

- Utilities are responsible for maintaining the condition of their capital assets to comply with environmental regulations 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 regulations?
 - Deliver safe, clean, treated water through its plant and water lines while protecting the infrastructure and aquifer?
 - Maintain the wastewater system to avoid sewage spills and treat wastewater safely in compliance with environmental regulations?





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, 2022						
Utility plant in service	3,058,228,442					
Less: accumulated depreciation & amortization	(1,311,849,390)					
	1,746,379,052					
Construction in progress	106,912,358					
Net capital assets	1,853,291,410					

 GRU needs to access capital markets regularly to obtain resources to acquire, construct and maintain this capital infrastructure





- GRU annual capital budgets are generally around \$75M \$85M
 - Significant amount: equates to ~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
- GRU splits its capital funding 50% debt/50% equity (internal cash)
- Access capital markets every 2 3 years





- 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 status as of September 30, 2022 under the Moody's formula for Asset Condition (electric net of DHR = 15.95 years)

MOODY'S RATING A	GENCY: ASS	SET CONDITION	ON EVALUAT	ION RATING	CATEGORIE	ES @ 9/30/22
	Aaa	Aa	Α	Baa	Ва	B and Below
Net Fixed Assets/	> 75 Years	> 25 years	> 12 years	> 9 years	> 6 years	= 6 years</td
Annual Depreciation		= 75 years</td <td><!--= 25 years</td--><td><!--= 12 years</td--><td><!--= 9 years</td--><td></td></td></td></td>	= 25 years</td <td><!--= 12 years</td--><td><!--= 9 years</td--><td></td></td></td>	= 12 years</td <td><!--= 9 years</td--><td></td></td>	= 9 years</td <td></td>	
Electric System			19.24 Years			
Water System			16.31 Years			
Wastewater System			16.99 Years			
Gas System				11.91 Years		
GRUCom System					8.44 Years	

 This is an additional reflection that capital spending is not keeping pace with capital needs





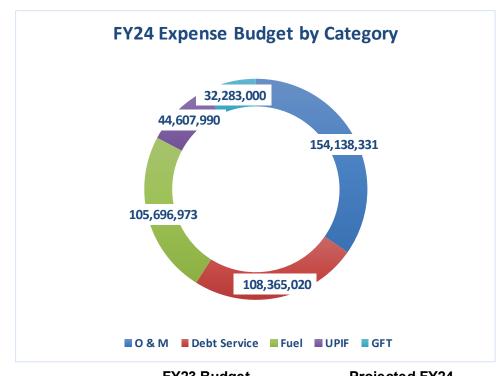
Debt Portfolio Review Why Utilize Debt Financing

- Even if GRU could utilize cash to fund all of our capital infrastructure needs
 - If we pay cash up front current rate payers shoulder an inordinate amount of the 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 GRU typically completes 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



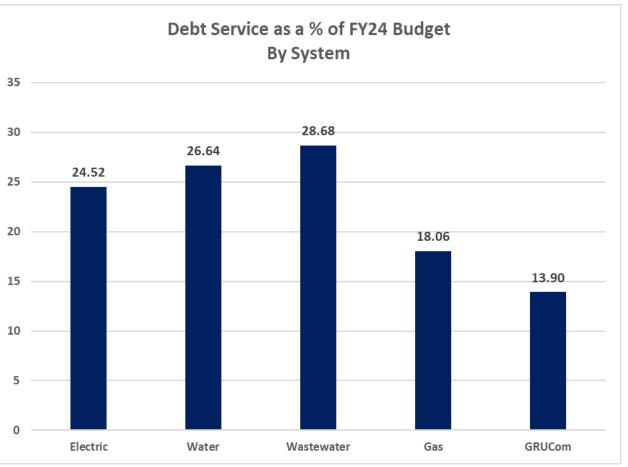
	FY23 I	Buaget	Projected FY24		
	%	\$	%	\$	
O & M	32.46%	150,243,812	34.63%	154,138,331	
Debt Service	22.57%	104,423,717	24.35%	108,365,020	
Fuel	27.57%	127,569,268	23.75%	105,696,973	
UPIF	9.99%	46,206,212	10.02%	44,607,990	
GFT	7.41%	34,283,000	7.25%	32,283,000	





Debt Portfolio Review Debt is a Significant Portion of GRU Total Budget

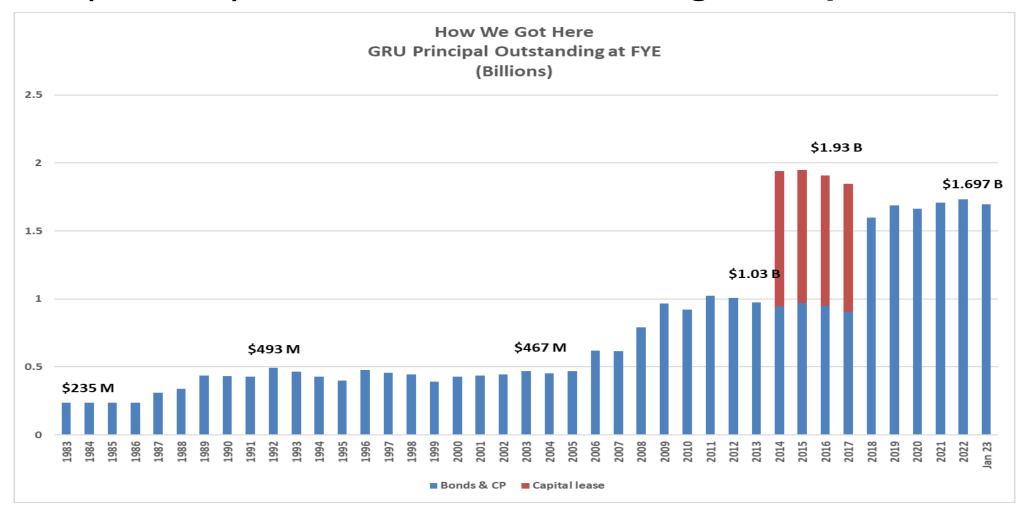
		FY23 Budget		Project	ed FY24
		%	\$	%	\$
Electric	O & M	28.07%	92,428,620	30.69%	95,626,881
	Debt Service	22.91%	75,444,323	24.52%	76,389,434
	Fuel	33.95%	111,803,673	29.53%	91,985,166
	UPIF	8.30%	27,349,341	8.81%	27,451,237
	GFT	6.77%	22,311,376	6.45%	20,092,939
					•
Water	O&M	47.39%	17,467,669	46.78%	17,803,478
	Debt Service	24.35%	8,972,994	26.64%	10,138,745
	UPIF	17.29%	6,371,313	15.54%	5,912,194
	GFT	10.98%	4,045,394	11.04%	4,200,018
Wastewater	O & M	47.95%	22,883,175	46.89%	23,294,807
	Debt Service	25.92%	12,370,325	28.68%	14,247,392
	UPIF	15.98%	7,625,160	14.00%	6,953,495
	GFT	10.14%	4,840,760	10.43%	5,181,422
Gas	O&M	19.51%	6,399,003	19.90%	5,837,999
	Debt Service	16.17%	5,303,259	18.06%	5,298,295
	Fuel	48.06%	15,765,595	46.75%	13,711,807
	UPIF	10.68%	3,503,680	9.79%	2,870,623
	GFT	5.58%	1,830,712	5.49%	1,610,922
			,		,
GRUCom	O & M	69.12%	11,065,345	70.22%	11,575,166
	Debt Service	14.57%	2,332,816	13.90%	2,291,154
	UPIF	8.47%	1,356,717	8.62%	1,420,441
	GFT	7.84%	1,254,758	7.27%	1,197,699
Total	O & M	32.47%	150,243,812	34.63%	154,138,331
	Debt Service	22.57%	104,423,717	24.35%	108,365,020
	Fuel	27.57%	127,569,268	23.75%	105,696,973
	UPIF	9.99%	46,206,211	10.02%	44,607,990
	GFT	7.41%	34,283,000	7.25%	32,283,000







Debt Portfolio Review 12% (~\$233M) Reduction in Outstanding Principal Since 2015







Debt Portfolio Review GRU Outstanding Debt Service Obligations \$2.52B

	Principal	Interest	Total P & I	Net Swap	Per Fiscal Year
04/01/23	-	32,548,413		-	
10/01/23	35,680,000	32,548,413	100,776,826	(2,479,970)	98,296,856
04/01/24	-	31,893,899		-	
10/01/24	35,340,000	31,893,899	99,127,797	(2,529,956)	96,597,841
04/01/25	-	30,797,613		-	
10/01/25	43,435,000	30,797,613	105,030,225	(2,792,838)	102,237,387
04/01/26	-	30,098,357		-	
10/01/26	42,915,000	30,098,357	103,111,715	(2,839,728)	100,271,987
04/01/27	-	29,409,406		-	
10/01/27	50,415,000	29,409,406	109,233,812	(2,887,971)	106,345,841
04/01/28	· · · · · -	28,498,551		-	
0/01/28	52,820,000	28,498,551	109,817,102	(2,880,705)	106,936,397
04/01/29	· · · · · · · · · · · · · · · · · · ·	27,529,375		-	
10/01/29	54,265,000	27,529,375	109,323,749	(2,873,067)	106,450,682
04/01/30	-	24,231,830		-	
10/01/30	57,260,000	24,231,830	105,723,660	(2,785,070)	102,938,590
4/01/31	-	23,099,273		-	
0/01/31	59,370,000	23,099,273	105,568,546	(2,776,655)	102,791,891
4/01/32	-	21,958,300		-	
10/01/32	61,520,000	21,958,300	105,436,600	(2,767,806)	102,668,794
04/01/33	-	20,771,142		-	
10/01/33	65,120,000	20,771,142	106,662,283	(2,758,522)	103,903,761
04/01/34	-	19,539,236		-	
10/01/34	67,340,000	19,539,236	106,418,471	(2,748,927)	103,669,544
04/01/35	-	18,195,927		-	
10/01/35	70,110,000	18,195,927	106,501,854	(2,739,022)	103,762,832
04/01/36	-	16,742,673		-	
10/01/36	69,780,000	16,742,673	103,265,347	(2,728,776)	100,536,571



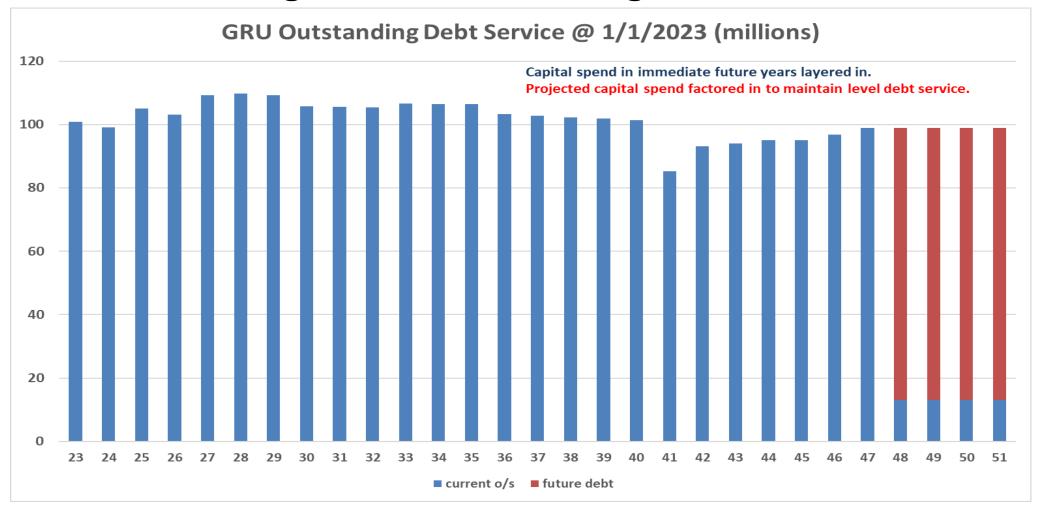


Debt Portfolio Review GRU Outstanding Debt Service Obligations \$2.52B (concluded)

	Principal	Interest	Total P & I	Net Swap	Per Fiscal Year
04/01/37		15,318,093		-	
10/01/37	72,130,000	15,318,093	102,766,186	(2,718,033)	100,048,153
04/01/38	-	13,556,974	102,700,100	(2,7 10,000)	100,040,100
10/01/38	75,070,000	13,556,974	102,183,949	(2,706,730)	99,477,219
04/01/39	-	11,866,121	102,100,040	(2,700,700)	00,477,210
10/01/39	78,160,000	11,866,121	101,892,242	(2,694,869)	99,197,373
04/01/40	70,100,000	10,021,105	101,032,242	(2,054,005)	33,131,313
10/01/40	81,235,000	10,021,105	101,277,211	(2,682,418)	98,594,793
04/01/41	-	8,319,064	101,277,211	(2,002,410)	30,034,730
10/01/41	68,555,000	8,319,064	85,193,127	(2,564,758)	82,628,369
04/01/42	-	7,665,964	03, 193, 127	(2,304,730)	02,020,309
10/01/42	77,800,000	7,665,964	93,131,928	(2,418,639)	90,713,289
04/01/43	77,000,000	6,813,996	93,131,920	(2,410,033)	30,7 13,203
10/01/43	80,330,000	6,813,996	93,957,992	(2,271,860)	91,686,132
04/01/44	-	5,843,433	93,937,992	(2,271,000)	31,000,132
10/01/44	83,250,000	5,843,433	94,936,866	(2,121,278)	92,815,588
04/01/45	83,230,000	4,812,121	94,930,000	(2,121,270)	92,613,366
10/01/45	86,305,000	4,812,121	95,929,243	(1,950,537)	93,978,706
04/01/46	80,303,000	3,646,798	95,929,243	(1,950,557)	93,976,700
10/01/46	89,570,000	3,646,798	96,863,596	(1,690,867)	95,172,729
04/01/47	89,570,000	2,436,439	90,003,590	(1,030,007)	95,172,729
10/01/47	94,030,000	2,436,439 2,436,439	98,902,879	(1,425,730)	97,477,149
04/01/48	94,030,000	1,152,500	90,902,879	(1,425,730)	51,411,145
10/01/48	10,695,000	1,152,500 1,152,500	13,000,000	(1,170,365)	11,829,635
04/01/49	10,695,000	1, 152,500 885,125	13,000,000	(1,170,365)	11,029,033
10/01/49	- 11,230,000	885,125	13,000,250	(1,543,209)	11,457,041
04/01/50	11,230,000	-	13,000,250	(1,543,209)	11,457,041
	44 705 000	604,375	13 003 750	- (4 407 647)	44 506 422
10/01/50 04/01/51	11,795,000	604,375	13,003,750	(1,407,617)	11,596,133
	42 222 222	309,500	42,000,000	- (4 207 202)	44 704 607
10/01/51	12,380,000	309,500	12,999,000	(1,267,363)	11,731,637
04/01/52				(4 400 500)	- (4.400.500
10/01/52			-	(1,122,526)	(1,122,526
04/01/53				(4 000 004)	- (4.000.004)
10/01/53				(1,226,284)	(1,226,284)
Total	1,697,905,000	897,131,203	2,595,036,203	(71,572,096)	2,523,464,107



Debt Portfolio Review GRU Outstanding Debt Service Obligations \$2.52B (concluded)







Debt Portfolio Review GRU Debt History by Series

			Principal Paid			Outstanding	Final
Series	Issue Date	Issue Amount	as of 1/1/23	Refunded	Defeased	as of 1/1/23	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	136,180,000		-	
2008A	February 6, 2008	105,000,000	52,505,000	52,495,000		-	
2008B	September 16, 2009	90,000,000	- -	90,000,000		-	
2009A	September 16, 2009	24,190,000	24,190,000	, ,		_	





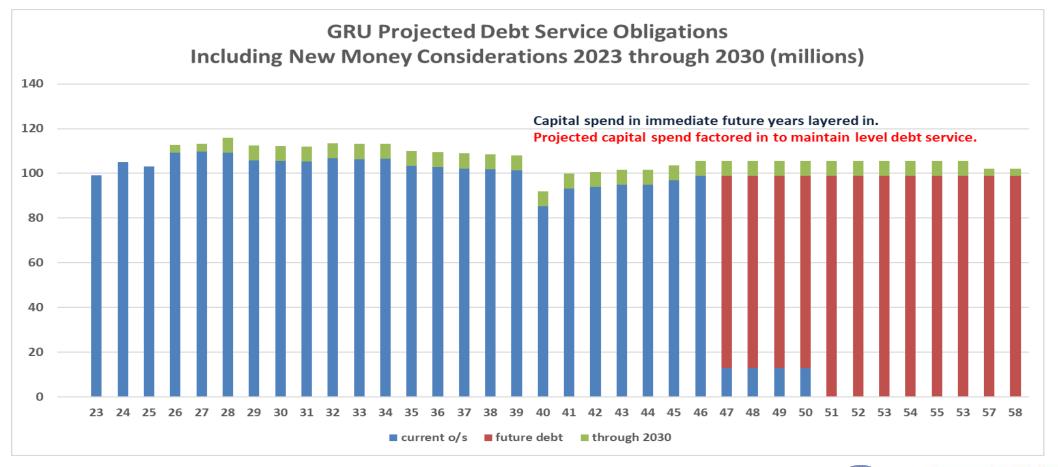
Debt Portfolio Review GRU Debt History by Series (concluded)

			Principal Paid			Outstanding	Final
Series	Issue Date	Issue Amount	as of 1/1/23	Refunded	Defeased	as of 1/1/23	Maturity
2009B	November 10, 2010	156,900,000	32,460,000	-	1,130,000	123,310,000	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	15,785,000	66,075,000	-	-	
2012B	July 24, 2012	100,470,000	-	1,860,000	-	98,610,000	2042
2014A	December 11, 2014	37,980,000	1,980,000	-	-	36,000,000	2044
2014B	December 11, 2014	30,970,000	18,885,000	-	-	12,085,000	2036
2017A	November 7, 2017	415,920,000	47,525,000	-	10,645,000	357,750,000	2040
2017B/2020B	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	45,000	-	-	10,620,000	2034
2021A	August 11, 2021	95,760,000	-	-	-	95,760,000	2051
2022B	April 29, 2022	232,880,000	-	-	-	232,880,000	2038
2022A	July 14, 2022	66,600,000	-	-	-	66,600,000	2028





Debt Portfolio Review GRU Projected Debt Service Obligations Including New Money Considerations Through 2030 \$3.2B







Debt Portfolio Review Composition of Debt

- As prior slides demonstrate, GRU's outstanding debt began to grow noticeably in 2005
 - Capital infrastructure needs suppressed prior to 2005
 - Eastside Operations Center 2009 ~\$80M
- In support of City Commission renewable energy goals
 - Deerhaven Air Quality Control equipment circa 2012 ~\$120M
 - Biomass plant brought on as capital lease in 2013
 - Biomass PPA bought out in 2018





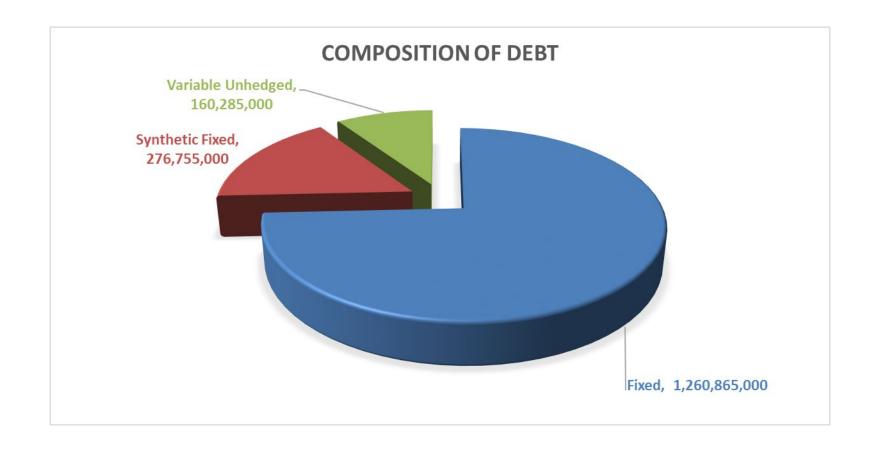
Debt Portfolio Review Composition of Debt

- As GRU's debt grew, usage of variable rate debt and swaps has grown
 - Lower overall cost of borrowing
- As size and complexity of the debt portfolio has grown, rating agency review and analysis of GRU's debt management program has expanded
- In response to this significant debt load, GRU actively monitors and manages the debt profile and has developed a debt defeasance program





Debt Portfolio Review Composition of Debt: 91% Fixed or Hedged







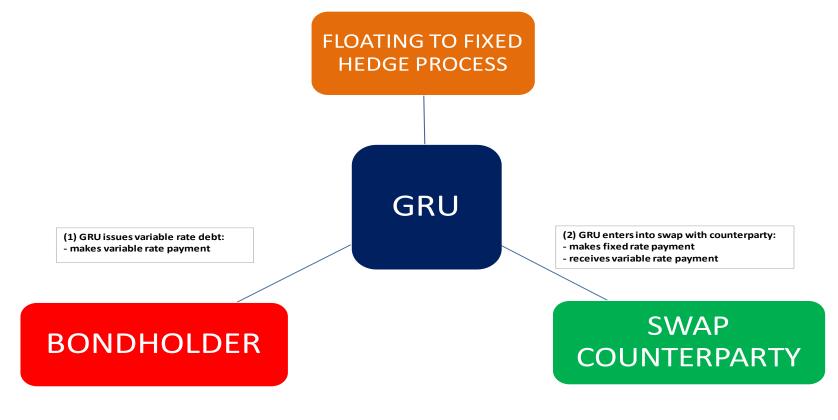
Debt Portfolio Review Hedging Variable Rate Debt Through Swaps

- GRU issues variable rate debt, and makes variable rate payments 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 a 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 is lower than fixed rate obtained if original debt was issued in fixed rate form





Debt Portfolio Review Hedging Variable Rate Debt Through Swaps



variable rate payment to underlying bondholder variable rate receipt from swap counterparty fixed rate swap payment to swap counterparty = net fixed rate swap payment to counterparty





Debt Portfolio Review Liquidity Facilities

- Maintaining liquidity facilities 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
2012 B*	Daily VRDO	Barclays	5/17/2024	54 bps	JPMorgan	98,610,000
2018 A (LOC)	Tax-Exempt LOC	Truist	11/30/2024	25 bps	NA	25,000,000
2019 C	Daily VRDN	Bank of America	4/25/2025	34 bpts	BofA	67,355,000
2020 A (LOC)	Taxable LOC	Truist	4/29/2024	30 bps	NA	50,000,000
2022 AB Revolving Line of Credit	A Tax Exempt B Taxable	US Bank	4/29/2025	17 bps	N/A	150,000,000





- As part of GRU's efforts to manage debt levels, the City Commission approved the first of its kind debt defeasance program for the utility
 - Success is predicated upon City Commission adhering to financial and budget initiatives staying on course to sustain the utility's financial viability
- Two initiatives in FY20 generated significant savings for GRU
 - 2020 GRU debt restructurings \$134M in savings over the next 26 years
 - 2020 Pension Obligation Bonds (POB) transaction executed by General Government \$64M in savings to GRU 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





- 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 GRU anticipates defeasing approximately this volume of outstanding debt





- 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, 2021 GRU executed
 - A legal defeasance of certain 2025 and 2026 maturities of Series 2017A bonds totaling \$7,185,000
 - An economic defeasance of certain 2025 maturities of Series 2009B bonds totaling \$1,130,000
- On October 28, 2022 GRU executed a legal defeasance of certain 2025 maturities of Series 2017A bonds totaling \$3,460,000

- Modeling indicates that based on Commission decisions made during the FY22 budget process reserve levels will exceed policy targets towards the end of the 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





Debt Portfolio Review Debt Management Policy Amendments: Financial Metrics & Delevering

- On October 20, 2022 the City Commission approved an amendment to the GRU Debt Management Policy including sections on target financial metrics and delevering
- Development of such a policy
 - Facilitates development of financial goals
 - Assists with budget formulation
 - Enables GRU to identify financial trends over a multiple-year period as well as tracking performance over the course of a fiscal year





Debt Portfolio Review Financial Metrics Policy

- 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 the GRU policy are:
 - Days cash on hand
 - Days liquidity
 - Debt service coverage
 - Coverage of fixed obligations
 - Debt to capitalization
 - Leverage
 - Capex vs depreciation
 - Accumulated vs annual depreciation
 - Book value vs annual depreciation





Debt Portfolio Review Financial Metrics Policy: Days Cash on Hand

- Formula is (Available Cash/Net Operating Expense) * 365
 - Available cash is unrestricted cash, cash equivalents and investments unencumbered by legal agreements or policy or earmarked for specific purposes
 - Net operating expense equals operating expense 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.





Debt Portfolio Review Financial Metrics Policy: Days Liquidity

- Formula is ((Available Cash + Liquidity)/Net Operating Expense) * 365
 - Liquidity is available lines of credit and authorized but unissued commercial paper
 - Net operating expense equals operating expense less depreciation/amortization and other noncash items.
- This metric estimates how many days GRU can pay its daily O&M expenses before exhausting this liquidity. It measures GRU's financial security and ability to weather uncertainty.





Debt Portfolio Review Financial Metrics Policy: Debt Service Coverage

- Formula is Net Revenues/Debt Service
 - Net revenues = operating revenues operating expense + interest income
 - Debt service = annual debt service expense
- This metric measures GRU's financial security and ability to meet debt obligations





Debt Portfolio Review Financial Metrics Policy: Coverage of Fixed Obligations

- Formula is (Net Revenues transfers out + debt-like service debt service)/(Debt Service + debt-like service)
 - Net revenues = operating revenues operating expense + interest income
 - Debt service = annual debt service expense
 - Debt-like service includes purchased power & purchase power agreements
- This metric measures GRU's available cash flow to meet current obligations, including debt-like obligations such as purchased power and purchase power agreements. It measures GRU's financial security and ability to meet debt obligations and other long-lived contractual agreements.





Debt Portfolio Review Financial Metrics Policy: Debt to Capitalization

- 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 the utility 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.





Debt Portfolio Review Financial Metrics Policy: Leverage

- 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 the utility 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.





Debt Portfolio Review Financial Metrics Policy: Capex vs Depreciation

- Formula is Annual Capital Spending/Annual Depreciation Expense
 - Annual capital spending = capital expense at the end of the measurement period
 - Annual depreciation expense = depreciation expense for the measurement period
- This metric measures whether capital investments are keeping pace with the aging of GRU's infrastructure.





Debt Portfolio Review Financial Metrics Policy: Accumulated vs Annual Depreciation

- Formula is Accumulated Depreciation/Annual Depreciation Expense
 - Accumulated depreciation expense = inception to date depreciation expense
 - Annual depreciation expense = depreciation expense for the measurement period
- This metric measures whether capital investments are keeping pace with the aging of GRU's infrastructure.





Debt Portfolio Review Financial Metrics Policy: Book Value vs Annual Depreciation

- Formula is Net Property, Plant and Equipment/Annual Depreciation Expense
 - Net property, plant and equipment = total capital assets less accumulated depreciation
 - Annual depreciation expense = depreciation expense for the measurement period
- This metric measures whether capital investments are keeping pace with the aging of GRU's infrastructure.





Debt Portfolio Review Financial Metrics Policy

GRU METRICS VS DEBT MANAGEMENT POLICY TARGETS: AS OF SEPTEMBER 30, 2022 (PRELIMINARY)							
				ACTUAL PER			
PER DEBT MANAGEMENT POLICY			PRELIMINARY FY22 FINANCIAL STATEMENTS				
Metric	Type of Metric	Target	Fitch	S&P	Moody's	Internal	
Days Cash on Hand	Liquidity	250 days	165	N/A	113		
Days Liquidity	Liquidity	300 days	347	438	290		
Debt Service Coverage	Coverage	1.7X debt service	2.06	2.16	2.04		
Coverage of Fixed Obligations	Coverage	1.3X debt service	1.69	1.69	1.62		
Debt to Capitalization	Capital Structure	70%	86.96%	80.85%	77.70%		
Leverage	Capital Structure	8X debt service	9.97	N/A	N/A		
Capex vs Depreciation	O & M	1X depreciation expense	0.8792	N/A	N/A		
Accumulated vs Annual Depreciation	O & M	15 years				12.64	
Book Value vs Annual Depreciation	O & M	15 years				17.87	





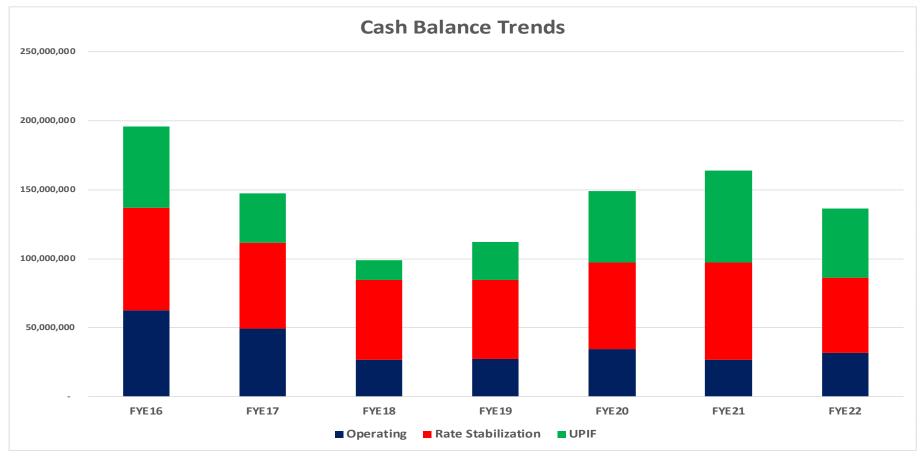
Debt Portfolio Review Delevering Policy

- GRU is considered highly leveraged by all three rating agencies
- The delevering policy incorporates four 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 Commission approved Cash Balance Policy, applying these excess balances towards cash defeasance
 - Grant reimbursements for capital expenses
- As noted in the Financial Metrics policy discussion, the ultimate target for the delevering policy is to reduce GRU's
 - Debt to capitalization ratio from its current level of 80.85% to 70%
 - Leverage ratio from 9.97 to 8.00









	FYE16	FYE17	FYE18	FYE19	FYE20	FYE21	FYE22
Operating	62,635,050	49,488,170	26,793,426	27,505,536	34,499,741	26,843,209	31,631,268
Rate Stabilization	74,262,078	62,431,906	57,703,806	56,941,703	62,945,910	70,590,438	54,600,333
UPIF	58,792,082	35,418,075	14,716,405	27,687,286	51,667,909	66,319,739	50,057,490
Total	195,689,210	147,338,151	99,213,637	112,134,525	149,113,560	163,753,386	136,289,091





- Between FY16 and FY18, GRU unrestricted cash (Operating cash, Rate Stabilization Fund, and UPIF) fell ~ \$97M or just over 49%
- Forecasts projected cash and reserves to decline significantly over the rest of the financial planning horizon
- In late 2018 GRU commissioned a cash balance study to be conducted by GRU's financial advisor PFM LLC





- Study encompassed a holistic view of the revenue and expense risks facing GRU and its individual systems
 - Economic
 - Environmental
 - Climate
- The goal of the study was to determine appropriate levels of cash to reserve against each identified risk to develop an overall target level of cash
- In March 2019 the City Commission approved a Cash Balance Policy based on the study results





 Applying the projected reserve balances against the policy targets results in excess (deficit) reserves by system as outlined below:

	EXCESS (DEFICIT) PROJECTED RESERVES VS TARGETS					
	2023	2024	2025	2026	2027	
Electric	(4,980,350)	(7,326,785)	(4,254,217)	12,584,764	37,385,388	
Water	19,275,457	15,093,805	14,997,963	17,873,701	17,928,173	
Wastewater	12,519,631	16,227,794	20,273,003	27,505,467	34,274,239	
Gas	2,313,577	372,193	(1,955,047)	(288,407)	1,625,421	
GRUCom	(1,462,131)	(4,795,280)	(8,230,885)	(11,165,707)	(18,764,257)	
Total	27,666,184	19,571,727	20,830,817	46,509,818	72,448,964	

- Electric System reserve deficits are driven by utilization of UPIF monies to fully fund three large projects: DH2 gasification, CIS, and AMI.
 - Traded short term reserve reductions to control leverage by using UPIF funds rather than debt to fund these projects





Cash, Liquidity & Reserves Update Estimated Incremental Rate Impact of Transitioning GRUCom to Corporate Shared Service

- As demonstrated by GRUCom reserve forecasts, there are questions regarding GRUCom's viability as an ongoing concern as a standalone utility
- One potential solution is to roll GRUCom into the other four systems as a corporate shared service
- The estimated incremental rate impact on each system of this alternative is:

System	Rate Impact
Electric	1.00%
Water	0.75%
Wastewater	0.00%
Gas	1.00%





Cash, Liquidity & Reserves Update GRUCom Alternatives

- GRU staff, GRU's financial advisor, and prominent industry consultants have been reviewing GRUCom's finances, operations and infrastructure to identify opportunities to:
 - Reduce operating costs
 - Increase revenue from existing lines of business
 - Develop new revenue streams
 - Restructure GRUCom operations to increase efficiencies
- Recommendations from this review will be presented as part of O&M and capital budget discussions in May





- Initiatives approved as part of the FY22 budget constitute the foundation for GRU long-term financial planning
 - 7% increase in Electric base rates in FY22
 - 3% increase in Electric base rates for FY23 FY27
 - 5% increase in Wastewater base rates for FY22 FY27
 - Reduction in GFT of \$2M each year between FY22 and FY27 (from \$36,283,000 in FY22 to \$26,283,000 by FY27)
- These changes have provided the basis for GRU to build reserves to meet the targets identified in the approved Cash Balance Policy as well as to address the most significant financial issue facing the utility – high leverage. Reserves in excess of target can be used to
 - Fund a larger percentage of GRU's capital plan through cash vs debt
 - Defease debt





- FY22 was an example of the Cash Balance Policy working as it was intended to. As demonstrated in the earlier slide on cash trends, FY22 saw a decrease in unrestricted cash for a number of reasons
 - Fuel costs rose significantly. While GRU increased the millage rate during FY22, full cost recovery of fuel expense was not achieved, with a receivable from customers at FYE22 of just under \$24M.
 - Other accounts receivable balances grew almost \$11M compared to FYE21
 - Inventories grew by almost \$13M between FYE21 and FYE22. This represents operating
 cash that has been expended for materials that until placed into services and capitalized,
 will remain a reduction of operating cash.
- Base rate increases and GFT reductions put in place to assist in building reserves to meet Cash Balance Policy targets provide us with the resources to address these issues, particularly tapering fuel millage increases





- Material deviations from those FY22 budget decisions can compromise the status of GRU's reserve levels and leverage ratios
- Currently GRU's largest system (Electric) doesn't meet its reserve target until FY26
- Decisions must be balanced with prudent utility practice in regards to funding and maintenance of capital infrastructure

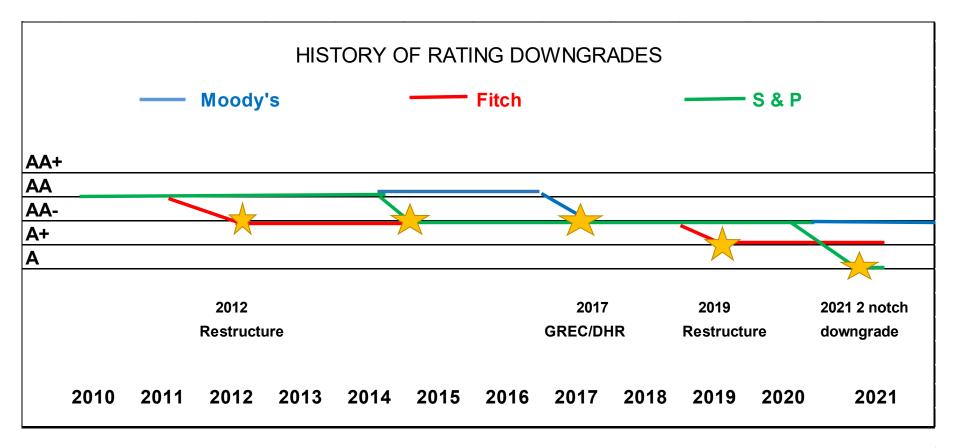




- PFM is in the process of updating the Cash Balance/Resiliency Study
- Includes determining new reserve target levels taking into account change in GRU risk exposures since original study in 2019
- Expected completion date of April 2023







Each agency has downgraded GRU since 2010 5 downgrades over past decade Lower credit ratings equals increased cost

- Higher cost when issuing debt
- Less refunding / restructuring savings
- Greater counterparty risk
- Collateral posting requirements (use of cash)
- Higher cost for credit facilities (bank loans & fees)

RECOMMENDATION

The City Commission:

- Continue to support initiatives designed promote GRU's long term financial health
 - Cash balance reserve targets: Cash balance policy in process of being updated by PFM
 - Historical base rate increases:
 - FY24 FY27: 3% per year increase in electric and 5% per year in wastewater
 - General Fund Transfer:
 - \$2M per year reduction in GFT FY24 through FY27







Rating agencies – For profit entities whose business is assessing the creditworthiness of issuers of debt for investors. The likelihood the debt of an issuer is repaid in whole or part, is expressed in ratings arranged in a credit quality scale. The three major rating agencies are Moody's, Standard & Poors, and Fitch. PFM is in the process of updating the Cash Balance/Resiliency Study

Capital markets – Financial markets that bring buyers and sellers together to trade stocks, bonds, currencies and other financial assets. Capital markets include the stock market and bond market. Includes determining new reserve target levels taking into account change in GRU risk exposures since original study in 2019





New money – Debt issued for the purpose of raising monies to construct, acquire, or maintain capital infrastructure.

Refunding transaction – Bond transaction designed to pay off higher-cost bonds with debt that has a lower net cost to the issuer of the bonds. The act is usually taken to reduce the financing costs of the issuer.

Debt service – Principal and interest costs associated with the outstanding debt of an entity.

Variable rate debt – Debt securities in which the interest rate is reset on a periodic basis: daily, weekly, monthly, etc.





Swaps – a derivative contract where one party exchanges or "swaps" the cash flows or value of one asset for another. GRU swaps are fixed to floating swaps, where we receive a variable rate payment from an entity in exchange for providing a fixed rate payment. The variable rate payment received offsets variable rate payments made to underlying bondholders, effectively synthetically fixing outstanding variable rate debt.

Counterparty – the other party that participates in a financial transaction.

Liquidity facility – A facility that can be drawn upon by eligible entities. In GRU's specific case, liquidity facility providers supply resources to pay variable rate bondholders when their bonds mature in the event that market disruptions prevent GRU from remarketing the maturing debt.

Remarketing debt – the "reselling" of variable rate debt as it matures. The proceeds of this remarketing provides the funds to pay principal and interest to the owner of the maturing variable rate debt.

Debt defeasance – Using available funds to establish escrow accounts to retire debt upon its maturity. There are two types of defeasance: <u>Legal defeasance</u> – this involves the establishment of an irrevocable escrow account. Utilizing an **irrevocable** escrow allows the entity to remove the outstanding debt from the balance sheet at the time that the escrow account is established. <u>Economic defeasance</u> – this involves the establishment of a **revocable** escrow account. Utilizing a revocable escrow account means that the outstanding debt defeased cannot be removed from the balance sheet until maturity.





Financial metrics – metrics are measures of quantitative assessment commonly used for assessing, comparing, and tracking financial performance.

Delevering or deleveraging – Leverage is the financial metric which measures the ratio between outstanding debt (principal) and the cash available to service that debt. The act of delevering or deleveraging refers to financial actions designed to reduce that ratio.



