

Mendocino County Energy Efficiency Measures									
Measure Number	Included in Project	Energy Efficiency Measure Description	Project Cost	First Year Annual Energy Savings	kWh Savings	Natural Gas Savings, Therms	Maintenance Savings	Estimated Rebate	Simple Payback (in years)
Recommended Measures									
		Ukiah							
1	Y	Administration Center Comprehensive Lighting Retrofit - lighting upgrades include LED replacements for offices, council room, parking lot, and many other interior and exterior lighting fixtures.	\$133,278	\$18,514	108,909	0	\$1,333	\$0	6.7
2	Y	Admin Package Unit Replacement - replacement of 13 package units of various sizes and SEER ratings of around 10 with high efficiency (up to 15.6 SEER) package units from Carrier or equivalent.	\$201,274	\$2,087	9,465	327	\$2,013	\$4,000	48.1
3	Y	Admin Exhaust Fan Replacement - Replace 2 old exhaust fans on the roof with new exhaust fans driven by electronically commutated motors (ECM).	\$12,291	\$271	1,594	0	\$123	\$0	31.2
4	Y	Admin Split System Replacement - replace 2 ductless and 3 condenser/fan coil split systems with Fujitsu or equivalent ductless split and Carrier or equivalent condenser/fan coil split systems.	\$57,803	\$865	5,088	0	\$578	\$0	40.1
5	Y	Juvenile Hall Comprehensive Lighting Retrofit - LED lighting upgrade include wall packs, barn lights, over 250 interior fluorescents and many other interior and exterior lighting fixtures.	\$51,960	\$8,107	47,687	0	\$520	\$0	6.0
6	Y	Juvenile Hall Split Systems Replacement - replacement of 6 condenser/coil split systems with condenser/coil systems that offer up to 16.5 SEER.	\$78,794	\$1,520	8,942	0	\$788	\$4,000	32.4
7	Y	Juvenile Hall Furnace Replacement - replacement of 10 80% furnaces with 95%+ furnaces from Carrier or equivalent.	\$65,406	\$3,745	0	2,565	\$654	\$0	14.9
8	Y	Juvenile Hall Package Unit Replacement - replace 3 obsolete gas/electric package units with high efficiency (up to 15.6 SEER) Carrier package units, or equivalent.	\$49,701	\$822	3,430	164	\$497	\$0	37.7
9	Y	Main Jail Comprehensive Lighting Retrofit - LED replacement lighting upgrades in offices, cells, classrooms, and many more interior and exterior lighting fixtures.	\$141,063	\$16,441	96,712	0	\$1,411	\$0	7.9
10	Y	Main Jail Package Unit Replacement - replace 6 package units with high efficiency (up to 15.6 SEER) gas/electric package units.	\$174,116	\$6,321	32,826	507	\$1,741	\$4,000	21.1
11	Y	Main Jail Water Heater Replacement - replace 3 water heaters, one 19 gallon and two 100 gallon with one tankless water heater and two 100 gallon condensing water heaters.	\$35,664	\$1,242	0	850	\$357	\$0	22.3
12	Y	DOT Comprehensive Lighting Retrofit - lighting upgrade includes LED lights for various interior and exterior lighting fixtures.	\$66,201	\$6,502	38,247	0	\$662	\$2,464	8.9
13	Y	DOT Split System Replacement - replace 1 condenser/fan coil and 7 condenser/coil split systems with new higher efficiency systems.	\$96,884	\$1,183	6,960	0	\$969	\$0	45.0
14	Y	DOT Furnace Replacement - replace 6 existing 80% AFUE furnaces with Carrier 95%+ condensing furnaces, or equivalent.	\$29,197	\$787	0	539	\$292	\$1,200	25.9
15	Y	DOT Ductless Split System Replacement - replace 5 ductless split systems with Fujitsu or equivalent ductless split systems that are rated up to 33 SEER.	\$33,360	\$326	1,920	0	\$334	\$0	50.5
16	Y	DOT Unit Heater Replacement - replace 3 Dayton unit heaters with a Roberts Gordon IR heater system that is ideal for garages and spaces with large doors that are regularly open.	\$101,350	\$1,076	0	737	\$1,014	\$0	48.5
		Willits							
17	Y	Justice Center Comprehensive Lighting Retrofit - LED lighting upgrade for interior and exterior lighting fixtures at the Willits Justice Center.	\$18,738	\$2,434	14,316	0	\$187	\$257	7.1
18	Y	Justice Center Ductless Split System Replacement - replace one existing 1.5 ton ductless splits system with a Fujitsu Halcyon 1.5 ton ductless split system, or equivalent system.	\$7,602	\$105	620	0	\$76	\$0	41.9
19	Y	Justice Center Package Unit Replacement - replace 5 existing package units with high efficiency package units from Carrier or equivalent.	\$145,704	\$2,787	15,822	66	\$1,457	\$0	34.3
20	Y	HHSA Comprehensive Lighting Retrofit - interior and exterior LED lighting upgrades replacing 4ft fluorescents, exit signs, HPS lamps, and more.	\$19,975	\$1,825	10,734	0	\$200	\$1,200	9.3
21	Y	HHSA Ductless Split System Replacement - replace one existing 2 ton ductless split system with a 2 ton Fujitsu Halcyon ductless split system, or equivalent.	\$8,521	\$186	1,093	0	\$85	\$0	31.4
22A	Y	HHSA Package Unit Replacement - replace 11 existing package units of various sizes with high efficiency package units from Carrier or equivalent.	\$130,993	\$742	3,252	130	\$1,310	\$0	63.8
22B	N	HHSA Package Unit Replacement - replace the 2 existing recalled units with high efficiency package units from Carrier or equivalent.	\$21,803	\$138	654	18	\$218	\$0	61.2
23	Y	WISC Comprehensive Lighting Retrofit - interior and exterior LED lighting upgrades replacing HPS lamps, 4ft fluorescents, u-tube fluorescents, and more.	\$30,470	\$2,574	15,142	0	\$305	\$1,200	10.2
24A	Y	WISC Package Unit Replacement - this measure is the replacement of 10 existing gas/electric package units with high efficiency package units from Carrier or equivalent.	\$124,431	\$726	3,283	115	\$1,244	\$0	63.1
24B	N	WISC Package Unit Replacement - replacement of the 2 existing recalled gas/electric package units with high efficiency package units from Carrier or equivalent.	\$22,197	\$138	654	18	\$222	\$0	61.6
25	Y	WISC Exhaust Fan Replacement - replace one existing exhaust fan with a new high efficiency exhaust fan with an EC motor.	\$6,479	\$179	1,052	0	\$65	\$0	26.6
26	Y	Child Care Center Comprehensive Lighting Retrofit - upgrade to LED lighting both inside and outside the building.	\$2,655	\$249	1,465	0	\$27	\$65	9.4
27	Y	Sheriff's Office Comprehensive Lighting Retrofit - lighting upgrades include LED replacements for offices, cells, exit signs, and exterior lighting fixtures.	\$19,966	\$3,125	18,384	0	\$200	\$850	5.7
		Fort Bragg							
28	Y	FB Justice Center Comprehensive Lighting Retrofit - lighting upgrade includes LED lights for offices, exterior lighting, and restrooms with occupancy sensors where needed.	\$44,838	\$4,638	29,925	0	\$448	\$1,412	8.5
29	Y	Avila Center Comprehensive Lighting Retrofit - lighting upgrade includes LED lights for poles, parking lot, restrooms, and other interior and exterior lighting fixtures.	\$40,616	\$3,882	25,043	0	\$406	\$1,279	9.2
30	Y	Avila Center Package Unit Replacement - replace one 4 ton package heat pump unit with a Carrier Performance series 15+ SEER package heat pump, or equivalent.	\$12,642	\$164	1,056	0	\$126	\$0	43.6
31	Y	Avila Center Bard Unit Replacement - replace two, 18 year old, 3 ton wall mount heat pump units with high efficiency heat pumps.	\$23,262	\$129	830	0	\$233	\$0	64.4
		County-Wide							
32	Y	Solar Energy Generation Project - installation of a 474kW RES-BCT field for PG&E territory solar energy generation, trackers rotated the panels following the sun's path for optimal energy generation.	\$1,518,245	\$154,802	998,721	0	(\$5,400)	\$0	10.2
33	Y	Solar Energy Generation Project - installation of a 296kW rooftop solar energy generation for the Administration building, trackers rotate the panels following the sun's path for optimal energy generation.	\$768,969	\$74,708	622,569	0	(\$2,735)	\$0	10.7
34	Y	Solar Energy Generation Project - installation of a 397kW rooftop solar energy generation for the County Jail, trackers rotate the panels following the sun's path for optimal energy generation.	\$1,032,075	\$100,270	835,584	0	(\$3,671)	\$0	10.7
Total Cost of all Measures			\$5,284,525	\$423,334	2,960,670	6,001	\$7,847	\$21,927	12.2
		Energy Audit	\$11,000						
		Engineering	\$25,115						
		Bonding	\$36,166						
		PROJECT TOTALS	\$5,356,806	\$423,334	2,960,670	6,001	\$7,847	\$21,927	12.4
Parameters:									
1.0-kW =			0.00072	Metric Tons GHG Emissions*		Annual greenhouse gas emissions reduction (tons):		2164.9	
1.0-Therms =			0.00553	Metric Tons GHG Emissions*		Equivalent Number Passenger Vehicles per year:		368.0	
Electricity Cost =			\$0.17	per kWh (County Average)		Equivalent reduction in gallons of gas consumed per year:		222,981	
Natural Gas Cost =			\$1.46	per Therm (County Average)		Equivalent reduction of barrels of oil consumed per year:		4546.2	
* Aircon Energy will assist in maximizing rebates wherever possible						* Courtesy EPA		Equivalent ton of carbon sequestered annually by:	
*Energy Savings safety factor: 20% for mechanical, 10% for lighting						454.6			