

Grand River Dam Authority

Continuing Disclosure

For Twelve Months Ending December 31, 2023



June 5, 2024

Historical Operating Results
Debt Service Coverage
(Unaudited)

	2023	2022	2021	2020	2019
Operating Revenues:					
Municipal Power Sales	\$86,354,184	\$87,124,690	\$83,703,851	\$80,646,900	\$87,274,160
Industrial Power Sales	101,131,482	91,747,199	83,360,870	75,964,094	66,203,662
Off System Power Sales - Firm	75,514,325	75,654,956	72,679,252	73,069,666	73,274,605
Other Power Sales	267,891	1,031,974	1,398,969	352,773	718,261
Tribal Power Sales	133,006	20,717	26,649	6,821.00	-
Off System Power Sales - Spot	-	-	-	7,196,052	11,064,383
Interdepartmental Power Sales	935,007	700,316	525,256	482,623	-
Collection of Power Cost Adjustment and Fuel	317,728,812	333,739,363	200,736,991	145,404,123	148,792,586
Gross Power Sales	\$582,064,707	\$590,019,215	\$442,431,838	\$383,123,052	\$387,327,657
(Over)/Under Recovered Fuel Cost	(85,400,349)	(140,261)	91,770,856	(3,007,697)	8,668,517
Other Operating Revenues	73,450,492	74,759,226	43,034,245	24,140,475	25,774,726
Deferral related to the Rate Stabilization Fund	-	-	-	(31,703,098)	-
Total Operating Revenues¹	\$570,114,850	\$664,638,180	\$577,236,939	\$372,552,732	\$421,770,900
Operating Expenses:					
Fuel - Gas	\$119,027,054	\$147,020,061	\$143,746,598	\$69,431,317	\$71,993,174
Purchased Power	82,668,963	139,328,671	104,910,904	57,243,356	53,482,884
Fuel - Coal	19,662,108	31,793,054	28,908,419	13,020,677	31,953,792
Capacity Purchases	9,829,637	10,075,442	10,641,310	10,919,472	11,381,287
Interdepartmental - Salina Hydro Fuel	1,140,702	7,229,875	4,300,619	2,701,075	
Electric Production (excluding fuel):					
Grand River Energy Center					
GREC 1 ²	-	-	-	272,298	502,876
GREC 2	17,595,273	21,330,665	14,695,860	11,763,102	10,927,497
GREC 3	15,091,910	11,127,387	14,937,597	13,544,174	13,395,553
Redbud Plant ³	9,191,775	8,848,610	9,398,809	8,181,169	9,872,814
Pensacola Hydro	7,263,211	6,967,532	7,435,097	7,530,976	7,451,039
Markham Ferry Hydro	3,675,760	3,752,839	2,869,156	3,320,004	3,227,243
Salina Pumped Storage	3,824,515	3,489,873	2,621,993	2,269,102	2,173,532
Transmission	38,466,144	38,083,149	30,241,481	30,797,029	28,285,417
Transmission of Electric by Others	20,311,134	16,959,176	12,841,837	12,569,456	10,448,970
Administrative & General ⁴	30,574,570	25,553,193	24,315,591	24,092,765	22,828,968
Water Production ¹	387,276	485,091	483,464	608,088	204,811
Total Operating Expenses⁵	\$378,710,032	\$472,044,618	\$412,348,735	\$268,264,060	\$278,129,857
Net Operating Revenues	\$191,404,818	\$192,593,562	\$164,888,204	\$104,288,672	\$143,641,043
Other Income ⁶	18,213,287	6,563,320	(671,954)	24,295,123	44,918,347
Net Revenues Available for Debt Service	\$209,618,105	\$199,156,882	\$164,216,250	\$128,583,795	\$188,559,390
Other Available Funds ⁷	-	-	6,499,303	-	-
Total Funds Available for Debt Service	\$209,618,105	\$199,156,882	\$170,715,553	\$128,583,795	\$188,559,390
Debt Service	86,300,617	83,353,089	83,321,043	82,921,130	78,649,723
Available for Capital Improvements or Other Authorized Purposes	\$123,317,488	\$115,803,793	\$87,394,510	\$45,662,665	\$109,909,667
Debt Service Coverage (Total Avail. Funds)⁸	2.43	2.39	2.05	1.55	2.40

Continuing Disclosure Requirements (xviii): Historical Operating Results

¹ Sales and expenses of Raw Water and Regulatory Credits are excluded from Operating Revenue.

² As of April 15, 2017, GREC 1 discontinued coal generation and had limited generation capability using natural gas. As of December 31, 2020, GREC 1 was retired.

³ Reflects the Authority's 36% undivided ownership of Redbud combined-cycle natural gas fired plant near Luther, Oklahoma.

⁴ Excludes Governmental Accounting Standards Board Statement (GASB) No. 68 Accounting and Financial Reporting for Pensions and GASB Statement No. 75 Accounting for Other Post Employment Benefits, as these do not require a cash outlay.

⁵ Excludes depreciation, which does not require a cash outlay.

⁶ Consists primarily of interest income and contributions in aid of construction. Excludes change in fair value on investments, interest income restricted for special purposes, capitalized construction interest, and non-utility expense and revenue not part of the electric system.

⁷ Other Available Funds consists of excess from the Debt Service Reserve Fund that were used for Debt Service Payments.

⁸ Total Funds Available for Debt Service divided by Debt Service.

Selected Cash and Investment Fund Balances
(Unaudited)

	2023	2022	2021	2020	2019
<u>Unrestricted</u>					
Revenue Fund and General Reserve Fund	\$363,782,514	\$230,873,655	\$194,693,889	\$302,684,730	\$284,370,975
<u>Restricted</u>					
Capital Reserve Fund	2,916,947	7,806,994	9,921,898	-	-
Special Reserve and Contingency Fund	32,649,598	50,383,000	50,383,000	40,381,000	39,998,000
Rate Stabilization Fund	31,703,098	31,703,098	31,703,098	31,703,098	19,703,098
Debt Service Account	32,641,194	28,471,063	27,804,628	26,530,229	25,662,405
Construction Fund	198,375,164	-	-	-	-
Insurance Proceeds	-	-	-	-	2,166,076
Debt Service Reserve Account	97,308,594	86,005,132	89,307,437	97,068,036	93,026,843
Pensacola Fish & Wildlife Mitigation Fund ¹	2,119,836	2,059,139	2,079,229	2,145,252	2,159,412
The Nature Conservancy Fund ²	27,000	27,000	27,000	26,740	27,000
Riparian Lease Grants	107,912	107,912	70,665	107,125	107,125
Total Cash and Investments	\$761,631,857	\$437,436,993	\$405,990,844	\$500,646,210	\$467,220,934

Continuing Disclosure Requirements (xix): Selected Cash and Investment Fund Balances

**Cash Reserves (In Millions), Days Cash on Hand,
And Fixed Charge Coverage**
(Unaudited)

	2023	2022	2021	2020	2019
General Operating	\$363.8	\$230.9	\$194.7	\$302.7	\$284.3
Capital Reserve Fund	2.9	7.8	9.9	-	-
Special Reserve and Contingency fund	32.6	50.4	50.4	40.4	40.0
Rate Stabilization Fund	31.7	31.7	31.7	31.7	19.7
Other Special Purpose	2.1	2.1	2.1	2.3	2.2
Total	\$433.1	\$322.9	\$288.8	\$377.1	\$346.2
Days Cash on Hand (General & Board Designated)	309	283	253	487	448
Fixed Charge Coverage	2.43	2.39	2.05	1.42	2.25

Continuing Disclosure Requirements (xx): Cash Reserves (In Millions), Days Cash on Hand, and Fixed Charge Coverage

¹ Required by Pensacola Dam operating license.

² Required by Pensacola Dam operating license to be funded up to a balance of \$27,000 on January 1 of each year to provide assistance to the Nature Conservancy for certain endangered species.

Grand River Energy Center (GREC)

Capacity Factors (Unaudited)

Year	GREC 2	GREC 3
2019	2%	52%
2020	1%	60%
2021	27%	41%
2022	30%	39%
2023	16%	66%

Continuing Disclosure Requirements (ii): GREC Capacity Factors

Equivalent Availability Percentages

Coal-Fired Plants (Unaudited)

Year	GREC 2 ¹	NERC ²
2019	56.3%	78.5%
2020	33.9%	79.7%
2021	77.4%	76.2%
2022	58.8%	78.9%
2023	75.6%	NA ³

Continuing Disclosure Requirements (iii): Equivalent Availability Percentages-Coal Fired Plants

GREC Delivered Cost of Energy

(dollars per million BTU) (Unaudited)

YEAR	COAL ⁴
2019	3.29
2020	3.65
2021	1.36
2022	1.63
2023	1.87

Continuing Disclosure Requirements (iv): GREC Delivered Cost of Energy including handling.

¹ On July 29, 2019, GREC 2 experienced a mechanical outage that lasted until June 9, 2020.

² Percentages from NERC Website for Coal Primary Units with 400-599 MW Nameplate.

³ Not available

⁴ The decrease in cost in 2021 is due to increased generation, in combination with purchasing coal under new, lower price contracts.

Equivalent Availability Percentages
Combined-Cycle Natural Gas Generating Facilities
(Unaudited)

YEAR	REDBUD 1 ¹	REDBUD 2 ¹	REDBUD 3 ¹	REDBUD 4 ¹	GREC3	NERC ²
2019	98.0%	98.0%	99.0%	99.0%	78.3%	85.1%
2020	97.4%	99.1%	99.6%	97.6%	84.1%	85.1%
2021	82.2%	81.3%	78.5%	87.2%	63.0%	82.6%
2022	85.7%	81.5%	79.5%	84.2%	69.0%	81.4%
2023	80.2%	86.9%	88.3%	89.7%	86.2%	NA ³

Continuing Disclosure Requirements (v): Equivalent Availability Percentages-Redbud Generating Facility

Operating Revenues
For Twelve Months Ending December 31, 2023
(Unaudited)

	SALES (MWH)	BASE REVENUES (BEFORE PCA)	AUTHORITY REVENUES (AFTER PCA)
Municipal Power Sales	3,088,242	\$86,354,184	\$193,485,861
Industrial and Commercial Power Sales	4,026,080	101,131,482	241,126,903
<u>Tribal Power Sales</u>	<u>3,472</u>	<u>133,006</u>	<u>240,399</u>
Sub-Total Load Following Contract Power Sales	7,117,794	\$187,618,672	\$434,853,163
Off System Power Sales - Firm	1,746,588	75,514,325	133,380,282
(Over)/Under Recovered Fuel Cost	-	-	(85,400,349)
<u>Other Power Sales⁴</u>	<u>29,856</u>	<u>581,335</u>	<u>581,335</u>
Total Contract Power Sales	8,894,238	\$263,714,332	\$483,414,431
Off System Power Sales - Spot	247,637	11,174,218	11,174,218
<u>Interdepartmental Power Sales</u>	<u>105,180</u>	<u>2,075,709</u>	<u>2,075,709</u>
Total Power Sales	9,247,055	\$276,964,259	\$496,664,358
Other Operating Revenues ⁵	-	73,450,492	73,450,492
Total Operating Revenues	9,247,055	\$350,414,751	\$570,114,850

Continuing Disclosure Requirements (vi): Operating Revenues

¹ Percentages provided by Oklahoma Gas and Electric Company (Redbud Operator/Majority Owner).

² Percentages from NERC Website for Combined Cycle Units All Sizes.

³ Not Available.

⁴ Includes sales to Oklahoma Municipal Power Authority (OMPA). OMPA's portion includes fixed and variable operating expenses, administrative and general expenses, and capital improvements as well as a share of the SPP Integrated Market revenue.

⁵ Sales of Water and Regulatory Revenues are excluded from Other Operating Revenues.

Municipal Revenues
For Twelve Months Ending December 31, 2023

(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
City of Coffeyville, Kansas	1999	2042	8%	\$46,551,396
Stillwater Utilities Authority	1987	2042	6	31,598,630
Claremore Public Works Authority	1946	2042	4	20,618,854
City of Siloam Springs, Arkansas	1989	2042	3	18,829,234
Tahlequah Public Works Authority	1947	2042	2	13,532,566
Miami Public Utilities Board	1947	2042	2	12,003,419
Sallisaw Municipal Authority	1952	2042	1	7,788,820
City of Pryor Creek Municipal Utility Board	1951	2042	1	7,154,025
Cushing Municipal Authority	1953	2042	1	6,552,989
Stilwell Area Development Authority	1950	2042	1	6,161,808
Wagoner Public Works Authority	1947	2042	1	5,633,267
Collinsville Municipal Authority	2003	2042	1	4,194,228
Skiatook Public Works Authority	1977	2042	1	3,735,330
Stroud Utilities Authority	1986	2042	1	3,210,232
Mannford Public Works Authority	2003	2042	0	2,581,719
Lindsay Public Works Authority	2000	2025	0	1,907,171
Pawnee Public Works Authority	1953	2042	0	1,432,173
Total Municipal Power Sales			33%	\$193,485,861

Continuing Disclosure Requirements (vii): Municipal Revenues

Industrial and Commercial Revenues
For Twelve Months Ending December 31, 2023

(Unaudited)

CUSTOMER	PRODUCT	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
Google Inc.	Internet Search Engine	2007	2026	32%	\$183,708,215
Pryor Chemical Company	Chemical Products	2004	2026	3	14,941,911
Solae, LLC	Food Supplements	1975	2026	1	7,261,973
American Castings, LLC	Iron Castings	2003	2026	1	6,346,186
Air Products Manufacturing Corporation	Industrial Gases	1976	2026	1	6,184,254
Cascades Tissue Group - Oklahoma	Paper Products	1975	2026	1	4,141,994
Berry Plastics Corporation	Plastic Bags	1990	2026	1	3,914,723
Gold Bond Building Products, LLC	Building Products	1950	2026	1	3,883,997
Hashpower, LLC	Crypto Mining	2021	2026	0	1,829,645
Oklahoma Ordnance Works Authority	Administration	1978	2026	0	1,563,754
All Other Industrial (23)				1	6,874,812
All Other Commercial (48)				0	475,439
Total Industrial and Commercial Power Sales				42%	\$241,126,903

Continuing Disclosure Requirements (viii): Industrial and Commercial Revenues

¹ Represents revenues after Power Cost Adjustment (PCA).

Tribal Revenues
For Twelve Months Ending December 31, 2023
(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
Citizen Potawatomi Nation Utility Authority	2019	2026	0%	\$240,399
Total Tribal Power Sales			0%	\$240,399

Continuing Disclosure Requirements (ix): Tribal Revenues

Off System Revenues - Firm
For Twelve Months Ending December 31, 2023
(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
Kansas Municipal Energy Agency	2000	2026	6%	\$35,914,102
Paragould, Arkansas, Light and Water Commission	1992	2038	6	32,158,641
Western Farmers Electric Cooperative ³	2010	2050	6	31,879,889
Oklahoma Municipal Power Agency ²	2007	2040	3	17,575,084
City of Poplar Bluff, Missouri	1992	2039	3	15,852,566
Total Off System Power Sales - Firm			24%	\$133,380,282

Continuing Disclosure Requirements (x): Off System Revenues-Firm

Other Revenues-Unit Output Agreement
For Twelve Months Ending December 31, 2023
(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES
Oklahoma Municipal Power Agency ⁴	1985	2036	0%	\$581,335
Total Other Power Sales			0%	\$581,335

Continuing Disclosure Requirements (xi): Other Revenues-Unit Output Agreement

¹ Represents revenues after power cost adjustment (PCA).

² Sales began in 1985 with a unit contingent output agreement from GREC 2. Off-System Firm Sales began in 2007.

³ The Western Farmers Electric Cooperative revenue reflects the recovery of base electric rates and a share of the net energy revenue associated with GRDA resources. It does not reflect the traditional PCA recover as the load is not purchased from the SPP IM.

⁴ OMPA's portion includes fixed and variable operating expenses, administrative and general expenses, and capital improvements as well as a share of the SPP Integrated Market revenue.

Off System Revenues-Spot
For Twelve Months Ending December 31, 2023
(Unaudited)

CUSTOMER	REVENUES				
	2023	2022	2021	2020	2019
Southwest Power Pool	\$ 11,174,218	\$ 28,159,838	\$ 21,694,104	\$ 14,387,541	\$ 19,497,781
Oklahoma Gas and Electric Company ¹	-	-	-	-	700,000
Total Off System Power Sales - Spot	\$11,174,218	\$28,159,838	\$14,387,541	\$20,197,781	\$8,265,043

Continuing Disclosure Requirements (xii): Off System Revenues-Spot

Other Operating Revenues
For Twelve Months Ending December 31, 2023
(Unaudited)

SOURCE	REVENUES				
	2023	2022	2021	2020	2019
Other Transmission and Ancillary Services	\$61,918,590	\$60,127,086	\$32,630,774	\$15,233,356	\$17,578,032
Base Plan Funded Transmission Revenues	6,389,275	6,562,156	6,186,265	6,160,945	6,184,740
Renewable Energy Certificates	1,416,973	4,788,697	3,225,447	1,713,530	1,235,764
Other Operating Revenues	3,725,654	3,281,287	991,759	1,032,644	776,190
Total Other Operating Revenues²	\$73,450,492	\$74,759,226	\$43,034,245	\$24,140,475	\$25,774,726

Continuing Disclosure Requirement (xiii): Other Operating Revenues

Average Annual Contract Sales Price (Cents/kWh)
(Unaudited)

	2023	2022	2021	2020	2019
Average Annual Base Rate	2.52	2.52	2.59	2.57	2.98
Average Annual PCA	3.47	3.83	2.85	1.82	1.96
Average Annual Total	5.99	6.35	5.44	4.39	4.94

Continuing Disclosure Requirements (xiv): Average Annual Contract Sales Price

¹ Sale of short term capacity only.

² Sales of Water are excluded from Other Operating Revenue.

³ In April 2019, the fuel base of \$0.023 in base rates was reduced to a fuel base of \$0.00, such that all fuel is now collected in PCA.

Historical Energy Resources (MWh) (Unaudited)

Year	Conventional Hydro Generation	Pumped-Storage Hydro Generation	Combined-Cycle Gas Generation	Coal-Fired Thermal Generation	Long-Term Wind Purchase	Other Purchased Power	Municipal SPA Allocation ¹	Total Resources
2019	1,378,635	92,342	4,498,505	59,666	1,367,024	1,034,124	49,054	8,479,350
2020	849,286	108,555	4,576,147	26,658	1,328,836	1,519,740	45,271	8,454,493
2021	804,354	80,411	3,344,733	1,214,266	1,327,967	2,003,325	39,622	8,814,678
2022	599,751	76,804	3,108,450	1,370,196	1,277,395	2,586,688	32,420	9,051,704
2023	351,469	39,165	4,681,035	746,337	1,109,092	2,395,735	27,787	9,350,620

Continuing Disclosure Requirements (xv): Historical Energy Resources

GRDA Historic Dispatch (GWh) (Unaudited)

	2023	2022	2021	2020	2019
GREC 1	-	-	-	(16.993)	(17.760)
GREC 2	746.337	1,370.196	1,214.266	43.651	77.426
GREC 3	2,871.528	1,688.292	1,793.649	2,452.600	2,146.008
Redbud	1,809.507	1,420.158	1,551.084	2,123.547	2,352.497
Pensacola	227.995	388.930	516.610	511.416	829.386
Markham Ferry	123.474	210.821	287.744	337.870	549.249
Salina	39.165	76.804	80.411	108.555	92.342
Canadian Hills	46.345	75.884	124.365	143.256	152.097
Breckinridge	364.890	398.805	402.373	402.071	402.824
Kay Wind	303.969	301.314	305.913	318.101	326.220
Red Dirt	393.888	501.392	495.316	465.408	485.883
Other Purchases	2,423.522	2,619.108	2,042.947	1,565.011	1,083.178
Total	9,350.620	9,051.704	8,814.678	8,454.493	8,479.350

Continuing Disclosure Requirements (i): GRDA Historic Dispatch (GWh)

¹ GRDA is the scheduling agent for Skiatook and Coffeyville's allocation of SPA (Southwestern Power Administration) hydro power.

Historical Demand Requirements and Resources (MW)

(Unaudited)

Year	Contract Demand Requirements			Rated Capability of Resources							
	Contract Peak Demand	Required Capacity Margin ¹	Contract Demand plus Required Margin	Conventional Hydro Generation ²	Pumped-Storage Hydro Generation	Combined-Cycle Gas Generation ³	GREC Thermal Generation ⁴	Purchased Power ⁵	Wind Capacity ⁶	Municipal SPA Allocation ⁷	Total Resources
2019	1,499	180	1,679	254	258	902	492	172	75	13	2,166
2020	1,541	185	1,726	254	258	924	492	172	67	13	2,180
2021	1,604	192	1,796	246	258	924	492	172	59	13	2,164
2022	1,690	203	1,893	248	258	926	493	164	77	13	2,177
2023	1,765	212	1,977	243	258	926	493	164	72	13	2,168

Continuing Disclosure Requirements (xvi): Historical Demand Requirements and Resources (MW)

Historical Sales by Customer Group (MWh)

(Unaudited)

Year	Tribal	Municipal	Industrial	Off System ⁸ Firm	Other ⁹	Contract Power Sales	Off System Spot	Total Power Sales			Total Requirements
								Pumping	Other ¹⁰		
2019	-	3,081,466	2,515,759	2,003,561	3,965	7,604,751	567,446	8,172,197	198,592	108,561	8,479,350
2020	72	2,959,080	2,970,244	1,681,835	2,828	7,614,059	504,926	8,118,985	228,339	107,169	8,454,493
2021	411	3,044,960	3,276,530	1,692,949	47,898	8,062,748	467,155	8,529,903	169,132	115,643	8,814,678
2022	383	3,096,060	3,641,140	1,749,898	53,306	8,540,787	208,935	8,749,722	169,125	132,857	9,051,704
2023	3,472	3,088,242	4,026,080	1,746,588	29,856	8,894,238	247,637	9,141,875	94,111	114,634	9,350,620

Continuing Disclosure Requirements (xvii): Historical Sales by Customer Group (MWh)

¹ Minimum Required Capacity Margin is 12% of net peak demand, per SPP Criteria 2.1.9.

² The total of Pensacola and Markham Ferry capability.

³ Includes the Authority's 36% ownership interest in Redbud gas plant near Luther, Oklahoma, purchased October 1, 2008. Beginning in 2017, includes GREC 3, a combined-cycle natural gas unit, located in Chouteau, Oklahoma.

⁴ Represents GRDA's 100% ownership of GREC 2. As of December 31, 2020, all other GREC thermal generation capacity was retired. In 2019, GREC 2 was derated from 520 MW to 492 MW.

⁵ Includes 86 MW capacity contract with City of Coffeyville, Kansas, 21 MW capacity contract with Cushing Municipal Authority, and 56 MW capacity contract with Stillwater Utilities Authority.

⁶ Includes 15 MW capacity of the 138.6 MW nameplate rating from Red Dirt, 32 MW capacity of the 98.1 MW nameplate rating from Breckinridge, 23 MW capacity of the 98.9 MW nameplate rating from Kay Wind, and 7 MW capacity of the 45.6 MW nameplate rating of Canadian Hills.

⁷ GRDA is the scheduling agent for Skiatook and Coffeyville's allocation of SPA (Southwestern Power Administration) hydro power.

⁸ A reduction in the MWhs reflect a change of financial settlement of energy outside of the SPP Integrated Marketplace.

⁹ GREC 2 Output Power Sales to Oklahoma Municipal Power Authority.

¹⁰ GRDA internal use and system losses.