

Energizing the County of Mendocino

Energy & Facility Preliminary Audit

December 2021



Willdan Energy Solutions



Leading the Clean Energy Transition

Energy and resource management for utilities and both public and private agencies.

- Energy efficiency consulting and engineering
- Performance contracting, turnkey project delivery
- Utility program implementation
- New construction consulting
- Smart cities, microgrids, EV transportation, DERs
- Building and electric grid optimization software



Willdan Performance Engineering (WPE) Overview



● Cities/Counties Willdan has worked for
★ Willdan offices

80+
Professional Engineers in California

473
Staff within California

STRENGTH

WPE Division Team Strength

- Energy Master Planning Approach achieves best long-term solution
- Provides turnkey project delivery w/ Guarantees
- Provides Financial Services w/ Fund Raising, Grant, Incentive, Rebate, Financing, etc. Support

CAPABILITY

Financial Capability

- \$250M+ of Turnkey Projects with Universities
- \$100M in Bonding Capacity
- \$500M+ in Secured Grants & Incentives in CA
- \$2B+ in Secured Financing

Work Completed To Date

June - October 2021

- ✓ PG&E GK12 Initial Meeting
- ✓ 2-day site walk and staff interviews in June 2021
- ✓ Utility bills analyzed for PG&E and Ukiah sites
- ✓ Project scopes identified and savings and pricing estimated





Become Regional Leader of Climate Action

- Reduce County's carbon footprint
- Provide renewable infrastructure to the community with renewable powered emergency centers and Countywide EV charging infrastructure



Provide Safe and Healthy Buildings for the Community

- Address critical facility and deferred maintenance needs
- Reduce ongoing maintenance and operations costs



Demonstrate Fiscal Responsibility

- Leverage creative funding sources and incentives
- Save on energy utility costs

Energy Conservation Measure (ECM) Matrix



City	Building Name	Building Area (Square Feet)	Building number	Electricity			Gas			Total Annual Utility Spend	ECMs							
				Annual Electricity Usage (kWh)	Annual Electricity Cost (\$)	Blended Rate (\$/kWh)	Annual Natural Gas Usage (Therms)	Annual Natural Gas Cost (\$)	Blended Rate (\$/Therm)		ECM - 1 - Lighting	ECM - 2 - HVAC / Controls / RCx	ECM - 3 - Solar NEM 2.0	ECM - 4 - Resiliency	ECM - 5 - EV charging	ECM - 6 - Roofing	ECM - 7 - Windows	ECM - 8 - Electrification Options
Ukiah	Administration Center	70,000	28	813,439	\$92,051	\$0.11	-	\$0.00	\$0	\$92,051	x	x	x		x	x	x	x
Ukiah	Planning & Building/Environmental Health	20,000	28PE	-	\$0	-	15,125	\$25,517	\$1.69	\$25,517	x	x	x		x		x	x
Ukiah	Social Services	35,554	41	751,518	\$89,735	\$0.12	10,362	\$14,706	\$1.42	\$104,441	x	x	x		x	x		x
Willits	Library	7,000	21	33,099	\$6,436	\$0.19	1,444	\$1,567	\$1.09	\$8,004	x	x	x	x	x	x		x
Willits	Museum	9,600	22	-	\$0	-	-	\$0	\$0	\$0	x	x			x	x		x
Willits	Justice Center	16,000	44	156,240	\$35,766	\$0.23	3,251	\$5,597	\$1.72	\$41,363	x	x			x	x		x
Willits	WISC	14,225	61	213,715	\$51,504	\$0.24	4,120	\$6,159	\$1.49	\$57,664	x	x	x		x			x
Fort Bragg	Library	5,500	8	20,159	\$3,822	\$0.19	-	\$0	\$0	\$3,822	x		x	x		x		x
Fort Bragg	Fort Bragg Animal Shelter	8,317	6	11,684	\$3,585	\$0.31	-	\$0	\$0	\$3,585	x							x
Fort Bragg	Avila Coastal Center (HHS)	10,982	7	134,144	\$33,974	\$0.25	-	\$0	\$0	\$33,974	x	x	x		x	x	x	x
Fort Bragg	Pub Health, Planning, Env Health	5,000	24	28,859	\$7,504	\$0.26	-	\$0	\$0	\$7,504	x		x		x	x		x
Fort Bragg	Veterans Memorial Building	4,000	11	6,371	\$1,868	\$0.29	-	\$0	\$0	\$1,868	x							x
Fort Bragg	Justice Center	12,586	10	113,511	\$24,840	\$0.22	-	\$0	\$0	\$24,840	x	x			x	x	x	x
Fort Bragg	DOT Yard	4,000	9	-	\$0	-	-	\$0	\$0	\$0	x							x
Totals		222,764		2,282,739	\$351,086	\$0.15	34,302	\$53,546	\$1.56	\$ 404,632								

ECM 1 – Countywide LED Lighting Upgrade

EXISTING CONDITIONS

- Existing 28 Watt and 32 Watt T8 fluorescent lighting throughout sites

SCOPE DETAILS

- Upgrade fluorescent tubes and fixtures to LED

BENEFITS

- Significant savings
- Better lighting quality
- Long lasting LEDs reduce maintenance costs



ECM 2 – HVAC, Building Automation System (BAS) Upgrades & Retro-Commissioning

Existing Conditions

- Roof, ground & wall mounted package units
- Roof & ground package units with DX cooling and gas furnace heating
- Forced air furnace units
- Opportunity to retro-commission Justice Center in Willits and Fort Bragg
- Units range in age from a few years to over 20



Sites Included

- ✓ Administration Center + Planning Building, Ukiah
- ✓ Social Services, Ukiah
- ✓ Library, Willits & Fort Bragg
- ✓ Museum, Willits
- ✓ Justice Center, Willits
- ✓ WISC, Willits
- ✓ Justice Center, Fort Bragg
- ✓ Avila Coastal Center + Justice Center, Fort Bragg

ECM 2 – HVAC, Building Automation System (BAS) Upgrades & Retro-Commissioning cont.

Scope Details

- Replace unitary HVAC equipment (over 15 years old) including roof top units and wall mounted units with new energy efficient systems, like-for-like, approximately 81 units equaling 356 tons
- Re-commissioning and air balancing
- Includes Ukiah Administration Center HVAC upgrades of 9 units
- Includes Fort Bragg Justice Center HVAC system overhaul and electrification

Scope Benefits

- Improve comfort and indoor air quality (IAQ)
- Improve efficiency and extend life of equipment
- Reduce energy and maintenance cost
- Standardize on preferred unit manufacturer
- Planned replacement vs. emergency breakdown
- Quieter units where applicable



ECM 3 - Solar PV

Scope Details

- Install solar PV structures (carport & rooftop systems) to generate renewable power
- Total of 704 kW

Benefits

- Provide shade for parking
- Significant reduction in energy consumption and costs
- Reduce greenhouse gas emissions
- Note: NEM 3.0



City	Building Name	Type of System	Estimated kW
Ukiah	Administration Center	Carport	147
Ukiah	Social Services	Carport	272
Willits	Library	Rooftop	18
Willits	Justice Center	Carport	65
Willits	WISC	Carport	84
Fort Bragg	Library	Rooftop	11
Fort Bragg	Avila Coastal Center (HHSA)	Carport	53
Fort Bragg	Pub Health, Planning, Env Health	Rooftop	10
Fort Bragg	Justice Center	Carport	45
Total			704

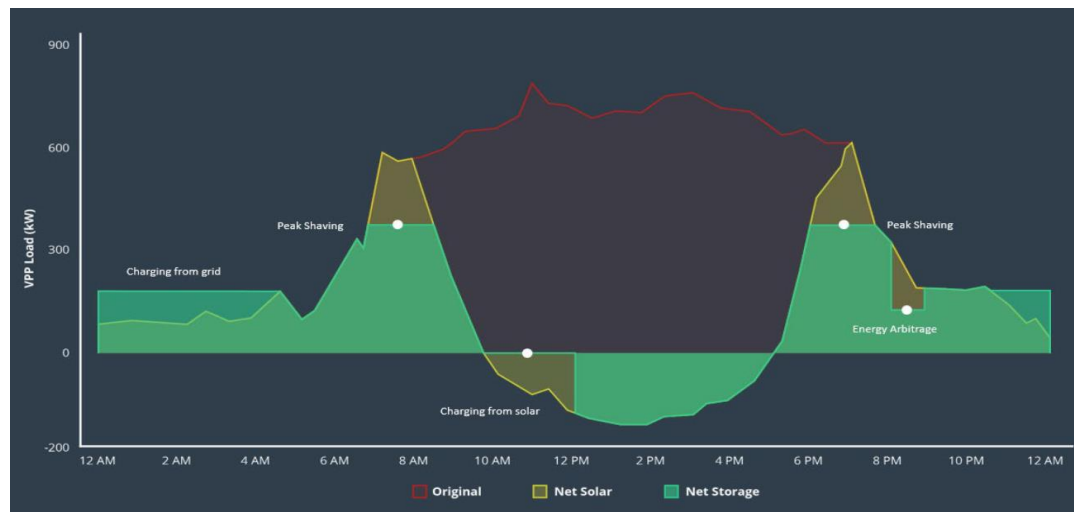
ECM 4 – Resiliency & Renewable Backup Power

Scope Recommendation

- **Emergency Center Operation at Libraries** in Willits & Fort Bragg: Install battery backup power at sites to provide power in emergencies and reduce peak demand power usage at libraries
- (1) 100 kWh system at Fort Bragg Library and (1) 200 kWh system at Willits Library with genset for redundancy

Benefits

- Provide 24-hour backup power during power outage events
- Battery storage (kW) demand savings
- Reduce peak demand to the utility grid
- Self-Generation Incentive Program (SGIP) Amount = \$.35/Wh



ECM 5 - Electric Vehicle Charging Stations

SCOPE RECOMMENDATIONS

- Install 14 dual port EV chargers throughout County sites



EV Chargers – EV Box Business Line Dual Port Level 2 (7.2kW)

BENEFITS

- Provide electric vehicle charging to families, staff and community
- Supports California's goal of getting 1.5 Million electric cars on the road by 2025

Sites Included

- ✓ Administration Center + Planning Building, Ukiah
- ✓ Social Services, Ukiah
- ✓ Library, Willits
- ✓ Museum, Willits
- ✓ Justice Center, Willits
- ✓ WISC, Willits
- ✓ Public Health & Planning, Fort Bragg
- ✓ Avila Coastal Center + Justice Center, Fort Bragg
- ✓ Justice Center, Fort Bragg

Existing Conditions

- Mix of flat and sloping roofs throughout the County
- Many roofs over 20 years old – past effective useful life
- Older roof materials range from single-ply roofing member, BUR roofing, rolled asphalt and asphalt shingles



Sites Included

- ✓ Administration Center, Ukiah
- ✓ Social Services, Ukiah
- ✓ Library, Willits
- ✓ Museum, Willits
- ✓ Justice Center, Willits
- ✓ WISC, Willits
- ✓ Library, Fort Bragg
- ✓ Public Health & Planning, Fort Bragg
- ✓ Avila Coastal Center + Justice Center, Fort Bragg

ECM 7 - Roof Upgrades cont.

Scope Details

- Approximately 150k square feet of roof replacement
- Existing single-ply membrane replacements include demo of existing roof and insulation, misc. rot repair, new insulation, new single-ply PVC roofing membrane and roof drains
- Existing shingle roofing replacements includes demo of existing shingles and insulation, misc. rot repair, new insulation, new composition shingles and gutters

Scope Benefits

- Eliminate leaks
- Reduce maintenance costs
- Improve insulation resulting in energy efficiency
- Improve building comfort and safety



ECM 8 – Window Replacement

EXISTING CONDITIONS

- Inefficient, single pane windows at the following sites:
 - Avila Center & Justice Center, Fort Bragg
 - Administration Building, Ukiah

SCOPE DETAILS

- Replace all single pane windows with dual pane

BENEFITS

- Increase insulation and building efficiency
- Reduction in noise inside building
- Improve building comfort



ECM 9 – Building Electrification

EXISTING CONDITIONS

- Gas and other fossil fuels used for heating at all sites

SCOPE DETAILS

- Consider proactively transitioning gas heating to electric heating

BENEFITS

- Reduce carbon footprint
- Reduce fuel costs
- Help meet California 2045 Net Zero Carbon goal



Path to Carbon Neutrality ARB Report by E3:
https://ww2.arb.ca.gov/sites/default/files/2020-08/e3_cn_draft_report_aug2020.pdf

Preliminary Energy Savings & Project Cost Estimates

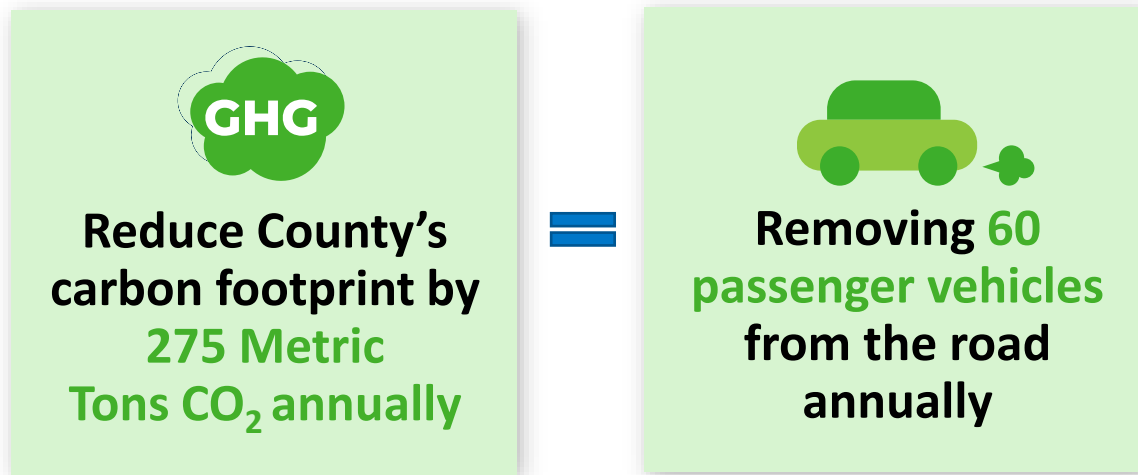


ECM	Description	Savings / generation (kWh)	Savings (kBtus)	Total Energy Savings Cost (\$)	Maintenance Savings Cost (\$)	Preliminary Project Estimate (\$)	Simple Payback
ECM - 1	Lighting	284,852	-	\$44,185	\$16,273	\$707,539	12
ECM - 2	HVAC / Controls / RCx	144,693	431,915	\$28,410	\$78,588	\$3,416,865	32
ECM - 3	Solar NEM 2.0	1,162,150	-	\$163,215	(\$14,087)	\$2,673,451	18
ECM - 4	Resiliency	-	-	\$1,026	-	\$570,000	556
ECM - 5	EV charging	-	-	-	-	\$280,000	-
ECM - 6	Roofing	11,836	107,098	\$2,858	\$122,927	\$5,344,673	42
ECM - 7	Windows	43,586	356,565	\$11,804	\$0	\$797,648	68
ECM - 8	Electrification Options	-	-	\$0	-	-	-
	Total	1,647,118	895,578	\$251,497	\$203,741	\$13,791,889	30

Estimated NEM 3.0 Impacts

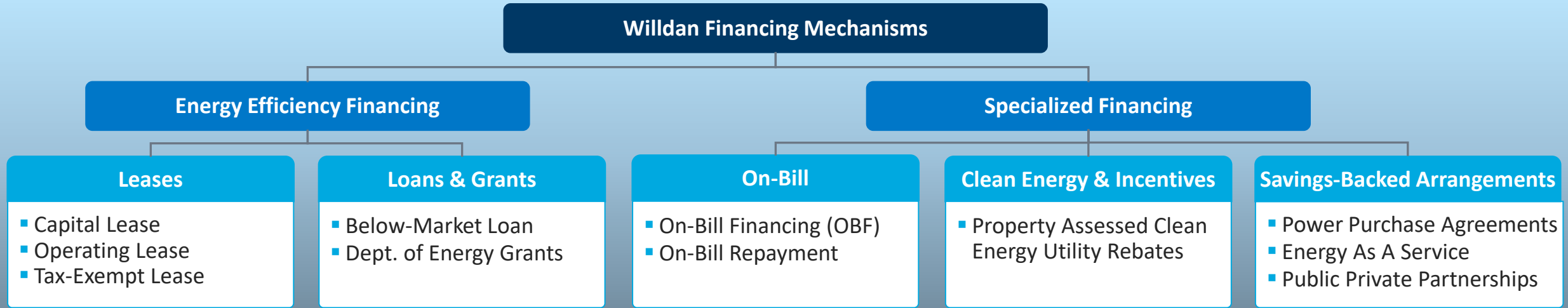
ECM 3 – Solar NEM 2.0 annual energy savings will reduce **from \$163,215 to \$122,157**
Loss in savings of \$1.2M over the 30-year life of the solar project
Over 25% loss in energy savings

Project Carbon Reduction Calculator



Mendocino County Energy Source Summary				
Location	Elec energy source	% eligible renewable	% eligible renewable + Large Hydro	lbs CO ₂ e / MWh
Fort Bragg	Sonoma Clean Power, CleanStart	48.7%	92.8%	80
Willits	Sonoma Clean Power, CleanStart	48.7%	92.8%	80
Ukiah	City of Ukiah	36.2%	55.3%	454

Location	Elec energy source	Electric Carbon Reduction					Gas Carbon Reduction				
		kWh, baseline	lbs CO ₂ e, baseline	kWh, savings / reduction	lbs CO ₂ e, savings	lbs CO ₂ e, reduction	Therms, baseline	lbs CO ₂ e, baseline	Therms, savings	lbs CO ₂ e, savings	lbs CO ₂ e, reduction
Fort Bragg	Sonoma Clean Power, CleanStart	314,728	25,178	266,865	21,349	85%	0	0	0	0	0%
Willits	Sonoma Clean Power, CleanStart	403,054	32,244	381,066	30,485	95%	8,815	103,312	1,271	14,892	14%
Ukiah	City of Ukiah	1,564,957	710,490	999,187	453,631	64%	25,487	298,708	2,981	34,935	12%
Total =		2,282,739	767,913	1,647,118	505,465	66%	34,302	402,019	4,251	49,827	12%



Funding for County of Mendocino:

- Tax Exempt Lease rates of **3.0%**
- **ARPA Funding**
- **Carbon Reduction County Allocation**
- Utility Incentives and On-Bill Financing with PG&E



CALIFORNIA ENERGY COMMISSION



Preliminary Financial Analysis



Project Cost:
\$13,791,889

County Contribution:
\$5,000,000

OBF: \$295,767

TELP Financed Amount :
\$8,496,122

TELP Interest Rate:
3.00%

Energy Escalation:
PG&E: 4%

Ukiah Electric: 2%

Project Funding Option 1 - ALL SCOPES									
Year	Energy Savings	Deferred Maintenance Savings	Total Incentives	Total Savings	Lease Payments	PG&E On-Bill Financing	Solar Maintenance Cost	Total Program Costs	Net Savings
FY 2022	\$ 259,222	\$ 217,789	\$ 81,000	\$ 558,010	\$ 509,805	\$ 29,577	\$ 14,087	\$ 553,469	\$ 4,542
FY 2023	\$ 266,342	\$ 224,322	\$ 17,500	\$ 508,165	\$ 459,537	\$ 29,577	\$ 14,509	\$ 503,623	\$ 4,542
FY 2024	\$ 273,687	\$ 231,052	\$ 5,833	\$ 510,572	\$ 461,509	\$ 29,577	\$ 14,945	\$ 506,031	\$ 4,542
FY 2025	\$ 281,263	\$ 237,984	\$ 1,944	\$ 521,191	\$ 471,680	\$ 29,577	\$ 15,393	\$ 516,649	\$ 4,542
FY 2026	\$ 289,078	\$ 245,123	\$ -	\$ 534,201	\$ 484,229	\$ 29,577	\$ 15,855	\$ 529,660	\$ 4,542
FY 2027	\$ 297,141	\$ 252,477	\$ -	\$ 549,618	\$ 499,170	\$ 29,577	\$ 16,330	\$ 545,077	\$ 4,542
FY 2028	\$ 305,461	\$ 260,051	\$ -	\$ 565,512	\$ 514,574	\$ 29,577	\$ 16,820	\$ 560,971	\$ 4,542
FY 2029	\$ 314,045	\$ 267,853	\$ -	\$ 581,898	\$ 530,455	\$ 29,577	\$ 17,325	\$ 577,357	\$ 4,542
FY 2030	\$ 322,904	\$ 275,888	\$ -	\$ 598,792	\$ 546,830	\$ 29,577	\$ 17,845	\$ 594,251	\$ 4,542
FY 2031	\$ 332,046	\$ 284,165	\$ -	\$ 616,211	\$ 563,713	\$ 29,577	\$ 18,380	\$ 611,670	\$ 4,542
FY 2032	\$ 341,482	\$ 292,690	\$ -	\$ 634,172	\$ 581,123	\$ -	\$ 18,931	\$ 600,054	\$ 34,118
FY 2033	\$ 351,222	\$ 301,471	\$ -	\$ 652,692	\$ 599,075	\$ -	\$ 19,499	\$ 618,574	\$ 34,118
FY 2034	\$ 361,276	\$ 310,515	\$ -	\$ 671,790	\$ 617,588	\$ -	\$ 20,084	\$ 637,672	\$ 34,118
FY 2035	\$ 371,655	\$ 319,830	\$ -	\$ 691,485	\$ 636,680	\$ -	\$ 20,687	\$ 657,366	\$ 34,118
FY 2036	\$ 382,370	\$ 329,425	\$ -	\$ 711,795	\$ 656,369	\$ -	\$ 21,307	\$ 677,677	\$ 34,118
FY 2037	\$ 393,433	\$ 339,308	\$ -	\$ 732,741	\$ 676,676	\$ -	\$ 21,947	\$ 698,623	\$ 34,118
FY 2038	\$ 404,857	\$ 349,487	\$ -	\$ 754,344	\$ 697,621	\$ -	\$ 22,605	\$ 720,226	\$ 34,118
FY 2039	\$ 416,654	\$ 359,972	\$ -	\$ 776,626	\$ 719,224	\$ -	\$ 23,283	\$ 742,507	\$ 34,118
FY 2040	\$ 428,837	\$ 370,771	\$ -	\$ 799,608	\$ 741,508	\$ -	\$ 23,982	\$ 765,489	\$ 34,118
FY 2041	\$ 441,419	\$ 381,894	\$ -	\$ 823,313	\$ 764,494	\$ -	\$ 24,701	\$ 789,195	\$ 34,118
FY 2042	\$ 195,831	\$ -	\$ -	\$ 195,831	\$ -	\$ -	\$ 25,442	\$ 25,442	\$ 170,389
FY 2043	\$ 200,433	\$ -	\$ -	\$ 200,433	\$ -	\$ -	\$ 26,205	\$ 26,205	\$ 174,228
FY 2044	\$ 205,163	\$ -	\$ -	\$ 205,163	\$ -	\$ -	\$ 26,992	\$ 26,992	\$ 178,171
FY 2045	\$ 210,023	\$ -	\$ -	\$ 210,023	\$ -	\$ -	\$ 27,801	\$ 27,801	\$ 182,222
FY 2046	\$ 215,019	\$ -	\$ -	\$ 215,019	\$ -	\$ -	\$ 28,635	\$ 28,635	\$ 186,383
FY 2047	\$ 220,154	\$ -	\$ -	\$ 220,154	\$ -	\$ -	\$ 29,494	\$ 29,494	\$ 190,659
FY 2048	\$ 225,432	\$ -	\$ -	\$ 225,432	\$ -	\$ -	\$ 30,379	\$ 30,379	\$ 195,053
FY 2049	\$ 230,859	\$ -	\$ -	\$ 230,859	\$ -	\$ -	\$ 31,291	\$ 31,291	\$ 199,569
FY 2050	\$ 236,439	\$ -	\$ -	\$ 236,439	\$ -	\$ -	\$ 32,229	\$ 32,229	\$ 204,210
FY 2051	\$ 242,177	\$ -	\$ -	\$ 242,177	\$ -	\$ -	\$ 33,196	\$ 33,196	\$ 208,980
Total	\$9,015,924	\$5,852,066	\$106,278	\$14,974,268	\$11,731,859	\$295,767	\$670,179	\$12,697,805	\$2,276,463

Option 2: Resiliency & Critical Facility Need Focus



Option 2 Goals

- ✓ Address critical roofing and HVAC needs at Ukiah Administration Center & Fort Bragg Justice Center.
- ✓ Provide renewable and resiliency power back up for Emergency Operation at Fort Bragg Library and Willits Library.

Description	Savings / generation (kWh)	Savings (kBtus)	Total Energy Savings Cost (\$)	Maintenance Savings Cost (\$)	Preliminary Project Estimate (\$)	Simple Payback
Countywide LED Lighting	284,852	-	\$ 44,185	\$16,273	\$ 707,539	12
HVAC/Controls/Commissioning at Willits Libaray, Ukiah Admin and Fort Brag Justice Center	26,010	506	\$ 4,374	\$53,943	\$ 2,345,326	32
Countywide Solar NEM 2.0	1,162,150	-	\$ 163,215	\$ (14,087)	\$ 2,673,451	18
Resiliency at Fort Bragg Library & Willits Library	-	-	\$ 1,026	\$ -	\$ 570,000	556
Countywide EV Charging	-	-	\$ -	\$ -	\$ 280,000	-
Roofing at Fort Bragg Library, Willits Libaray, Ukiah Admin and Fort Brag Justice Center	3,572	284	\$ 380	\$46,187	\$ 2,008,117	42
Total	1,476,584	790	\$ 213,180	\$ 102,316	\$ 8,584,433	660

Estimated NEM 3.0 Impacts

ECM 3 – Solar NEM 2.0 annual energy savings will reduce from \$163,215 to \$122,157
 Loss in savings of \$1.2M over the 30-year life of the solar project
 Over 25% loss in energy savings

Preliminary Financial Analysis



Project Funding Option 2

Year	Energy Savings	Deferred Maintenance Savings	Total Incentives	Total Savings	Lease Payments	PG&E On-Bill Financing	Solar Maintenance Cost	Total Program Costs	Net Savings
FY 2022	\$ 219,599	\$ 116,403	\$ 81,000	\$ 417,002	\$ 373,105	\$ 29,577	\$ 14,087	\$ 416,769	\$ 233
FY 2023	\$ 225,368	\$ 119,895	\$ 17,500	\$ 362,762	\$ 318,443	\$ 29,577	\$ 14,509	\$ 362,529	\$ 233
FY 2024	\$ 231,310	\$ 123,492	\$ 5,833	\$ 360,635	\$ 315,881	\$ 29,577	\$ 14,945	\$ 360,402	\$ 233
FY 2025	\$ 237,433	\$ 127,196	\$ 1,944	\$ 366,574	\$ 321,371	\$ 29,577	\$ 15,393	\$ 366,341	\$ 233
FY 2026	\$ 243,742	\$ 131,012	\$ -	\$ 374,754	\$ 329,090	\$ 29,577	\$ 15,855	\$ 374,521	\$ 233
FY 2027	\$ 250,244	\$ 134,943	\$ -	\$ 385,186	\$ 339,046	\$ 29,577	\$ 16,330	\$ 384,953	\$ 233
FY 2028	\$ 256,944	\$ 138,991	\$ -	\$ 395,935	\$ 349,305	\$ 29,577	\$ 16,820	\$ 395,702	\$ 233
FY 2029	\$ 263,850	\$ 143,161	\$ -	\$ 407,010	\$ 359,875	\$ 29,577	\$ 17,325	\$ 406,777	\$ 233
FY 2030	\$ 270,968	\$ 147,455	\$ -	\$ 418,423	\$ 370,769	\$ 29,577	\$ 17,845	\$ 418,190	\$ 233
FY 2031	\$ 278,305	\$ 151,879	\$ -	\$ 430,184	\$ 381,994	\$ 29,577	\$ 18,380	\$ 429,951	\$ 233
FY 2032	\$ 285,869	\$ 156,435	\$ -	\$ 442,305	\$ 393,563	\$ -	\$ 18,931	\$ 412,495	\$ 29,810
FY 2033	\$ 293,668	\$ 161,128	\$ -	\$ 454,796	\$ 405,487	\$ -	\$ 19,499	\$ 424,986	\$ 29,810
FY 2034	\$ 301,708	\$ 165,962	\$ -	\$ 467,671	\$ 417,776	\$ -	\$ 20,084	\$ 437,861	\$ 29,810
FY 2035	\$ 310,000	\$ 170,941	\$ -	\$ 480,941	\$ 430,444	\$ -	\$ 20,687	\$ 451,131	\$ 29,810
FY 2036	\$ 318,549	\$ 176,069	\$ -	\$ 494,619	\$ 443,502	\$ -	\$ 21,307	\$ 464,809	\$ 29,810
FY 2037	\$ 327,367	\$ 181,351	\$ -	\$ 508,718	\$ 456,962	\$ -	\$ 21,947	\$ 478,908	\$ 29,810
FY 2038	\$ 336,461	\$ 186,792	\$ -	\$ 523,253	\$ 470,838	\$ -	\$ 22,605	\$ 493,443	\$ 29,810
FY 2039	\$ 345,841	\$ 192,396	\$ -	\$ 538,237	\$ 485,144	\$ -	\$ 23,283	\$ 508,427	\$ 29,810
FY 2040	\$ 355,517	\$ 198,168	\$ -	\$ 553,685	\$ 499,893	\$ -	\$ 23,982	\$ 523,875	\$ 29,810
FY 2041	\$ 365,499	\$ 204,113	\$ -	\$ 569,611	\$ 515,100	\$ -	\$ 24,701	\$ 539,801	\$ 29,810
FY 2042	\$ 195,831	\$ -	\$ -	\$ 195,831	\$ -	\$ -	\$ 25,442	\$ 25,442	\$ 170,389
FY 2043	\$ 200,433	\$ -	\$ -	\$ 200,433	\$ -	\$ -	\$ 26,205	\$ 26,205	\$ 174,228
FY 2044	\$ 205,163	\$ -	\$ -	\$ 205,163	\$ -	\$ -	\$ 26,992	\$ 26,992	\$ 178,171
FY 2045	\$ 210,023	\$ -	\$ -	\$ 210,023	\$ -	\$ -	\$ 27,801	\$ 27,801	\$ 182,222
FY 2046	\$ 215,019	\$ -	\$ -	\$ 215,019	\$ -	\$ -	\$ 28,635	\$ 28,635	\$ 186,383
FY 2047	\$ 220,154	\$ -	\$ -	\$ 220,154	\$ -	\$ -	\$ 29,494	\$ 29,494	\$ 190,659
FY 2048	\$ 225,432	\$ -	\$ -	\$ 225,432	\$ -	\$ -	\$ 30,379	\$ 30,379	\$ 195,053
FY 2049	\$ 230,859	\$ -	\$ -	\$ 230,859	\$ -	\$ -	\$ 31,291	\$ 31,291	\$ 199,569
FY 2050	\$ 236,439	\$ -	\$ -	\$ 236,439	\$ -	\$ -	\$ 32,229	\$ 32,229	\$ 204,210
FY 2051	\$ 242,177	\$ -	\$ -	\$ 242,177	\$ -	\$ -	\$ 33,196	\$ 33,196	\$ 208,980
Total	\$7,899,773	\$3,127,781	\$106,278	\$11,133,833	\$7,977,588	\$295,767	\$670,179	\$8,943,535	\$2,190,298

Project Cost:
\$8,584,433

County Contribution:
\$2,500,000

OBF: \$295,767

TELP Financed Amount:
\$5,788,666

TELP Interest Rate:
3.00%

Energy Escalation:
PG&E: 4%

Ukiah Electric: 2%



Questions?

Contact:

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Appendix Files

Procurement Process & CA Government Code 4217

CA Government Code 4217

- ✓ Allows County to directly contract with a company to reduce costs and implement projects faster
- ✓ Expedites project development – streamlined, proven design/build process
- ✓ Minimizes County staff's time
- ✓ Faster realization of energy savings and other program benefits



California

LEGISLATIVE INFORMATION

Willdan and Code 4217

- ✓ Willdan runs a transparent, competitive procurement process for entire program including:
 - Equipment
 - Installations
 - Financing or Equity Partner
- ✓ County can help evaluate bids and select subcontractors
- ✓ No change orders except for explicit scope changes
- ✓ Prevailing wage and local subcontractors hired when possible or necessary

Willdan Difference – Experts in Energy

CAPABILITY

Core Differentiators

- Revolutionary In-House Design & Energy Master Planning Approach
- Financial Expertise & Flexibility
- Regional Energy Partnerships
- Community Engagement

Energy Program Expertise

- \$550M of turnkey projects with state and local governments
- \$100M in bonding capacity
- \$500M+ in Secured Grants & Incentives in CA
- \$2B+ in Secured Municipal Financing



In-House Capabilities



Financing



Grant & Bond Writers



Operations & Maintenance



Energy Engineering



Mechanical Engineering



Electrical Engineering



Plumbing Engineering



Civil Engineering



Architecture



Structural Engineering



Solar + Battery Storage



Utility Management



Construction Management



Commissioning Engineering



Measurement & Verification