

ESG/SUSTAINABILITY QUANTITATIVE INFORMATION

Parent Company: DTE Energy

Operating Company(s): DTE Electric, DTE Gas, Power and Industrial Projects, Citizens Gas

Business Type(s): Vertically Integrated

State(s) of Operation: MI (for gas and electric utilities)

State(s) with RPS Programs: MI

Regulatory Environment: Regulated

Report Date: 2/28/18

METRICS	BASELINE 2005 ACTUAL	LAST YEAR 2016 ACTUAL	CURRENT YEAR 2017 ACTUAL	NEXT YEAR 2018 PROJECTION
PORTFOLIO				
Total Available Nameplate Generation Capacity at end of year (MW)				
Coal	7,733	6,874	6,178	6,178
Natural Gas	2,683	3,090	2,957	2,957
Nuclear	1,154	1,217	1,161	1,161
Petroleum	666	365	325	325
Total Renewable Energy Resources	997	1,813	1,845	2,016
Biomass/Biogas	8	321	321	31
Geothermal	N/A	N/A	N/A	N/A
Hydroelectric	989	989	1,019	1,019
Solar	N/A	54	56	64
Wind	N/A	449	449	612
Net Generation for the data year (MWh)				
Coal	41,764,875	27,178,381	26,559,727	28,646,000
Natural Gas	1,033,086	2,164,304	2,230,042	1,187,000
Nuclear	8,753,555	9,146,766	9,565,994	8,477,000
Petroleum	7,800	12,130	80,188	4,000
Total Renewable Energy Resources	551,685	3,423,349	3,677,031	3,836,000
Biomass/Biogas	N/A	671,919	529,414	N/A
Geothermal	N/A	N/A	N/A	N/A
Hydroelectric	N/A	22,895	56,841	N/A
Solar	N/A	23,994	82,204	N/A
Wind	N/A	2,704,541	3,008,572	N/A
Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters				
Total Annual Capital Expenditures (in millions)	\$722	\$1,503	\$1,574	\$1,900
Incremental Annual Electric Savings from EE Measures (MWh)	N/A	631,000	677,000	706,721
Incremental Annual Investment in Electric EE Programs (in millions)	N/A	\$89	\$93	\$106
Percent of Total Electric Customers with Smart Meters (at end of year)	0%	98%	99%	100%
Retail Customer Count (at end of year)				
Commercial	126,706	114,212	109,709	N/A
Industrial	2,235	1,962	1,294	N/A
Residential	2,043,475	2,034,084	1,830,641	N/A

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EMISSIONS

GHG Emissions: Carbon Dioxide (CO₂) and Carbon Dioxide Equivalent (CO₂e)

Owned Generation

Carbon Dioxide (CO ₂)				
Total Owned Generation CO ₂ Emissions (MT)	39,177,354	28,948,987	29,765,976	29,034,666
Total Owned Generation CO ₂ Emissions Intensity (MT/Net MWh)	0.752	0.690	0.707	0.689
Carbon Dioxide Equivalent (CO ₂ e)				
Total Owned Generation CO ₂ e Emissions (MT)	N/A	29,153,373	Pending	N/A
Total Owned Generation CO ₂ e Emissions Intensity (MT/Net MWh)	N/A	0.695	Pending	N/A

Purchased Power

Carbon Dioxide (CO ₂)				
Total Purchased Generation CO ₂ Emissions (MT)	806,515	5,982,810	4,229,577	2,878,725
Total Purchased Generation CO ₂ Emissions Intensity (MT/Net MWh)	0.695	0.695	0.695	0.695
Carbon Dioxide Equivalent (CO ₂ e)				
Total Purchased Generation CO ₂ e Emissions (MT)	N/A	5,931,029	4,192,970	N/A
Total Purchased Generation CO ₂ e Emissions Intensity (MT/Net MWh)	N/A	0.689	0.689	N/A

Owned Generation + Purchased Power

Carbon Dioxide (CO ₂)				
Total Owned + Purchased Generation CO ₂ Emissions (MT)	39,983,869	34,931,798	33,995,553	31,913,391
Total Owned + Purchased Generation CO ₂ Emissions Intensity (MT/Net MWh)	0.751	0.691	0.705	0.689
Carbon Dioxide Equivalent (CO ₂ e)				
Total Owned + Purchased Generation CO ₂ e Emissions (MT)	N/A	35,084,402	4,192,970	N/A
Total Owned + Purchased Generation CO ₂ e Emissions Intensity (MT/Net MWh)	N/A	0.694	0.087	N/A

Non-Generation CO₂e Emissions

Fugitive CO ₂ e emissions of sulfur hexafluoride (MT)	N/A	N/A	N/A	N/A
Fugitive CO ₂ e emissions from natural gas distribution (MT)	N/A	568,837	564,730	N/A

Nitrogen Oxide (NO_x), Sulfur Dioxide (SO₂), Mercury (Hg)

Generation basis for calculation				
		Fossil		
Nitrogen Oxide (NO _x)				
Total NO _x Emissions (MT)	59,805	18,731	19,635	17,688
Total NO _x Emissions Intensity (MT/Net MWh)	1.15E-03	4.47E-04	4.66E-04	4.20E-04
Sulfur Dioxide (SO ₂)				
Total SO ₂ Emissions (MT)	198,334	47,396	44,161	45,755
Total SO ₂ Emissions Intensity (MT/Net MWh)	3.81E-03	1.13E-03	1.05E-03	1.09E-03
Mercury (Hg)				
Total Hg Emissions (kg)	748.4	104.3	80.8	108.5
Total Hg Emissions Intensity (kg/Net MWh)	1.44E-05	2.49E-06	1.92E-06	2.57E-06

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RESOURCES				
Human Resources				
Total Number of Employees	11,360	10,302	10,422	N/A
Total Number on Board of Directors/Trustees	13	13	13	N/A
Total Women on Board of Directors/Trustees	2	2	2	N/A
Total Minorities on Board of Directors/Trustees	3	3	3	N/A
Employee Safety Metrics				
Recordable Incident Rate	N/A	0.45	0.67	N/A
Lost-time Case Rate	N/A	0.15	0.21	N/A
Days Away, Restricted, and Transfer (DART) Rate	N/A	0.24	0.37	N/A
Work-related Fatalities	N/A	0	0	N/A
Fresh Water Resources				
Water Withdrawals - Consumptive (billions of liters/Net MWh)	1.57E-06	1.72E-06	1.80E-06	N/A
Water Withdrawals - Non-consumptive (billions of liters/Net MWh)	1.03E-04	9.53E-05	9.52E-05	N/A
Waste Products				
Percent of Non-hazardous Municipal Solid Waste Diverted	N/A	N/A	N/A	N/A
Percent of Coal Combustion Products Beneficially Used	N/A	49.77%	49.17%	N/A