

Renewable Energy Generation by Fuel, Florida Reliability Coordinating Council, Reference case

Capacity, Generation, and Consumption	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Growth Rate (2010-2035)	
Electric Power Sector 1/																													
Generating Capacity (gigawatts)																													
Conventional Hydropower	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00%
Geothermal 2/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Municipal Waste 3/	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.00%
Wood and Other Biomass	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.20%
Solar Thermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Solar Photovoltaic 4/	0.03	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	6.20%
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Offshore Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Total	0.68	0.7	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.77	0.78	0.79	0.81	0.83	0.88	0.90%
Electricity Generation (billion kilowatthours)																													
Conventional Hydropower	0.02	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-10.60%
Geothermal 2/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Biogenic Municipal Waste 5/	2.02	1.97	1.71	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	-0.50%
Wood and Other Biomass	0.33	0.36	0.38	0.27	0.39	1.05	2.55	2.29	2.16	2.49	2.39	2.65	2.07	1.92	1.54	1.56	1.56	3.39	3.95	3.92	4.16	4.45	4.65	4.69	4.74	4.84	5.05	11.20%	
Solar Thermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Solar Photovoltaic 4/	0.01	0.1	0.12	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.19	0.19	0.21	0.24	0.29	0.41	5.90%
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Offshore Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Total	2.38	2.45	2.21	2.16	2.27	2.94	4.44	4.18	4.05	4.38	4.28	4.53	3.96	3.81	3.42	3.45	3.45	5.28	5.84	5.81	6.05	6.36	6.56	6.62	6.7	6.86	7.18	4.40%	
Energy Consumption 6/ (quadrillion Btu)																													
Conventional Hydropower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-10.60%
Geothermal 2/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Biogenic Municipal Waste 5/	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-0.60%
Wood and Other Biomass	0	0	0.01	0.01	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	12.50%
Solar Thermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Solar Photovoltaic 4/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.90%
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Offshore Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Total	0.03	0.03	0.03	0.03	0.04	0.04	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.09	4.10%
End-Use Generators 7/																													
Generating Capacity (gigawatts)																													
Conventional Hydropower 8/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Geothermal 2/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Municipal Waste	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.00%
Wood and Other Biomass	0.21	0.2	0.2	0.2	0.22	0.23	0.24	0.25	0.25	0.25	0.26	0.27	0.28	0.3	0.32	0.32	0.34	0.36	0.37	0.4	0.41	0.42	0.43	0.43	0.43	0.43	0.44	3.20%	
Solar Photovoltaic 4/	0.02	0.04	0.1	0.19	0.28	0.39	0.53	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.69	0.69	0.69	0.69	0.7	0.7	0.7	0.7	0.7	0.7	0.7	12.60%	
Wind	0	0	0	0	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	42.90%
Total	0.26	0.27	0.33	0.44	0.55	0.69	0.84	0.99	0.99	0.99	1	1.01	1.02	1.04	1.06	1.07	1.09	1.11	1.12	1.15	1.17	1.18	1.18	1.19	1.19	1.2	1.21	6.20%	
Electricity Generation (billion kilowatthours)																													
Conventional Hydropower 8/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Geothermal 2/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Municipal Waste	0.28	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.00%
Wood and Other Biomass	1.17	1.19	1.19	1.19	1.3	1.4	1.46	1.48	1.5	1.5	1.57	1.59	1.68	1.81	1.99	2.01	2.16	2.32	2.45	2.67	2.78	2.85	2.88	2.9	2.9	2.9	3	3.80%	
Solar Photovoltaic 4/	0.02	0.05	0.14	0.28	0.41	0.58	0.79	1.01	1.01	1.02	1.02	1.02	1.02	1.02	1.02	1.03	1.03	1.03	1.03	1.04	1.04	1.05	1.05	1.06	1.06	1.06	1.06	12.80%	
Wind	0	0	0	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	42.90%
Total	1.47	1.51	1.6	1.75	2	2.27	2.54	2.79	2.8	2.81	2.88	2.9	3	3.12	3.3	3.33	3.48	3.65	3.77	3.99	4.11	4.19	4.22	4.24	4.25	4.25	4.36	4.30%	
Energy Consumption (quadrillion Btu)																													
Conventional Hydropower 8/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Geothermal 2/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Municipal Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00%
Wood and Other Biomass	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.90%
Solar Photovoltaic 4/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.80%
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42.90%
Total	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02																					