

Global Reporting Initiative Metrics

In consideration of the TVA sustainability priorities that support GRI reporting principles, we have provided a detailed response to the GRI indicators in the form of the following GRI Metric Alignment Matrix.

CATEGORY	TOPIC	KEY PERFORMANCE METRIC NAME	FY 2018	FY 2019	FY 2020
102	General Disclosures	Total Number of Board of Director Members	8	9	5
102	General Disclosures	Total Number of Female Board of Director Members	1	1	0
102	General Disclosures	Total Number of Minority Board of Director Members	1	1	0
102	General Disclosures	Total Number of Employees	10,023	10,009	9,989
102	General Disclosures	Winning Performance Payout (%)	130%	116%	137%
102	General Disclosures	Total Owned Summer Net Capability at the End of Year (MW) ^{1,10}	33,526	33,727	32,750
102	General Disclosures	Owned Coal Summer Net Capability at the End of Year (MW)	7,886	7,886	6,915
102	General Disclosures	Owned Natural Gas Summer Net Capability at the End of Year (MW) ^{1,10}	12,509	12,509	12,509
102	General Disclosures	Owned Nuclear Summer Net Capability at the End of Year (MW)	7,723	7,922	7,922
102	General Disclosures	Owned Petroleum (Diesel) Summer Net Capability at the End of Year (MW)	9	9	9
102	General Disclosures	Owned Total Renewable Energy Resources Summer Net Capability at the End of Year (MW)	5,399	5,401	5,395
102	General Disclosures	Owned Biomass/Biogas Summer Net Capability at the End of Year (MW)	0	0	0
102	General Disclosures	Owned Geothermal Summer Net Capability at the End of Year (MW)	0	0	0
102	General Disclosures	Owned Hydroelectric Summer Net Capability at the End of Year (MW)	5,398	5,400	5,394
102	General Disclosures	Owned Solar Summer Net Capability at the End of Year (MW)	1	1	1
102	General Disclosures	Owned Wind Summer Net Capability at the End of Year (MW)	0	0	0
102	General Disclosures	Owned Other Summer Net Capability at the End of Year (MW)	0	0	0
102	General Disclosures	Total Owned Net Generation (GWh) ¹⁰	141,505	139,129	134,295
102	General Disclosures	Nuclear Generation (GWh)	64,194	63,433	64,832
102	General Disclosures	Natural Gas and/or Oil Fired Generation (GWh)	32,104	31,704	33,635
102	General Disclosures	Coal-fired Generation (GWh) ¹⁰	31,471	27,934	19,825
102	General Disclosures	Hydroelectric Generation (GWh)	13,736	16,058	16,003
102	General Disclosures	Petroleum Generation (GWh)	0	0	0
102	General Disclosures	Total Renewable Energy Resources Generation (GWh)	13,736	16,058	16,003
102	General Disclosures	Total Purchased Power Generation (GWh) ¹	21,428	21,945	19,526
102	General Disclosures	Purchased Power Renewable Generation (GWh)	7,245	7,840	7,934
102	General Disclosures	Federal Sustainability Report Disclosure	SR&IP and AEMR	SR&IP and AEMR	SR&IP and AEMR
102	General Disclosures	Investor Sustainability Report Disclosure	EEl-ESG Industry Pilot	EEl-ESG Industry Template	EEl-ESG Industry Template
102	General Disclosures	Customer Carbon Accounting Disclosure	Annual Customer Carbon Accounting	Annual Customer Carbon Accounting	Annual Customer Carbon Accounting
201	Economic Performance	Operating Revenues (\$M)	\$11,233	\$11,318	\$10,249
201	Economic Performance	O & M Expense (\$M)	\$2,598	\$3,090	\$2,720

CATEGORY	TOPIC	KEY PERFORMANCE METRIC NAME	FY 2018	FY 2019	FY 2020
201	Economic Performance	Non-Fuel Delivered Cost of Power Rate (cents/kWh)	3.18	3.46	2.93
201	Economic Performance	Retail Rate Average (cents/kWh)	9.15	9.33	9.14
201	Economic Performance	Incremental Annual Electricity Savings from EE (MWh)(CY)	228,202	32,377	101,138
201	Economic Performance	Incremental Annual Investment in EE Programs \$(CY)	\$36,213,000	\$21,406,000	\$15,660,000
201	Economic Performance	Operating Cash Flow (\$M)	\$3,938	\$3,720	\$3,636
201	Economic Performance	Net Income (\$M)	\$1,119	\$1,417	\$1,352
201	Economic Performance	Total Spend (\$M)	\$4,353	\$4,467	\$4,441
201	Economic Performance	Total Financing Obligations (\$B) ²	24.3 ²	22.8 ²	21.4 ²
201	Economic Performance	Nuclear Unit Capability Factor (UCF)(%) ¹¹	91.3% (UCF-C, excludes WBN2)	89.8% (UCF-C)	90.0% (UCF-A)
201	Economic Performance	Load Not Served (System Minutes)	3.3	3.7	2.7
201	Economic Performance	Reliability Rating (Transmission System) (%)	99.999%	99.999%	99.999%
201	Economic Performance	Inventory Value - Materials and Supplies Inventory (\$M)	725	742	770
201	Economic Performance	External Nuclear Performance Indicators Index	95.7%	80.4%	85.1%
201	Economic Performance	Total Annual Capital Expenditures (\$M)	\$1,759 ¹²	\$1,700 ¹²	\$1,643 ¹²
201	Economic Performance	Coal Equivalent Availability Factor (EAF)	61.90%	65.20%	79.40%
201	Economic Performance	Combined Cycle Equivalent Availability Factor (EAF)	80.10%	78.90%	84.00%
201	Economic Performance	Economic Development - Capital Investment in the Valley (\$B)	11.3	8.9	8.6
202	Market Presence	Commercial Retail Electric Customer Count (at end of CY) ³	18	17	17
202	Market Presence	Industrial Retail Electric Customer Count (at end of CY) ³	43	43	43
202	Market Presence	Residential Retail Electric Customer Count (at end of CY) ³	0	0	0
203	Indirect Economic Impacts	Jobs Created or Retained (#)	65,423	66,572	67,431
203	Indirect Economic Impacts	Flood Management: Avoided Flood Damage (\$M)	\$260	\$1,600	\$1,000
204	Procurement Practices	Supplier Diversity: Total Diverse Business Spend (\$M)	\$445.0	\$395.0	\$388.5
204	Procurement Practices	Supplier Diversity: Diverse Business Utilization (%)	15.10%	13.70%	14.20%
204	Procurement Practices	Supplier Diversity: Total Small Business Spend (\$M)	\$822	\$766	\$844
204	Procurement Practices	Supplier Diversity: Small Business Utilization (%)	27.80%	26.60%	32.30%
204	Procurement Practices	Supplier Diversity: Total Valley Business Spend (\$B)	\$2.2	\$2.0	\$1.8
204	Procurement Practices	Valley Spend Utilization (%)	74.30%	68.80%	65.20%
301	Materials	Waste: Coal Combustion Products Beneficially Used (%) (CY)	38.00%	45.00%	87.00%
302	Energy	Performance Contracting - Investment Value (\$M)	5.4	4.91	3.3
302	Energy	Sustainable Buildings Progress (% reduction from baseline: GSF)	5.10%	22.00%	22.00%
302	Energy	Building Energy Intensity Progress (% reduction from FY2003: Btu/GSF) (EO 13834)	62.60%	64.30%	69.30%
302	Energy	Building Renewable Energy Use (% renewable sources) (EO 13834)	18.00%	18.30%	18.70%
303	Water and Effluents	Building Potable Water Intensity Progress (% reduction from FY2007: Gal/GSF) (EO 13834)	31.60%	36.90%	48.00%
303	Water and Effluents	Water Supply: Freshwater Consumption Rate (All Generation) (Billions of Liters/Net MWh)(CY)	0.0000007	0.0000006	0.0000008

CATEGORY	TOPIC	KEY PERFORMANCE METRIC NAME	FY 2018	FY 2019	FY 2020
303	Water and Effluents	Water: Total Water Withdrawal-Non Consumptive (Billions of Liters/Net MWh) (CY)	0.0000978	0.0001116	0.0000823
304	Biodiversity	Total Acres of Habitat Protected (# acres)	247,706	247,706	247,104
305	Emissions	Clean Energy (Power from carbon-free sources delivered) (%)	52.00%	54.00%	57.00%
305	Emissions	Scope 1 and 2 GHG Emissions (% reduction from FY2008)	41.00%	41.60%	51.00%
305	Emissions	Scope 3 GHG Emissions (% reduction) ⁹	29.60%	31.97%	54.80%
305	Emissions	CLIMATE: TVA CO2 Tons from Owned Generation (metric tons) reported in CY	47,521,550	43,090,822	34,237,908
305	Emissions	CLIMATE: TVA Emissions (Owned CO2 Tons/GWh)	360	307	288
305	Emissions	CLIMATE: TVA Emissions (Owned CO2 Metric Tons/ Net MWh)(CY/FY)	0.338	0.310	0.255
305	Emissions	CLIMATE: Purchased Generation CO2 Emissions (metric tons) reported in CY	13,049,225	13,543,114	6,521,407
305	Emissions	CLIMATE: Purchased Generation Emissions (Purchased CO2 Metric Tons/ Net MWh)(CY/FY)	0.609	0.617	0.334
305	Emissions	CLIMATE: CO2 Emissions rate - System TVA Scope 2 CO2 Emissions Rate (Owned and Purchased lbs/MWh) reported in CY	825.09	741.66	561.92
305	Emissions	CLIMATE: Owned and Purchased Generation CO2 Emissions (metric tons) reported in CY	60,570,775	56,633,937	40,759,315
305	Emissions	CLIMATE: Owned and Purchased Generation Emissions (Owned and Purchased CO2 Metric Tons/ Net MWh)(CY/FY)	0.372	0.352	0.265
305	Emissions	CLIMATE: TVA CO2e Scope 1 Emissions (metric tons) (CY)	47,720,320	43,696,845	34,762,588
305	Emissions	CLIMATE: TVA CO2e Scope 2 Emissions (metric tons) (CY)	208,159	200,153	170,039
305	Emissions	CLIMATE: TVA CO2e Scope 3 Emissions (metric tons) (CY) ⁴	72,096	73,994	66,967
305	Emissions	Air: TVA SO2 Emissions (metric tons) (CY)	26,744	26,972	17,082
305	Emissions	Air: TVA NOx Emissions (metric tons) (CY)	21,451	19,430	12,577
305	Emissions	Non-Generation Fugitive CO2e Emissions: Sulfur Hexafluoride (metric tons) (CY) ⁵	117,863	324,988	35,541
305	Emissions	Air: TVA Mercury Emissions (kg) (CY)	67.7	50.1	17.5
306	Effluents and Waste	Non-hazardous Municipal Solid Waste Diversion (% diverted / recycled) ⁶	5.42%	4.53%	3.90%
306	Effluents and Waste	Waste: Low-level radioactive waste disposal rate (ft3/MWh) (CY)	0.0025205	0.0033666	0.00197
306	Effluents and Waste	Waste: Amount of Hazardous Waste Disposed (MT) (CY)	52.44	93.67	93.13
307	Environmental Compliance	Compliance: Notice of Violations (NOV)	1	4	6
403	Occupational Health and Safety	Safe Workplace (RIR)	0.34	0.46 ⁷	0.34 ⁷
403	Occupational Health and Safety	Lost Time Case Rate (OSHA)	0.12	0.07	0.10
403	Occupational Health and Safety	Days Away, Restricted and Transfer (DART) rate (OSHA)	0.25	0.22	0.17
403	Occupational Health and Safety	Serious Injury Incident Rate (SIIR)	0.05	0.07 ⁷	0.03
403	Occupational Health and Safety	Work-Related Fatalities	0	0	0
404	Training and Education	Training for Career Advancement (hours/employee)	77.71	73.70	64.02
404	Training and Education	Continuing Education Contributions (\$)	\$498,041	\$443,789	\$567,715
405	Diversity and Equal Opportunity	Military Share of Workforce (%)	18.32%	18.10%	18.50%

CATEGORY	TOPIC	KEY PERFORMANCE METRIC NAME	FY 2018	FY 2019	FY 2020
405	Diversity and Equal Opportunity	People of Color Share of Workforce (%)	11.31%	11.80%	10.90%
405	Diversity and Equal Opportunity	Women Share of Workforce (%)	20.12%	20.10%	19.50%
411	Rights of Indigenous Peoples	Tribal Engagement	23	51	36
413	Local Communities	Environmental & Community Engagement (# Group activities)	598	805	307
413	Local Communities	Environmental & Community Engagement (# Children participating)	11,650	10,325	2,615
413	Local Communities	Annual Tax Equivalent Payments (without Fuel Cost Adjustment) (\$M)	524	548	552
413	Local Communities	Back-to-Business Credit Program (\$)	New for 2020	New for 2020	\$9,887,500
413	Local Communities	Community Care Fund (\$)	New for 2020	New for 2020	\$2,563,651
413	Local Communities	Employee Hours Volunteered (Hours)	3,011	2,550	4,400
413	Local Communities	Stakeholder Survey (%) ⁸	81%	80%	78%
413	Local Communities	Customer Loyalty (VOC Survey Results) ⁸	72.0%	71.3%	70.7%
413	Local Communities	Media Tone (Positive and Neutral) ⁸	90.3%	89.3%	85.3%
414	Supplier Social Assessment	Sustainable Acquisition Progress – Obligations in Dollars containing Statutory Environmental Requirements (% of contract dollars with environmental clauses)	68.5%	93.7%	89.3%

¹Caledonia Combined Cycle Plant is currently a leased facility operated by TVA.

²See Appendix D for Regulation G Reconciliations

³Customer count is based on meters in accordance with the definition on Form EIA-861 Annual Electric Power Industry Report.

⁴These are partial Scope 3 CO₂e rates

⁵2019 value include historical emissions that were not previously captured.

⁶Does not include construction and demolition waste

⁷Revised due to reclassifications

⁸Three-year average, not annual rate

⁹This is a partial scope 3 value.

¹⁰Includes natural gas facilities operated by TVA, subject to leaseback and long-term lease arrangements.

¹¹Nuclear Unit Capability Factor for 2018 and 2019 values based on cycle performance. 2020 value based on annualized performance.

¹²Construction Expenditures based on Statement of Cash Flows