

Grand River Dam Authority Continuing Disclosure

For Twelve Months Ending December 31, 2022



May 25, 2023

Historical Operating Results
Debt Service Coverage
(Unaudited)

	2022	2021	2020	2019	2018
Operating Revenues:					
Municipal Power Sales	\$87,124,690	\$83,703,851	\$80,646,900	\$87,274,160	\$87,945,571
Industrial Power Sales	91,747,199	83,360,870	75,964,094	66,203,662	62,143,687
Off System Power Sales - Firm	75,654,956	72,679,252	73,069,666	73,274,605	73,918,540
Other Power Sales	1,031,974	1,398,969	352,773	718,261	574,039
Tribal Power Sales	20,717	26,649	6,821.00	-	-
Off System Power Sales - Spot	-	-	7,196,052	11,064,383	2,906,489
Interdepartmental Power Sales	700,316	525,256	482,623	-	-
Collection of Power Cost Adjustment and Fuel	333,739,363	200,736,991	145,404,123	148,792,586	191,513,982
Gross Power Sales	\$590,019,215	\$442,431,838	\$383,123,052	\$387,327,657	\$419,002,308
(Over)/Under Recovered Fuel Cost	(140,261)	91,770,856	(3,007,697)	8,668,517	(19,513,952)
Other Operating Revenues	74,759,226	43,034,245	24,140,475	25,774,726	36,769,868
(Deferral)/Recognition of Revenues related to	-	-	(31,703,098)	-	-
Total Operating Revenues¹	\$664,638,180	\$577,236,939	\$372,552,732	\$421,770,900	\$436,258,224
Operating Expenses:					
Fuel - Gas	\$147,020,061	\$143,746,598	\$69,431,317	\$71,993,174	\$79,272,265
Purchased Power	139,328,671	104,910,904	57,243,356	53,482,884	77,161,680
Fuel - Coal	31,793,054	28,908,419	13,020,677	31,953,792	15,530,485
Capacity Purchases	10,075,442	10,641,310	10,919,472	11,381,287	11,617,572
Interdepartmental - Salina Hydro Fuel	7,229,875	4,300,619	2,701,075	-	-
Electric Production (excluding fuel):					
Grand River Energy Center					
GREC 1 ²	-	-	272,298	502,876	599,977
GREC 2	21,330,665	14,695,860	11,763,102	10,927,497	12,083,492
GREC 3	11,127,387	14,937,597	13,544,174	13,395,553	13,310,743
Redbud Plant ³	8,848,610	9,398,809	8,181,169	9,872,814	8,567,225
Pensacola Hydro	6,967,532	7,435,097	7,530,976	7,451,039	7,134,071
Markham Ferry Hydro	3,752,839	2,869,156	3,320,004	3,227,243	3,171,702
Salina Pumped Storage	3,489,873	2,621,993	2,269,102	2,173,532	2,153,712
Transmission	38,083,149	30,241,481	30,797,029	28,285,417	29,551,381
Transmission of Electric by Others	16,959,176	12,841,837	12,569,456	10,448,970	12,324,480
Administrative & General ⁴	25,553,193	24,315,591	24,092,765	22,828,968	21,747,590
Water Production ¹	485,091	483,464	608,088	204,811	276,039
Total Operating Expenses⁵	\$472,044,618	\$412,348,735	\$268,264,060	\$278,129,857	\$294,502,414
Net Operating Revenues	\$192,593,562	\$164,888,204	\$104,288,672	\$143,641,043	\$141,755,810
Other Income ⁶	6,563,320	(671,954)	24,295,123	44,918,347	10,293,765
Net Revenues Available for Debt Service	\$199,156,882	\$164,216,250	\$128,583,795	\$188,559,390	\$152,049,575
Other Available Funds ⁷	-	6,499,303	-	-	-
Total Funds Available for Debt Service	\$199,156,882	\$170,715,553	\$128,583,795	\$188,559,390	\$152,049,575
Debt Service	83,353,089	83,321,043	82,921,130	78,649,723	68,111,102
Available for Capital Improvements or Other Authorized Purposes	\$115,803,793	\$87,394,510	\$45,662,665	\$109,909,667	\$83,938,473
Debt Service Coverage (Total Avail. Funds)⁸	2.39	2.05	1.55	2.40	2.23

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)

	2022	2021	2020	2019	2018
Unrestricted					
Revenue Fund and General Reserve Fund	\$230,873,655	\$194,693,889	\$302,684,730	\$284,370,975	\$273,037,494
Restricted					
Board Designated Funds	58,189,994	60,304,898	40,381,000	39,998,000	39,615,000
Rate Stabilization Fund	31,703,098	31,703,098	31,703,098	19,703,098	21,000,000
Debt Service Account	28,471,063	27,804,628	26,530,229	25,662,405	19,158,577
Insurance Proceeds	-	-	-	2,166,076	1,505,309
Debt Service Reserve Account	86,005,132	89,307,437	97,068,036	93,026,843	88,992,603
Pensacola Fish & Wildlife Mitigation Fund ¹	2,059,139	2,079,229	2,145,252	2,159,412	2,173,538
The Nature Conservancy Fund ²	27,000	27,000	26,740	27,000	27,000
Third Party Private Grant	-	-	-	-	1,458
Riparian Lease Grants	107,912	70,665	107,125	107,125	107,125
Total Cash and Investments	\$437,436,993	\$405,990,844	\$500,646,210	\$467,220,934	\$445,618,104

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

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

	2022	2021	2020	2019	2018
General Operating	230.9	194.7	302.7	284.3	273.0
Board Designated	58.2	60.3	40.4	40.0	39.6
Rate Stabilization Fund	31.7	31.7	31.7	19.7	21.0
Other Special Purpose	2.1	2.1	2.3	2.2	2.2
Total	322.9	288.8	377.1	346.2	335.8
Days Cash on Hand (General & Board Designated)	283	253	487	448	414
Fixed Charge Coverage	2.39	2.05	1.42	2.25	2.06

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
2018	9%	53%
2019	2%	52%
2020	1%	60%
2021	27%	41%
2022	30%	39%

Continuing Disclosure Requirements (ii): GREC Capacity Factors

**Equivalent Availability Percentages
Coal-Fired Plants
(Unaudited)**

Year	GREC 2 ¹	NERC ²
2018	91.1%	77.0%
2019	56.3%	78.5%
2020	33.9%	79.7%
2021	77.4%	76.2%
2022	58.8%	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
2018	2.43
2019	3.29
2020	3.65
2021	1.36
2022	1.63

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
2018	69.2%	62.5%	63.7%	66.9%	88.8%	85.1%
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%	NA ³

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

**Operating Revenues
For Twelve Months Ending December 31, 2022
(Unaudited)**

	SALES (MWH)	BASE REVENUES (BEFORE PCA)	AUTHORITY REVENUES (AFTER PCA)
Municipal Power Sales	3,096,060	\$87,124,690	\$206,551,988
Industrial and Commercial Power Sales	3,641,140	91,747,199	228,818,936
Tribal Power Sales	383	20,717	34,594
Sub-Total Load Following Contract Power Sales	6,737,583	\$178,892,606	\$435,405,518
Off System Power Sales - Firm	1,749,898	75,654,956	119,384,252
(Over)/Under Recovered Fuel Cost	-	-	(140,261)
Other Power Sales ⁴	53,306	(860,585)	(860,585)
Total Contract Power Sales	8,540,787	\$253,686,977	\$553,788,924
Off System Power Sales - Spot	208,935	28,159,838	28,159,838
Interdepartmental Power Sales	177,315	7,930,191	7,930,191
Total Power Sales	8,927,037	\$289,777,006	\$589,878,953
Other Operating Revenues ⁵	-	74,759,226	74,759,226
Total Operating Revenues	8,927,037	\$364,536,232	\$664,638,179

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, 2022
(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
City of Coffeyville, Kansas	1999	2042	7%	\$45,365,993
Stillwater Utilities Authority	1987	2042	5	34,818,670
Claremore Public Works Authority	1946	2042	3	21,638,685
City of Siloam Springs, Arkansas	1989	2042	3	20,036,679
Tahlequah Public Works Authority	1947	2042	2	14,470,470
Miami Public Utilities Board	1947	2042	2	13,053,166
Sallisaw Municipal Authority	1952	2042	2	10,537,573
City of Pryor Creek Municipal Utility Board	1951	2042	1	9,037,833
Cushing Municipal Authority	1953	2042	1	7,041,993
Stilwell Area Development Authority	1950	2042	1	6,572,774
Wagoner Public Works Authority	1947	2042	1	6,102,729
Collinsville Municipal Authority	2003	2042	1	4,437,062
Skiatook Public Works Authority	1977	2042	1	3,826,069
Stroud Utilities Authority	1986	2042	0	3,030,836
Mannford Public Works Authority	2003	2042	0	2,930,877
Lindsay Public Works Authority	2000	2025	0	2,095,100
Pawnee Public Works Authority	1953	2042	0	1,555,478
Total Municipal Power Sales			30%	\$206,551,988

Continuing Disclosure Requirements (vii): Municipal Revenues

Industrial and Commercial Revenues
For Twelve Months Ending December 31, 2022
(Unaudited)

CUSTOMER	PRODUCT	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
Google Inc.	Internet Search Engine	2007	2024	26%	\$172,437,351
Pryor Chemical Company	Chemical Products	2004	2024	2	13,874,943
Solae, LLC	Food Supplements	1975	2024	1	7,927,204
Air Products Manufacturing Corporation	Industrial Gases	1976	2024	1	5,853,664
American Castings, LLC	Iron Castings	2003	2024	1	5,830,033
Gold Bond Building Products, LLC	Building Products	1950	2024	1	4,117,200
Cascades Tissue Group - Oklahoma	Paper Products	1975	2024	1	4,096,789
Berry Plastics Corporation	Plastic Bags	1990	2024	1	3,919,887
Oklahoma Ordnance Works Authority	Administration	1978	2024	0	1,612,007
Chevron Phillips Chemical Company	Chemical Products	1987	2024	0	1,334,297
All Other Industrial (23)				1	7,373,606
All Other Commercial (54)				0	441,955
Total Industrial and Commercial Power Sales				35%	\$228,818,936

Continuing Disclosure Requirements (viii): Industrial and Commercial Revenues

¹ Represents revenues after Power Cost Adjustment (PCA).

Tribal Revenues
For Twelve Months Ending December 31, 2022
(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
Citizen Potawatomi Nation Utility Authority	2019	2024	0%	\$34,594
Total Tribal Power Sales			0%	\$34,594

Off System Revenues - Firm
For Twelve Months Ending December 31, 2022
(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES ¹
Kansas Municipal Energy Agency	2000	2026	6%	\$37,298,653
Paragould, Arkansas, Light and Water Commission	1992	2038	5	33,615,217
City of Poplar Bluff, Missouri	1992	2039	3	20,021,052
Oklahoma Municipal Power Agency ²	2007	2040	3	18,384,129
Western Farmers Electric Cooperative ³	2010	2050	2	10,065,201
Total Off System Power Sales - Firm			19%	\$119,384,252

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

Other Revenues-Unit Output Agreement
For Twelve Months Ending December 31, 2022
(Unaudited)

CUSTOMER	CUSTOMER SINCE	CONTRACT EXPIRES	% REVENUES	AUTHORITY REVENUES
Oklahoma Municipal Power Agency ⁴	1985	2036	0%	(\$860,585)
Total Other Power Sales			0%	(\$860,585)

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, 2022
(Unaudited)

CUSTOMER	REVENUES				
	2022	2021	2020	2019	2018
Southwest Power Pool	\$ 28,159,838	\$ 21,694,104	\$ 14,387,541	\$ 19,497,781	\$ 8,265,043
Oklahoma Gas and Electric Company ¹	-	-	-	700,000	-
Total Off System Power Sales - Spot	\$28,159,838	\$14,387,541	\$20,197,781	\$8,265,043	\$3,929,617

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

Other Operating Revenues
For Twelve Months Ending December 31, 2022
(Unaudited)

SOURCE	REVENUES				
	2022	2021	2020	2019	2018
Other Transmission and Ancillary Services	\$60,127,086	\$32,630,774	\$15,233,356	\$17,578,032	\$25,540,888
Base Plan Funded Transmission Revenues	6,562,156	6,186,265	6,160,945	6,184,740	9,024,113
Renewable Energy Certificates	4,788,697	3,225,447	1,713,530	1,235,764	1,231,950
Other Operating Revenues	3,281,287	991,759	1,032,644	776,190	972,916
Total Other Operating Revenues²	\$74,759,226	\$43,034,245	\$24,140,475	\$25,774,726	\$36,769,867

Continuing Disclosure Requirement (xiii): Other Operating Revenues

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

	2022	2021	2020	2019 ³	2018
Average Annual Base Rate	2.52	2.59	2.57	2.98	5.13
Average Annual PCA	3.83	2.85	1.82	1.96	0.05
Average Annual Total	6.35	5.44	4.39	4.94	5.18

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
2018	517,421	151,625	4,237,428	399,495	1,393,896	1,890,274	31,634	8,621,773
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	1,228,472	2,635,611	32,420	9,051,704

Continuing Disclosure Requirements (xv): Historical Energy Resources

GRDA Historic Dispatch (GWh) (Unaudited)

	2022	2021	2020	2019	2018
GREC 1	-	-	(16.993)	(17.760)	(22.394)
GREC 2	1,370.196	1,214.266	43.651	77.426	421.889
GREC 3	1,688.292	1,793.649	2,452.600	2,146.008	2,280.922
Redbud	1,420.158	1,551.084	2,123.547	2,352.497	1,956.506
Pensacola	388.930	516.610	511.416	829.386	341.110
Markham Ferry	210.821	287.744	337.870	549.249	176.311
Salina	76.804	80.411	108.555	92.342	151.625
Canadian Hills	75.884	124.365	143.256	152.097	159.057
Breckinridge	398.805	402.373	402.071	402.824	425.360
Kay Wind	301.314	305.913	318.101	326.220	328.882
Red Dirt	501.392	495.316	465.408	485.883	480.596
Other Purchases	2,619.108	2,042.947	1,565.011	1,083.178	1,921.909
Total	9,051.704	8,814.678	8,454.493	8,479.350	8,621.773

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
2018	1,478	177	1,655	254	258	901	545	171	25	13	2,167
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

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		Total			Total Requirements
						Power Sales	Off System Spot	Power Sales	Pumping	Other ¹⁰	
2018	-	3,053,614	2,340,245	2,517,703	14,994	7,926,556	301,377	8,227,933	288,843	104,997	8,621,773
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

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.