

## REVENUE ESTIMATING CONFERENCE

**Tax:** Sales and Use Tax

**Issue:** Agricultural Exemptions – Liquefied or Compressed Oxygen

**Bill Number(s):** Proposed Language

☐ **Entire Bill**

☒ **Partial Bill:** Section 1. Liquefied or Compressed Oxygen for Aquaculture

**Sponsor(s):** N/A

**Month/Year Impact Begins:** July 1, 2016 with one month lag to collections

**Date of Analysis:** November 6, 2015

### Section 1: Narrative

**a. Current Law:** 212.08 (5) (a) F.S., exempts certain items in agricultural use from sales tax.

**b. Proposed Change:** The proposed language adds: compressed or liquefied oxygen used in aquaculture production;

### Section 2: Description of Data and Sources

2014 Annual sales data for NAICS code 325120 – Industrial Gas Manufacturing

### Section 3: Methodology (Include Assumptions and Attach Details)

The primary use of oxygen in aquaculture is to provide adequate dissolved oxygen to crowded breeding and growing tanks for edible fish. The primary suppliers of oxygen are classified as industrial gas manufacturers in the annual sales files. These manufacturers supply a wide variety of other gases to many different industries. Flat growth was assumed due to the relatively small size and volatile nature of the number aquaculture operations. Overall the number of operations appears to be declining, but the total number of operations varies from year to year.

For the low it is assumed that 1% of the sales tax collected in NAICS code 325120 comes from sales of oxygen to aquaculture operations. The high assumes 10% of sales and the middle is an average of the high and the low.

There is a one month lag to collections, and the first year cash is equal to eleven months of the recurring.

### Section 4: Proposed Fiscal Impact

	High		Middle		Low	
	Cash	Recurring	Cash	Recurring	Cash	Recurring
2015-16	\$(0.21 M)	\$(0.23 M)	\$(0.11 M)	\$(0.13 M)	\$(0.02 M)	\$(0.02 M)
2016-17	\$(0.23 M)	\$(0.23 M)	\$(0.13 M)	\$(0.13 M)	\$(0.02 M)	\$(0.02 M)
2017-18	\$(0.23 M)	\$(0.23 M)	\$(0.13 M)	\$(0.13 M)	\$(0.02 M)	\$(0.02 M)
2018-19	\$(0.23 M)	\$(0.23 M)	\$(0.13 M)	\$(0.13 M)	\$(0.02 M)	\$(0.02 M)
2019-20	\$(0.23 M)	\$(0.23 M)	\$(0.13 M)	\$(0.13 M)	\$(0.02 M)	\$(0.02 M)

### List of affected Trust Funds:

Sales and Use Tax Group

### Section 5: Consensus Estimate (Adopted: 11/06/2015): The Conference adopted the low estimate.

	GR		Trust		Local/Other		Total	
	Cash	Recurring	Cash	Recurring	Cash	Recurring	Cash	Recurring
2015-16	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
2016-17	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
2017-18	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
2018-19	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
2019-20	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

Proposed Language Agricultural Exemptions -  
Compressed or Liquefied Oxygen

	A	B	C	D	E	F	G
1							
2	<b>NAICS code 325120 Industrial Gas Manufacturing</b>						
3							
4		2014					
5	Sales tax Collections	\$ 2,276,576.86					
6							
7		Growth rate					
8	2015	0%					
9	2016	0%					
10	2017	0%					
11	2018	0%					
12	2019	0%					
13	2020	0%					
14	2021	0%					
15							
16	Percent of sales made to Qualifying Aquaculture						
17		High	Middle	Low			
18		10.0%	5.5%	1.0%			
19	2015	\$ 227,658	\$ 125,212	\$ 22,766			
20	2016	\$ 227,658	\$ 125,212	\$ 22,766			
21	2017	\$ 227,658	\$ 125,212	\$ 22,766			
22	2018	\$ 227,658	\$ 125,212	\$ 22,766			
23	2019	\$ 227,658	\$ 125,212	\$ 22,766			
24	2020	\$ 227,658	\$ 125,212	\$ 22,766			
25	2021	\$ 227,658	\$ 125,212	\$ 22,766			
26							
27		High		Middle		Low	
28		Cash	Recurring	Cash	Recurring	Cash	Recurring
29	2016-17	\$ (0.21 M)	\$ (0.23 M)	\$ (0.11 M)	\$ (0.13 M)	\$ (0.02 M)	\$ (0.02 M)
30	2017-18	\$ (0.23 M)	\$ (0.23 M)	\$ (0.13 M)	\$ (0.13 M)	\$ (0.02 M)	\$ (0.02 M)
31	2018-19	\$ (0.23 M)	\$ (0.23 M)	\$ (0.13 M)	\$ (0.13 M)	\$ (0.02 M)	\$ (0.02 M)
32	2019-20	\$ (0.23 M)	\$ (0.23 M)	\$ (0.13 M)	\$ (0.13 M)	\$ (0.02 M)	\$ (0.02 M)
33	2020-21	\$ (0.23 M)	\$ (0.23 M)	\$ (0.13 M)	\$ (0.13 M)	\$ (0.02 M)	\$ (0.02 M)

## REVENUE ESTIMATING CONFERENCE

**Tax:** Ad Valorem

**Issue:** Renewable Energy Devices

**Bill Number(s):** HJR193

☒ **Entire Bill**

☐ **Partial Bill:**

**Sponsor(s):** Representative Rodrigues

**Month/Year Impact Begins:** January 1, 2017

**Date of Analysis:** October 29, 2015

### Section 1: Narrative

- a. Current Law:** Article VII, Section 3(e) of the Florida Constitution reads: By general law and subject to conditions specified therein, Twenty-five thousand dollars of the assessed value of property subject to tangible personal property tax shall be exempt from ad valorem taxation.

Article VII, Section 4(i) of the Florida Constitution reads: The legislature, by general law and subject to conditions specified therein, may prohibit the consideration of the following in the determination of the assessed value of real property used for residential purposes:

- (1) Any change or improvement made for the purpose of improving the property's resistance to wind damage.
- (2) The installation of a renewable energy source device.

- b. Proposed Change:** HJR 193 revises Article VII, Section 3(e) to read: By general law and subject to conditions specified therein:
- (1) Twenty-five thousand dollars of the assessed value of property subject to tangible personal property tax shall be exempt from ad valorem taxation.

(2) The assessed value of a renewable energy source device, or a component thereof, subject to tangible personal property tax shall be exempt from ad valorem taxation.

HJR 193 revises Article VII, Section 4 (i) to read: The legislature, by general law and subject to conditions specified therein, may prohibit the consideration of the following in the determination of the assessed value of real property ~~used for residential purposes:~~

- (1) Any change or improvement to residential real property made to improve for the purpose of improving the property's resistance to wind damage.
- (2) The installation of a renewable energy source device or a component thereof.

HJR 193 creates Article XII, Section 34 to provide for the start date for the assessment value limitations on tangible personal property.

### Section 2: Description of Data and Sources

<http://www.psc.state.fl.us/utilities/electricgas/customerrenewable/2014/2014%20Net%20Metering%20Summary%20Spreadsheet/2014%20Net%20Metering%20Chart.pdf>

### Section 3: Methodology (Include Assumptions and Attach Details)

As the proposed constitutional amendment requires 60% approval at a statewide referendum and must also be enacted by general law, the constitutional amendment is indeterminate

### Section 4: Proposed Fiscal Impact

	High		Middle		Low	
	Cash	Recurring	Cash	Recurring	Cash	Recurring
2016-17			Indeterminate	Indeterminate		
2017-18			Indeterminate	Indeterminate		
2018-19			Indeterminate	Indeterminate		
2019-20			Indeterminate	Indeterminate		
2020-21			Indeterminate	Indeterminate		

**List of affected Trust Funds:**

# REVENUE ESTIMATING CONFERENCE

**Tax:** Ad Valorem

**Issue:** Renewable Energy Devices

**Bill Number(s):** HJR193

**Section 5: Consensus Estimate (Adopted: 11/06/2015):** The REC agreed to an estimate of negative indeterminate or zero for HJR 193. If the proposed amendment does not pass, there is no impact; however, if it passes there will be an impact associated with the provisions related to tangible personal property which need no further implementing language. Assuming the legislature also passes HB 195 which includes real property, the combined school and non-school impact would reach a loss of \$21.2 million in 2020-21, the fifth year of implementation, holding the 2014 statewide average property tax rates constant.

	GR		Trust		Local/Other		Total	
	Cash	Recurring	Cash	Recurring	Cash	Recurring	Cash	Recurring
2016-17	0.0	0.0	0.0	0.0	0/(**)	0/(**)	0/(**)	0/(**)
2017-18	0.0	0.0	0.0	0.0	0/(**)	0/(**)	0/(**)	0/(**)
2018-19	0.0	0.0	0.0	0.0	0/(**)	0/(**)	0/(**)	0/(**)
2019-20	0.0	0.0	0.0	0.0	0/(**)	0/(**)	0/(**)	0/(**)
2020-21	0.0	0.0	0.0	0.0	0/(**)	0/(**)	0/(**)	0/(**)

HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
1	<b>Impact Summary</b>						
2							
3	<b>School Impact</b>						
4		<b>High</b>		<b>Middle*</b>		<b>Low</b>	
5	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
6	2016-17				\$ (6.2 M)		
7	2017-18			\$ (6.9 M)	\$ (6.9 M)		
8	2018-19			\$ (7.6 M)	\$ (7.6 M)		
9	2019-20			\$ (8.1 M)	\$ (8.1 M)		
10	2020-21			\$ (8.6 M)	\$ (8.6 M)		
11							
12	<b>Non-School Impact</b>						
13		<b>High</b>		<b>Middle*</b>		<b>Low</b>	
14	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
15	2016-17				\$ (9.2 M)		
16	2017-18			\$ (10.2 M)	\$ (10.2 M)		
17	2018-19			\$ (11.2 M)	\$ (11.2 M)		
18	2019-20			\$ (12.0 M)	\$ (12.0 M)		
19	2020-21			\$ (12.6 M)	\$ (12.6 M)		
20							
21	<b>Total Impact</b>						
22		<b>High</b>		<b>Middle*</b>		<b>Low</b>	
23	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
24	2016-17				\$ (15.4 M)		
25	2017-18			\$ (17.1 M)	\$ (17.1 M)		
26	2018-19			\$ (18.7 M)	\$ (18.7 M)		
27	2019-20			\$ (20.1 M)	\$ (20.1 M)		
28	2020-21			\$ (21.2 M)	\$ (21.2 M)		
29							
30	*If a component can be interpreted broadly to include electrical generation and delivery for all connected up-stream and down-stream equipment, then the impact would be at least 10 times the Estimate.						

HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
1	<b>Customer Owned Analysis</b>						
2							
6	Depreciable Life (years)				20		
7							
8		Photo Voltaic Systems		kW Capacity			
9		Installations	Growth	kW Rating	Growth		
10	2008	577		2,765			
11	2009	1,625	181.63%	12,986	369.66%		
12	2010	2,809	72.86%	19,208	47.91%		
13	2011	3,966	41.19%	27,705	44.24%		
14	2012	5,274	32.98%	41,521	49.87%		
15	2013	6,678	26.62%	60,528	45.78%		
16	2014	8,546	27.97%	74,052	22.3%		
17	2015	10,683	25.00%	90,598	22.3%		
18	2016	13,353	25%	110,529	22%		
19	2017	16,291	22%	132,635	20%		
20	2018	19,549	20%	156,509	18%		
21	2019	23,068	18%	181,551	16%		
22	2020	26,759	16%	206,968	14%		
23							
24	<b>Price Per kW*</b>						
25		Customer Owned	Price Factor (1=no change)				
26	2013	\$ 3,290					
27	2014	\$ 3,126	0.95				
28	2015	\$ 2,969	0.95				
29	2016	\$ 2,821	0.95				
30	2017	\$ 2,680	0.95				
31	2018	\$ 2,546	0.95				
32	2019	\$ 2,418	0.95				
33	2020	\$ 2,298	0.95				
34							
35	*Installed price per kW from DOE Photovoltaic Pricing Trends (underlying information from FIEC).						

HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
36							
37	<b>Total Replacement price by the year of installation using the Indicated Current price per kW</b>						
38							
39		2016 replacement price by cohort year	2017 replacement price by cohort year	2018 replacement price by cohort year	2019 replacement price by cohort year	2020 replacement price by cohort year	
40		Customer Owned	Customer Owned	Customer Owned	Customer Owned	Customer Owned	
41	Prices	\$ 2,821	\$ 2,680	\$ 2,546	\$ 2,418	\$ 2,298	
42	2008	\$ 7,799,412	\$ 7,409,441	\$ 7,038,969	\$ 6,687,021	\$ 6,352,670	
43	2009	\$ 28,831,026	\$ 27,389,475	\$ 26,020,001	\$ 24,719,001	\$ 23,483,051	
44	2010	\$ 17,550,792	\$ 16,673,252	\$ 15,839,590	\$ 15,047,610	\$ 14,295,230	
45	2011	\$ 23,968,030	\$ 22,769,628	\$ 21,631,147	\$ 20,549,589	\$ 19,522,110	
46	2012	\$ 38,971,672	\$ 37,023,088	\$ 35,171,934	\$ 33,413,337	\$ 31,742,670	
47	2013	\$ 53,614,257	\$ 50,933,544	\$ 48,386,867	\$ 45,967,523	\$ 43,669,147	
48	2014	\$ 38,148,009	\$ 36,240,609	\$ 34,428,578	\$ 32,707,149	\$ 31,071,792	
49	2015	\$ 46,671,563	\$ 44,337,985	\$ 42,121,086	\$ 40,015,031	\$ 38,014,280	
50	2016	\$ 56,222,047	\$ 53,410,945	\$ 50,740,398	\$ 48,203,378	\$ 45,793,209	
51	2017		\$ 59,237,593	\$ 56,275,714	\$ 53,461,928	\$ 50,788,832	
52	2018			\$ 60,777,771	\$ 57,738,882	\$ 54,851,938	
53	2019				\$ 60,561,672	\$ 57,533,588	
54	2020					\$ 58,396,592	
55							
56							
57	Depreciated Total installed price for all systems						
58		Customer Owned					
59	2016-17	\$ 265,324,086					
60	2017-18	\$ 296,486,077					
61	2018-19	\$ 325,556,830					
62	2019-20	\$ 350,915,138					
63	2020-21	\$ 370,910,048					
64							
65	Customer owned percentages		77%	23%			
66			residential	commercial			
67	34%	owned	26.2%	7.8%			
68	66%	leased	50.8%	15.2%			
69							
70	2016-17 Breakdown						
71			residential	commercial			
72		owned	\$ 69,432,411	\$ 20,777,779			
73		leased	\$ 134,780,562	\$ 40,333,335			
74							

HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
75							
76	% Customer owned leased				66%		
77	% Customer owned non-leased commercial				23%		
78	2014 Millage Rate (School)				7.4334		
79	2014 Millage Rate (Non-School)				10.9369		
80							
81							
82	<b>Customer Owned PV Lease Impact</b>						
83	Year	School	Non-School	Total			
84	2016-17	\$ 1,456,141	\$ 2,142,448	\$ 3,598,589			
85	2017-18	\$ 1,627,163	\$ 2,394,076	\$ 4,021,239			
86	2018-19	\$ 1,786,708	\$ 2,628,817	\$ 4,415,525			
87	2019-20	\$ 1,925,879	\$ 2,833,581	\$ 4,759,460			
88	2020-21	\$ 2,035,614	\$ 2,995,037	\$ 5,030,651			
89							
90							
91	Adjustment for inclusion of Components and Other renewable energy devices						
92		Components	Other Renewables	Middle			
93	2016-17	10%	1%	11%			
94	2017-18	10%	1%	11%			
95	2018-19	10%	1%	11%			
96	2019-20	10%	1%	11%			
97	2020-21	10%	1%	11%			
98							
99							



HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
100	<b>School Impact</b>						
101		<b>High</b>		<b>Middle</b>		<b>Low</b>	
102	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
103	2016-17				\$ (1.6 M)		
104	2017-18			\$ (1.8 M)	\$ (1.8 M)		
105	2018-19			\$ (2.0 M)	\$ (2.0 M)		
106	2019-20			\$ (2.1 M)	\$ (2.1 M)		
107	2020-21			\$ (2.3 M)	\$ (2.3 M)		
108							
109	<b>Non-School Impact</b>						
110		<b>High</b>		<b>Middle</b>		<b>Low</b>	
111	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
112	2016-17				\$ (2.4 M)		
113	2017-18			\$ (2.7 M)	\$ (2.7 M)		
114	2018-19			\$ (2.9 M)	\$ (2.9 M)		
115	2019-20			\$ (3.1 M)	\$ (3.1 M)		
116	2020-21			\$ (3.3 M)	\$ (3.3 M)		
117							
118	<b>Total Customer Owned Impact</b>						
119		<b>High</b>		<b>Middle</b>		<b>Low</b>	
120	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
121	2016-17				\$ (4.0 M)		
122	2017-18			\$ (4.5 M)	\$ (4.5 M)		
123	2018-19			\$ (4.9 M)	\$ (4.9 M)		
124	2019-20			\$ (5.3 M)	\$ (5.3 M)		
125	2020-21			\$ (5.6 M)	\$ (5.6 M)		

HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
1	<b>Utility or Related Ownership Analysis</b>						
2							
6	Depreciable Life (years)				20		
7							
8		kW Capacity					
9		kW Rating	Growth				
15	2013	157,070					
16	2014	192,165	22%				
17	2015	235,101	22%				
18	2016	286,823	22%				
19	2017	344,188	20%				
20	2018	406,141	18%				
21	2019	471,124	16%				
22	2020	537,081	14%				
23							
24	<b>Price Per kW*</b>						
25		Utility	Price Factor (1=no change)				
26	2013	\$ 2,540					
27	2014	\$ 2,413	0.95				
28	2015	\$ 2,292	0.95				
29	2016	\$ 2,178	0.95				
30	2017	\$ 2,069	0.95				
31	2018	\$ 1,965	0.95				
32	2019	\$ 1,867	0.95				
33	2020	\$ 1,774	0.95				
34							
35	*Installed price per kW from DOE Photovoltaic Pricing Trends (underlying information from FIEC).						
36							
37	<b>Total Replacement price by the year of installation using the Indicated Current price per kW</b>						
38							
39		2016 replacement price by cohort year	2017 replacement price by cohort year	2018 replacement price by cohort year	2019 replacement price by cohort year	2020 replacement price by cohort year	
40		Utility	Utility	Utility	Utility	Utility	
41	Prices	\$ 2,178	\$ 2,069	\$ 1,965	\$ 1,867	\$ 1,774	
42	2013	\$ 342,056,444	\$ 324,953,622	\$ 308,705,941	\$ 293,270,643	\$ 278,607,111	
43	2014	\$ 76,426,965	\$ 72,605,617	\$ 68,975,336	\$ 65,526,569	\$ 62,250,241	
44	2015	\$ 93,503,331	\$ 88,828,165	\$ 84,386,756	\$ 80,167,418	\$ 76,159,048	
45	2016	\$ 112,637,083	\$ 107,005,229	\$ 101,654,967	\$ 96,572,219	\$ 91,743,608	
46	2017		\$ 118,678,526	\$ 112,744,600	\$ 107,107,370	\$ 101,752,002	
47	2018			\$ 121,764,168	\$ 115,675,960	\$ 109,892,162	
48	2019				\$ 121,331,229	\$ 115,264,667	
49	2020					\$ 116,993,637	
50							

HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
51							
52	Depreciated Total installed price for all systems						
53		Utility					
54	2016-17	\$ 560,997,493					
55	2017-18	\$ 621,956,513					
56	2018-19	\$ 678,799,476					
57	2019-20	\$ 728,274,722					
58	2020-21	\$ 767,071,181					
59							
60							
61	% Utility TPP				100%		
62	2014 Millage Rate (School)				7.4334		
63	2014 Millage Rate (Non-School)				10.9369		
64							
65							
66	Utility Impact						
67	Year	School	Non-School	Total			
68	2016-17	\$ 4,170,119	\$ 6,135,573	\$ 10,305,692			
69	2017-18	\$ 4,623,252	\$ 6,802,276	\$ 11,425,528			
70	2018-19	\$ 5,045,788	\$ 7,423,962	\$ 12,469,750			
71	2019-20	\$ 5,413,557	\$ 7,965,068	\$ 13,378,625			
72	2020-21	\$ 5,701,947	\$ 8,389,381	\$ 14,091,328			
73							
74							
75	Adjustment for inclusion of Components and Other renewable energy devices						
76		Components	Other Renewables	Middle			
77	2016-17	10%	1%	11%			
78	2017-18	10%	1%	11%			
79	2018-19	10%	1%	11%			
80	2019-20	10%	1%	11%			
81	2020-21	10%	1%	11%			
82							

HB195 Renewable Energy Devices  
(Implementing)

	A	B	C	D	E	F	G
83							
84	<b>School Impact</b>						
85		<b>High</b>		<b>Middle</b>		<b>Low</b>	
86	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
87	2016-17				\$ (4.6 M)		
88	2017-18			\$ (5.1 M)	\$ (5.1 M)		
89	2018-19			\$ (5.6 M)	\$ (5.6 M)		
90	2019-20			\$ (6.0 M)	\$ (6.0 M)		
91	2020-21			\$ (6.3 M)	\$ (6.3 M)		
92							
93	<b>Non-School Impact</b>						
94		<b>High</b>		<b>Middle</b>		<b>Low</b>	
95	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
96	2016-17				\$ (6.8 M)		
97	2017-18			\$ (7.6 M)	\$ (7.6 M)		
98	2018-19			\$ (8.2 M)	\$ (8.2 M)		
99	2019-20			\$ (8.8 M)	\$ (8.8 M)		
100	2020-21			\$ (9.3 M)	\$ (9.3 M)		
101							
102	<b>Total Utility Impact</b>						
103		<b>High</b>		<b>Middle</b>		<b>Low</b>	
104	<b>Year</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>	<b>Cash</b>	<b>Recurring</b>
105	2016-17				\$ (11.4 M)		
106	2017-18			\$ (12.7 M)	\$ (12.7 M)		
107	2018-19			\$ (13.8 M)	\$ (13.8 M)		
108	2019-20			\$ (14.9 M)	\$ (14.9 M)		
109	2020-21			\$ (15.6 M)	\$ (15.6 M)		

HB195 Renewable Energy Devices  
(Implementing)  
Data Tables

	A	B	C	D	E	F	G	H	I	J
1										
2		# of Customer-Owned Solar Systems					kW Gross Power Rating			
3		IOU	Municipal	Rural Electric Cooperative	Total		IOU	Municipal	Rural Electric Cooperative	Total
4	2008	383	137	57	577		1,696	797	272	2,765
5	2009	1,045	313	267	1,625		7,653	3,378	1,955	12,986
6	2010	1,855	493	461	2,809		12,442	4,099	2,667	19,208
7	2011	2,803	614	549	3,966		19,441	5,002	3,262	27,705
8	2012	3,799	791	684	5,274		30,401	7,021	4,099	41,521
9	2013	4,818	1,007	853	6,678		43,876	11,787	4,865	60,528
10										
11	% Change									
12		# of Customer-Owned Solar Systems					kW Gross Power Rating			
13		IOU	Municipal	Rural Electric Cooperative	Total		IOU	Municipal	Rural Electric Cooperative	Total
14	2008									
15	2009	173%	128%	368%	182%		351%	324%	619%	370%
16	2010	78%	58%	73%	73%		63%	21%	36%	48%
17	2011	51%	25%	19%	41%		56%	22%	22%	44%
18	2012	36%	29%	25%	33%		56%	40%	26%	50%
19	2013	27%	27%	25%	27%		44%	68%	19%	46%
20										
21										
22	Residential commercial split information for IOU									
23		Residential	Commercial	Total						
24	2012	733	330	1063						
25	2013	802	240	1042						
26	Grand Total	1535	570	2105						
27										
28	Percent of total									
29		Residential	Commercial							
30	2012	69%	31%							
31	2013	77%	23%							
32	Grand Total	73%	27%							