bonds bear interest from their dated date, payable semiannually, on March 1 and September 1, commencing March 1, 2020. Principal of, premium, if any, and interest on the 2019 Series A Bonds will be paid directly to DTC by U.S. Bank National Association, having offices in Louisville, Kentucky, as Trustee and Paying Agent. The 2019 Series A Bonds shall be issued only as fully registered bonds in the denomination of \$5,000 or integral multiples thereof, and shall mature on March 1 and September 1, in accordance with the following schedule:

		Interest	Price/			Interest	Price/
Date	Amount	Rate	Yield	<u>Date</u>	Amount	<u>Rate</u>	Yield
March 1, 2020	\$40,000	5.000%	101.928	September 1, 2024	\$450,000	5.000%	115.682
September 1, 2020	375,000	5.000	103.625	September 1, 2025	475,000	5.000	117.989
September 1, 2021	385,000	5.000	106.874	September 1, 2026	495,000	4.000	113.465
September 1, 2022	410,000	5.000	109.967	September 1, 2027	515,000	2.000	98.500
September 1, 2023	435,000	5.000	112.903	September 1, 2028	530,000	2.125	98.500

The 2019 Series A Bonds are subject to redemption prior to their stated maturities as described herein.

The 2019 Series A Bonds constitute special obligations of Murray State University and do not constitute a debt, liability or obligation of the Commonwealth of Kentucky nor a pledge of the full faith and credit of the Commonwealth. The 2019 Series A Bonds constitute Obligations under the Trust Agreement dated as of May 1, 2007 between the University and the Trustee, and the payment of the principal of, premium, if any, and interest on 2019 Series A Bonds is secured by a pledge of the University's General Receipts, as defined in the Trust Agreement. See "SECURITY FOR THE 2019 SERIES A BONDS."

The 2019 Series A Bonds are issued subject to the approval of legality by Dinsmore & Shohl LLP, Covington, Kentucky, Bond Counsel. Delivery of the 2019 Series A Bonds is expected on August 8, 2019 in New York, New York, through the facilities of DTC.

Dated: July 9, 2019

BOND DEBT SERVICE

Murray State University General Receipts Bonds Refunding of Series 2009 Tax-Exempt Refinancing Final Numbers

Dated Date 08/08/2019 Delivery Date 08/08/2019

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
03/01/2020	40,000	5.000%	95,783.58	135,783.58	
06/30/2020					135,783.58
09/01/2020	375,000	5.000%	83,931.25	458,931.25	,
03/01/2021			74,556.25	74,556.25	
06/30/2021					533,487.50
09/01/2021	385,000	5.000%	74,556.25	459,556.25	
03/01/2022			64,931.25	64,931.25	
06/30/2022					524,487.50
09/01/2022	410,000	5.000%	64,931.25	474,931.25	
03/01/2023			54,681.25	54,681.25	
06/30/2023					529,612.50
09/01/2023	435,000	5.000%	54,681.25	489,681.25	
03/01/2024			43,806.25	43,806.25	
06/30/2024					533,487.50
09/01/2024	450,000	5.000%	43,806.25	493,806.25	
03/01/2025			32,556.25	32,556.25	
06/30/2025					526,362.50
09/01/2025	475,000	5.000%	32,556.25	507,556.25	
03/01/2026			20,681.25	20,681.25	
06/30/2026					528,237.50
09/01/2026	495,000	4.000%	20,681.25	515,681.25	
03/01/2027			10,781.25	10,781.25	
06/30/2027					526,462.50
09/01/2027	515,000	2.000%	10,781.25	525,781.25	
03/01/2028			5,631.25	5,631.25	
06/30/2028					531,412.50
09/01/2028	530,000	2.125%	5,631.25	535,631.25	
06/30/2029					535,631.25
	4,110,000		794,964.83	4,904,964.83	4,904,964.83



SAVINGS

Murray State University General Receipts Bonds Refunding of Series 2009 Tax-Exempt Refinancing Final Numbers

Date	Prior Debt Service	Refunding Debt Service	Savings	Present Value to 08/08/2019 @ 1.9717359%
06/30/2020	172,473.76	135,783.58	36,690.18	37,127.31
06/30/2021	570,133.13	533,487.50	36,645.63	35,847.11
06/30/2022	564,907.50	524,487.50	40,420.00	38,758.88
06/30/2023	568,322.50	529,612.50	38,710.00	36,381.34
06/30/2024	570,522.50	533,487.50	37,035.00	34,111.84
06/30/2025	567,022.50	526,362.50	40,660.00	36,714.85
06/30/2026	567,516.25	528,237.50	39,278.75	34,759.85
06/30/2027	566,700.00	526,462.50	40,237.50	34,926.04
06/30/2028	569,755.00	531,412.50	38,342.50	32,680.46
06/30/2029	571,760.00	535,631.25	36,128.75	30,242.50
	5,289,113.14	4,904,964.83	384,148.31	351,550.17

Savings Summary

PV of savings from cash flow	351,550.17
Plus: Refunding funds on hand	1,510.08
Net PV Savings	353,060.25



SUMMARY OF BONDS REFUNDED

Murray State University General Receipts Bonds Refunding of Series 2009 Tax-Exempt Refinancing Final Numbers

Bond	Maturity Date	Interest Rate	Par Amount	Call Date	Call Price
Series 2009A, 2009A:					
BOND	09/01/2020	3.625%	405,000.00	09/01/2019	100.000
	09/01/2021	3.800%	415,000.00	09/01/2019	100.000
	09/01/2022	4.000%	435,000.00	09/01/2019	100.000
	09/01/2023	4.000%	455,000.00	09/01/2019	100.000
	09/01/2024	4.000%	470,000.00	09/01/2019	100.000
	09/01/2025	4.125%	490,000.00	09/01/2019	100.000
	09/01/2026	4.200%	510,000.00	09/01/2019	100.000
	09/01/2027	4.200%	535,000.00	09/01/2019	100.000
	09/01/2028	4.200%	560,000.00	09/01/2019	100.000
			4,275,000.00		