

Measure Description		Electric Product Detailed Technical Assumptions											Program Forecast Inputs											Program Forecast Outputs											Measure Load Shape								
Electric Measure Group	Electric Measure Description	High Efficiency Product Assumptions			Baseline Product Assumptions			Economic Assumptions			Stipulated Output					Economic Assumptions			Technical Assumption	2019				2020				2019				2020											
		Efficient Product Description / Rating	Efficient Product Consumption (watts)	Efficient Hours of Operation (hrs/yr)	Baseline Product Description / Rating	Baseline Product Consumption (watts)	Baseline Hours of Operation (hrs/yr)	Measure Lifetime (years)	Rebate Amount (\$)	Average Baseline Product Cost (\$)	Incremental Cost of Efficient Product (\$)	Assumed Energy Cost (\$/kWh)	Rebate as a % of Incremental Cost (%)	Incremental Cost Payback Period w/o Rebate (yrs)	Incremental Cost Payback Period w/ Rebate (yrs)	Annual Customer kWh Savings (kWh/yr)	Rebated Cost / Cost kWh Saved (\$/kWh)	Rebated Lifetime Cost / Cost kWh Saved (\$/kWh)	Customer kWh Savings (kWh)	Generator Peak kW Savings (kW)	Non-Energy O&M Savings (\$)	Energy O&M Savings (\$)	Coincidence Factor (%)	2019 Participants (-)	2019 Units (-)	2020 Participants (-)	2020 Units (-)	NTG (%)	Installation Rate (%)	Realization Rate (%)	2019 NET Gen kW (kW)	2019 NET Gen kWh (kWh)	2019 Rebate Budget (\$)	2019 Incremental Costs (\$)	2020 NET Gen kW (kW)	2020 NET Gen kWh (kWh)	2020 Rebate Budget (\$)	2020 Incremental Costs (\$)					
<b>TOTAL</b>																							739	5,818,897	552,400	\$776,545	653	4,478,660	\$562,400	\$776,545													
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & Electric Resistance Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,016	387	Minimum Efficiency Electric Water Heater	4,393	931	12	\$400	\$558.02	\$611.45	0.12075	65%	1.86	0.64	2,721	\$0.147	\$0.012	0.576	0.633	\$0.00	\$0.00	100%	23	23	4	4	100%	100%	100%	15	66,839	\$9,200	\$14,063	3	11,624	\$1,600	\$2,446		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & ASHP Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,020	405	Minimum Efficiency Electric Water Heater	4,393	1,124	12	\$400	\$558.02	\$611.45	0.12075	65%	1.43	0.60	3,534	\$0.113	\$0.009	0.567	0.624	\$0.00	\$0.00	100%	182	182	13	13	100%	100%	100%	114	686,961	\$72,800	\$111,284	8	49,089	\$5,200	\$7,949		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & Natural Gas Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,020	405	Minimum Efficiency Electric Water Heater	4,393	1,270	12	\$400	\$558.02	\$611.45	0.12075	65%	1.30	0.45	4,240	\$0.094	\$0.008	0.567	0.624	\$42.44	\$0.00	100%	181	181	1	1	100%	100%	100%	113	819,671	\$72,400	\$110,673	1	4,529	\$400	\$611		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Non-Refrigerant Based Cooling & Electric Resistance Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,016	382	Minimum Efficiency Electric Water Heater	4,393	931	12	\$400	\$558.02	\$611.45	0.12075	65%	1.91	0.66	2,654	\$0.151	\$0.013	0.485	0.534	\$0.00	\$0.00	100%	68	68	1	1	100%	100%	100%	36	192,782	\$27,200	\$41,579	1	2,835	\$400	\$611		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Non-Refrigerant Based Cooling & ASHP Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,016	388	Minimum Efficiency Electric Water Heater	4,393	1,126	12	\$400	\$558.02	\$611.45	0.12075	65%	1.44	0.60	3,514	\$0.114	\$0.009	0.482	0.530	\$0.00	\$0.00	100%	181	181	13	13	100%	100%	100%	96	679,372	\$72,400	\$110,673	7	48,795	\$5,200	\$7,949		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & ASHP Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,016	382	Minimum Efficiency Electric Water Heater	4,393	1,286	12	\$400	\$558.02	\$611.45	0.12075	65%	1.30	0.45	4,246	\$0.094	\$0.008	0.485	0.533	\$42.44	\$0.00	100%	91	91	3	3	100%	100%	100%	49	412,705	\$36,400	\$55,642	2	13,806	\$1,200	\$1,834		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & Electric Resistance Heat (30-60 Gallon) + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,016	387	Minimum Efficiency Electric Water Heater	4,393	931	12	\$500	\$558.02	\$611.45	0.12075	82%	1.86	0.34	2,721	\$0.184	\$0.015	0.576	0.633	\$0.00	\$0.00	100%	23	23	0	0	100%	100%	100%	15	66,839	\$11,500	\$14,063	0	0	\$0	\$0		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & ASHP Heat (30-60 Gallon) + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,020	405	Minimum Efficiency Electric Water Heater	4,393	1,124	12	\$500	\$558.02	\$611.45	0.12075	82%	1.43	0.26	3,534	\$0.141	\$0.012	0.567	0.624	\$0.00	\$0.00	100%	136	136	0	0	100%	100%	100%	85	513,334	\$68,000	\$83,158	0	0	\$0	\$0		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & Natural Gas Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,020	405	Minimum Efficiency Electric Water Heater	4,393	1,270	12	\$500	\$558.02	\$611.45	0.12075	82%	1.30	0.24	4,240	\$0.118	\$0.010	0.567	0.624	\$42.44	\$0.00	100%	136	136	0	0	100%	100%	100%	85	615,885	\$68,000	\$83,158	0	0	\$0	\$0		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Non-Refrigerant Based Cooling & Electric Resistance Heat (30-60 Gallon) + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,016	382	Minimum Efficiency Electric Water Heater	4,393	931	12	\$500	\$558.02	\$611.45	0.12075	82%	1.91	0.35	2,654	\$0.188	\$0.016	0.485	0.534	\$0.00	\$0.00	100%	45	45	2	2	100%	100%	100%	24	127,576	\$22,500	\$27,515	1	5,670	\$1,000	\$1,223		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Non-Refrigerant Based Cooling & ASHP Heat (30-60 Gallon) + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,016	388	Minimum Efficiency Electric Water Heater	4,393	1,126	12	\$500	\$558.02	\$611.45	0.12075	82%	1.44	0.26	3,514	\$0.142	\$0.012	0.482	0.530	\$0.00	\$0.00	100%	113	113	4	4	100%	100%	100%	60	424,138	\$56,500	\$69,094	2	15,014	\$2,000	\$2,446		CO-RES-SP-WHT			
Heat Pump Water Heater	Medium Draw Heat Pump Water Heater - Non-Refrigerant Based Cooling & ASHP Heat (30-60 Gallon)	High Efficiency Heat Pump Water Heater	4,016	382	Minimum Efficiency Electric Water Heater	4,393	1,286	12	\$500	\$558.02	\$611.45	0.12075	82%	1.30	0.24	4,246	\$0.118	\$0.010	0.485	0.533	\$42.44	\$0.00	100%	91	91	0	0	100%	100%	100%	49	412,705	\$45,500	\$55,642	0	0	\$0	\$0		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Refrigerant Based Cooling Electric Resistance Heat	High Efficiency Heat Pump Water Heater	4,016	387	Minimum Efficiency Electric Water Heater	4,393	931	12	\$400	\$558.02	\$611.45	0.12075	65%	1.86	0.65	2,698	\$0.148	\$0.012	0.448	0.491	\$0.00	\$0.00	100%	19	19	19	19	100%	100%	100%	0	0	\$0	\$0	8	54,888	\$7,500	\$11,618		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Refrigerant Based Cooling ASHP Heat	High Efficiency Heat Pump Water Heater	4,020	391	Minimum Efficiency Electric Water Heater	4,393	961	12	\$400	\$558.02	\$611.45	0.12075	65%	1.57	0.54	3,227	\$0.124	\$0.010	0.448	0.491	\$0.00	\$0.00	100%	169	169	169	169	100%	100%	100%	0	0	\$0	\$0	83	582,881	\$97,600	\$103,335		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Refrigerant Based Cooling Natural Gas Heat	High Efficiency Heat Pump Water Heater	4,020	391	Minimum Efficiency Electric Water Heater	4,393	1,066	12	\$400	\$558.02	\$611.45	0.12075	65%	1.48	0.51	3,006	\$0.111	\$0.009	0.448	0.491	\$0.00	\$0.00	100%	160	160	160	160	100%	100%	100%	0	0	\$0	\$0	88	693,266	\$72,000	\$110,961		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Non-Refrigerant Based Cooling Electric Resistance Heat	High Efficiency Heat Pump Water Heater	4,016	381	Minimum Efficiency Electric Water Heater	4,393	893	12	\$400	\$558.02	\$611.45	0.12075	65%	1.91	0.66	2,637	\$0.151	\$0.013	0.407	0.448	\$0.00	\$0.00	100%	67	67	67	67	100%	100%	100%	0	0	\$0	\$0	35	190,184	\$26,800	\$40,967		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Non-Refrigerant Based Cooling ASHP Heat	High Efficiency Heat Pump Water Heater	4,020	381	Minimum Efficiency Electric Water Heater	4,393	961	12	\$400	\$558.02	\$611.45	0.12075	65%	1.59	0.55	3,190	\$0.125	\$0.010	0.407	0.448	\$0.00	\$0.00	100%	168	168	168	168	100%	100%	100%	0	0	\$0	\$0	75	572,360	\$67,200	\$102,724		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Non-Refrigerant Based Cooling Natural Gas Heat	High Efficiency Heat Pump Water Heater	4,020	381	Minimum Efficiency Electric Water Heater	4,393	1,066	12	\$400	\$558.02	\$611.45	0.12075	65%	1.30	0.52	3,069	\$0.112	\$0.009	0.407	0.448	\$0.00	\$0.00	100%	98	98	98	98	100%	100%	100%	0	0	\$0	\$0	39	335,449	\$35,200	\$53,808		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Refrigerant Based Cooling Electric Resistance Heat + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,016	381	Minimum Efficiency Electric Water Heater	4,393	976	12	\$500	\$558.02	\$611.45	0.12075	82%	1.88	0.34	2,695	\$0.186	\$0.015	0.448	0.491	\$0.00	\$0.00	100%	33	33	33	33	100%	100%	100%	0	0	\$0	\$0	11	66,201	\$11,500	\$14,063		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Refrigerant Based Cooling ASHP Heat + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,020	391	Minimum Efficiency Electric Water Heater	4,393	966	12	\$500	\$558.02	\$611.45	0.12075	82%	1.57	0.29	3,227	\$0.155	\$0.013	0.448	0.491	\$0.00	\$0.00	100%	136	136	136	136	100%	100%	100%	0	0	\$0	\$0	67	468,742	\$68,000	\$83,158		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Refrigerant Based Cooling Natural Gas Heat + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,020	391	Minimum Efficiency Electric Water Heater	4,393	1,066	12	\$500	\$558.02	\$611.45	0.12075	82%	1.49	0.27	3,006	\$0.139	\$0.012	0.448	0.491	\$0.00	\$0.00	100%	136	136	136	136	100%	100%	100%	0	0	\$0	\$0	67	523,624	\$68,000	\$83,158		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Non-Refrigerant Based Cooling Electric Resistance Heat + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,016	381	Minimum Efficiency Electric Water Heater	4,393	893	12	\$500	\$558.02	\$611.45	0.12075	82%	1.91	0.35	2,637	\$0.188	\$0.016	0.407	0.448	\$0.00	\$0.00	100%	43	43	43	43	100%	100%	100%	0	0	\$0	\$0	19	122,058	\$21,500	\$26,292		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Non-Refrigerant Based Cooling ASHP Heat + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,020	381	Minimum Efficiency Electric Water Heater	4,393	961	12	\$500	\$558.02	\$611.45	0.12075	82%	1.59	0.29	3,190	\$0.127	\$0.013	0.407	0.448	\$0.00	\$0.00	100%	109	109	109	109	100%	100%	100%	0	0	\$0	\$0	49	371,393	\$54,500	\$66,648		CO-RES-SP-WHT			
Heat Pump Water Heater	Heat Pump Water Heater - Non-Refrigerant Based Cooling Natural Gas Heat + CEIAANSI Communications Port	High Efficiency Heat Pump Water Heater	4,020	381	Minimum Efficiency Electric Water Heater	4,393	1,066	12	\$500	\$558.02	\$611.45	0.12075	82%	1.30	0.27	3,069	\$0.140	\$0.012	0.407	0.448	\$0.00	\$0.00	100%	91	91	91	91	100%	100%	100%	0	0	\$0	\$0	41	346,884	\$40,500	\$55,642		CO-RES-SP-WHT			