

June 13, 2024

MEMO TO: BFED-21(24) File

F R O M: Yuki Lei K. Sugimura, Chair *Yuki Lei K. Sugimura*
Budget, Finance, and Economic Development Committee

SUBJECT: **TRANSMITTAL OF INFORMATIONAL DOCUMENT RELATING TO
JOHNSON CONTROLS, INC. ENERGY PERFORMANCE
CONTRACT** (BFED-21(24))

The attached informational document pertains to Item 21(24) on the Committee's agenda.

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Attachment

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COUNTY COUNCIL



Phase 1

EFFICIENCY

Phase Summary:

The County of Maui is investing \$29 million in energy and water conservation measures across all County departments that will result in \$73 million in guaranteed utility and operational savings over the next 20 years.

The resiliency-focused project was approved in November 2022 and includes a 33% reduction of domestic water use across all County facilities, which amounts to a total of 1.7 billion gallons of clean, domestic water saved over the 20-year term, with 86 million gallons saved annually. Additionally, energy conservation measures will result in a 6% reduction of electricity use across all County facilities and a 2,293-ton reduction of greenhouse gas emissions annually, avoiding 7,146 barrels of oil.



Phase I Includes:

- 12,273 Light Fixtures
- 48 High Efficiency Transformers
- 194 Plug Load Controllers
- 2,244 Domestic Water Fixtures
- 38 Shower Towers
- 5 Brackish Water Irrigation Wells
- 2,535 sq. ft of window film to block sunlight, improve comfort, reduce AC load
- 2 Electric Vehicles & EV Charging Infrastructure

Utility Cost Savings and GHG Reductions

The table below provides the estimated utility costs savings and annual GHG (Greenhouse Gas) reductions for each County department. The Utility Savings column is inclusive of both electricity and the water/sewer utility savings. The Simple Payback column is calculated as the implementation cost divided by the Total Savings (sum of utility savings plus operational savings).

Department	Year 1 Utility Savings	Year 1 O&M Savings (*)	Year 1 Total Savings	Simple Payback (yrs)	Annual GHG Reductions (Tons CO2)
Dept of Housing and Human Concerns	\$38,207	\$1,092	\$39,299	13.6	66
Dept of Parks and Recreation	\$1,316,717	\$252,729	\$1,569,446	12.5	978
Dept of Prosecuting Attorney	\$13,227	\$383	\$13,609	10.6	24
Dept of Public Works	\$144,300	\$5,556	\$149,856	18.6	226
Dept of Water Supply	\$93,989	\$2,913	\$96,902	10.2	154
Environmental Management	\$135,440	\$2,785	\$138,225	8.5	192
Maui Fire & Public Safety	\$162,052	\$3,139	\$165,191	8.8	241
Maui Police Department	\$245,090	\$5,651	\$250,742	8.5	413
Total	\$2,149,022	\$274,247	\$2,423,269	11.9	2,293

(*) O&M Savings are for materials or external purchases only; does not include Maui County internal employee labor savings.

Home

Phase 2

Hours

Monday-Friday
8:00 am - 5:00 pm

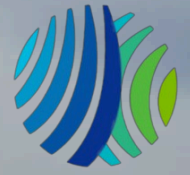


Contact

Johnson Controls Hawaii
www.johnsoncontrols.com
info@sustainable-maui.com

Address

2065 Main St, Suite 101
Wailuku, HI 96793



Phase 2

RENEWABLE ENERGY

Phase Summary:

Phase 2 of the project involves the implementation of solar photovoltaic (PV) and energy storage systems at various sites throughout the County.

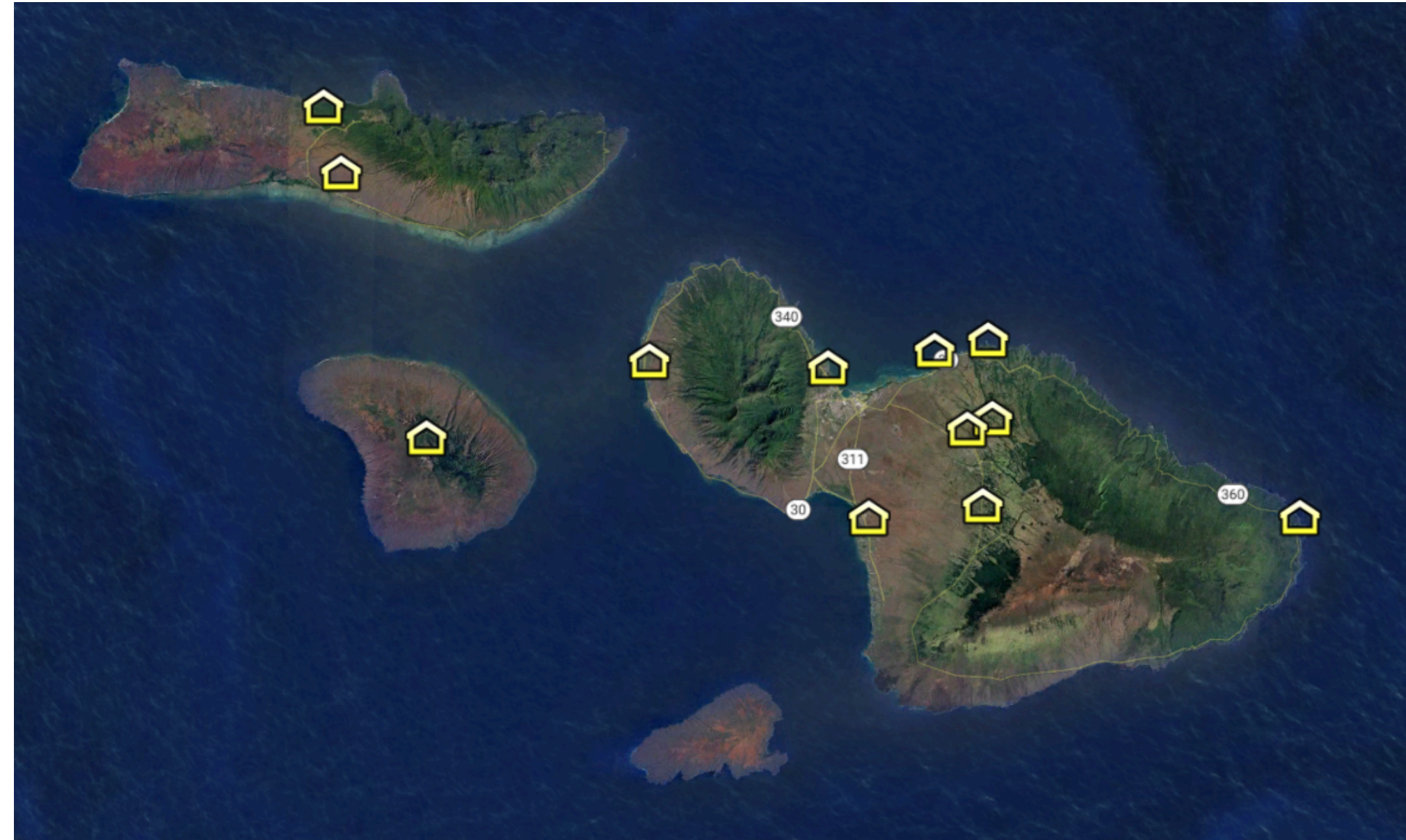
By taking advantage of installing up to 41 MW of cleaner renewable energy throughout County operations, millions of dollars in utility savings will be generated. The County will purchase solar power at approximately 30% less than the MECO rate and the County will not be responsible for maintaining the systems.



Previous JCI Project - Parking Canopies at
UH Maui College

Installations will include a mixture of rooftop, ground mount, and parking canopy systems at County facilities and on adjacent properties. These systems will provide renewable energy directly to major power users within the County of Maui. Additionally, multiple sites (such as old landfills) are designated for community solar systems hosted by the County of Maui. These community solar systems will be connected to the MECO grid with on-bill credits for eligible customers who sign up, with priority given to the surrounding neighborhood and low-to-median income families.

Renewable energy systems will be installed at twelve resiliency hubs that will serve as emergency gathering places for the community. During island-wide power outages, many people are unaware that their mobile phones may become unusable due to a lack of landlines. Resiliency hubs provide a reliable source of power and communication during such crises, enabling our community to connect with their 'ohana.

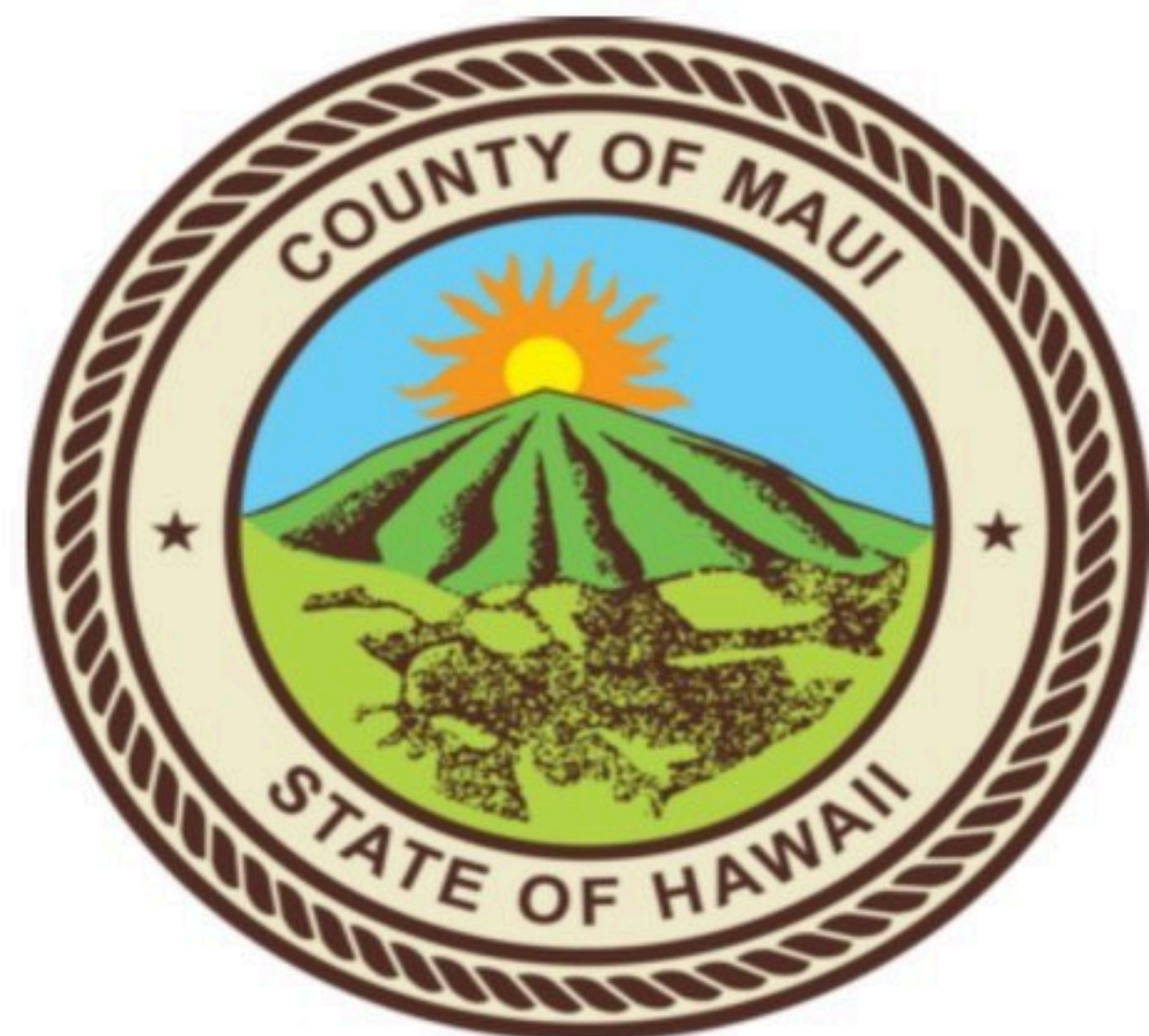


Facility Name	Location
Eddie Tam Memorial Complex	Makawao, Maui
Haiku Community Center	Haiku, Maui
Hana Community Center	Hana, Maui
Kihei Community Center	Kihei, Maui
Kualapuu Recreational Center	Kualapuu, Molokai
Kula Community Center	Kula, Maui
Lahaina Civic Center	Lahaina, Maui
Lanai Senior Center	Lanai City, Lanai
Mayor Hannibal Tavares Community Center	Pukalani, Maui
Mitchell Pauole Community Center	Kaunakakai, Molokai
Paia Community Center	Paia, Maui
Velma McWayne Santos Community Center	Wailuku, Maui

County of Maui Facility Improvement Measure - Phase 1



Beneficial Use of Facility Improvement Measure (FIM) Milestone Tracker



	FIM 1 - Interior Lighting Retrofits	FIM 2 - Exterior Lighting Retrofits	FIM 3 - Plug Load Controls	FIM 4 - Transformers	FIM 5 - Domestic Water Fixture Retrofits	FIM 6 - Shower Tower Retrofits	FIM 7 - Irrigation Wells	FIM 8 - On-Site Sodium Hypochlorite Generation and Smart Pool Pump Controls	FIM 9 - Infiltration Reduction	FIM 10 - Window Film	FIM 11 - EV and EV Charging Station(s)
4th Marine Division Memorial Park					100%						
Alfred "Flako" Boteilho Gymnasium	35%	D									
Central Maui Regional Sports Complex	90%				100%						
Charley Young Park						100%					
Coach Sakamoto Pool	35%	D			100%		40%				
Coach Shiraiishi Memorial Pool	35%	D			100%		100%				
Cooke Memorial Pool		D			98%		100%				
D.T. Fleming Park					98%	100%					
Duke Maliu Regional Park	35%	D			98%						
Eddie Tam Memorial Center	35%	D	D		100%			100%			
H.A. Baldwin Park	35%	D			100%	100%					
Haiku Community Center			D		100%						
Haliimaile Park & Tennis		D			100%						
Hana Bay Beach Park						35%					
Hanakao'o Park	35%	D			35%	100%					
Haycraft Park						100%					
Honokowai Beach Park					35%	100%					
Ho'okipa Beach Park	35%	D			100%	100%					
Kahului Community Center	35%	D			100%						
Kahului Community Center Park					100%			100%			
Kahului Park					100%						
Kalama Park	98%	D			100%	100%					
Kamaole I Beach Park	98%	D			100%	100%					
Kamaole II Beach Park	98%	D			100%	100%					
Kamaole III Beach Park	98%	D			100%	100%					
Kamehameha Iki Park						35%					
Kanaha Beach Park	98%	D			100%	100%					
Kaunakakai Ball Park	35%	D			98%		15%				
Kehalani Mauka Park					100%		15%				
Kelaweia Mauka Makai Park							100%				
Kenolio Recreation Complex	35%	D			100%						
Keokea Park	98%				100%						
Keopuolani Regional Park	98%	D			100%						
Keopuolani Skate Park					100%						

Dept. of Parks and Recreation

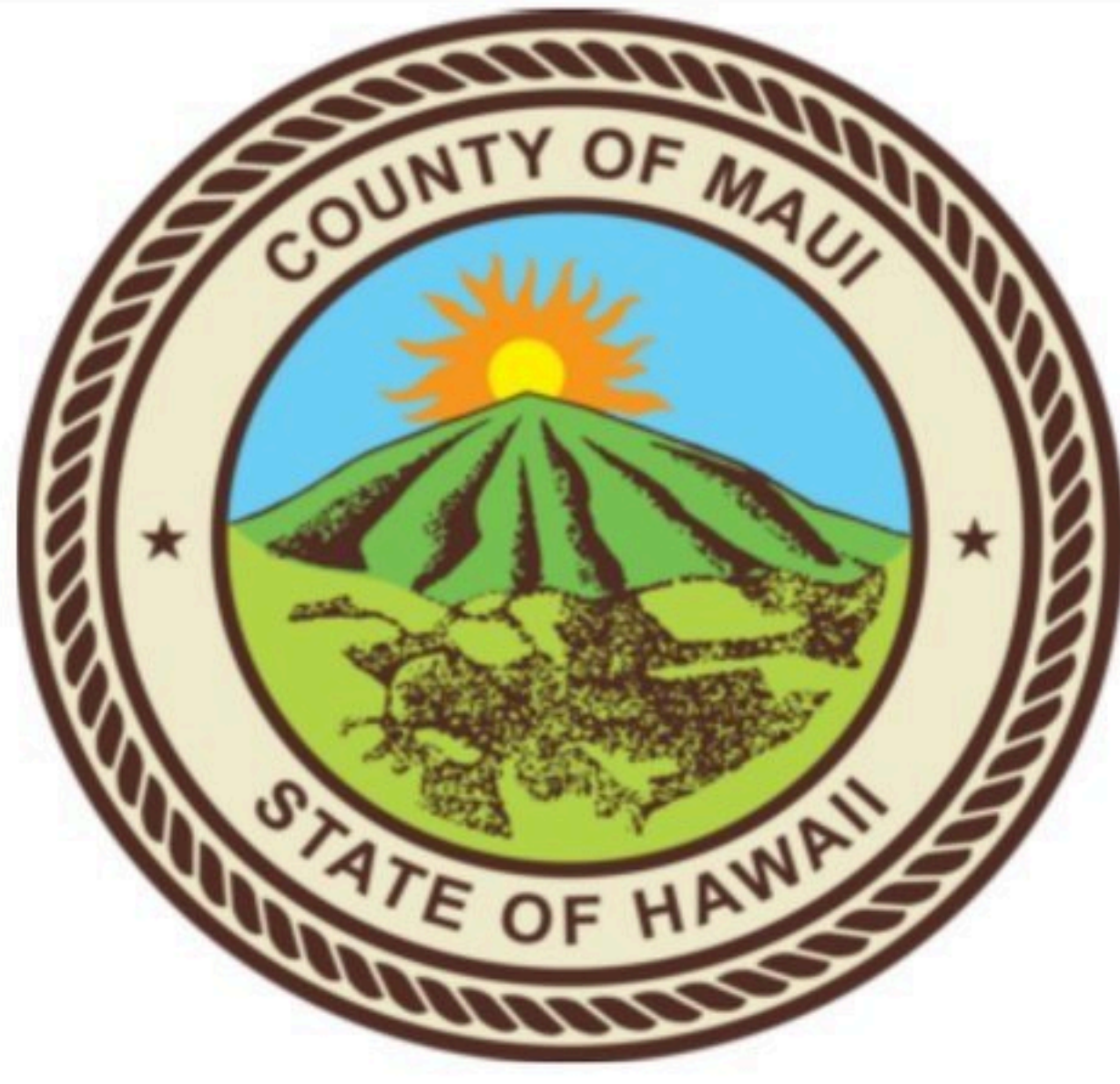
D - Descoped from project
Blank - Scope not in project

Updated 5/22/24

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Kepaniwai Park					100%						
Kihei Aquatic Center	90%	D			100%	100%		60%	100%		
Kihei Community Center	35%	D			100%				100%	100%	
Kilohana Community Center	D	D			D						
Kokua Pool	98%	D			100%			40%	100%		
Kualapuu Park & Community Center	35%				98%						
Kula Community Center	35%	D			100%						
Lahaina Aquatic Center	35%	D			35%			40%			
Lahaina Civic Center	35%	D			35%				100%		
Lahaina Recreation Center	35%	D			35%						
Lanai Park & Tennis Courts	35%	D			35%						
Launiupoko Beach Park	35%				98%	35%					
Lower Paia Beach Park					100%	100%					
Malu Ulu Olele Park		D			35%						
Maui Lani Regional Park					100%		15%				
Maunaloa Community Center					98%						
Mayor Hannibal Tavares Community Center	85%	D	D		100%				100%		
Mitchel Pauole Community Center	35%	D			98%				100%		
Mokuhau Park					98%						
Napili Park	35%	D			100%						
Old Lahaina Prison					35%						
One Alii Park					98%						
Paia Community Center					100%						
Papohaku Beach Park					100%	35%	15%				
Papohaku Park	98%	D			100%						
South Maui Community Center & Park	98%	D			100%				100%		
Ukumehame Firing Range	D	D									
Upcountry Pool	35%	D			100%			100%			
Velma McWayne Santos Community Center	85%				100%						
Wahikuli Wayside Park					35%	35%					
Waiakoa Gymnasium	35%	D			100%						
Waiehu Golf Course	85%				100%				100%		
Waiehu Terrace Park	35%	D			100%						
Waihee Beach Park					100%						
Waikapu Community Center & Park					100%						
Wailea Beach Park		D			100%	100%	D				
Wailuku Elementary School Park					100%						
Wailuku Pool	50%	D			100%			98%			
Waipuilani Park					100%						
War Memorial Complex	35%	D		35%							
Wells Park	98%	D			100%						

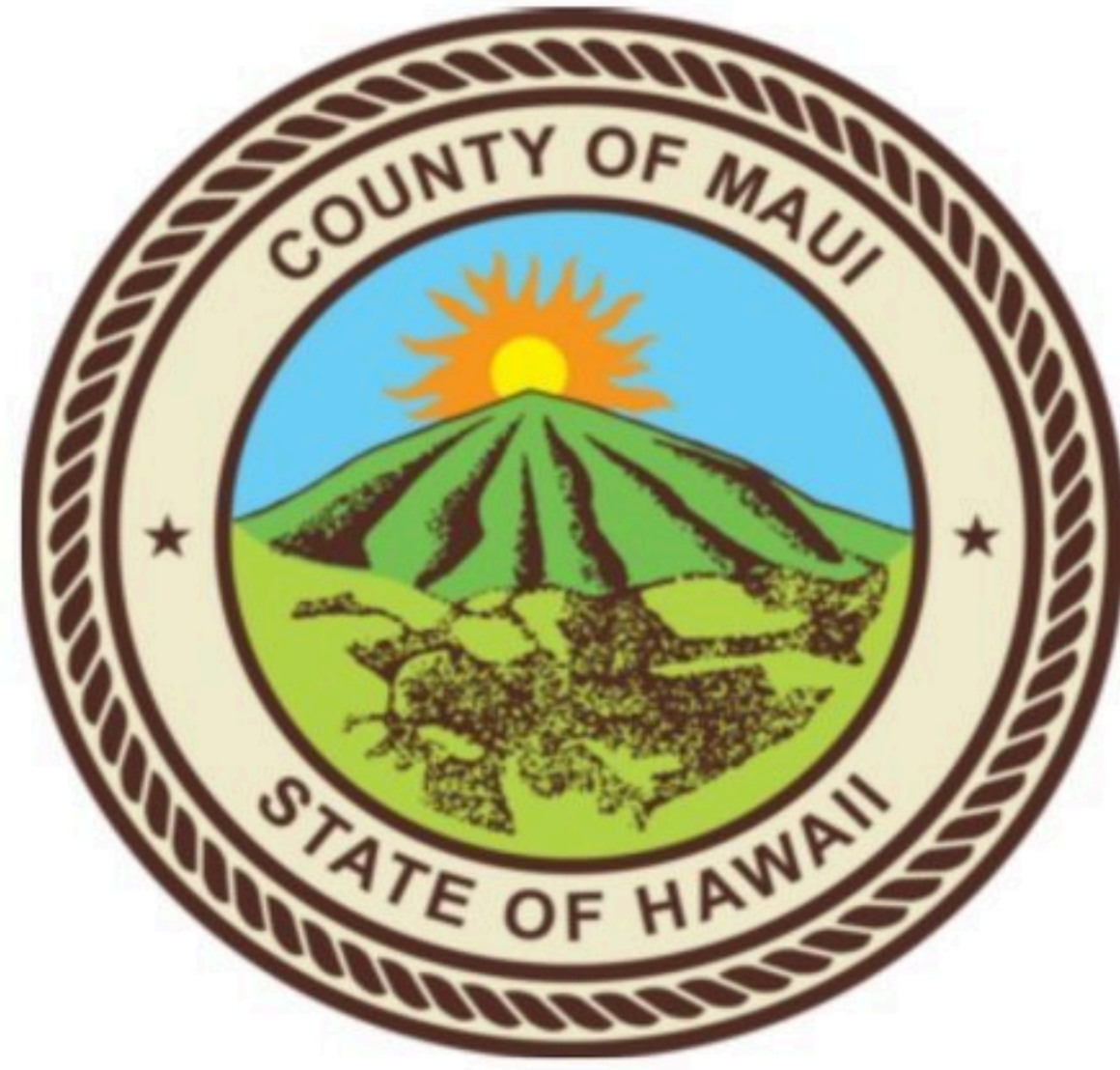
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Dept. of Water Supply	Diamond Resort Boosters	98%	D									
	Hamakuapoko Well 2	98%	D									
	Honokowai Booster Pump	35%										
	Iao Water Treatment Plant									100%		
	Iao Well	98%	D									
	Kahului Baseyard	40%	D		100%					100%		
	Kamole Water Treatment Plant	98%	D									
	Kanoa Well 1	98%	D									
	Kanoa Well 2	98%	D									
	Kaupakalua Well	98%	D									
	Kehalani Boosters	98%	D									
	Kula Water Treatment Plant	98%	D									
	Kupaa Well	98%	D									
	Lahainaluna Water Treatment Plant	98%	D		100%					100%		
	Lower Kula Boosters	98%	D									
	Mahinahina Baseyard	98%	D							100%		
	Mahinahina Water Treatment Plant				100%							
	Maui Meadows Pump	35%	D									
	Mokuhau Well	98%	D									
	Napili Road Pump		D									
	Napili Well B	98%	D									
	North Waihee Boosters	98%	D									
	North Waihee Well	98%	D									
	Olinda Water Treatment Plant	98%	D		100%					100%		
	Omaopio Boosters	98%										
	Piiholo Water Treatment Plant				100%					100%		
	Pookela Well	98%	D									
	Waihee 514,515 Well		D									
Waihee 577,578,579 Well	98%	D										
Waikapu Well	98%	D										
Wailuku Well 1	98%											
Wailuku Well 2	98%											
Environmental Management	Central Landfill									100%		
	Kahului Wastewater Pumping Station				100%							
	Kahului Wastewater Reclamation Facility	90%	D		100%	98%				100%		
	Kihei Wastewater Reclamation Facility	35%	D		100%	98%						
	Lahaina 1 Wastewater Pumping Station				100%							
	Lahaina Wastewater Reclamation Facility	35%	D		100%	98%				100%		
	Lanai Wastewater Reclamation Facility									100%		
Sewer Maintenance Building	35%	D				98%			100%			

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Dept. of Housing & Human Concerns	West Maui Senior Center	35%	D			35%				100%			
	Kaunoa Senior Services	85%	D			100%				100%			
	Lanai Senior Center					35%							
Dept. of Prosecuting Attorney	Old Courthouse Building	35%	D	D		100%				100%			
	Victims Advocates Building					100%				100%			
Dept. of Public Works	66 Market St. Restroom					100%							
	Hana Community Center & Ball Park	35%	D										
	Kalana O Maui Building	95%	D	D	35%	100%				100%		100%	
	Kalana Pakui	85%	D	D		98%				100%			
	Lahaina Banyan Court					35%							
	Lanai Baseyard					35%				100%	D		
	Makawao Baseyard									100%			
	Makawao Veterans Cemetery	35%	D			85%							
	Maui County Service Center					35%							
	Molokai Baseyard					98%				100%			
	Molokai Kuha'o Business Center									100%	D		
	Wailuku Baseyard	35%	D			100%							
	Maui Fire & Public Safety	Fire Prevention Bureau	98%	D	D		100%				100%		
		Hana Fire Station	35%	D			35%				100%		
Hoolehua Fire Station		35%	D							100%			
Kahului Fire Station		98%	D			100%				100%			
Kaunakakai Fire Station		35%	D			98%				100%			
Kihei Fire Station		98%	D			100%				100%			
Kula Fire Station		98%	D			100%				100%	100%		
Lahaina Fire Station		35%	D			100%				100%			
Lanai Fire Station		35%	D			35%				100%			
Makawao Fire Station		98%	D			100%				100%			
Napili Fire Station		40%	D			100%				100%			
Paia Fire Station		98%	D			100%				100%	100%		
Wailea Fire Station		35%	D			100%				100%			
Wailuku Fire Station		35%	D										
Maui Police Department	Forensic Facility	35%	D			100%				100%			
	Hana Police Station	35%	D			35%				100%			
	Kihei Police Station	35%	D		100%	35%				100%			
	Lahaina Police Station	35%	D			35%				100%			
	Lanai Police Station	35%	D			35%				100%			
	Wailuku Police Station	35%	D		95%	35%				100%			
	Ulupalakua Radio Site	D	D										
Kahakuloa Radio Site	D												

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