

November 30, 2009

The Honorable Chairman and Members of the  
Hawaii Public Utilities Commission  
465 South King Street, First Floor  
Kekuanaoa Building  
Honolulu, Hawaii 96813

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PUBLIC UTILITIES  
COMMISSION

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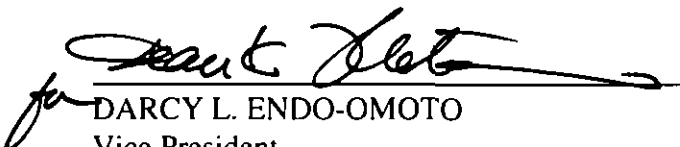
Dear Commissioners:

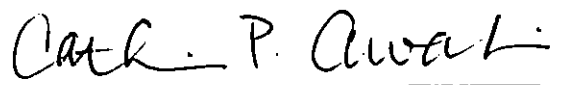
Subject: Docket No. 2008-0249  
Establishing Standards for Solar Water Heater Systems  
Agreed-Upon Revised Output Tables

Pursuant to the Commission's Decision and Order, filed on October 29, 2009, in the subject proceeding, enclosed as Attachment 1 are the agreed-upon Solar Collector BTU/Day Output by Sunshine Zone tables for island of Oahu, the County of Hawaii, the County of Maui, and the island of Kauai.

Ordering Paragraph No. 2 of said Decision and Order requires the parties<sup>1</sup> and participant<sup>2</sup> to file revised Output Tables to replace the tables submitted by the electric utilities on July 13, 2009.

Sincerely,


  
DARCY L. ENDO-OMOTO  
Vice President  
Hawaiian Electric Company, Inc.  
Hawaii Electric Light Company, Inc.  
Maui Electric Company, Limited

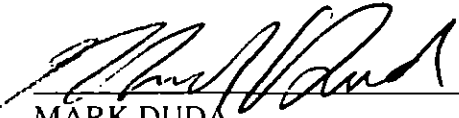
  
CATHERINE P. AWAKUNI  
Executive Director  
Dept. of Commerce and Consumer Affairs  
Division of Consumer Advocacy


<sup>1</sup> The parties are Hawaiian Electric Company, Inc.; Hawaii Electric Light Company, Inc.; Maui Electric Company, Limited; Kauai Island Utility Cooperative; the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs; and the Hawaii Solar Energy Association.

<sup>2</sup> The participant is Honeywell International Inc.

The Honorable Chairman and Members of the  
Hawaii Public Utilities Commission  
November 30, 2009  
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Attorneys for Kauai Island Utility Cooperative

  
MARK DUDA  
President  
Hawaii Solar Energy Association

  
YVETTE MASKREY  
District Manager  
Honeywell International Inc.

Enclosure

cc: Division of Consumer Advocacy  
Kauai Island Utility Cooperative  
Hawaii Solar Energy Association  
Honeywell International Inc.

Oahu Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format			(BTU/sq ft day)	1845	1661	1476	1292	1107
Hawaii Sunshine Zone			(Cal/sq cm/day)	500	450	400	350	300
Nom. Size	Coating	Manufacturer/Brand	Model					
3' x 7'	Paint	Alternate Energy	AE-21E	17,159	14,660	12,103	9,505	9,505
		Alternate Energy	MSC-21E	17,804	15,229	12,595	9,919	9,919
		Alternate Energy	ST-21E	17,528	14,945	12,300	9,609	9,609
		R&R	EPI-308CU (3' X 7')	18,081	15,466	12,792	10,022	10,022
		R&R	EPI-308SS (3' X 7')	18,081	15,466	12,792	10,022	10,022
		R&R	SunPro21	18,358	15,704	12,989	10,177	10,177
		Solahart	J Collector	19,926	17,032	14,071	11,055	11,055
		Solahart	L Collector	14,207	11,813	9,348	7,077	7,077
		SunEarth	EP-21	19,742	17,222	14,662	12,037	12,037
3' x 7'	Selective	Alternate Energy	AE-21	19,096	16,558	13,973	11,314	11,314
		Alternate Energy	MSC-21	19,742	17,127	14,465	11,727	11,727
		Apricus Solar	AP-10	10,609	9,441	8,266	7,077	7,077
		Solahart	Bt	21,310	18,408	15,449	12,347	12,347
		Solahart	Kf	21,402	18,645	15,842	12,967	12,967
		Solahart	M Collector	17,251	14,802	12,300	9,815	9,815
		SunEarth	EC-21	20,572	17,886	15,154	12,450	12,450
3' x 8'	Paint	Alternate Energy	AE-24E	19,649	16,842	13,973	11,004	11,004
		Alternate Energy	MSC-24E	20,111	17,222	14,268	11,210	11,210
		Integrated Solar, LLC	Radco 308P-HP	18,513	13,711	10,824	8,111	8,111
		R&R	EPI-308CU (3' x 8')	20,572	17,601	14,563	11,417	11,417
		R&R	EPI-308SS (3' x 8')	20,572	17,601	14,563	11,417	11,417
		R&R	SunPro24	20,941	17,886	14,760	11,572	11,572
		SunEarth	EP-24	23,155	20,163	17,122	14,052	14,052
		SunEarth	IP-24	22,970	20,021	17,023	13,948	13,948
		SunEarth	SB-24	19,096	16,083	12,989	9,970	9,970
3' x 8'	Selective	Alternate Energy	AE-24	21,863	18,930	15,941	12,915	12,915
		Alternate Energy	MSC-24	22,509	19,499	16,433	13,328	13,328
		Integrated Solar, LLC	Radco 308C-HP	19,280	16,463	13,579	10,642	10,642
		SunEarth	EC-24	23,985	20,875	17,712	14,516	14,516
		SunEarth	IC-24	23,985	20,875	17,712	14,516	14,516
4' x 6'	Paint	Alternate Energy	AE-26E	20,941	17,933	14,858	11,675	11,675
		Alternate Energy	MSC-26E	21,402	18,313	15,154	11,933	11,933
4' x 6'	Selective	Alternate Energy	AE-26	23,247	20,163	17,023	13,793	13,793
		Alternate Energy	MSC-26	23,801	20,638	17,417	14,155	14,155
		Solene	SLCO-30	24,446	21,112	17,712	14,258	14,258
		Solene	SLAR-30	24,446	21,112	17,712	14,258	14,258
4' x 7'	Paint	Alternate Energy	AE-28E	23,155	19,831	16,433	12,915	12,915
		Alternate Energy	MSC-28E	23,616	20,211	16,728	13,173	13,173
		Heliodyne	406-002	24,262	20,685	17,023	13,328	13,328
4' x 7'	Selective	Alternate Energy	AE-28	25,646	22,251	18,794	15,240	15,240
		Alternate Energy	MSC-28	26,291	22,773	19,188	15,550	15,550
		Heliodyne	336-013	24,170	20,875	17,515	14,155	14,155
		Heliodyne	406-001	26,199	22,773	19,286	15,756	15,756
4' x 8'	Paint	Alternate Energy	AE-32E	26,384	22,583	18,696	14,671	14,671
		Alternate Energy	MSC-32E	26,937	23,057	19,090	14,981	14,981
		Heliodyne	408-002	29,705	25,192	20,566	16,170	16,170
		Integrated Solar, LLC	Radco 408P-HP	22,601	18,740	14,760	11,055	11,055
		R&R	EPI-308CU (4' x 8')	27,675	23,674	19,750	15,343	15,343
		R&R	EPI-308SS (4' x 8')	27,675	23,674	19,750	15,343	15,343
		R&R	Sunpro 32	28,044	23,959	19,750	15,498	15,498
		Solene-Corona	SLCO-32P	24,446	20,590	16,630	12,812	12,812
		SunEarth	EP-32	31,550	27,517	23,419	19,269	19,269
		SunEarth	IP-32	31,365	27,327	23,222	19,114	19,114
		SunEarth	SP-32	31,550	27,517	23,419	19,269	19,269
SunEarth	SB-32	26,015	21,919	17,712	13,638	13,638		

Oahu Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format			(BTU/sq ft day)	1845	1661	1476	1292	1107
Hawaii Sunshine Zone			(Cal/sq cm/day)	500	450	400	350	300
Nom. Size	Coating	Manufacturer/Brand	Model					
4' x 8'	Selective	Alternate Energy	AE-32	29,243	25,382	21,451	17,409	17,409
		Alternate Energy	MSC-32	29,981	25,999	21,943	17,771	17,771
		Heliodyne	408-001	31,550	27,422	23,222	19,011	19,011
		Heliodyne	408-013	29,059	25,097	21,058	16,944	16,944
		Integrated Solar, LLC	Radco 408C-HP	26,199	22,393	18,499	14,516	14,516
		Solene	SLCR-30	30,535	26,710	22,829	19,011	19,011
		Solene	SLCO-32	31,826	27,517	23,124	18,849	18,649
		Solene	SLCR-32	32,195	28,181	24,108	20,044	20,044
		Solene	SLAR-32	31,826	27,517	23,124	18,849	18,649
		SunEarth	EC-32	32,564	28,371	24,108	19,786	19,786
SunEarth	IC-32	32,564	28,371	24,108	19,786	19,786		
4' x 10'	Paint	Alternate Energy	AE-40E	32,841	28,134	23,321	18,339	18,339
		Alternate Energy	MSC-40E	33,487	28,655	23,714	18,649	18,649
		Alternate Energy	ST-40E	31,826	27,137	22,337	17,461	17,461
		Heliodyne	410-002	36,716	31,455	26,076	20,561	20,561
		Integrated Solar, LLC	Radco 410P-HP	28,229	23,437	18,499	13,845	13,845
		R&R	Sunpro 40	34,963	29,889	24,698	19,373	19,373
		Solene	SLCO-40P	29,705	25,002	20,172	15,550	15,550
		SunEarth	EP-40	39,299	34,301	29,225	24,022	24,022
		SunEarth	IP-40	39,299	34,254	29,126	23,970	23,970
		SunEarth	SB-40	32,657	27,564	22,337	17,151	17,151
4' x 10'	Selective	Alternate Energy	AE-40	36,531	31,644	26,666	21,646	21,646
		Alternate Energy	MSC-40	38,653	33,495	28,241	22,937	22,937
		Heliodyne	410-001	39,483	34,349	29,126	23,815	23,815
		Heliodyne	410-013	36,439	31,455	26,371	21,181	21,181
		Integrated Solar, LLC	Radco 410C-HP	32,933	28,134	23,222	18,184	18,184
		Solene	SLCO-40	39,114	33,779	28,339	22,834	22,834
		Solene	SLCR-40	40,313	35,297	30,209	25,107	25,107
		Solene	SLAR-40	39,114	33,779	28,339	22,834	22,834
		SunEarth	EC-40	40,867	35,582	30,209	24,797	24,797
		SunEarth	IC-40	40,867	35,582	30,209	24,797	24,797
4' x 12'	Paint	Integrated Solar, LLC	Radco 412P-HP	34,133	28,323	22,337	16,738	16,738
4' x 12'	Selective	Integrated Solar, LLC	Radco 412C-HP	39,760	33,969	28,044	22,007	22,007
5' X 7'	Selective	Apricus	AP-20	24,170	21,397	18,598	15,756	15,756
		Apricus	AP-22	23,616	21,017	18,401	15,705	15,705
7' x 7'	Selective	Apricus	AP-30	37,454	33,163	28,831	24,435	24,435
Notes:	1. Values for the 350 and 450 Sunshine Zones are interpolated assuming a linear relationship.							
	2. Values for the 300 Sunshine Zone equals the 350 Sunshine Zone per Section 2.02.							

Hawaii County Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format Hawaii Sunshine Zone		(BTU/sq ft day)	2,030	1,845	1,661	1,476	1,292	1,107	
		(Cal/sq cm/day)	550	500	450	400	350	300	
Nom. Size	Coating	Manufacturer/Brand	Model						
3' x 7'	Paint	Alternato Energy	AE-21E	18,874	17,159	14,660	12,103	9,505	9,505
		Alternate Energy	MSC-21E	19,585	17,804	15,229	12,595	9,919	9,919
		Alternate Energy	ST-21E	19,280	17,528	14,945	12,300	9,609	9,609
		R&R	EPI-308CU (3' X 7')	19,889	18,081	15,466	12,792	10,022	10,022
		R&R	EPI-308SS (3' X 7')	19,889	18,081	15,466	12,792	10,022	10,022
		R&R	SunPro21	20,194	18,358	15,704	12,989	10,177	10,177
		Solahart	J Collector	21,919	19,926	17,032	14,071	11,055	11,055
		Solahart	L Collector	15,627	14,207	11,813	9,348	7,077	7,077
		SunEarth	EP-21	21,716	19,742	17,222	14,662	12,037	12,037
3' x 7'	Selective	Alternate Energy	AE-21	21,005	19,096	16,558	13,973	11,314	11,314
		Alternate Energy	MSC-21	21,716	19,742	17,127	14,465	11,727	11,727
		Apricus Solar	AP-10	11,670	10,609	9,441	8,266	7,077	7,077
		Solahart	Bt	23,441	21,310	18,408	15,449	12,347	12,347
		Solahart	Kf	23,542	21,402	18,645	15,842	12,967	12,967
		Solahart	M Collector	18,976	17,251	14,802	12,300	9,815	9,815
				SunEarth	EC-21	22,629	20,572	17,886	15,154
3' x 8'	Paint	Alternate Energy	AE-24E	21,614	19,649	16,842	13,973	11,004	11,004
		Alternate Energy	MSC-24E	22,122	20,111	17,222	14,268	11,210	11,210
		Integrated Solar, LLC	Radco 308P-HP	18,164	16,513	13,711	10,824	8,111	8,111
		R&R	EPI-308CU (3' x 8')	22,629	20,572	17,601	14,563	11,417	11,417
		R&R	EPI-308SS (3' x 8')	22,629	20,572	17,601	14,563	11,417	11,417
		R&R	SunPro24	23,035	20,941	17,886	14,760	11,572	11,572
		SunEarth	EP-24	25,470	23,155	20,163	17,122	14,052	14,052
		SunEarth	IP-24	25,267	22,970	20,021	17,023	13,948	13,948
				SunEarth	SB-24	21,005	19,096	16,083	12,989
3' x 8'	Selective	Alternate Energy	AE-24	24,050	21,863	18,930	15,941	12,915	12,915
		Alternate Energy	MSC-24	24,760	22,509	19,499	16,433	13,328	13,328
		Integrated Solar, LLC	Radco 308C-HP	21,208	19,280	16,463	13,579	10,642	10,642
		SunEarth	EC-24	26,384	23,985	20,875	17,712	14,516	14,516
				SunEarth	IC-24	26,384	23,985	20,875	17,712
4' x 6'	Paint	Alternate Energy	AE-26E	23,035	20,941	17,933	14,858	11,675	11,675
		Alternate Energy	MSC-26E	23,542	21,402	18,313	15,154	11,933	11,933
4' x 6'	Selective	Alternate Energy	AE-26	25,572	23,247	20,163	17,023	13,793	13,793
		Alternate Energy	MSC-26	26,181	23,801	20,638	17,417	14,155	14,155
		Solene	SLCO-30	26,891	24,446	21,112	17,712	14,258	14,258
		Solene	SLAR-30	26,891	24,446	21,112	17,712	14,258	14,258
4' x 7'	Paint	Alternate Energy	AE-28E	25,470	23,155	19,831	16,433	12,915	12,915
		Alternate Energy	MSC-28E	25,978	23,616	20,211	16,728	13,173	13,173
		Heliodyne	406-002	26,688	24,262	20,685	17,023	13,328	13,328
4' x 7'	Selective	Alternate Energy	AE-28	28,210	25,646	22,251	18,794	15,240	15,240
		Alternate Energy	MSC-28	28,920	26,291	22,773	19,188	15,550	15,550
		Heliodyne	336-013	26,586	24,170	20,875	17,515	14,155	14,155
		Heliodyne	406-001	28,819	26,199	22,773	19,286	15,756	15,756
4' x 8'	Paint	Alternate Energy	AE-32E	29,022	26,384	22,583	18,696	14,671	14,671
		Alternate Energy	MSC-32E	29,631	26,937	23,057	19,090	14,981	14,981
		Heliodyne	408-002	32,675	29,705	25,192	20,566	16,170	16,170
		Integrated Solar, LLC	Radco 408P-HP	24,861	22,601	18,740	14,760	11,055	11,055
		R&R	EPI-308CU (4' x 8')	30,443	27,675	23,874	19,750	15,343	15,343
		R&R	EPI-308SS (4' x 8')	30,443	27,675	23,874	19,750	15,343	15,343
		R&R	Sunpro 32	30,848	28,044	23,959	19,750	15,498	15,498
		Solene-Corona	SLCO-32P	26,891	24,446	20,590	16,630	12,812	12,812
		SunEarth	EP-32	34,704	31,550	27,517	23,419	19,269	19,269
		SunEarth	IP-32	34,502	31,365	27,327	23,222	19,114	19,114
		SunEarth	SP-32	34,704	31,550	27,517	23,419	19,269	19,269
		SunEarth	SB-32	28,616	26,015	21,919	17,712	13,638	13,638

Hawaii County Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format		(BTU/sq ft day)	2,030	1,845	1,661	1,476	1,292	1,107	
Hawaii Sunshine Zone		(Cal/sq cm/day)	550	500	450	400	350	300	
Nom. Size	Coating	Manufacturer/Brand	Model						
4' x 8'	Selective	Alternate Energy	AE-32	32,168	29,243	25,382	21,451	17,409	17,409
		Alternate Energy	MSC-32	32,979	29,981	25,999	21,943	17,771	17,771
		Heliodyne	408-001	34,704	31,550	27,422	23,222	19,011	19,011
		Heliodyne	408-013	31,965	29,059	25,097	21,058	16,944	16,944
		Integrated Solar, LLC	Radco 408C-HP	28,819	26,199	22,393	18,499	14,518	14,516
		Solene	SLCR-30	33,588	30,535	26,710	22,829	19,011	19,011
		Solene	SLCO-32	35,009	31,826	27,517	23,124	18,649	18,649
		Solene	SLCR-32	35,415	32,195	28,181	24,108	20,044	20,044
		Solene	SLAR-32	35,009	31,826	27,517	23,124	18,649	18,649
		SunEarth	EC-32	35,821	32,564	28,371	24,108	19,786	19,786
SunEarth	IC-32	35,821	32,564	28,371	24,108	19,786	19,786		
4' x 10'	Paint	Alternate Energy	AE-40E	36,125	32,841	28,134	23,321	18,339	18,339
		Alternate Energy	MSC-40E	36,835	33,487	28,655	23,714	18,649	18,649
		Alternate Energy	ST-40E	35,009	31,826	27,137	22,337	17,461	17,461
		Heliodyne	410-002	40,387	36,716	31,455	26,076	20,561	20,561
		Integrated Solar, LLC	Radco 410P-HP	31,051	28,229	23,437	18,499	13,845	13,845
		R&R	Sunpro 40	38,459	34,963	29,889	24,698	19,373	19,373
		Solene	SLCO-40P	32,675	29,705	25,002	20,172	15,550	15,550
		SunEarth	EP-40	43,228	39,299	34,301	29,225	24,022	24,022
		SunEarth	IP-40	43,228	39,299	34,254	29,126	23,970	23,970
		SunEarth	SB-40	35,922	32,657	27,564	22,337	17,151	17,151
4' x 10'	Selective	Alternate Energy	AE-40	40,184	36,531	31,644	26,666	21,646	21,646
		Alternate Energy	MSC-40	42,518	38,653	33,495	28,241	22,937	22,937
		Heliodyne	410-001	43,431	39,483	34,349	29,126	23,815	23,815
		Heliodyne	410-013	40,083	36,439	31,455	26,371	21,181	21,181
		Integrated Solar, LLC	Radco 410C-HP	36,227	32,933	28,134	23,222	18,184	18,184
		Solene	SLCO-40	43,025	39,114	33,779	28,339	22,834	22,834
		Solene	SLCR-40	44,345	40,313	35,297	30,209	25,107	25,107
		Solene	SLAR-40	43,025	39,114	33,779	28,339	22,834	22,834
		SunEarth	EC-40	44,953	40,867	35,582	30,209	24,797	24,797
		SunEarth	IC-40	44,953	40,867	35,582	30,209	24,797	24,797
4' x 12'	Paint	Integrated Solar, LLC	Radco 412P-HP	37,546	34,133	28,323	22,337	16,738	16,738
4' x 12'	Selective	Integrated Solar, LLC	Radco 412C-HP	43,736	39,760	33,969	28,044	22,007	22,007
5' X 7'	Selective	Apricus	AP-20	26,586	24,170	21,397	18,598	15,756	15,756
		Apricus	AP-22	25,978	23,616	21,017	18,401	15,705	15,705
7' x 7'	Selective	Apricus	AP-30	41,199	37,454	33,163	28,831	24,435	24,435
Notes:	1. Values for the 350 and 450 Sunshine Zones are interpolated assuming a linear relationship.								
	2. Values for the 300 Sunshine Zone equals the 350 Sunshine Zone per Section 2.02.								

Maui County Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format			(BTU/sq ft day)	1,845	1,771	1,661	1,476	1,292	1,107
Hawaii Sunshine Zone			(Cal/sq cm/day)	500	480	450	400	350	300
Nom. Size	Coating	Manufacturer/Brand	Model						
3' x 7'	Paint	Alternate Energy	AE-21E	17,159	16,472	14,660	12,103	9,505	9,505
		Alternato Energy	MSC-21E	17,804	17,092	15,229	12,595	9,919	9,919
		Alternate Energy	ST-21E	17,528	16,826	14,945	12,300	9,609	9,609
		R&R	EPI-308CU (3' X 7')	18,081	17,358	15,466	12,792	10,022	10,022
		R&R	EPI-308SS (3' X 7')	18,081	17,358	15,466	12,792	10,022	10,022
		R&R	SunPro21	18,358	17,623	15,704	12,989	10,177	10,177
		Solahart	J Collector	19,926	19,129	17,032	14,071	11,055	11,055
		Solahart	L Collector	14,207	13,638	11,813	9,348	7,077	7,077
		SunEarth	EP-21	19,742	18,952	17,222	14,662	12,037	12,037
3' x 7'	Selective	Alternate Energy	AE-21	19,096	18,332	16,558	13,973	11,314	11,314
		Alternate Energy	MSC-21	19,742	18,952	17,127	14,465	11,727	11,727
		Apricus Solar	AP-10	10,609	10,184	9,441	8,266	7,077	7,077
		Solahart	Bt	21,310	20,457	18,408	15,449	12,347	12,347
		Solahart	Kf	21,402	20,546	18,645	15,842	12,967	12,967
		Solahart	M Collector	17,251	16,561	14,802	12,300	9,815	9,815
		SunEarth	EC-21	20,572	19,749	17,886	15,154	12,450	12,450
3' x 8'	Paint	Alternate Energy	AE-24E	19,649	18,863	16,842	13,973	11,004	11,004
		Alternate Energy	MSC-24E	20,111	19,306	17,222	14,268	11,210	11,210
		Integrated Solar, LLC	Radco 308P-HP	16,513	15,852	13,711	10,824	8,111	8,111
		R&R	EPI-308CU (3' x 8')	20,572	19,749	17,601	14,563	11,417	11,417
		R&R	EPI-308SS (3' x 8')	20,572	19,749	17,601	14,563	11,417	11,417
		R&R	SunPro24	20,941	20,103	17,886	14,760	11,572	11,572
		SunEarth	EP-24	23,155	22,229	20,163	17,122	14,052	14,052
		SunEarth	IP-24	22,970	22,051	20,021	17,023	13,948	13,948
		SunEarth	SB-24	19,096	18,332	16,083	12,989	9,970	9,970
3' x 8'	Selective	Alternate Energy	AE-24	21,863	20,989	18,930	15,941	12,915	12,915
		Alternate Energy	MSC-24	22,509	21,609	19,499	16,433	13,328	13,328
		Integrated Solar, LLC	Radco 308C-HP	19,280	18,509	16,463	13,579	10,642	10,642
		SunEarth	EC-24	23,985	23,026	20,875	17,712	14,516	14,516
		SunEarth	IC-24	23,985	23,026	20,875	17,712	14,516	14,516
4' x 6'	Paint	Alternate Energy	AE-26E	20,941	20,103	17,933	14,858	11,675	11,675
		Alternate Energy	MSC-26E	21,402	20,546	18,313	15,154	11,933	11,933
4' x 6'	Selective	Alternate Energy	AE-26	23,247	22,317	20,163	17,023	13,793	13,793
		Alternate Energy	MSC-26	23,801	22,848	20,638	17,417	14,155	14,155
		Solene	SLCO-30	24,446	23,468	21,112	17,712	14,258	14,258
		Solene	SLAR-30	24,446	23,468	21,112	17,712	14,258	14,258
4' x 7'	Paint	Alternate Energy	AE-28E	23,155	22,229	19,831	16,433	12,915	12,915
		Alternate Energy	MSC-28E	23,616	22,671	20,211	16,728	13,173	13,173
		Heliodyne	406-002	24,262	23,291	20,685	17,023	13,328	13,328
4' x 7'	Selective	Alternate Energy	AE-28	25,646	24,620	22,251	18,794	15,240	15,240
		Alternate Energy	MSC-28	26,291	25,240	22,773	19,188	15,550	15,550
		Heliodyne	336-013	24,170	23,203	20,875	17,515	14,155	14,155
		Heliodyne	406-001	26,199	25,151	22,773	19,286	15,756	15,756
4' x 8'	Paint	Alternate Energy	AE-32E	26,384	25,328	22,583	18,696	14,671	14,671
		Alternate Energy	MSC-32E	26,937	25,860	23,057	19,090	14,981	14,981
		Heliodyne	408-002	29,705	28,516	25,192	20,566	16,170	16,170
		Integrated Solar, LLC	Radco 408P-HP	22,601	21,697	18,740	14,760	11,055	11,055
		R&R	EPI-308CU (4' x 8')	27,675	26,568	23,674	19,750	15,343	15,343
		R&R	EPI-308SS (4' x 8')	27,675	26,568	23,674	19,750	15,343	15,343
		R&R	Sunpro 32	28,044	26,922	23,959	19,750	15,498	15,498
		Solene-Corona	SLCO-32P	24,446	23,468	20,590	16,630	12,812	12,812
		SunEarth	EP-32	31,550	30,288	27,517	23,419	19,269	19,269
		SunEarth	IP-32	31,365	30,110	27,327	23,222	19,114	19,114
		SunEarth	SP-32	31,550	30,288	27,517	23,419	19,269	19,269
SunEarth	SB-32	26,015	24,974	21,919	17,712	13,638	13,638		

Maul County Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format		(BTU/sq ft day)	1,845	1,771	1,661	1,476	1,292	1,107	
Hawaii Sunshine Zone		(Cal/sq cm/day)	500	480	450	400	350	300	
Nom. Size	Coating	Manufacturer/Brand	Model						
4' x 8'	Selective	Alternate Energy	AE-32	29,243	28,074	25,382	21,451	17,409	17,409
		Alternate Energy	MSC-32	29,981	28,782	25,999	21,943	17,771	17,771
		Heliodyne	408-001	31,550	30,288	27,422	23,222	19,011	19,011
		Heliodyne	408-013	29,059	27,896	25,097	21,058	16,944	16,944
		Integrated Solar, LLC	Radco 408C-HP	26,199	25,151	22,393	18,499	14,516	14,516
		Solene	SLCR-30	30,535	29,313	26,710	22,829	19,011	19,011
		Solene	SLCO-32	31,826	30,553	27,517	23,124	18,649	18,649
		Solene	SLCR-32	32,195	30,907	28,181	24,108	20,044	20,044
		Solene	SLAR-32	31,826	30,553	27,517	23,124	18,649	18,649
		SunEarth	EC-32	32,564	31,262	28,371	24,108	19,786	19,786
SunEarth	IC-32	32,564	31,262	28,371	24,108	19,786	19,786		
4' x 10'	Paint	Alternate Energy	AE-40E	32,841	31,527	28,134	23,321	18,339	18,339
		Alternate Energy	MSC-40E	33,487	32,147	28,655	23,714	18,649	18,649
		Alternate Energy	ST-40E	31,826	30,553	27,137	22,337	17,461	17,461
		Heliodyne	410-002	36,716	35,247	31,455	26,076	20,561	20,561
		Integrated Solar, LLC	Radco 410P-HP	28,229	27,099	23,437	18,499	13,845	13,845
		R&R	Sunpro 40	34,963	33,564	29,889	24,698	19,373	19,373
		Solene	SLCO-40P	29,705	28,516	25,002	20,172	15,550	15,550
		SunEarth	EP-40	39,299	37,727	34,301	29,225	24,022	24,022
		SunEarth	IP-40	39,299	37,727	34,254	29,126	23,970	23,970
		SunEarth	SB-40	32,657	31,350	27,564	22,337	17,151	17,151
4' x 10'	Selective	Alternate Energy	AE-40	36,531	35,070	31,644	26,666	21,646	21,646
		Alternate Energy	MSC-40	38,653	37,107	33,495	28,241	22,937	22,937
		Heliodyne	410-001	39,483	37,904	34,349	29,126	23,815	23,815
		Heliodyne	410-013	36,439	34,981	31,455	26,371	21,181	21,181
		Integrated Solar, LLC	Radco 410C-HP	32,933	31,616	28,134	23,222	18,184	18,184
		Solene	SLCO-40	39,114	37,549	33,779	28,339	22,834	22,834
		Solene	SLCR-40	40,313	38,701	35,297	30,209	25,107	25,107
		Solene	SLAR-40	39,114	37,549	33,779	28,339	22,834	22,834
		SunEarth	EC-40	40,867	39,232	35,582	30,209	24,797	24,797
		SunEarth	IC-40	40,867	39,232	35,582	30,209	24,797	24,797
4' x 12'	Paint	Integrated Solar, LLC	Radco 412P-HP	34,133	32,767	28,323	22,337	16,738	16,738
4' x 12'	Selective	Integrated Solar, LLC	Radco 412C-HP	39,760	38,169	33,969	28,044	22,007	22,007
5' X 7'	Selective	Apricus	AP-20	24,170	23,203	21,397	18,598	15,756	15,756
		Apricus	AP-22	23,616	22,671	21,017	18,401	15,705	15,705
7' x 7'	Selective	Apricus	AP-30	37,454	35,955	33,163	28,831	24,435	24,435
Notes:	1. Values for the 350 and 450 Sunshine Zones are interpolated assuming a linear relationship.								
	2. Values for the 300 Sunshine Zone equals the 350 Sunshine Zone per Section 2.02.								



Kauai Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format		(BTU/sq ft day)	1845	1661	1476	1292	1107	
Hawaii Sunshine Zone		(Cal/sq cm/day)	500	450	400	350	300	
Nom. Size	Coating	Manufacturer/Brand	Model					
3' x 7'	Paint	Alternato Energy	AE-21E	17,159	14,660	12,103	9,505	9,505
		Alternato Energy	MSC-21E	17,804	15,229	12,595	9,919	9,919
		Alternato Energy	ST-21E	17,528	14,945	12,300	9,609	9,609
		R&R	EPI-308CU (3' X 7')	18,081	15,466	12,792	10,022	10,022
		R&R	EPI-308SS (3' X 7')	18,081	15,466	12,792	10,022	10,022
		R&R	SunPro21	18,358	15,704	12,989	10,177	10,177
		Solahart	J Collector	19,926	17,032	14,071	11,055	11,055
		Solahart	L Collector	14,207	11,813	9,348	7,077	7,077
		SunEarth	EP-21	19,742	17,222	14,662	12,037	12,037
3' x 7'	Selective	Alternato Energy	AE-21	19,096	16,558	13,973	11,314	11,314
		Alternato Energy	MSC-21	19,742	17,127	14,465	11,727	11,727
		Apricus Solar	AP-10	10,609	9,441	8,266	7,077	7,077
		Solahart	Bt	21,310	18,408	15,449	12,347	12,347
		Solahart	Kf	21,402	18,645	15,842	12,967	12,967
		Solahart	M Collector	17,251	14,802	12,300	9,815	9,815
		SunEarth	EC-21	20,572	17,886	15,154	12,450	12,450
3' x 8'	Paint	Alternato Energy	AE-24E	19,649	16,842	13,973	11,004	11,004
		Alternato Energy	MSC-24E	20,111	17,222	14,268	11,210	11,210
		Integrated Solar, LLC	Radco 308P-HP	16,513	13,711	10,824	8,111	8,111
		R&R	EPI-308CU (3' x 8')	20,572	17,601	14,563	11,417	11,417
		R&R	EPI-308SS (3' x 8')	20,572	17,601	14,563	11,417	11,417
		R&R	SunPro24	20,941	17,886	14,760	11,572	11,572
		SunEarth	EP-24	23,155	20,163	17,122	14,052	14,052
		SunEarth	IP-24	22,970	20,021	17,023	13,948	13,948
		SunEarth	SB-24	19,096	16,083	12,989	9,970	9,970
3' x 8'	Selective	Alternato Energy	AE-24	21,863	18,930	15,941	12,915	12,915
		Alternato Energy	MSC-24	22,509	19,499	16,433	13,328	13,328
		Integrated Solar, LLC	Radco 308C-HP	19,280	16,463	13,579	10,642	10,642
		SunEarth	EC-24	23,985	20,875	17,712	14,516	14,516
		SunEarth	IC-24	23,985	20,875	17,712	14,516	14,516
4' x 6'	Paint	Alternato Energy	AE-26E	20,941	17,933	14,858	11,675	11,675
		Alternato Energy	MSC-26E	21,402	18,313	15,154	11,933	11,933
4' x 6'	Selective	Alternato Energy	AE-26	23,247	20,163	17,023	13,793	13,793
		Alternato Energy	MSC-26	23,801	20,638	17,417	14,155	14,155
		Solene	SLCO-30	24,446	21,112	17,712	14,258	14,258
		Solene	SLAR-30	24,446	21,112	17,712	14,258	14,258
4' x 7'	Paint	Alternato Energy	AE-28E	23,155	19,831	16,433	12,915	12,915
		Alternato Energy	MSC-28E	23,816	20,211	16,728	13,173	13,173
		Hellodyne	406-002	24,262	20,685	17,023	13,328	13,328
4' x 7'	Selective	Alternato Energy	AE-28	25,646	22,251	18,794	15,240	15,240
		Alternato Energy	MSC-28	26,291	22,773	19,188	15,550	15,550
		Hellodyne	336-013	24,170	20,875	17,515	14,155	14,155
		Hellodyne	406-001	26,199	22,773	19,286	15,756	15,756
4' x 8'	Paint	Alternato Energy	AE-32E	26,384	22,583	18,696	14,671	14,671
		Alternato Energy	MSC-32E	26,937	23,057	19,090	14,981	14,981
		Hellodyne	408-002	29,705	25,192	20,566	16,170	16,170
		Integrated Solar, LLC	Radco 408P-HP	22,601	18,740	14,760	11,055	11,055
		R&R	EPI-308CU (4' x 8')	27,675	23,674	19,750	15,343	15,343
		R&R	EPI-308SS (4' x 8')	27,675	23,674	19,750	15,343	15,343
		R&R	Sunpro 32	28,044	23,959	19,750	15,498	15,498
		Solene-Corona	SLCO-32P	24,446	20,590	16,630	12,812	12,812
		SunEarth	EP-32	31,560	27,517	23,419	19,269	19,269
		SunEarth	IP-32	31,365	27,327	23,222	19,114	19,114
		SunEarth	SP-32	31,550	27,517	23,419	19,269	19,269
		SunEarth	SB-32	26,015	21,919	17,712	13,638	13,638

Kauai Solar Collector BTU/Day Output by Sunshine Zone Table

OG-100 Protocol Format			(BTU/sq ft day)	1845	1661	1476	1292	1107
Hawaii Sunshine Zone			(Cal/sq cm/day)	500	450	400	350	300
Nom. Size	Coating	Manufacturer/Brand	Model					
4' x 8'	Selective	Alternate Energy	AE-32	29,243	25,382	21,451	17,409	17,409
		Alternate Energy	MSC-32	29,981	25,999	21,943	17,771	17,771
		Heliodyne	408-001	31,550	27,422	23,222	19,011	19,011
		Heliodyne	408-013	29,059	25,097	21,058	16,944	16,944
		Integrated Solar, LLC	Radco 408C-HP	26,199	22,393	18,499	14,516	14,516
		Solene	SLCR-30	30,535	26,710	22,829	19,011	19,011
		Solene	SLCO-32	31,826	27,517	23,124	18,849	18,649
		Solene	SLCR-32	32,195	28,181	24,108	20,044	20,044
		Solene	SLAR-32	31,828	27,517	23,124	18,849	18,649
		SunEarth	EC-32	32,564	28,371	24,108	19,786	19,786
SunEarth	IC-32	32,564	28,371	24,108	19,786	19,786		
4' x 10'	Paint	Alternate Energy	AE-40E	32,841	28,134	23,321	18,339	18,339
		Alternate Energy	MSC-40E	33,487	28,655	23,714	18,649	18,649
		Alternate Energy	ST-40E	31,826	27,137	22,337	17,461	17,461
		Heliodyne	410-002	36,716	31,455	26,076	20,561	20,561
		Integrated Solar, LLC	Radco 410P-HP	28,229	23,437	18,499	13,845	13,845
		R&R	Sunpro 40	34,963	29,889	24,698	19,373	19,373
		Solene	SLCO-40P	29,705	25,002	20,172	15,550	15,550
		SunEarth	EP-40	39,299	34,301	29,225	24,022	24,022
		SunEarth	IP-40	39,299	34,254	29,126	23,970	23,970
		SunEarth	SB-40	32,657	27,564	22,337	17,151	17,151
4' x 10'	Selective	Alternate Energy	AE-40	36,531	31,644	26,666	21,646	21,646
		Alternate Energy	MSC-40	38,653	33,495	28,241	22,937	22,937
		Heliodyne	410-001	39,483	34,349	29,126	23,815	23,815
		Heliodyne	410-013	36,439	31,455	26,371	21,181	21,181
		Integrated Solar, LLC	Radco 410C-HP	32,933	28,134	23,222	18,184	18,184
		Solene	SLCO-40	39,114	33,779	28,339	22,834	22,834
		Solene	SLCR-40	40,313	35,297	30,209	25,107	25,107
		Solene	SLAR-40	39,114	33,779	28,339	22,834	22,834
		SunEarth	EC-40	40,867	35,582	30,209	24,797	24,797
		SunEarth	IC-40	40,867	35,582	30,209	24,797	24,797
4' x 12'	Paint	Integrated Solar, LLC	Radco 412P-HP	34,133	28,323	22,337	16,738	16,738
4' x 12'	Selective	Integrated Solar, LLC	Radco 412C-HP	39,760	33,969	28,044	22,007	22,007
5' X 7'	Selective	Apricus	AP-20	24,170	21,397	18,598	15,756	15,756
		Apricus	AP-22	23,616	21,017	18,401	15,705	15,705
7' x 7'	Selective	Apricus	AP-30	37,454	33,163	28,831	24,435	24,435
Notes:		1. Values for the 350 and 450 Sunshine Zones are interpolated assuming a linear relationship.						
		2. Values for the 300 Sunshine Zone equals the 350 Sunshine Zone per Section 2.02.						