Table 17.06-- ELECTRICITY GENERATION, BY SOURCE: 2009 TO 2022

[Millions of kWh generated]

Year	Total	Petroleum	Coal	Wind	Biomass 1/
2009	11,010.534	8,289.107	1,500.166	251.427	284.427
2010	10,836.036	8,087.337	1,545.513	261.120	283.474
2011	10,723.333	7,923.925	1,424.036	340.812	312.627
2012	10,469.268	7,482.760	1,537.340	378.234	280.976
2013	10,267.052	7,222.766	1,403.754	503.310	329.364
2014	10,204.158	6,925.919	1,511.184	578.617	334.030
2015	10,119.500	7,023.150	1,337.412	612.772	320.941
2016	9,948.846	6,640.316	1,497.380	639.127	359.466
2017	9,812.968	6,633.596	1,375.724	532.055	292.762
2018	9,796.773	6,748.947	1,311.203	601.934	305.513
2019	9,749.997	6,864.169	1,301.946	529.310	291.542
2020	9,079.019	6,149.205	1,165.147	592.238	256.221
2021	9,182.190	6,155.207	1,084.555	657.891	282.637
2022	9,337.434	6,655.178	647.758	625.422	277.000
	,	,			
Year	Geothermal	Hydro	Other gases 2/	Solar	Others 3/
		•			
2009	167.591	112.649	22.345	1.390	381.432
2009 2010	167.591 200.595	112.649 70.423	22.345 21.915	1.390 1.770	381.432 363.880
2009 2010 2011	167.591 200.595 223.888	112.649 70.423 93.141	22.345 21.915 35.250	1.390 1.770 3.593	381.432 363.880 366.061
2009 2010 2011 2012	167.591 200.595 223.888 260.997	112.649 70.423 93.141 114.581	22.345 21.915 35.250 47.036	1.390 1.770 3.593 4.608	381.432 363.880 366.061 362.736
2009 2010 2011 2012 2013	167.591 200.595 223.888 260.997 274.841	112.649 70.423 93.141 114.581 78.295	22.345 21.915 35.250 47.036 41.330	1.390 1.770 3.593 4.608 19.466	381.432 363.880 366.061 362.736 393.927
2009 2010 2011 2012 2013 2014	167.591 200.595 223.888 260.997 274.841 253.841	112.649 70.423 93.141 114.581 78.295 94.083	22.345 21.915 35.250 47.036	1.390 1.770 3.593 4.608	381.432 363.880 366.061 362.736 393.927 405.019
2009 2010 2011 2012 2013 2014 2015	167.591 200.595 223.888 260.997 274.841 253.841 230.340	112.649 70.423 93.141 114.581 78.295	22.345 21.915 35.250 47.036 41.330 62.204 50.155	1.390 1.770 3.593 4.608 19.466 39.262 54.397	381.432 363.880 366.061 362.736 393.927 405.019 369.163
2009 2010 2011 2012 2013 2014 2015 2016	167.591 200.595 223.888 260.997 274.841 253.841 230.340 260.102	112.649 70.423 93.141 114.581 78.295 94.083 121.170 90.849	22.345 21.915 35.250 47.036 41.330 62.204 50.155 51.006	1.390 1.770 3.593 4.608 19.466 39.262 54.397 88.511	381.432 363.880 366.061 362.736 393.927 405.019 369.163 322.089
2009 2010 2011 2012 2013 2014 2015 2016 2017	167.591 200.595 223.888 260.997 274.841 253.841 230.340 260.102 322.592	112.649 70.423 93.141 114.581 78.295 94.083 121.170 90.849 66.075	22.345 21.915 35.250 47.036 41.330 62.204 50.155 51.006 52.022	1.390 1.770 3.593 4.608 19.466 39.262 54.397 88.511 175.019	381.432 363.880 366.061 362.736 393.927 405.019 369.163 322.089 363.123
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018	167.591 200.595 223.888 260.997 274.841 253.841 230.340 260.102 322.592 110.089	112.649 70.423 93.141 114.581 78.295 94.083 121.170 90.849 66.075 96.520	22.345 21.915 35.250 47.036 41.330 62.204 50.155 51.006 52.022 55.722	1.390 1.770 3.593 4.608 19.466 39.262 54.397 88.511	381.432 363.880 366.061 362.736 393.927 405.019 369.163 322.089 363.123 382.269
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	167.591 200.595 223.888 260.997 274.841 253.841 230.340 260.102 322.592 110.089 (4/)	112.649 70.423 93.141 114.581 78.295 94.083 121.170 90.849 66.075 96.520 94.542	22.345 21.915 35.250 47.036 41.330 62.204 50.155 51.006 52.022	1.390 1.770 3.593 4.608 19.466 39.262 54.397 88.511 175.019 184.576 268.138	381.432 363.880 366.061 362.736 393.927 405.019 369.163 322.089 363.123 382.269 394.726
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	167.591 200.595 223.888 260.997 274.841 253.841 230.340 260.102 322.592 110.089 (4/) 9.640	112.649 70.423 93.141 114.581 78.295 94.083 121.170 90.849 66.075 96.520	22.345 21.915 35.250 47.036 41.330 62.204 50.155 51.006 52.022 55.722	1.390 1.770 3.593 4.608 19.466 39.262 54.397 88.511 175.019 184.576	381.432 363.880 366.061 362.736 393.927 405.019 369.163 322.089 363.123 382.269
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	167.591 200.595 223.888 260.997 274.841 253.841 230.340 260.102 322.592 110.089 (4/)	112.649 70.423 93.141 114.581 78.295 94.083 121.170 90.849 66.075 96.520 94.542	22.345 21.915 35.250 47.036 41.330 62.204 50.155 51.006 52.022 55.722 5.624	1.390 1.770 3.593 4.608 19.466 39.262 54.397 88.511 175.019 184.576 268.138	381.432 363.880 366.061 362.736 393.927 405.019 369.163 322.089 363.123 382.269 394.726
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	167.591 200.595 223.888 260.997 274.841 253.841 230.340 260.102 322.592 110.089 (4/) 9.640	112.649 70.423 93.141 114.581 78.295 94.083 121.170 90.849 66.075 96.520 94.542 98.820	22.345 21.915 35.250 47.036 41.330 62.204 50.155 51.006 52.022 55.722 5.624	1.390 1.770 3.593 4.608 19.466 39.262 54.397 88.511 175.019 184.576 268.138 484.030	381.432 363.880 366.061 362.736 393.927 405.019 369.163 322.089 363.123 382.269 394.726 320.844

<sup>1/</sup> Biomass includes biogenic municipal solid waste, other biomass liquid (biofuel), other biomass solids agricultural by-products, and wood and wood waste.

Source: U.S. Department of Energy, Energy Information Administration, Form EIA-923 detailed data with previous form data (EIA-906/920)<a href="https://www.eia.gov/electricity/data/eia923/">https://www.eia.gov/electricity/data/eia923/</a> accessed July 12, 2024 and calculations by Hawaii State Department of Business, Economic Development and Tourism.

<sup>2/</sup> Other gases include blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

<sup>3/</sup> Others include other fuel, including but not limited to non-biogenic municipal solid waste and energy storage.

<sup>4/</sup> In May 2018, the Puna Geothermal Venture facility shut down due to a volcanic eruption and reopened in October 2020. Residual fuel was used during the closure period.