

# Mendocino County Climate Action Advisory Committee

## Friday December 17, 3:00 - 5:00

### Meeting Agenda

Topic: Mendocino County Climate Action Committee  
Time: Dec 17, 2021 03:00 PM Pacific Time (US and Canada)

Join Zoom Meeting

<https://mendocinocounty.zoom.us/j/81812322255>

Meeting ID: 818 1232 2255

Dial by your location

+1 669 900 9128 US (San Jose)

1. Call to Order and Roll Call
2. Review of Agenda
3. Review and Approval of Minutes from November of 2021 (Att 1)
4. Public Comment on Non-Agenda Items.
5. Discuss and consider adoption of a Resolution of the Mendocino County Climate Action and Advisory Committee Authorizing Remote Teleconference Meetings of the Legislative Bodies of the Mendocino County Climate Action and Advisory Committee Pursuant to the Ralph M. Brown Act. (Attachment 2)
6. Discuss Mendocino County Energy Audit and Develop Recommendations to the BOS on Same. (Attachment 3)
7. Consider hiring an Americorp voluneet to help the MCCAAC. Discuss who would manage the volunteer and how they could help the committee.
8. Discuss the Climate Crisis actions taken by the Board of Supervisors including the NEM3 position.
9. Discuss the actions of PG&E to remove 399 trees on Utility easements on State Parks property.
10. Report to the MCCAAC, by Committee Members on Ongoing Activities and Possibilities for Collaboration. Discuss follow up activities from previous meetings.
11. Identify a Meeting Date for January 2022.
12. Adjournment

**Mendocino County Climate Action  
Advisory Committee  
Friday November 15, 3:00 - 5:00  
Meeting Minutes**

**1. Call to Order and Roll Call**

Roll call showed the following members in attendance: Cathy Monroe, Marie Jones, Richard Huacek, Tess Albin-Smith, Jessica Still-Otto, Ellen Drell, Javier Silva and Sandra Marshall. Members not present: Member Silva and Member Albin Smith left the meeting early. Members of the public: Devon Jones, Eileen Mitro, Gizmo, Estelle Clifton, George Hollister, John Anderson and Elizabeth Salmone.

**2. Review of Agenda & Comments on non-agenda items**

- Comments were received from the public (Gizmo and Elizabeth) and committee members on the following issues: Transit hub in Ukiah, MOCOG's Final Transportation Plan has been completed, there will be a regional watershed workshop webinar in November, Regional Energy Network, Noyo Center for Marine Sciences.

**3. Review and Approval of Minutes from October 2021**

The meeting minutes of October 2021 were adopted unanimously.

**4. Report to the MCCAAC, by Committee Members on Ongoing Activities and Possibilities for Collaboration.**

- No reports

**5. Discuss and consider adoption of Coal Train Resolution. (Attachment 2)**

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**6. Discuss Mendocino County Energy Audit and Develop Recommendations to the BOS on Same. (Attachment 2)**

- Marie and Jessica volunteered to review the Energy Audit and provide a recommendation for the Committee to consider at the next meeting.

**7. Discuss and consider adoption of a Resolution of the County of Mendocino, Regarding Net Energy Metering 3.0 Proceeding Before The California Public Utilities Commission. (Attachment 6)**

Ellen moved, Cathay seconded, the resolution was adopted unanimously.

**8. Discuss and consider adoption of a Resolution of the Mendocino County Climate Action and Advisory Committee Authorizing Remote Teleconference Meetings of the Legislative Bodies of the Mendocino County Climate Action and Advisory Committee Pursuant to the Ralph M. Brown Act. (Attachment 7)**

- Cathy moved, Jessica seconded and the resolution was adopted unanimously.

9. **Discuss and consider approval of a letter of the Mendocino County Climate Action Advisory Committee to the Board of Supervisors requesting: 1) development of a County Water Resiliency Plan and 2) for the County to consider re-establishing the Mendocino County Water Agency. (Attachment 8)**
  - Discussion led to some revisions of the letter. Moved by Cathy, second by Richard and the letter was adopted unanimously incorporating a few changes to the letter. Marie was directed to send it in.
10. **Discuss and consider letter from Dave Anderson regarding the the JDSF Legislative Book entitled Time to Change the Mission. Review and discuss Chair Jones' response to Mr. Anderson's letter. (Attachment 3 & 4). Review and Discuss Board of Supervisors' resolution regarding JDSF (Attachment 5)**
  - The letters were discussed. Comments were received from four members of the public.
  - The committee discussed the possibility of a tour of JDSF, if possible.
11. Discuss follow up activities from previous meetings.
12. Identify a Meeting Date for December. December 17 was identified as the next meeting date,
13. The meeting was adjourned at 5:00.

**RESOLUTION OF THE MENDOCINO COUNTY CLIMATE ACTION ADVISORY COMMITTEE  
AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE LEGISLATIVE BODIES  
OF THE MENDOCINO COUNTY CLIMATE ACTION ADVISORY COMMITTEE  
PURSUANT TO THE RALPH M. BROWN ACT**

WHEREAS, all meetings of the Mendocino County Climate Action Advisory Committee and its legislative bodies are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code §§ 54950 – 54963), so that any member of the public may attend, participate, and view the legislative bodies conduct their business; and

WHEREAS, the Brown Act, Government Code section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, on March 4, 2020, Governor Newsom issued a Proclamation of a State of Emergency declaring a state of emergency exists due to the outbreak of respiratory illness due to a novel coronavirus (a disease now known as COVID-19), pursuant to the California Emergency Services Act (Government Code section 8625) and that State of Emergency is still in effect in the State of California; and,

WHEREAS, as of the date of this Resolution, neither the Governor nor the state Legislature have exercised their respective powers pursuant to Government Code section 8629 to lift the state of emergency either by proclamation or by concurrent resolution the state Legislature; and,

WHEREAS, the California Department of Industrial Relations has issued regulations related to COVID-19 Prevention for employees and places of employment. Title 8 of the California Code of Regulations, Section 3205(c)(5)(D) specifically recommends physical (social) distancing as one of the measures to decrease the spread of COVID-19 based on the fact that particles containing the virus can travel more than six feet, especially indoors; and,

WHEREAS, the Mendocino County Public Health Officer continues to recommend teleconferencing during public meetings of all legislative bodies to protect the community's health against the spread of COVID-19; and

WHEREAS, the Mendocino County Climate Action Advisory Committee, finds that state or local officials have imposed or recommended measures to promote social distancing based on the Mendocino County Public Health Officer recommendation and the California Department of Industrial Relations' issuance of regulations related to COVID-19 Prevention through Title 8 of the California Code of Regulations, Section 3205(c)(5)(D); and,

WHEREAS, as a consequence, the Mendocino County Climate Action Advisory Committee does hereby find that current conditions meet the circumstances set for in Government Code section 54953(e)(3) to allow this legislative body to conduct its meetings by teleconferencing without compliance with Government Code section 54953 (b)(3), pursuant to Section 54953(e), and that such legislative body shall comply with the requirements to provide the public with access to the meetings as prescribed by Government Code section 54953(e)(2) to ensure the public can safely participate in and observe local government meetings.

NOW, THEREFORE, BE IT RESOLVED BY THE Mendocino County Climate Action Advisory Committee, as follows:

Section 1. Recitals. All of the above recitals are true and correct and are incorporated into this Resolution by this reference.

Section 2. Current Conditions Authorize Teleconference Public Meetings of Legislative Bodies. Based on the California Governor's continued declaration of a State of Emergency, the Mendocino County Public Health Officer's recommendation to continue teleconferencing, and the regulations issued by the California Department of Industrial Relations, the Mendocino County Climate Action Advisory Committee finds that the conditions continue to exist pursuant to Government Code section 54953(e)(3) to allow legislative bodies to use teleconferencing to hold public meetings in accordance with Government Code section 54953(e)(2) to ensure members of the public have continued access to safely observe and participate in local government meetings.

Section 3. Remote Teleconference Meetings. The Mendocino County Climate Action Advisory Committee is hereby authorized to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953(e)(2) and other applicable provisions of the Brown Act.

Section 4. Effective Date. This Resolution shall take effect immediately upon its adoption.

The foregoing Resolution introduced by \_\_\_\_\_, seconded by \_\_\_\_\_, and carried this \_\_\_\_ of \_\_\_\_\_ 2021, by the Mendocino County Climate Action Advisory Committee, by the following vote:

AYES:

NO:

ABSENT:

ABSTAIN:

WHEREUPON, the Chair declared said Resolution adopted and SO ORDERED.

# Energizing the County of Mendocino

## Energy & Facility Preliminary Audit

October 2021





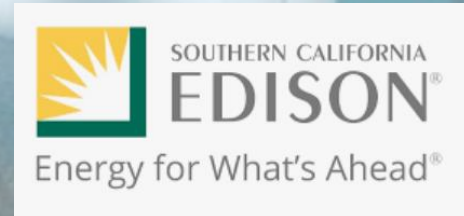
## Leading the Clean Energy Transition

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



Energy+Environmental Economics  
A Willdan Company



# Willdan Performance Engineering (WPE) Overview



## 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

80+

Professional Engineers in California

473

Staff within California



# 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



# 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	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
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		x
Fort Bragg	Library	5,500	8	20,159	\$3,822	\$0.19	-	\$0	\$0	\$3,822	x	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
<b>Totals</b>		<b>222,764</b>		<b>2,282,739</b>	<b>\$351,086</b>	<b>\$0.15</b>	<b>34,302</b>	<b>\$53,546</b>	<b>\$1.56</b>	<b>\$ 404,632</b>								

# 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 Evaluated

- ✓ Administration Center + Planning Building, Ukiah
- ✓ Social Services, Ukiah
- ✓ Library, Willits & Fort Bragg
- ✓ Museum, Willits
- ✓ Justice Center, Willits
- ✓ WISC, Willits
- ✓ Animal Shelter, 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
- Includes (1) 25 ton chiller replacement at Justice Center in Fort Bragg
- Re-commissioning and air balancing

### 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

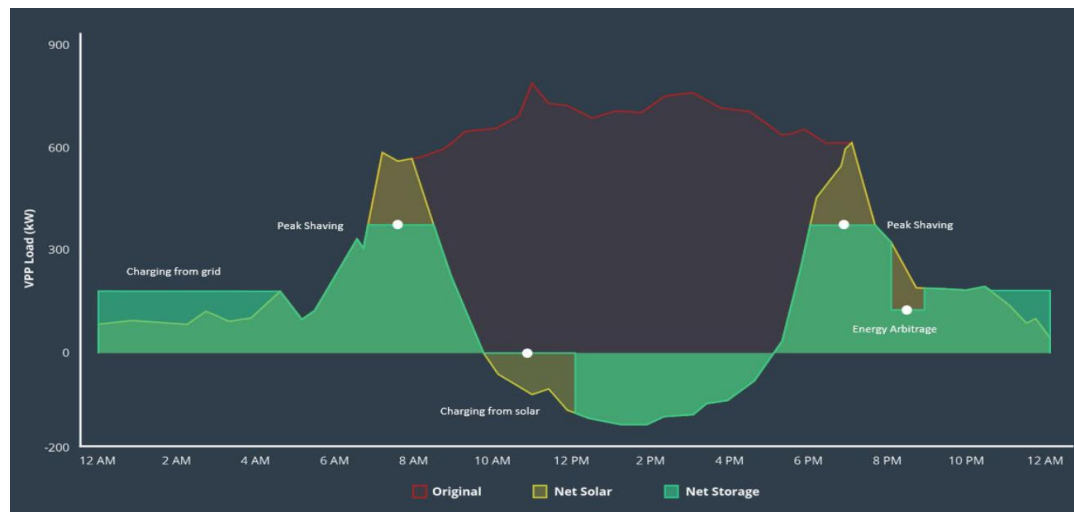
# ECM 4 – Microgrid Resiliency: Battery Storage Backup Power

## Scope Recommendation

- **Emergency Center Operation at Libraries** in Willits & Fort Bragg: Install microgrid 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 Evaluated

- ✓ 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

## 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 Evaluated

- ✓ 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 116,447 square feet of roof replacement
- Single-ply membrane replacement includes sweeping of gravel (or other top layer) and install 2 layers of ISO insulation, hard board and membrane
- Full replacement of BUR roof, rolled asphalt and shingles

### 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



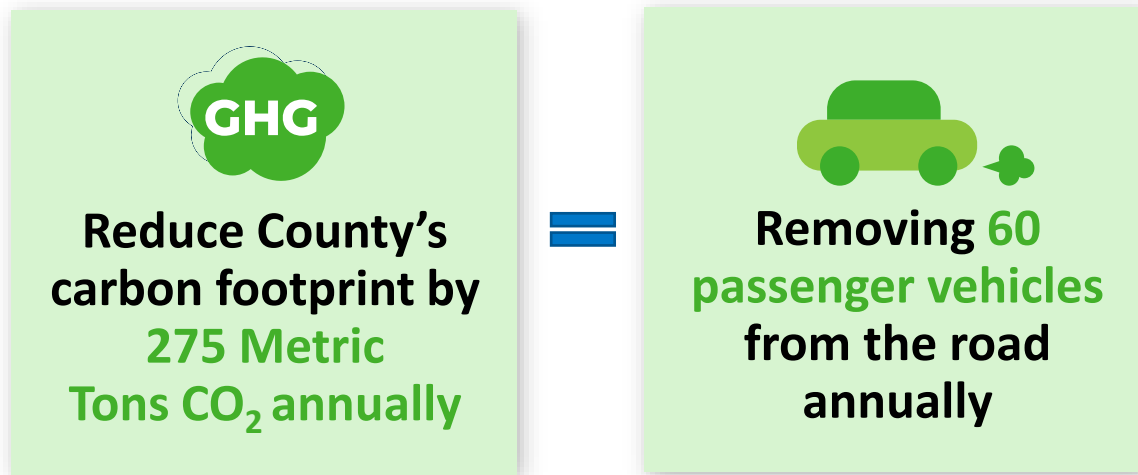
**Path to Carbon Neutrality ARB Report by E3:**  
[https://ww2.arb.ca.gov/sites/default/files/2020-08/e3\\_cn\\_draft\\_report\\_aug2020.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-08/e3_cn_draft_report_aug2020.pdf)

# Preliminary Energy Savings & Project Cost Estimates



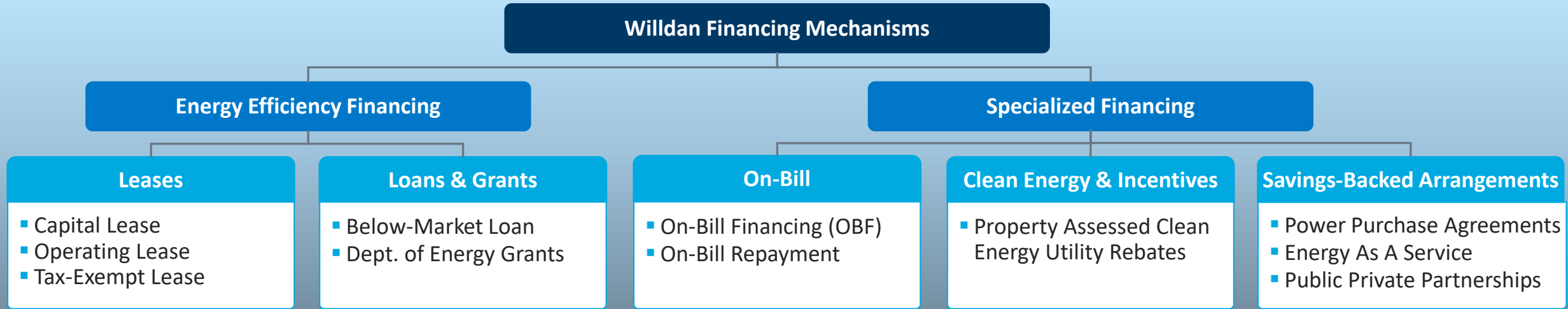
ECM	Description	Savings / generation (kWh)	Savings (kBtus)	Total Energy Savings Cost (\$)	Maintenance Savings Cost (\$)	Preliminary Project Estimate (\$)	Simple Payback
ECM - 1	Lighting	284,852	-	\$44,185	\$14,151	\$707,539	12
ECM - 2	HVAC / Controls / RCx	134,627	431,970	\$29,845	\$26,486	\$1,324,308	24
ECM - 3	Solar	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	11,546	38,290	\$3,214	\$31,019	\$1,550,957	45
ECM - 7	Windows	43,586	356,565	\$11,804	\$0	\$797,648	68
ECM - 8	Electrification Options	-	-	\$0	-	-	-
	<b>Total</b>	<b>1,636,761</b>	<b>826,825</b>	<b>\$253,289</b>	<b>\$57,569</b>	<b>\$7,903,901</b>	<b>25</b>

# Project Carbon Reduction Calculator



Mendocino County Energy Source Summary				
Location	Elec energy source	% eligible renewable	% eligible renewable + Large Hydro	lbs CO <sub>2</sub> 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 <sub>2</sub> e, baseline	kWh, savings / reduction	lbs CO <sub>2</sub> e, savings	lbs CO <sub>2</sub> e, reduction	Therms, baseline	lbs CO <sub>2</sub> e, baseline	Therms, savings	lbs CO <sub>2</sub> e, savings	lbs CO <sub>2</sub> e, reduction
Fort Bragg	Sonoma Clean Power, CleanStart	314,728	25,178	256,799	20,544	82%	0	0	0	0	0%
Willits	Sonoma Clean Power, CleanStart	403,054	32,244	382,545	30,604	95%	8,815	103,312	1,214	14,232	14%
Ukiah	City of Ukiah	1,564,957	710,490	997,418	452,828	64%	25,487	298,708	2,753	32,268	11%
<b>Total =</b>		<b>2,282,739</b>	<b>767,913</b>	<b>1,636,761</b>	<b>503,975</b>	<b>66%</b>	<b>34,302</b>	<b>402,019</b>	<b>3,968</b>	<b>46,500</b>	<b>12%</b>



## 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**



**BANK OF AMERICA**





# Preliminary Financial Analysis



## 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	\$ 260,022	\$ 71,656	\$ 81,000	\$ 412,678	\$ 359,885	\$ 29,577	\$ 14,087	\$ 403,549	\$ 9,130
FY 2023	\$ 267,179	\$ 73,806	\$ 17,500	\$ 358,485	\$ 305,269	\$ 29,577	\$ 14,509	\$ 349,355	\$ 9,130
FY 2024	\$ 274,561	\$ 76,020	\$ 5,833	\$ 356,414	\$ 302,763	\$ 29,577	\$ 14,945	\$ 347,285	\$ 9,130
FY 2025	\$ 282,176	\$ 78,301	\$ 1,944	\$ 362,421	\$ 308,322	\$ 29,577	\$ 15,393	\$ 353,292	\$ 9,130
FY 2026	\$ 290,033	\$ 80,650	\$ -	\$ 370,682	\$ 316,121	\$ 29,577	\$ 15,855	\$ 361,553	\$ 9,130
FY 2027	\$ 298,139	\$ 83,069	\$ -	\$ 381,208	\$ 326,171	\$ 29,577	\$ 16,330	\$ 372,078	\$ 9,130
FY 2028	\$ 306,503	\$ 85,561	\$ -	\$ 392,064	\$ 336,537	\$ 29,577	\$ 16,820	\$ 382,934	\$ 9,130
FY 2029	\$ 315,133	\$ 88,128	\$ -	\$ 403,261	\$ 347,230	\$ 29,577	\$ 17,325	\$ 394,131	\$ 9,130
FY 2030	\$ 324,040	\$ 90,772	\$ -	\$ 414,812	\$ 358,261	\$ 29,577	\$ 17,845	\$ 405,682	\$ 9,130
FY 2031	\$ 333,233	\$ 93,495	\$ -	\$ 426,728	\$ 369,641	\$ 29,577	\$ 18,380	\$ 417,598	\$ 9,130
FY 2032	\$ 342,721	\$ 96,300	\$ -	\$ 439,021	\$ 381,383	\$ -	\$ 18,931	\$ 400,314	\$ 38,707
FY 2033	\$ 352,515	\$ 99,189	\$ -	\$ 451,704	\$ 393,498	\$ -	\$ 19,499	\$ 412,997	\$ 38,707
FY 2034	\$ 362,626	\$ 102,164	\$ -	\$ 464,790	\$ 405,999	\$ -	\$ 20,084	\$ 426,083	\$ 38,707
FY 2035	\$ 373,064	\$ 105,229	\$ -	\$ 478,293	\$ 418,900	\$ -	\$ 20,687	\$ 439,586	\$ 38,707
FY 2036	\$ 383,841	\$ 108,386	\$ -	\$ 492,227	\$ 432,213	\$ -	\$ 21,307	\$ 453,520	\$ 38,707
FY 2037	\$ 394,968	\$ 111,638	\$ -	\$ 506,606	\$ 445,953	\$ -	\$ 21,947	\$ 467,900	\$ 38,707
FY 2038	\$ 406,459	\$ 114,987	\$ -	\$ 521,446	\$ 460,135	\$ -	\$ 22,605	\$ 482,740	\$ 38,707
FY 2039	\$ 418,326	\$ 118,437	\$ -	\$ 536,762	\$ 474,772	\$ -	\$ 23,283	\$ 498,056	\$ 38,707
FY 2040	\$ 430,581	\$ 121,990	\$ -	\$ 552,571	\$ 489,882	\$ -	\$ 23,982	\$ 513,864	\$ 38,707
FY 2041	\$ 443,239	\$ 125,649	\$ -	\$ 568,888	\$ 505,480	\$ -	\$ 24,701	\$ 530,182	\$ 38,707
FY 2042	\$ 280,468	\$ -	\$ -	\$ 280,468	\$ -	\$ -	\$ 25,442	\$ 25,442	\$ 255,026
FY 2043	\$ 288,016	\$ -	\$ -	\$ 288,016	\$ -	\$ -	\$ 26,205	\$ 26,205	\$ 261,810
FY 2044	\$ 295,793	\$ -	\$ -	\$ 295,793	\$ -	\$ -	\$ 26,992	\$ 26,992	\$ 268,801
FY 2045	\$ 303,807	\$ -	\$ -	\$ 303,807	\$ -	\$ -	\$ 27,801	\$ 27,801	\$ 276,006
FY 2046	\$ 312,067	\$ -	\$ -	\$ 312,067	\$ -	\$ -	\$ 28,635	\$ 28,635	\$ 283,431
FY 2047	\$ 320,579	\$ -	\$ -	\$ 320,579	\$ -	\$ -	\$ 29,494	\$ 29,494	\$ 291,084
FY 2048	\$ 329,352	\$ -	\$ -	\$ 329,352	\$ -	\$ -	\$ 30,379	\$ 30,379	\$ 298,973
FY 2049	\$ 338,396	\$ -	\$ -	\$ 338,396	\$ -	\$ -	\$ 31,291	\$ 31,291	\$ 307,105
FY 2050	\$ 347,718	\$ -	\$ -	\$ 347,718	\$ -	\$ -	\$ 32,229	\$ 32,229	\$ 315,488
FY 2051	\$ 357,328	\$ -	\$ -	\$ 357,328	\$ -	\$ -	\$ 33,196	\$ 33,196	\$ 324,131
<b>Total</b>	<b>\$10,032,881</b>	<b>\$1,925,425</b>	<b>\$106,278</b>	<b>\$12,064,584</b>	<b>\$7,738,416</b>	<b>\$295,767</b>	<b>\$670,179</b>	<b>\$8,704,362</b>	<b>\$3,360,221</b>

**Project Cost:**  
\$7,903,901

**County Contribution:**  
\$2,000,000

**OBF:** \$295,767

**TELP Financed Amount :**  
\$5,608,134

**TELP Interest Rate:**  
3.00%

**Energy Escalation:**  
PG&E: 4%

**Ukiah Electric:** 2%

# Preliminary Financial Analysis



Project Funding Option 2: Lighting, Solar and Roofs Only									
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	\$ 215,359	\$ 45,170	\$ 28,000	\$ 288,529	\$ 236,565	\$ 29,577	\$ 14,087	\$ 280,228	\$ 8,301
FY 2023	\$ 221,049	\$ 46,525	\$ -	\$ 267,574	\$ 215,187	\$ 29,577	\$ 14,509	\$ 259,273	\$ 8,301
FY 2024	\$ 226,911	\$ 47,921	\$ -	\$ 274,832	\$ 222,010	\$ 29,577	\$ 14,945	\$ 266,531	\$ 8,301
FY 2025	\$ 232,952	\$ 49,358	\$ -	\$ 282,311	\$ 229,040	\$ 29,577	\$ 15,393	\$ 274,009	\$ 8,301
FY 2026	\$ 239,178	\$ 50,839	\$ -	\$ 290,017	\$ 236,284	\$ 29,577	\$ 15,855	\$ 281,716	\$ 8,301
FY 2027	\$ 245,594	\$ 52,364	\$ -	\$ 297,959	\$ 243,750	\$ 29,577	\$ 16,330	\$ 289,657	\$ 8,301
FY 2028	\$ 252,208	\$ 53,935	\$ -	\$ 306,143	\$ 251,445	\$ 29,577	\$ 16,820	\$ 297,842	\$ 8,301
FY 2029	\$ 259,025	\$ 55,553	\$ -	\$ 314,578	\$ 259,375	\$ 29,577	\$ 17,325	\$ 306,277	\$ 8,301
FY 2030	\$ 266,053	\$ 57,220	\$ -	\$ 323,273	\$ 267,550	\$ 29,577	\$ 17,845	\$ 314,971	\$ 8,301
FY 2031	\$ 273,298	\$ 58,936	\$ -	\$ 332,234	\$ 275,977	\$ 29,577	\$ 18,380	\$ 323,933	\$ 8,301
FY 2032	\$ 280,768	\$ 60,705	\$ -	\$ 341,473	\$ 284,664	\$ -	\$ 18,931	\$ 303,595	\$ 37,878
FY 2033	\$ 288,471	\$ 62,526	\$ -	\$ 350,997	\$ 293,620	\$ -	\$ 19,499	\$ 313,119	\$ 37,878
FY 2034	\$ 296,414	\$ 64,401	\$ -	\$ 360,816	\$ 302,853	\$ -	\$ 20,084	\$ 322,938	\$ 37,878
FY 2035	\$ 304,606	\$ 66,334	\$ -	\$ 370,939	\$ 312,375	\$ -	\$ 20,687	\$ 333,061	\$ 37,878
FY 2036	\$ 313,054	\$ 68,324	\$ -	\$ 381,378	\$ 322,192	\$ -	\$ 21,307	\$ 343,500	\$ 37,878
FY 2037	\$ 321,768	\$ 70,373	\$ -	\$ 392,141	\$ 332,317	\$ -	\$ 21,947	\$ 354,263	\$ 37,878
FY 2038	\$ 330,757	\$ 72,484	\$ -	\$ 403,241	\$ 342,758	\$ -	\$ 22,605	\$ 365,363	\$ 37,878
FY 2039	\$ 340,029	\$ 74,659	\$ -	\$ 414,688	\$ 353,527	\$ -	\$ 23,283	\$ 376,810	\$ 37,878
FY 2040	\$ 349,595	\$ 76,899	\$ -	\$ 426,494	\$ 364,634	\$ -	\$ 23,982	\$ 388,616	\$ 37,878
FY 2041	\$ 359,464	\$ 79,206	\$ -	\$ 438,670	\$ 376,091	\$ -	\$ 24,701	\$ 400,792	\$ 37,878
FY 2042	\$ 278,289	\$ -	\$ -	\$ 278,289	\$ -	\$ -	\$ 25,442	\$ 25,442	\$ 252,847
FY 2043	\$ 285,804	\$ -	\$ -	\$ 285,804	\$ -	\$ -	\$ 26,205	\$ 26,205	\$ 259,599
FY 2044	\$ 293,548	\$ -	\$ -	\$ 293,548	\$ -	\$ -	\$ 26,992	\$ 26,992	\$ 266,557
FY 2045	\$ 301,529	\$ -	\$ -	\$ 301,529	\$ -	\$ -	\$ 27,801	\$ 27,801	\$ 273,728
FY 2046	\$ 309,755	\$ -	\$ -	\$ 309,755	\$ -	\$ -	\$ 28,635	\$ 28,635	\$ 281,120
FY 2047	\$ 318,233	\$ -	\$ -	\$ 318,233	\$ -	\$ -	\$ 29,494	\$ 29,494	\$ 288,738
FY 2048	\$ 326,971	\$ -	\$ -	\$ 326,971	\$ -	\$ -	\$ 30,379	\$ 30,379	\$ 296,592
FY 2049	\$ 335,979	\$ -	\$ -	\$ 335,979	\$ -	\$ -	\$ 31,291	\$ 31,291	\$ 304,689
FY 2050	\$ 345,265	\$ -	\$ -	\$ 345,265	\$ -	\$ -	\$ 32,229	\$ 32,229	\$ 313,036
FY 2051	\$ 354,838	\$ -	\$ -	\$ 354,838	\$ -	\$ -	\$ 33,196	\$ 33,196	\$ 321,642
<b>Total</b>	<b>\$8,766,765</b>	<b>\$1,213,732</b>	<b>\$28,000</b>	<b>\$10,008,498</b>	<b>\$5,722,213</b>	<b>\$295,767</b>	<b>\$670,179</b>	<b>\$6,688,159</b>	<b>\$3,320,338</b>

**Project Cost:**  
\$4,931,946

**County Contribution:**  
\$500,000

**OBF:** \$295,767

**TELP Financed Amount :**  
\$4,136,179

**TELP Interest Rate:**  
3.00%

**Energy Escalation:**  
PG&E: 4%

**Ukiah Electric:** 2%



# Questions?

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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