

EEI ESG/Sustainability Template – Quantitative Information for Oklahoma Gas and Electric Company (OG&E)

Parent Company: *OGE Energy Corp.*
Operating Company(s): *OG&E*
Business Type(s): *Vertically Integrated Investor-Owned Utility*
State(s) of Operation: *Oklahoma, Arkansas*
State(s) with RPS Programs: *None*
Regulatory Environment: *Regulated*
Report Date: *6/17/2020*

	Baseline 2005 <i>Actual</i>		Current Year 2019 <i>Actual</i>		Future Year 2020 <i>Position</i>	
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Portfolio

1 Owned and operated Nameplate Generation Capacity at end of year (MW)						
1.1 Coal	2,569		1,854		1,854	Source of historical capacity data in this section: annual SEC Form 10-K Natural gas capacity includes 100% of the capacity for the two plants in which OG&E owns an interest and is the operating partner (McClain and Redbud) See additional notes 1, 2, and 3 below
1.2 Natural Gas	3,659		5,470		5,470	
1.5.4 Solar	0		12.2		12.2	
1.5.5 Wind	0		449		449	
2 Owned and operated generation for the data year (Gross MWh)						
2.1 Coal	20,709,911		5,295,309		6,582,736	Historical data in this section contains gross generation, generally as measured by 40 CFR 75 continuous emission monitoring systems (CEMS) See additional note 4 below See additional note 3 below
2.2 Natural Gas	10,235,668		15,215,123		15,636,515	
2.5.4 Solar	NA		54,618		31,623	
2.5.5 Wind	NA		1,415,345		1,430,316	
3 Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters						
3.1 Total Annual Capital Expenditures (nominal dollars)	\$249		\$636		\$575	Millions of dollars: annual SEC Form 10-K Source: 2019 Oklahoma Demand Programs Annual Report, and Arkansas Energy Efficiency Program Portfolio Annual Report (Preliminary numbers to be finalized after verification.) Source: 2019 Oklahoma Demand Programs Annual Report, and Arkansas Energy Efficiency Program Portfolio Annual Report (Preliminary numbers to be finalized after verification.)
3.2 Incremental Annual Electricity Savings from EE Measures (MWh)	NA		185,776			
3.3 Incremental Annual Investment in Electric EE Programs (nominal millions of dollars)	NA		\$42			
3.4 Percent of Total Electric Customers with Smart Meters (at end of year)	NA		100%		100%	
4 Retail Electric Customer Count (at end of year)						
4.1 Commercial	80,786		98,565		96,075	Source for historical values in this section: annual SEC Form 10-K; source for 2020 projections: 2015 OG&E Integrated Resource Plan
4.2 Industrial	9,420		2,965		3,073	
4.3 Residential	630,736		731,797		730,330	

Emissions

5 GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e)						See note 5 below - the emission profile for the generating units OG&E owns and operates is different than the profile for electricity purchased and delivered to OG&E's customers.
5.1 Owned and operated generation for the data year						
5.1.1 Carbon Dioxide (CO2)						Source of historical emissions data: EPA Air Markets Program records of monitored emissions. Data in this section includes 100% of emissions for the two plants in which OG&E owns an interest and is the operating partner (McClain and Redbud) Rates in this section are per gross MWh, including renewables
5.1.1.1 Total Owned Generation CO2 Emissions (MT)	23,992,763		12,083,273		13,101,188	
5.1.1.2 Total Owned Generation CO2 Emissions Intensity (MT/Gross MWh)	0.775		0.550		0.553	
5.1.2 Carbon Dioxide Equivalent (CO2e)						
5.1.2.1 Total Owned Generation CO2e Emissions (MT)	21,169,100		12,130,523		13,169,905	
5.1.2.2 Total Owned Generation CO2e Emissions Intensity (MT/Gross MWh)	0.684		0.552		0.556	
5.2 Purchased Power						2019 emissions in this section derived as: total purchased net MWh from SEC Form 10-K multiplied by 2018 EPA eGRID emission factor eGRID emission factor not available for 2005 or 2020
5.2.1 Carbon Dioxide (CO2)						
5.2.1.1 Total Purchased Generation CO2 Emissions (MT)	NA		8,483,578			
5.2.1.2 Total Purchased Generation CO2 Emissions Intensity (MT/MWh)	NA		0.606			
5.2.2 Carbon Dioxide Equivalent (CO2e)						
5.2.2.1 Total Purchased Generation CO2e Emissions (MT)	NA		7,652,157			
5.2.2.2 Total Purchased Generation CO2e Emissions Intensity (MT/MWh)	NA		0.610			
5.4 Non-Generation CO2e Emissions						Source: GHG emissions records as reported to EPA under the mandatory GHG Reporting Protocols (40 CFR Part 98, Subpart DD)
5.4.1 Fugitive CO2e emissions of sulfur hexafluoride (MT)	NA		39,809			
6 Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg)						
6.1 Generation basis for calculation	Total					Rates are per gross MWh, including renewables
6.2 Nitrogen Oxide (NOx)						Source of historical emissions data: EPA Air Markets Program records of monitored emissions for OG&E-owned and operated facilities Rates are per gross MWh, including renewables
6.2.1 Total NOx Emissions (MT)	35,690		7,608		8,937	
6.2.2 Total NOx Emissions Intensity (MT/Gross MWh)	0.0012		0.0003		0.0004	

6.3	Sulfur Dioxide (SO2)				
6.3.1	Total SO2 Emissions (MT)	45,777	2,507	5,470	Source of historical emissions data: EPA Air Markets Program records of monitored emissions for OG&E-owned and operated facilities Rates are per gross MWh, including renewables See additional note 6 below
6.3.2	Total SO2 Emissions Intensity (MT/Gross MWh)	0.0015	0.0001	0.0002	
6.4	Mercury (Hg)				
6.4.1	Total Hg Emissions (kg)	240.5	13.6	54.9	Source: EPA-provided estimates from Air Markets Program MATS data reported by OG&E for Sooner and Muskogee coal-fueled facilities Rates are per gross MWh, including renewables See additional notes 7 and 8 below
6.4.2	Total Hg Emissions Intensity (kg/Gross MWh)	0.000008	0.000001	0.000002	

Resources

7	Human Resources				
7.1	Total Number of Employees	2,544	2,425		Source of employee count and Board composition: annual SEC Form 10-K
7.2	Total Number on Board of Directors/Trustees	10	10		
7.3	Total Women on Board of Directors/Trustees	1	2		
7.4	Total Minorities on Board of Directors/Trustees	0	1		
7.5	Employee Safety Metrics				Source of historical safety metrics: filed OSHA 300a records
7.5.1	Recordable Incident Rate	2.51	0.89		
7.5.2	Lost-time Case Rate	0.75	0.44		
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	1.68	0.58		
7.5.4	Work-related Fatalities	0.00	0.00		
8	Fresh Water Resources				
8.1	Water Withdrawals - Consumptive (Billions of Liters/Gross MWh)	0.00000142	0.00000119	0.00000074	Source for historical data in this section: Oklahoma Water Resources Board - Annual Use Report for OG&E-owned facilities Baseline data in this section is from 2008 See additional notes 9 and 10 below
8.2	Water Withdrawals - Non-consumptive (Billions of Liters/Gross MWh)	0.00000516	0.00000154	0.00000224	
9	Waste Products				
9.2	Percent of Coal Combustion Products Beneficially Used	65%	89%		Earliest baseline data is 2008. Fly ash and bottom ash beneficially reused.

- Additional notes**
- 1 - coal capacity for 2020 accounts for the 2019 conversion of coal-fueled Muskogee units 4 and 5 to natural gas and the 2019 acquisition of the River Valley facility
 - 2 - gas capacity for 2020 accounts for the 2019 conversion of coal-fueled Muskogee units 4 and 5 to natural gas, the 2019 acquisition of the Frontier facility, and the 2018 addition of natural gas-fueled combustion turbines at the Mustang Energy Center
 - 3 - solar capacity and generation includes approximately 2.5 MW at the Mustang Energy Center (online in late 2016) and approximately 10 MW at the Covington Solar Farm (online in early 2018)
 - 4 - 2020 coal and gas generation is based on projection from the 2015 OG&E IRP and the 2018 addition of the Mustang Energy Center combustion turbines at permitted fuel and emissions limits
 - 5 - OG&E participates in the Southwest Power Pool (SPP) Integrated Marketplace. The SPP Integrated Marketplace functions as a centralized dispatch, where market participants throughout a 14-state region in the central United States, including OG&E, submit offers to sell power to the SPP from their resources and bid to purchase power from the SPP for their customers. The SPP Integrated Marketplace is intended to allow the SPP to optimize supply offers and demand bids based upon reliability and economic considerations and to determine which generating units will run at any given time for maximum cost-effectiveness within the SPP area. As a result, the generating units OG&E owns and operates produce output that is different from OG&E's customer consumption, and therefore, the emission profile for the generating units OG&E owns and operates is different than the emission profile for electricity consumed by OG&E's customers.
 - 6 - 2019 actual emissions and 2020 projections account for the addition of SO2 emission control equipment at the Sooner facility and the conversion of Muskogee units 4 and 5 to natural gas
 - 7 - In 2016, OG&E installed mercury emission monitoring systems
 - 8 - the 2020 projection accounts for the 2019 conversion of coal-fueled Muskogee units 4 and 5 to natural gas
 - 9 - note that the McClain and Redbud combined-cycle plants do not use fresh water, only recycled/reused water
 - 10 - the 2020 non-consumptive use projection accounts for the retirement of legacy gas boiler units and the 2018 addition of natural gas-fueled combustion turbines at the Mustang Energy Center