

GRU Debt Portfolio Review

December 1, 2021

Item #210674

Debt Portfolio Review

- Utilities are responsible for maintaining the condition of their capital assets to comply with environmental regulation and to continue to deliver services
- Rating agencies evaluate the age and condition of the Utility's infrastructure:
 - Can the Utility generate power safely, reliably and in compliance with environmental regulation?
 - Can the Utility deliver safe, clean, treated water through its plant and water lines while protecting the infrastructure and aquifer?
 - Can wastewater maintain the system to avoid sewage spills and treat wastewater safely in compliance environmental regulation?

Debt Portfolio Review

- As a five system municipal utility operation which includes power generation, GRU is a capital intensive operation

From Preliminary Statement of Net Position September 30, 2021	
Utility plant in service	2,952,151,221
Less: accumulated depreciation & amortization	(1,221,153,540)
	1,730,997,681
Construction in progress	132,543,930
Net capital assets	1,863,541,611

- Need to access capital markets regularly to obtain resources to acquire, construct and maintain this capital infrastructure

Debt Portfolio Review

- Our annual capital budgets are generally around \$75M or \$80M
 - Significant amount but it equates to only 4% of our total capital assets
 - Less than annual depreciation expense of approximately \$100M
 - Signals that GRU is not keeping pace with its capital needs
- Split our capital funding 50% debt/50% equity (internal cash)
- Accessing capital markets every 2 – 3 years in the amounts issued for the 2021 Series A Bonds just completed

Debt Portfolio Review

- Moody's rating agency's evaluation of the age and condition of infrastructure comprises one-third of the "System Characteristics" section of their review under the heading of Asset Condition.
- Below is the current status of each of GRU's systems under the Moody's formula for Asset Condition

MOODY'S RATING AGENCY: ASSET CONDITION EVALUATION RATING CATEGORIES						
Net Fixed Assets/ Annual Depreciation	Aaa > 75 Years	Aa > 25 years <= 75 years	A > 12 years <= 25 years	Baa > 9 years <= 12 years	Ba > 6 years <= 9 years	B and Below <= 6 years
Electric System			19.96 Years			
Water System			16.11 Years			
Wastewater System			18.19 Years			
Gas System				11.27 Years		
GRUCom System					8.72 Years	

- An additional reflection that capital spending is not keeping pace with capital needs

Debt Portfolio Review

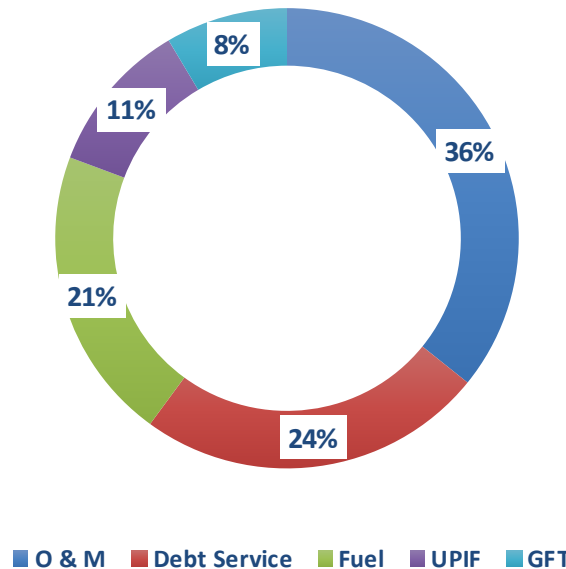
Why Utilize Debt Financing

- Even if we could utilize cash to fund all of our capital infrastructure needs
 - If we pay cash up front current rate payers shoulder inordinate amount of burden for assets which will serve rate payers for 30+ years
 - Borrowing spreads the rate impact over the useful life of the assets and limits intergenerational inequity
- So we typically complete new money issues every 2 – 3 years
- Initiate refunding transactions as opportunities to generate debt service savings are developed

Debt Portfolio Review

Debt is a Significant Portion of GRU Total Budget

FY22 Expense Budget by Category

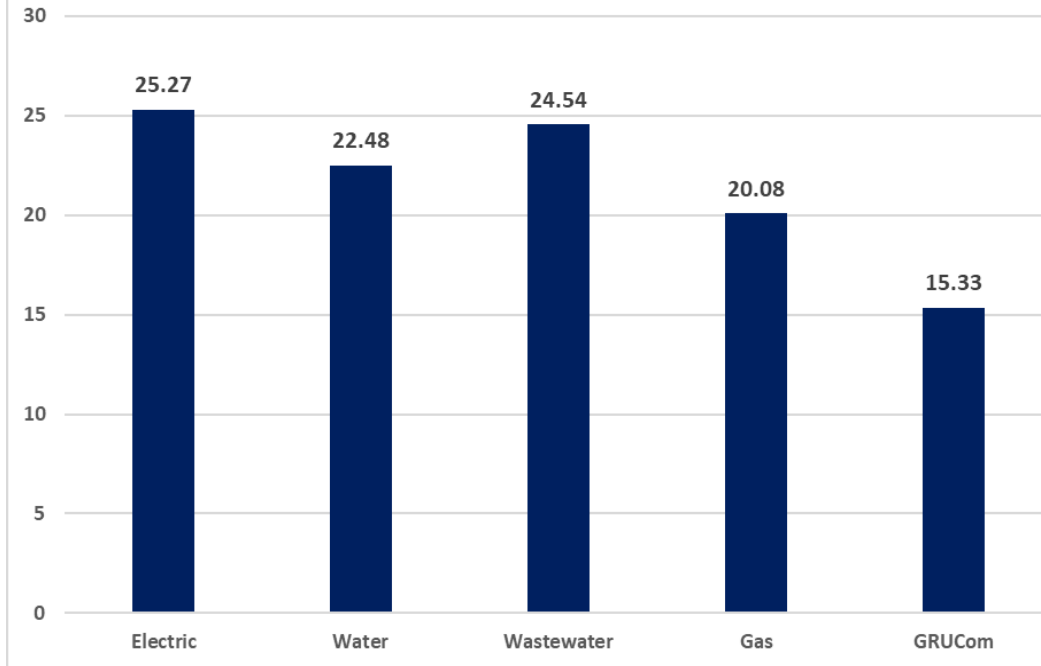


	FY22 Budget		Projected FY23	
	%	\$	%	\$
O & M	35.78%	152,215,701	36.21%	153,320,570
Debt Service	24.27%	103,239,027	24.75%	104,782,345
Fuel	20.66%	87,863,113	20.04%	84,841,066
UPIF	10.76%	45,762,559	10.91%	46,206,211
GFT	8.53%	36,283,000	8.10%	34,283,000

Debt Portfolio Review

Debt is a Significant Portion of Each System's Budget

Debt Service as a % of FY22 Budget
By System



Electric		FY22 Budget		Projected FY23	
O & M	31.58%	93,720,529	31.91%	94,975,890	
Debt Service	25.27%	74,996,389	25.47%	75,802,872	
Fuel	26.93%	79,938,081	26.00%	77,367,953	
UPIF	8.35%	24,770,690	9.19%	27,349,341	
GFT	7.88%	23,388,369	7.43%	22,099,150	

Water		FY22 Budget		Projected FY23	
O & M	48.76%	18,972,300	49.19%	18,906,017	
Debt Service	22.48%	8,747,583	23.35%	8,972,842	
UPIF	17.39%	6,765,625	16.58%	6,371,313	
GFT	11.38%	4,426,217	10.88%	4,182,234	

Wastewater		FY22 Budget		Projected FY23	
O & M	47.65%	23,409,313	48.81%	23,882,750	
Debt Service	24.54%	12,058,138	25.28%	12,370,501	
UPIF	16.92%	8,314,263	15.58%	7,625,160	
GFT	10.88%	5,346,802	10.33%	5,052,074	

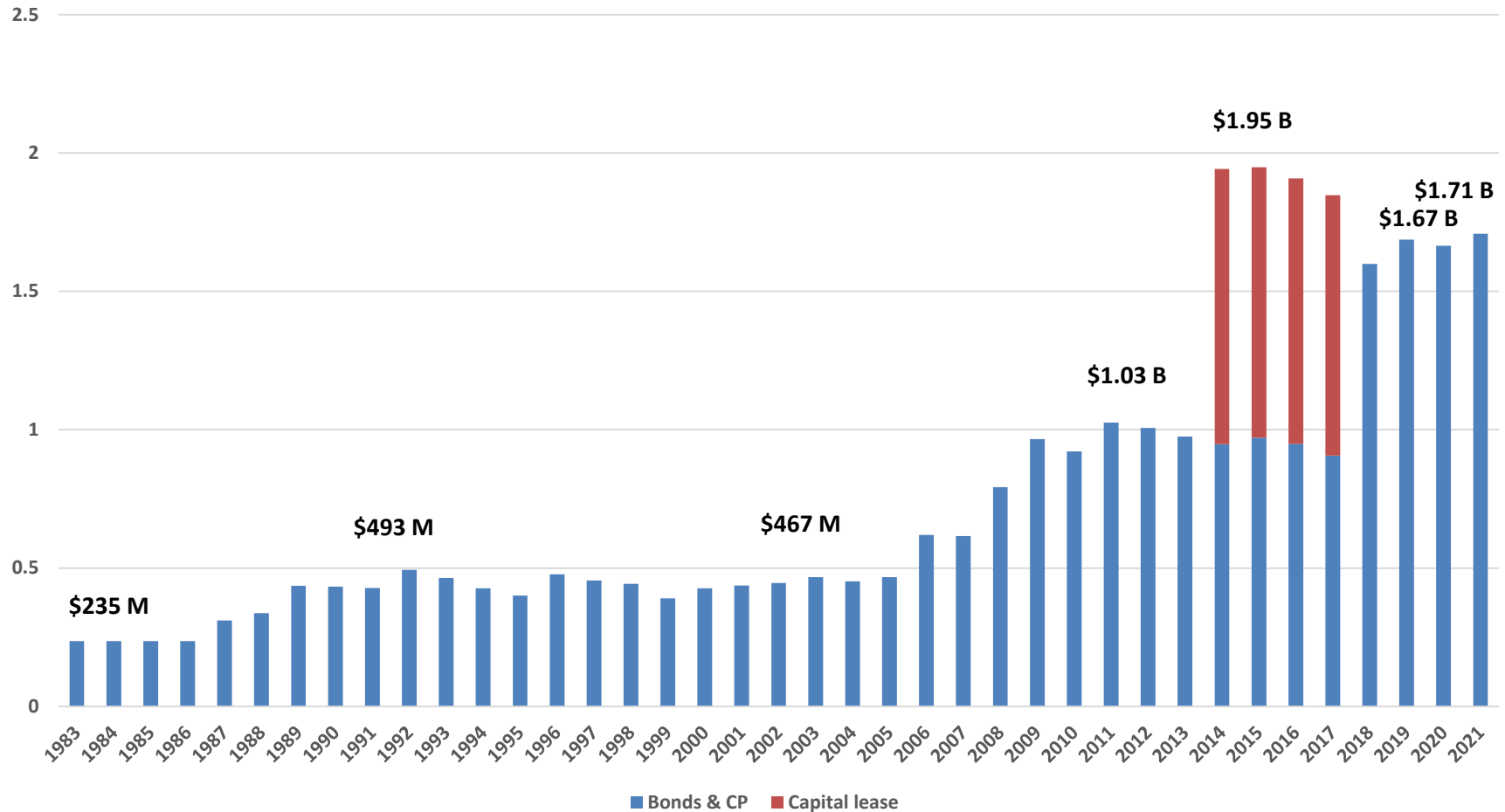
Gas		FY22 Budget		Projected FY23	
O & M	23.85%	6,163,378	23.83%	5,624,793	
Debt Service	20.08%	5,187,892	22.47%	5,303,259	
Fuel	30.67%	7,925,032	31.66%	7,473,113	
UPIF	18.43%	4,762,422	14.84%	3,503,680	
GFT	6.97%	1,799,797	7.20%	1,700,588	

GRUCom		FY22 Budget		Projected FY23	
O & M	67.82%	9,950,181	66.79%	9,931,120	
Debt Service	15.33%	2,249,025	15.69%	2,332,870	
UPIF	7.84%	1,149,559	9.12%	1,356,717	
GFT	9.01%	1,321,815	8.40%	1,248,954	

Debt Portfolio Review

12% Reduction in Outstanding Principal Since 2015

How We Got Here
GRU Principal Outstanding at FYE
(Billions)



Debt Portfolio Review

Current Outstanding Debt

- As the prior slide demonstrates GRU's outstanding debt began to grow noticeably in 2005
- As our debt grew, usage of variable rate debt and swaps has grown
 - Lower overall cost of borrowing
- As size and complexity of our debt portfolio has grown, rating agency review and analysis of our debt management program has expanded

Debt Portfolio Review

GRU Outstanding Debt Service Obligations \$2.65B

GRU DEBT SERVICE OUTSTANDING @10/1/2021 (Post 10/1 principal payment pre defeasance 10/28)

	Principal	Interest	Net Swap	Total	Per Fiscal year
04/01/22	-	31,806,081	-	31,806,081	
10/01/22	29,260,000	31,806,081	5,695,670	66,761,751	98,567,832
04/01/23	-	31,552,636	-	31,552,636	
10/01/23	32,150,000	31,552,636	4,853,484	68,556,120	100,108,756
04/01/24	-	30,887,325	-	30,887,325	
10/01/24	31,830,000	30,887,325	4,599,087	67,316,412	98,203,737
04/01/25	-	29,663,131	-	29,663,131	
10/01/25	44,405,000	29,663,131	4,077,194	78,145,325	107,808,456
04/01/26	-	28,794,543	-	28,794,543	
10/01/26	45,800,000	28,794,543	3,759,931	78,354,474	107,149,017
04/01/27	-	27,888,944	-	27,888,944	
10/01/27	48,870,000	27,888,944	3,433,067	80,192,011	108,080,955
04/01/28	-	26,966,443	-	26,966,443	
10/01/28	50,760,000	26,966,443	3,233,628	80,960,071	107,926,514
04/01/29	-	25,994,567	-	25,994,567	
10/01/29	51,655,000	25,994,567	3,026,044	80,675,611	106,670,178
04/01/30	-	22,796,179	-	22,796,179	
10/01/30	54,730,000	22,796,179	2,034,793	79,560,972	102,357,151
04/01/31	-	21,865,685	-	21,865,685	
10/01/31	57,165,000	21,865,685	1,468,455	80,499,140	102,364,825
04/01/32	-	20,931,331	-	20,931,331	
10/01/32	59,675,000	20,931,331	870,146	81,476,477	102,407,808
04/01/33	-	19,953,412	-	19,953,412	
10/01/33	63,660,000	19,953,412	245,285	83,858,697	103,812,109
04/01/34	-	18,923,709	-	18,923,709	
10/01/34	66,275,000	18,923,709	(371,447)	84,827,262	103,750,971
04/01/35	-	17,759,412	-	17,759,412	
10/01/35	69,410,000	17,759,412	(928,031)	86,241,381	104,000,793
04/01/36	-	16,486,763	-	16,486,763	
10/01/36	69,470,000	16,486,763	(1,507,741)	84,449,022	100,935,785

Debt Portfolio Review

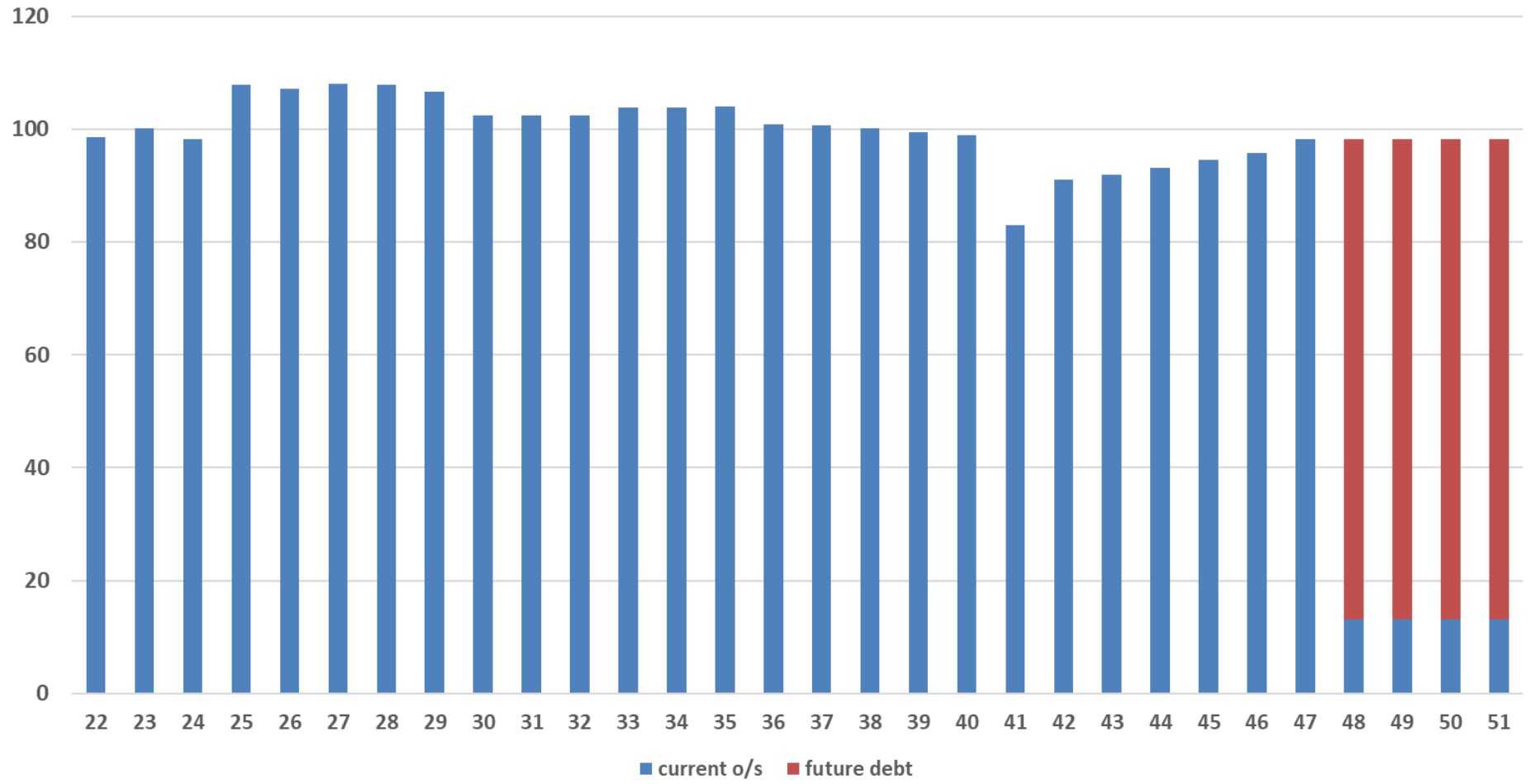
GRU Outstanding Debt Service Obligations \$2.65B (concluded)

GRU DEBT SERVICE OUTSTANDING @10/1/2021 (Post 10/1 principal payment pre defeasance 10/28)					
	Principal	Interest	Net Swap	Total	Per Fiscal year
04/01/37	-	15,240,988	-	15,240,988	
10/01/37	72,230,000	15,240,988	(2,099,049)	85,371,939	100,612,927
04/01/38	-	13,518,370	-	13,518,370	
10/01/38	75,275,000	13,518,370	(2,236,696)	86,556,674	100,075,044
04/01/39	-	11,866,121	-	11,866,121	
10/01/39	78,160,000	11,866,121	(2,379,743)	87,646,378	99,512,499
04/01/40	-	10,021,105	-	10,021,105	
10/01/40	81,235,000	10,021,105	(2,367,292)	88,888,813	98,909,918
04/01/41	-	8,319,064	-	8,319,064	
10/01/41	68,555,000	8,319,064	(2,249,632)	74,624,432	82,943,496
04/01/42	-	7,665,964	-	7,665,964	
10/01/42	77,800,000	7,665,964	(2,103,513)	83,362,451	91,028,415
04/01/43	-	6,813,996	-	6,813,996	
10/01/43	80,330,000	6,813,996	(1,922,623)	85,221,373	92,035,369
04/01/44	-	5,843,433	-	5,843,433	
10/01/44	83,250,000	5,843,433	(1,736,235)	87,357,198	93,200,631
04/01/45	-	4,812,121	-	4,812,121	
10/01/45	86,305,000	4,812,121	(1,431,693)	89,685,428	94,497,549
04/01/46	-	3,646,798	-	3,646,798	
10/01/46	89,570,000	3,646,798	(1,031,689)	92,185,109	95,831,907
04/01/47	-	2,436,439	-	2,436,439	
10/01/47	94,030,000	2,436,439	(604,394)	95,862,045	98,298,484
04/01/48	-	1,152,500	-	1,152,500	
10/01/48	10,695,000	1,152,500	-	11,847,500	13,000,000
04/01/49	-	885,125	-	885,125	
10/01/49	11,230,000	885,125	-	12,115,125	13,000,250
04/01/50	-	604,375	-	604,375	
10/01/50	11,795,000	604,375	-	12,399,375	13,003,750
04/01/51	-	309,500	-	309,500	
10/01/51	12,380,000	309,500	-	12,689,500	12,999,000
Total	1,707,955,000	930,812,120	14,327,006	2,653,094,126	2,653,094,126

Debt Portfolio Review

GRU Outstanding Debt Service Obligations \$2.65B

GRU Outstanding Debt Service @ 10/1/2021 (millions)



Debt Portfolio Review

GRU Debt History by Series

Series	Issue Date	Issue Amount	Principal Paid as of 10/1/21	Refunded	Defeased	Outstanding as of 10/1/21	Final Maturity
1983	August 1, 1983	186,000,000	13,530,000	172,470,000		-	
1987A	August 1, 1987	74,867,331	10,600,000	64,267,331		-	
1989A	January 15, 1989	100,366,362	-	100,366,362		-	
1992A	March 1, 1992	73,000,000	9,270,000	63,730,000		-	
1992B	March 1, 1992	61,920,000	25,275,000	36,645,000		-	
1993A & B	March 1, 1993	163,975,000	50,050,000	113,925,000		-	
1993C	August 1, 1993	20,935,000	20,935,000	-		-	
1993 Sub.	August 1, 1993	51,575,000	51,575,000	-		-	
1996A	February 1, 1996	143,215,000	32,115,000	111,100,000		-	
2002A & B	June 25, 2002	77,300,000	12,000,000	65,300,000		-	
2003A & B	January 30, 2003	40,625,000	7,625,000	33,000,000		-	
2003C	July 18, 2003	115,925,000	115,925,000	-		-	
2005A	November 3, 2005	196,950,000	-	196,545,000	405,000	-	
2005B	November 3, 2005	61,590,000	19,915,000	41,675,000		-	
2005C	June 26, 2006	55,135,000	15,960,000	36,085,000		3,090,000	2026
2006A	February 23, 2007	53,305,000	10,485,000	39,835,000		2,985,000	2026
2007A	February 6, 2008	139,505,000	3,325,000	8,430,000		127,750,000	2036
2008A	February 6, 2008	105,000,000	52,505,000	52,495,000		-	2020
2008B	September 16, 2009	90,000,000	-	14,200,000		75,800,000	2038
2009A	September 16, 2009	24,190,000	24,190,000	-		-	

Debt Portfolio Review

GRU Debt History by Series (Concluded)

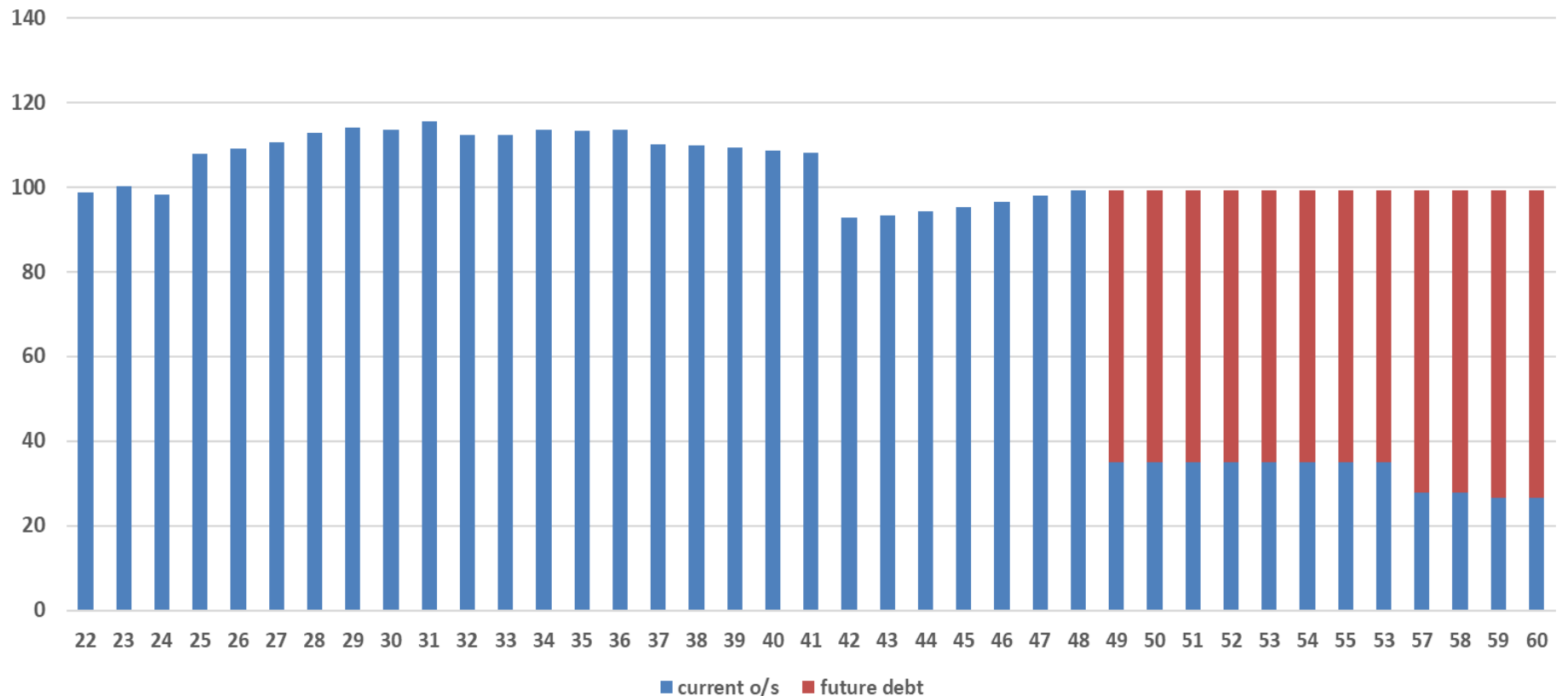
Series	Issue Date	Issue Amount	Principal Paid as of 10/1/21	Refunded	Defeased	Outstanding as of 10/1/21	Final Maturity
2009B	November 10, 2010	156,900,000	28,360,000	-	-	128,540,000	2039
2010A	November 10, 2010	12,930,000	-	-	-	12,930,000	2030
2010B	November 10, 2010	132,445,000	-	-	-	132,445,000	2040
2010C	November 10, 2010	16,365,000	5,860,000	10,505,000	-	-	
2012A	July 13, 2012	81,860,000	6,510,000	-	-	75,350,000	2028
2012B	July 24, 2012	100,470,000	-	1,860,000	-	98,610,000	2042
2014A	December 11, 2014	37,980,000	1,040,000	-	-	36,940,000	2044
2014B	December 11, 2014	30,970,000	18,885,000	-	-	12,085,000	2036
2017A	November 7, 2017	415,920,000	33,755,000	-	-	382,165,000	2040
2017B	November 7, 2017	150,000,000	-	-	-	150,000,000	2044
2017C	November 7, 2017	115,000,000	-	-	-	115,000,000	2047
2019A	April 3, 2019	153,820,000	-	-	-	153,820,000	2047
2019B	April 3, 2019	26,665,000	-	-	-	26,665,000	2047
2019C	April 26, 2019	67,355,000	-	-	-	67,355,000	2047
2020A	July 7, 2020	10,665,000	-	-	-	10,665,000	2034
2021A	August 11, 2021	95,760,000	-	-	-	95,760,000	2051

Debt Portfolio Review

GRU Projected Debt Service Obligations

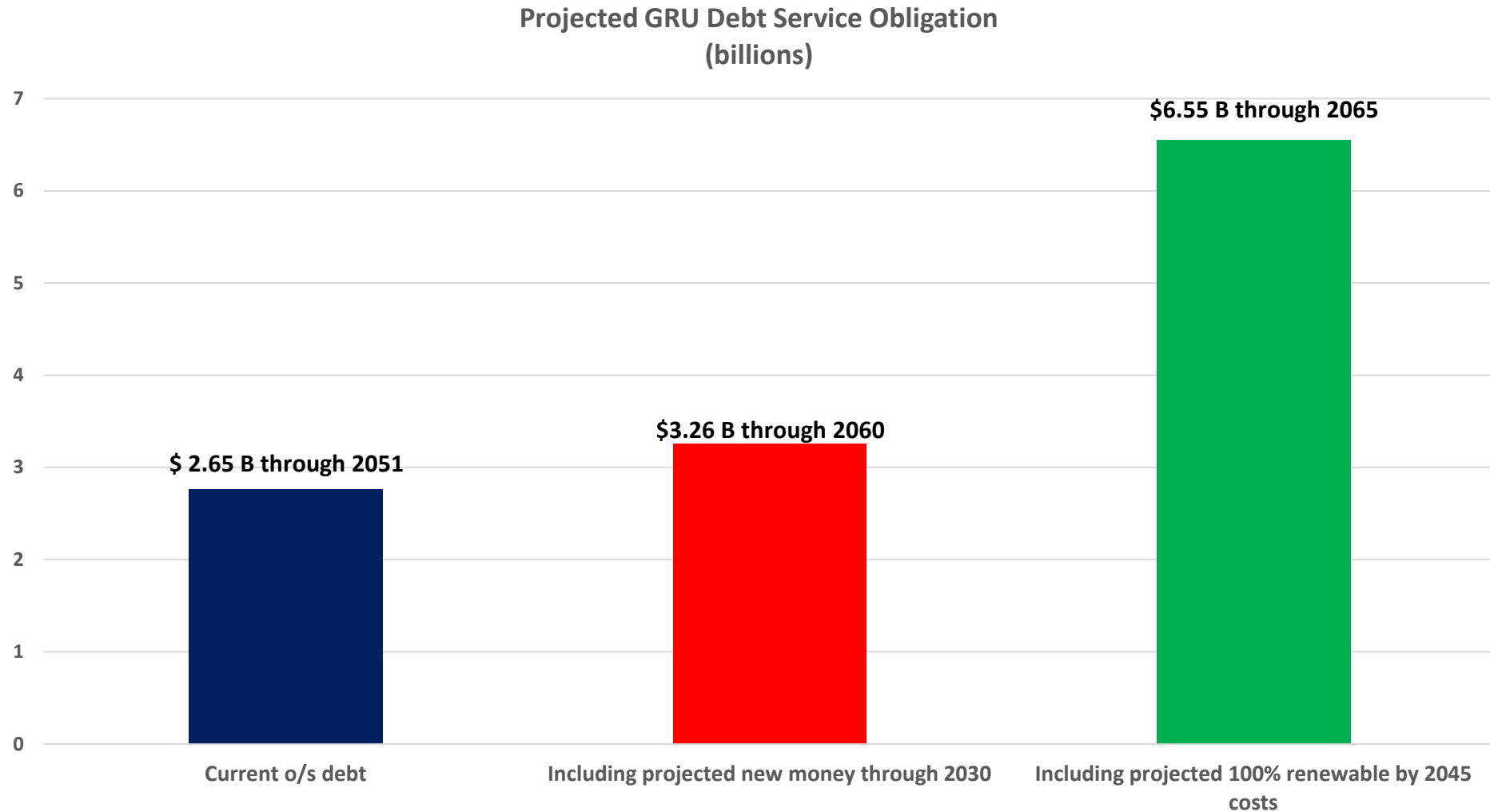
Including New Money Considerations Through 2030 \$3.2B

GRU Projected Debt Service Obligations
Including New Money Considerations 2022 through 2030 (millions)



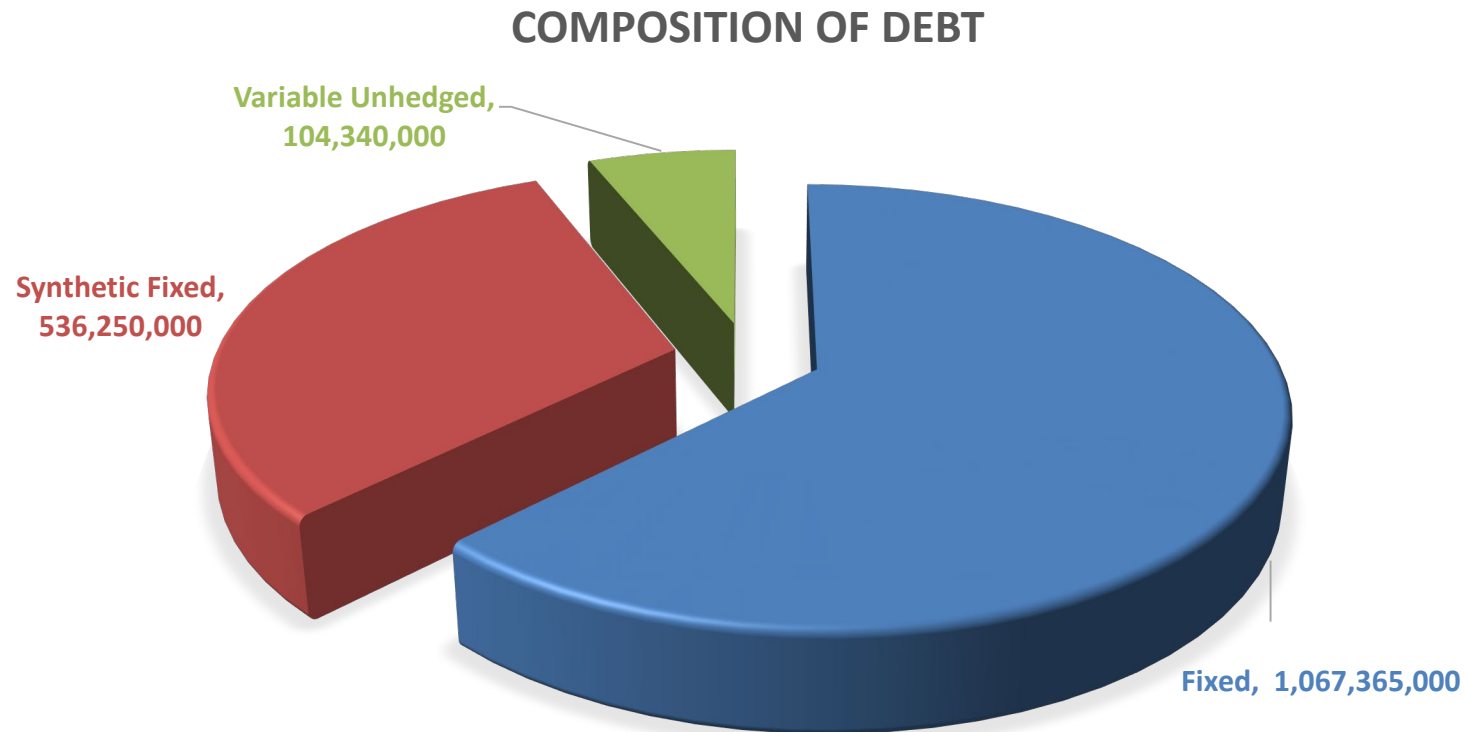
Debt Portfolio Review

Projected Debt Service Obligation



Debt Portfolio Review

Composition of Debt: 94% Fixed or Hedged



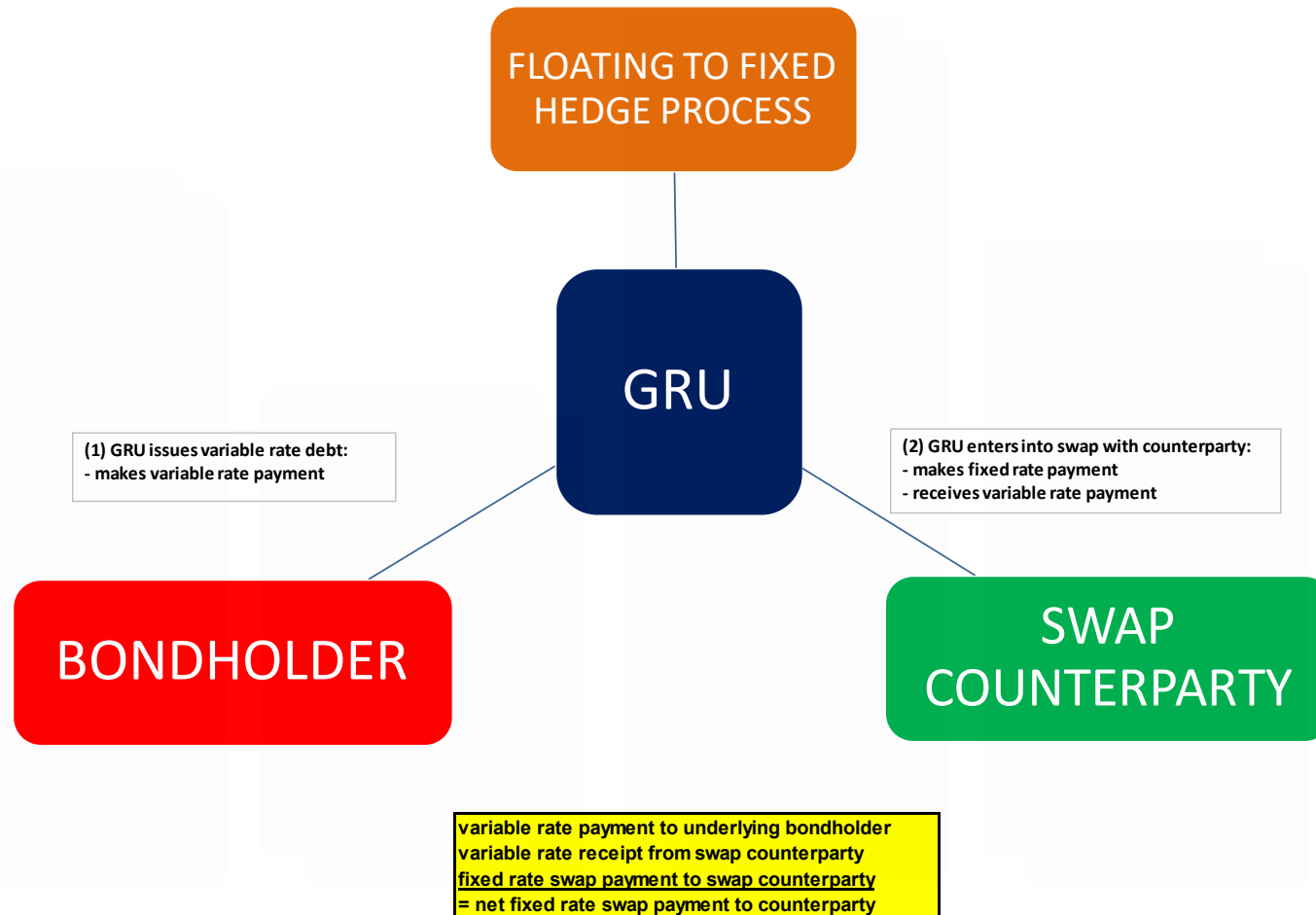
Debt Portfolio Review

Hedging Variable Rate Debt Through Swaps

- GRU issues variable rate debt
 - Make variable rate payment to underlying bondholder
- GRU enters into swap agreement with counterparty
- Under the terms of the swap
 - GRU makes a fixed rate swap payment to counterparty
 - GRU receives variable rate swap payment from counterparty
- Variable rate swap payment received from counterparty offsets variable rate payment made to underlying bondholder of original debt, therefore on net basis GRU is left with fixed rate swap payment to counterparty
 - Fixed rate swap payment rate is lower than fixed rate obtained if original debt was issued in fixed rate form

Debt Portfolio Review

Hedging Variable Rate Debt Through Swaps



Debt Portfolio Review

Liquidity Facilities

- Putting liquidity facilities in place is mandatory for administering a variable rate debt program
- These facilities provide funds to pay investors principal as variable rate instruments mature in the event of market disruptions that affect the ability to remarket these instruments

Series	Series Type	Provider	Term Date	Fee	Remarketing Agent	Par
2005 C	Daily VRDO	Barclays	5/17/2024	54 bps	JPMorgan	3,090,000
2006 A	Daily VRDO	Barclays	5/17/2024	54 bps	Goldman	2,985,000
2007 A	Weekly VRDO	State Street	6/30/2025	69 bps	JPMorgan	127,750,000
2008 B	Weekly VRDO	Barclays	5/17/2024	54 bps	Goldman	75,800,000
2008 Tax-Exempt Commercial Paper	Tax-Exempt CP	Bank of America	11/30/2024	43 bps	Goldman	125,000,000
2012 B*	Daily VRDO	Barclays	5/17/2024	54 bps	JPMorgan	98,610,000
Taxable Commercial Paper	Taxable CP	State Street	6/30/2025	70 bps	Goldman	25,000,000
2018 A (LOC)	Tax-Exempt LOC	Truist	11/30/2024	25 bps	NA	25,000,000
2019 C	Daily VRDN	Bank of America	4/25/2022	40 bpts	BofA	67,355,000
2020 A (LOC)	Taxable LOC	Truist	4/29/2022	30 bps	NA	50,000,000

Debt Portfolio Review

Debt Defeasance Program

- Two initiatives in FY20 which generated significant savings for GRU
 - 2020 GRU debt restructuring transactions - \$134M in savings over the next 26 years
 - 2020 POB transaction executed by General Government - \$64M in savings over the next 22 years
- Combined savings stream for these two initiatives averages approximately:
 - \$5M per year through 2029
 - \$10M per year 2030 – 2042
 - \$4M per year 2043 - 2047

Debt Portfolio Review

Debt Defeasance Program

- As part of their approval of these transactions the City Commission directed that the resulting savings be used to defease existing GRU debt.
- At their meeting of June 17, 2021 the Commission authorized GRU to execute the first tranche of the defeasance program through September of 2026
- Approximately \$31M in savings will have been accumulated through this point, so in a series of annual transactions between now and FYE26 we anticipate defeasing approximately this volume of outstanding debt.

Debt Portfolio Review

Debt Defeasance Program

- First efforts focused on bonds maturing in 2025 and 2026 to address spikes in debt service occurring in these years
- The initial bonds targeted for this defeasance are maturities of Series 2009B and 2017A bonds.
- On October 28 GRU executed
 - Legal defeasance of certain 2025 and 2026 maturities of Series 2017A bonds totaling \$7,185,000
 - Economic defeasance of certain 2025 maturities of Series 2009B bonds totaling \$1,130,000

Debt Portfolio Review

Debt Defeasance Program

- Modeling indicates that based on Commission decisions in the FY22 budget process reserve levels will exceed policy targets towards the end of the current forecast period in FY27 and FY28.
- Financial planning incorporates utilizing a portion of this excess to add to the pool of funds applied to debt defeasance to address GRU's most significant financial issue – high leverage.

Financial Metrics Policy

Financial Metrics Policy

- Creation of a policy establishing target financial metrics
 - Facilitates development of financial goals
 - Assists with budget formulation
 - Enables GRU to identify financial trends over a multiple-year period as well as to track financial performance over the course of a fiscal year
- Rating agencies publish municipal-utility based criteria that establish metrics for particular rating categories that can inform the target levels established for GRU's financial metrics
- Metrics chosen for inclusion in GRU policy are:
 - Days cash on hand
 - Days liquidity
 - Debt service coverage
 - Coverage of Fixed Obligations
 - Debt to capitalization
 - Leverage

Financial Metrics Policy

Days Cash on Hand

- Formula is $(\text{Available Cash} / \text{Net Operating Expenses}) * 365$
 - Available cash is unrestricted cash, cash equivalents and investments unencumbered by legal agreements or policy or earmarked for specific purposes
 - Net Operating Expenses equals operating expenses less depreciation/amortization and other noncash items
- This metric estimates the number of days GRU can pay its daily O&M expenses before running out of this cash. It measures GRU's financial security and ability to weather uncertainty.
- Rating agency benchmarks and GRU policy targets for this metric:

Moody's AAA + 250 days	Moody's AA 150 - 250 days	GRU Target 250 days	GRU per Moody's Formula 201 days
S&P Extremely Strong > 270 days	S&P Very Strong 150 - 270 days	GRU Target 250 days	GRU per S&P Formula 288 days

Financial Metrics Policy

Days Liquidity

- Formula is $(\text{Available Cash} + \text{Liquidity} / \text{Net Operating Expenses}) * 365$
 - Liquidity is available lines of credit and authorized but unissued commercial paper.
 - Net Operating Expenses equals operating expenses less depreciation/amortization and other noncash items
- This metric estimates how many days GRU can pay its O&M expenses before exhausting this liquidity. It measures GRU's financial security and ability to weather uncertainty.
- Rating agency benchmarks and GRU policy targets for this metric:

Moody's AAA + 250 days	Moody's AA 150 - 250 days	GRU Target 300 days	GRU per Moody's Formula 454 days
S&P Extremely Strong > 270 days	S&P Very Strong 150 - 270 days	GRU Target 300 days	GRU per S&P Formula 668 days

Financial Metrics Policy

Debt Service Coverage

- Formula is Net Revenues/Debt Service
 - Net revenues = operating revenues – operating expenses + interest income
 - Debt Service = annual debt service expense
- This metric measures GRU's financial security and ability to meet debt obligations.
- Rating agency benchmarks and GRU policy targets for this metric:

Moody's AAA > 2.0X	Moody's AA 1.7X - 2.0X	Moody's A 1.25X - 1.7X	GRU Target 1.7X	GRU per Moody's Formula 1.87
S&P Extremely Strong > 1.6X	S&P Very Strong > 1.4X	S&P Strong 1.2X	GRU Target 1.7X	GRU per S&P Formula 1.98

Financial Metrics Policy

Coverage of Fixed Obligations

- Formula is $(\text{Net Revenues} - \text{transfers out} + \text{debt-like service} - \text{debt service}) / (\text{Debt service} + \text{debt-like service})$
 - Net revenues = operating revenues – operating expenses + interest income
 - Debt Service = annual debt service expense
 - Debt-like service includes purchased power purchased power agreements
- This metric calculates GRU's available cash flow to pay current obligations, including debt-like obligations such as purchased power and power purchase agreements. It measures GRU's financial security and ability to meet debt obligations and other long-lived contractual agreements.
- Rating agency benchmarks and GRU policy targets for this metric:

Moody's AAA > 2.0X	Moody's AA 1.7X - 2.0X	Moody's A 1.25X - 1.7X	GRU Target 1.3X	GRU per Moody's Formula 1.53
S&P Extremely Strong > 1.6X	S&P Very Strong > 1.4X	S&P Strong 1.2X	GRU Target 1.3X	GRU per S&P Formula 1.52

Financial Metrics Policy

Debt to Capitalization (Moody's)

- Formula is Total Debt/Capitalization
 - Total debt = total debt outstanding at the end of the fiscal year
 - Capitalization = total debt + net position
- This metric measures system leverage. Given the high level of debt on GRU's balance sheet GRU is considered highly leveraged by all three of the rating agencies. This will be a difficult metric to change in the short-term and should be seen as a longer term goal.
- Rating agency benchmarks and GRU policy targets for this metric:

Moody's AAA < 50	Moody's AA 50 - 60	Moody's A 60 - 70	GRU Target 70	GRU per Moody's Formula 80.14
---------------------	-----------------------	----------------------	------------------	----------------------------------

Financial Metrics Policy

Leverage (Fitch)

- Formula is Net Adjusted Debt/Adjusted Funds Available for Debt Service
 - Net adjusted debt = debt + unamortized bond premium + pension liability + purchased power adjustment less available cash (Operating, RSF, UPIF, debt service)
 - Adjusted funds available for debt service= adjusted operating income less GFT + pension expense
- This metric measures system leverage. Given the high level of debt on GRU's balance sheet GRU is considered highly leveraged by all three of the rating agencies. This will be a difficult metric to change in the short-term and should be seen as a longer term goal.
- Rating agency benchmarks and GRU policy targets for this metric:

Fitch AA+ Median	Fitch AA Median	Fitch AA- Median	Fitch A+ Median	GRU Target	GRU per Fitch Formula
3.81	4.19	5.15	5.96	8.00	9.89

Delevering Policy

Delevering Policy

- GRU is considered highly leveraged by all three rating agencies.
- The proposed delevering policy incorporates three elements
 - Continuing as directed by the City Commission to apply savings from the 2020 debt restructuring transactions and the 2020 POB issuance towards defeasing outstanding debt
 - Funding at least 50% of Capital Improvement Plans through internal equity (Utility Plant Improvement Fund - UPIF)
 - When cash balance levels exceed the targets established in the City Commission approved Cash Balance Policy, applying these excess balances towards cash defeasance.
- As noted in the Financial Metrics Section, the ultimate target for the delevering policy is to reduce GRU's
 - debt to capitalization ratio from its current level of 80.14% to 70%.
 - Leverage ratio from 9.89 to 8.00

QUESTIONS?