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additional  
information  
addendum item 9

REGIONAL WASTEWATER RECLAMATION DEPARTMENT  
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May 29, 2015

**TO:** C.H. Huckelberry, County Administrator  
**THRU:** John M. Bernal, P.E., Deputy County Administrator – Public Works  
**FROM:** Jackson Jenkins, Director - RWRD  
**SUBJECT:** Amendments to Solar Services Agreement and Solar License Agreements for Green Valley (MA-PO-15\*127), Avra Valley (MA-PO-15\*128), and Corona de Tucson (MA-PO-15\*129)

**Background**

On December 9, 2014, three Solar Services Agreements (SSA) and Site License Agreements (SLA) were awarded to Oak Leaf Energy Partners Ohio, LLC, a Delaware limited liability company ("Oakleaf") to develop solar power facilities to provide power for Avra Valley, Green Valley, and Corona de Tucson Water Reclamation Facilities (WRF).

It is RWRD's intent to maximize the use of renewable energy (solar) to power our wastewater treatment processes, which is one of the sustainability goals set forth by the County and the Department. The original selected proposal estimated the expected output, proposed rates, and anticipate savings over 20 years which are listed in Table 1.

**Table 1: Expected Output, Solar Rate, and Anticipated Savings over 20 Years in the Original Contract**

Facilities	Expected Output (kWh)	Average Solar Rate (\$/kWh)	*Anticipated Savings (\$)
Green Valley WRF	39,004,317	0.0573	3,105,266
Corona de Tucson WRF	11,630,539	0.0885	1,024,792
Avra Valley WRF	34,582,059	0.0573	3,585,285

\*Based on an estimated 3% inflationary cost increase for commercial electricity

Most of the wastewater treatment plants are built in low spots of the community. All the three WRFs are in 100-year flood plain and close to major washes. Any facility constructed in flood plain must be placed or designed to mitigate the impact to the flood events. Due to the flood concern, some locations especially at the Avra Valley WRF were not feasible to install solar panels and other infrastructure.

While the projects have been under development, on February 26, 2015 Trico Electric Cooperative, Inc. (TRICO), filed a request with the Arizona Corporation Commission (ACC), docket 15-057, to modify the current net metering (NM) rules; if approved as requested, it will be effective on new interconnect applications filed after February 26, 2015. On March 25, 2015, Tucson Electric Power Company (TEP) filed a similar request with the ACC, docket 15-0100; if approved as requested, it will be effective on new interconnect applications filed after June 1, 2015.

**Amendment**

Due to flood control challenges at Avra Valley as well as the recent concerns with potential net metering rules changes, RWRD is proposing the following amendments to the Oakleaf Energy SSA/SLA to address the following issues:

Change #1: Add the language to the Agreements to protect the County in case that new net metering rule is imposed on any of these projects.

Change #2: Cancel Solar Services Agreement and Solar License Agreements for Avra Valley WRF.

Change #3: Increase the contract amount of SSA for Green Valley WRF and Corona de Tucson WRF. The new SSA rates are listed in Table 2.

**Table 2: Expected Output, Solar Rate, and Anticipated Savings over 20 Years in the Original Contract**

Facilities	Expected Output (kWh)	Average Solar Rate (\$/kWh)	*Anticipated Savings (\$)
Green Valley WRF	39,004,317	0.072	2,588,107
Corona de Tucson WRF	11,630,539	0.11	807,801
Avra Valley WRF	-	-	-

\* Based on an estimated 3% inflationary cost increase for commercial electricity  
 • If no inflationary increase is assumed, Corona de Tucson savings would be approximately \$314 K  
 • If no inflationary increase is assumed, Green Valley savings would be approximately \$1.3 M

**Justifications**

Change #1: In the original Agreements, there is not any language protecting the county from potential net metering rule changes. This change is necessary due to the recent dockets filed with the ACC by both TEP and TRICO.

Change #2: Avra Valley WRF is near Black Wash, where the entire area is heavily impacted during major flood events. We originally planned to put solar on the far northwest end of the WRF. Besides the flood control concerns, that site has been committed to build future additional percolation basins. Unfortunately there were not any mutually acceptable nor sufficiently sized areas capable of being utilized for solar at this site.

Placing the solar arrays into the recharge basins at Avra Valley WRF is not an acceptable alternative for the following reasons:

- Calculations that were used to request recharge permitting from ADEQ for these basins took into account every available square inch of recharge basin surface space. Placing the solar arrays in the bottom of the basins would potentially change recharge

performance so that we may not conform to our ADWR permit. Thus it would impact negatively the available recharge surface.

- To maximize recharge effectiveness, these recharge basins are operated in a wet/dry cycle. This requires the basin to be filled to a certain depth, then rapid recharge, followed by a drying cycle. If the solar arrays were in the basins, they would provide a "shade" factor that would increase the dry cycle time. This may also negatively impact the recharge operation.
- Also, to maximize the effectiveness of the recharge basins, RWRD staff preps the bottom of the dry basins to keep weeds out and, more importantly, "deep rip" the basin bottom to ensure the highest infiltration rates possible for the basins. The solar arrays would not be built with a high enough clearance for our staff to get our existing equipment into the basin to perform these tasks safely and efficiently. It would require alternative equipment that would not be as effective in these tasks. So the recharge rates of these basins could decline over time. This could negatively impact the recharge abilities of these basins.
- Lastly, our experience with recharge basins has been that after 5 to 10 years of operation there is build-up of fine sediment, organic matter, and algae within the upper foot of soil. Often, as much as a foot of soil must be removed and the basins must be re-graded. This type of basin restoration would not be possible with solar panel posts installed in the bottom of the recharge basins.
- A further concern, by not putting the solar arrays outside the plant proper, it would require the solar contractor to enter our basins to perform their maintenance functions. The placement in the recharge basins interferes with operational activities and would bring RWRD staff and large equipment into direct contact with the solar arrays/panels on a regular basis. This greatly increases the risk of damage, injury and liability.

With all the concerning factors, RWRD recommends to cancel the Agreements related to Avra Valley WRF.

**Change #3:** Leaving out Avra Valley eliminates 40% of the solar project capacity. Due to the reduction in the economy of scale from the originally proposed rate structure, this project is particularly sensitive to loss of the Avra Valley capacity. Without increasing the solar rate, the private financing for this project will not work. With the revised solar rate, the anticipated saving is \$3,395,908. The revised rate is still less than the second place proposal for this project.

### **Recommendations**

RWRD recommends to move forward with the two solar power facilities to maximize the use of renewable energy without interfering with the wastewater plant operations.

**Notes:** The Green Valley WRF receives its electrical service from TEP. Staff continually monitors the numerous electrical use parameters such as peak demand and total use in order to determine the best tariff with which to purchase our electricity. Green Valley has been under the GS-10 tariff until recently (February 2015) when the electrical usage evaluation indicated the LGS-13 tariff would likely be slightly less expensive.

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Similarly, staff has utilized a grant funded electrical audit in which an outside electrical expert reviewed the Corona de Tucson facility and concurred that the continued tariff of GS-3 is the best value under current parameters with TRICO.

Attachment A is included to help show how the savings calculations were determined.

**Attachment A: Estimated Savings Over 20 Years**

**Estimated Savings in the Original Solar Service Agreements**

Original SSA for Corona de Tucson								
Column	A	B	C	D	E	F	G	H
Year	Expected Performance Output (kWh)	Guaranteed Minimum Output (kWh)	Supplier Price (\$/kWh)	Total Annual Cost for Expected Perf. Output Electricity (\$) from Supplier Columns (A x C)	Total Annual Cost for Guaranteed Electricity (\$) from Supplier Columns (B x C)	Est. TRICO Cost \$/kWh + 8%/year	Total Annual Cost for Guaranteed Electricity (\$) from TRICO Columns (B x F)	Pima County Savings per year (Columns (G - E))
1	609,634	548,671	\$ 0.1380	\$ 84,129	\$ 75,717	\$ 0.140	\$ 76,814	\$ 1,097
2	606,586	545,927	\$ 0.1311	\$ 79,523	\$ 71,571	\$ 0.144	\$ 78,723	\$ 7,152
3	603,553	543,198	\$ 0.1245	\$ 75,142	\$ 67,628	\$ 0.149	\$ 80,679	\$ 13,051
4	600,535	540,482	\$ 0.1183	\$ 71,043	\$ 63,939	\$ 0.153	\$ 82,684	\$ 18,745
5	597,532	537,779	\$ 0.1124	\$ 67,163	\$ 60,446	\$ 0.158	\$ 84,739	\$ 24,292
6	594,545	535,090	\$ 0.1068	\$ 63,497	\$ 57,148	\$ 0.162	\$ 86,844	\$ 29,697
7	591,572	532,415	\$ 0.1014	\$ 59,985	\$ 53,987	\$ 0.167	\$ 89,002	\$ 35,015
8	588,614	529,759	\$ 0.0964	\$ 56,742	\$ 51,068	\$ 0.172	\$ 91,214	\$ 40,146
9	585,671	527,104	\$ 0.0916	\$ 53,647	\$ 48,283	\$ 0.177	\$ 93,481	\$ 45,198
10	582,743	524,469	\$ 0.0870	\$ 50,699	\$ 45,629	\$ 0.183	\$ 95,804	\$ 50,175
11	579,829	521,846	\$ 0.0826	\$ 47,894	\$ 43,104	\$ 0.188	\$ 98,184	\$ 55,080
12	576,930	519,237	\$ 0.0785	\$ 45,289	\$ 40,760	\$ 0.194	\$ 100,624	\$ 59,864
13	574,045	516,641	\$ 0.0746	\$ 42,824	\$ 38,541	\$ 0.200	\$ 103,125	\$ 64,583
14	571,175	514,058	\$ 0.0708	\$ 40,439	\$ 36,395	\$ 0.206	\$ 105,688	\$ 69,292
15	568,319	511,487	\$ 0.0673	\$ 38,248	\$ 34,429	\$ 0.212	\$ 108,314	\$ 73,991
16	565,478	508,930	\$ 0.0639	\$ 36,194	\$ 32,521	\$ 0.218	\$ 111,005	\$ 78,485
17	562,650	506,385	\$ 0.0607	\$ 34,153	\$ 30,798	\$ 0.225	\$ 113,764	\$ 83,026
18	559,837	503,853	\$ 0.0577	\$ 32,303	\$ 29,072	\$ 0.231	\$ 116,591	\$ 87,519
19	557,038	501,334	\$ 0.0548	\$ 30,526	\$ 27,479	\$ 0.238	\$ 119,488	\$ 92,015
20	554,253	498,827	\$ 0.0521	\$ 28,877	\$ 25,989	\$ 0.245	\$ 122,458	\$ 96,469
<b>Total</b>	<b>11,630,539</b>	<b>10,467,485</b>	<b>\$ 0.0893</b>	<b>\$ 1,058,258</b>	<b>\$ 934,432</b>	<b>\$ 0.188</b>	<b>\$ 1,959,224</b>	<b>\$ 1,024,792</b>

Original SSA for Green Valley								
Column	A	B	C	D	E	F	G	H
Year	Expected Performance Output (kWh)	Guaranteed Minimum Output (kWh)	Supplier Price (\$/kWh)	Total Annual Cost for Expected Perf. Output Electricity (\$) from Supplier Columns (A x C)	Total Annual Cost for Guaranteed Electricity (\$) from Supplier Columns (B x C)	Est. TEP Cost \$/kWh - 8%/year	Total Annual Cost for Guaranteed Electricity (\$) from TEP Columns (B x F)	Pima County Savings per year (Columns (G - E))
1	2,044,476	1,840,028	\$ 0.0885	\$ 180,936	\$ 162,842	\$ 0.109	\$ 200,563	\$ 37,721
2	2,094,254	1,830,828	\$ 0.0841	\$ 171,081	\$ 153,973	\$ 0.112	\$ 205,547	\$ 51,574
3	2,024,082	1,821,674	\$ 0.0799	\$ 161,724	\$ 145,552	\$ 0.116	\$ 210,655	\$ 65,103
4	2,013,962	1,812,566	\$ 0.0759	\$ 152,860	\$ 137,574	\$ 0.119	\$ 215,890	\$ 78,316
5	2,003,892	1,803,503	\$ 0.0721	\$ 144,481	\$ 130,093	\$ 0.123	\$ 221,255	\$ 91,222
6	1,993,873	1,794,485	\$ 0.0685	\$ 136,580	\$ 122,922	\$ 0.126	\$ 226,759	\$ 103,830
7	1,983,903	1,785,513	\$ 0.0651	\$ 129,152	\$ 116,237	\$ 0.130	\$ 232,388	\$ 116,151
8	1,973,984	1,776,585	\$ 0.0618	\$ 121,992	\$ 109,799	\$ 0.134	\$ 238,162	\$ 128,369
9	1,964,114	1,767,702	\$ 0.0587	\$ 115,293	\$ 103,764	\$ 0.138	\$ 244,081	\$ 140,317
10	1,954,293	1,758,864	\$ 0.0558	\$ 109,050	\$ 98,145	\$ 0.142	\$ 250,146	\$ 152,002
11	1,944,522	1,750,070	\$ 0.0530	\$ 103,060	\$ 92,754	\$ 0.146	\$ 256,362	\$ 163,609
12	1,934,799	1,741,319	\$ 0.0504	\$ 97,514	\$ 87,762	\$ 0.151	\$ 262,733	\$ 174,970
13	1,925,125	1,732,619	\$ 0.0478	\$ 92,021	\$ 82,819	\$ 0.155	\$ 269,262	\$ 186,443
14	1,915,500	1,723,960	\$ 0.0454	\$ 86,964	\$ 78,267	\$ 0.160	\$ 275,953	\$ 197,686
15	1,905,922	1,715,330	\$ 0.0432	\$ 82,336	\$ 74,102	\$ 0.165	\$ 282,810	\$ 208,708
16	1,896,392	1,706,753	\$ 0.0410	\$ 77,752	\$ 69,977	\$ 0.170	\$ 289,838	\$ 219,861
17	1,886,911	1,698,219	\$ 0.0390	\$ 73,590	\$ 66,231	\$ 0.175	\$ 297,041	\$ 230,810
18	1,877,476	1,689,728	\$ 0.0370	\$ 69,467	\$ 62,520	\$ 0.180	\$ 304,422	\$ 241,982
19	1,868,089	1,681,280	\$ 0.0352	\$ 65,757	\$ 59,181	\$ 0.186	\$ 311,987	\$ 252,806
20	1,858,748	1,672,873	\$ 0.0334	\$ 62,082	\$ 55,874	\$ 0.191	\$ 319,740	\$ 263,866
<b>Total</b>	<b>39,004,317</b>	<b>35,103,883</b>	<b>\$ 0.0573</b>	<b>\$ 2,233,690</b>	<b>\$ 2,010,321</b>	<b>\$ 0.146</b>	<b>\$ 5,115,587</b>	<b>\$ 3,105,266</b>

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Original SSA for Avra Valley								
Column	A	B	C	D	E	F	G	H
Year	Expected Performance Output (kWh)	Guaranteed Minimum Output (kWh)	Supplier Price (\$/kWh)	Total Annual Cost for Expected Perf. Output Electricity (\$) from Supplier Columns (A x C)	Total Annual Cost for Guaranteed Electricity (\$) from Supplier Columns (B x C)	Est. TR:CO Cost \$/kWh + 8%/year	Total Annual Cost for Guaranteed Electricity (\$) from TR:CO Columns (B x F)	Pima County Savings per year (Columns (G - E))
1	1,812,676	1,631,408	\$ 0.0885	\$ 160,422	\$ 144,380	\$ 0.129	\$ 210,492	\$ 66,072
2	1,809,613	1,623,251	\$ 0.0841	\$ 151,684	\$ 136,515	\$ 0.133	\$ 215,681	\$ 79,166
3	1,794,595	1,615,135	\$ 0.0799	\$ 143,388	\$ 129,049	\$ 0.137	\$ 221,041	\$ 91,992
4	1,785,622	1,607,059	\$ 0.0759	\$ 135,529	\$ 121,976	\$ 0.141	\$ 226,534	\$ 104,558
5	1,776,693	1,599,024	\$ 0.0721	\$ 128,100	\$ 115,290	\$ 0.145	\$ 232,163	\$ 116,874
6	1,767,810	1,591,029	\$ 0.0685	\$ 121,095	\$ 108,985	\$ 0.150	\$ 237,933	\$ 128,947
7	1,758,971	1,583,074	\$ 0.0651	\$ 114,509	\$ 103,058	\$ 0.154	\$ 243,845	\$ 140,787
8	1,750,176	1,575,158	\$ 0.0618	\$ 108,161	\$ 97,345	\$ 0.159	\$ 249,905	\$ 152,560
9	1,741,425	1,567,283	\$ 0.0587	\$ 102,222	\$ 92,000	\$ 0.163	\$ 256,115	\$ 164,115
10	1,732,718	1,559,446	\$ 0.0558	\$ 96,686	\$ 87,017	\$ 0.168	\$ 262,479	\$ 175,462
11	1,724,065	1,551,649	\$ 0.0530	\$ 91,375	\$ 82,237	\$ 0.173	\$ 269,002	\$ 186,765
12	1,715,494	1,543,891	\$ 0.0504	\$ 86,458	\$ 77,812	\$ 0.179	\$ 275,687	\$ 197,875
13	1,706,857	1,536,171	\$ 0.0478	\$ 81,588	\$ 73,429	\$ 0.184	\$ 282,537	\$ 209,108
14	1,698,323	1,528,491	\$ 0.0454	\$ 77,104	\$ 69,393	\$ 0.189	\$ 289,559	\$ 220,165
15	1,689,831	1,520,848	\$ 0.0432	\$ 73,001	\$ 65,701	\$ 0.195	\$ 296,754	\$ 231,053
16	1,681,382	1,513,244	\$ 0.0410	\$ 68,937	\$ 62,043	\$ 0.201	\$ 304,128	\$ 242,085
17	1,672,975	1,505,678	\$ 0.0390	\$ 65,246	\$ 58,721	\$ 0.207	\$ 311,686	\$ 252,965
18	1,664,610	1,498,149	\$ 0.0370	\$ 61,591	\$ 55,432	\$ 0.213	\$ 319,431	\$ 264,000
19	1,656,287	1,490,658	\$ 0.0352	\$ 58,301	\$ 52,471	\$ 0.220	\$ 327,369	\$ 274,898
20	1,648,006	1,483,205	\$ 0.0334	\$ 55,043	\$ 49,539	\$ 0.226	\$ 335,504	\$ 285,965
<b>Total</b>	<b>34,582,059</b>	<b>31,123,851</b>	<b>\$ 0.0568</b>	<b>\$ 1,980,437</b>	<b>\$ 1,782,393</b>	<b>\$ 0.173</b>	<b>\$ 5,367,806</b>	<b>\$ 3,585,413</b>

**Estimated Savings in the Proposed Amendment  
 Based on 0% and 3% Commercial Power Increase**

Proposed SSA in the Amendment for Green Valley (3%)								
Column	A	B	C	D	E	F	G	H
YEAR	Expected Performance Output (kWh)	Guaranteed Minimum Output (kWh)	Supplier Price (\$/kWh)	Total Annual Cost for Expected Perf. Output Electricity (\$) from Supplier Columns (A X C)	Total Annual Cost for Guaranteed Electricity (\$) from Supplier Columns (B X C)	Est. TEP Cost \$/kWh +3%/year	Total Annual Cost for Guaranteed Electricity (\$) from TEP Columns (B X F)	Pima County Savings per year Columns (G - E)
1	2,044,476	1,840,028	\$0.0720	\$ 147,202	\$ 132,482	\$ 0.109	\$ 200,563	\$ 68,081
2	2,034,254	1,830,828	\$0.0720	\$ 146,466	\$ 131,820	\$ 0.112	\$ 205,547	\$ 73,727
3	2,024,082	1,821,674	\$0.0720	\$ 145,734	\$ 131,161	\$ 0.116	\$ 210,655	\$ 79,494
4	2,013,962	1,812,566	\$0.0720	\$ 145,005	\$ 130,505	\$ 0.119	\$ 215,890	\$ 85,385
5	2,003,892	1,803,503	\$0.0720	\$ 144,280	\$ 129,852	\$ 0.123	\$ 221,255	\$ 91,402
6	1,993,873	1,794,485	\$0.0720	\$ 143,559	\$ 129,203	\$ 0.126	\$ 226,753	\$ 97,550
7	1,983,903	1,785,513	\$0.0720	\$ 142,841	\$ 128,557	\$ 0.130	\$ 232,388	\$ 103,831
8	1,973,984	1,776,585	\$0.0720	\$ 142,127	\$ 127,914	\$ 0.134	\$ 238,162	\$ 110,248
9	1,964,114	1,767,702	\$0.0720	\$ 141,416	\$ 127,275	\$ 0.138	\$ 244,081	\$ 116,806
10	1,954,293	1,758,864	\$0.0720	\$ 140,709	\$ 126,638	\$ 0.142	\$ 250,146	\$ 123,508
11	1,944,522	1,750,070	\$0.0720	\$ 140,006	\$ 126,005	\$ 0.146	\$ 256,362	\$ 130,357
12	1,934,799	1,741,319	\$0.0720	\$ 139,306	\$ 125,375	\$ 0.151	\$ 262,733	\$ 137,358
13	1,925,125	1,732,613	\$0.0720	\$ 138,609	\$ 124,748	\$ 0.155	\$ 269,262	\$ 144,514
14	1,915,500	1,723,950	\$0.0720	\$ 137,916	\$ 124,124	\$ 0.160	\$ 275,953	\$ 151,829
15	1,905,922	1,715,330	\$0.0720	\$ 137,226	\$ 123,504	\$ 0.165	\$ 282,810	\$ 159,307
16	1,896,392	1,706,753	\$0.0720	\$ 136,540	\$ 122,886	\$ 0.170	\$ 289,838	\$ 166,952
17	1,886,911	1,698,219	\$0.0720	\$ 135,858	\$ 122,272	\$ 0.175	\$ 297,041	\$ 174,769
18	1,877,476	1,689,728	\$0.0720	\$ 135,178	\$ 121,660	\$ 0.180	\$ 304,422	\$ 182,762
19	1,868,089	1,681,280	\$0.0720	\$ 134,502	\$ 121,052	\$ 0.186	\$ 311,987	\$ 190,935
20	1,858,748	1,672,873	\$0.0720	\$ 133,830	\$ 120,447	\$ 0.191	\$ 319,740	\$ 199,293
<b>Total</b>	<b>39,004,317</b>	<b>35,103,885</b>	<b>\$0.0720</b>	<b>\$ 2,808,311</b>	<b>\$ 2,527,480</b>	<b>\$ 0.146</b>	<b>\$ 5,115,587</b>	<b>\$2,588,107</b>

Proposed SSA in the Amendment for Green Valley (0%)								
Column	A	B	C	D	E	F	G	H
Year	Expected Performance Output (kWh)	Guaranteed Minimum Output (kWh)	Supplier Price (\$/kWh)	Total Annual Cost for Expected Perf. Output Electricity (\$) from Supplier Columns (A X C)	Total Annual Cost for Guaranteed Electricity (\$) from Supplier Columns (B X C)	Est. TEP Cost \$/kWh +0%/year	Total Annual Cost for Guaranteed Electricity (\$) from TEP Columns (B X F)	Pima County Savings per year Columns (G - E)
1	2,044,476	1,840,028	\$0.0720	\$ 147,202	\$ 132,482	\$ 0.109	\$ 200,563	\$ 68,081
2	2,034,254	1,830,828	\$0.0720	\$ 146,466	\$ 131,820	\$ 0.109	\$ 199,560	\$ 67,741
3	2,024,082	1,821,674	\$0.0720	\$ 145,734	\$ 131,161	\$ 0.109	\$ 198,562	\$ 67,402
4	2,013,962	1,812,566	\$0.0720	\$ 145,005	\$ 130,505	\$ 0.109	\$ 197,570	\$ 67,065
5	2,003,892	1,803,503	\$0.0720	\$ 144,280	\$ 129,852	\$ 0.109	\$ 196,582	\$ 66,730
6	1,993,873	1,794,485	\$0.0720	\$ 143,559	\$ 129,203	\$ 0.109	\$ 195,599	\$ 66,396
7	1,983,903	1,785,513	\$0.0720	\$ 142,841	\$ 128,557	\$ 0.109	\$ 194,621	\$ 66,064
8	1,973,984	1,776,585	\$0.0720	\$ 142,127	\$ 127,914	\$ 0.109	\$ 193,648	\$ 65,734
9	1,964,114	1,767,702	\$0.0720	\$ 141,416	\$ 127,275	\$ 0.109	\$ 192,680	\$ 65,405
10	1,954,293	1,758,864	\$0.0720	\$ 140,709	\$ 126,638	\$ 0.109	\$ 191,716	\$ 65,078
11	1,944,522	1,750,070	\$0.0720	\$ 140,006	\$ 126,005	\$ 0.109	\$ 190,758	\$ 64,753
12	1,934,799	1,741,319	\$0.0720	\$ 139,306	\$ 125,375	\$ 0.109	\$ 189,804	\$ 64,429
13	1,925,125	1,732,613	\$0.0720	\$ 138,609	\$ 124,748	\$ 0.109	\$ 188,855	\$ 64,107
14	1,915,500	1,723,950	\$0.0720	\$ 137,916	\$ 124,124	\$ 0.109	\$ 187,911	\$ 63,786
15	1,905,922	1,715,330	\$0.0720	\$ 137,226	\$ 123,504	\$ 0.109	\$ 186,971	\$ 63,467
16	1,896,392	1,706,753	\$0.0720	\$ 136,540	\$ 122,886	\$ 0.109	\$ 186,036	\$ 63,150
17	1,886,911	1,698,219	\$0.0720	\$ 135,858	\$ 122,272	\$ 0.109	\$ 185,106	\$ 62,834
18	1,877,476	1,689,728	\$0.0720	\$ 135,178	\$ 121,660	\$ 0.109	\$ 184,180	\$ 62,520
19	1,868,089	1,681,280	\$0.0720	\$ 134,502	\$ 121,052	\$ 0.109	\$ 183,260	\$ 62,207
20	1,858,748	1,672,873	\$0.0720	\$ 133,830	\$ 120,447	\$ 0.109	\$ 182,343	\$ 61,896
<b>Total</b>	<b>39,004,317</b>	<b>35,103,883</b>	<b>\$0.0720</b>	<b>\$ 2,808,311</b>	<b>\$ 2,527,479.58</b>	<b>\$ 0.109</b>	<b>\$ 3,826,323</b>	<b>\$1,298,844</b>

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Proposed SSA in the Amendment for Corona de Tucson (0%)								
Column	A	B	C	D	E	F	G	H
Year	Expected Performance Output (kWh)	Guaranteed Minimum Output (kWh)	Supplier Price (\$/kWh)	Total Annual Cost for Expected Perf. Output Electricity (\$) from Supplier Columns (A x C)	Total Annual Cost for Guaranteed Electricity (\$) from Supplier Columns (B x C)	Est. TRCO Cost \$/kWh +/- 0%/year	Total Annual Cost for Guaranteed Electricity (\$) from TRCO Columns (B x F)	Pima County Savings per year (Columns (G - E))
1	609,634	548,671	\$0.1100	\$ 67,060	\$ 60,354	\$ 0.140	\$ 76,814	\$ 16,460
2	606,586	545,927	\$0.1100	\$ 66,724	\$ 60,052	\$ 0.140	\$ 76,490	\$ 16,378
3	603,553	543,198	\$0.1100	\$ 66,391	\$ 59,752	\$ 0.140	\$ 76,048	\$ 16,296
4	600,535	540,482	\$0.1100	\$ 66,059	\$ 59,453	\$ 0.140	\$ 75,667	\$ 16,214
5	597,532	537,779	\$0.1100	\$ 65,729	\$ 59,156	\$ 0.140	\$ 75,289	\$ 16,133
6	594,545	535,090	\$0.1100	\$ 65,400	\$ 58,860	\$ 0.140	\$ 74,913	\$ 16,053
7	591,572	532,415	\$0.1100	\$ 65,073	\$ 58,566	\$ 0.140	\$ 74,538	\$ 15,972
8	588,614	529,753	\$0.1100	\$ 64,748	\$ 58,273	\$ 0.140	\$ 74,165	\$ 15,895
9	585,671	527,104	\$0.1100	\$ 64,424	\$ 57,981	\$ 0.140	\$ 73,795	\$ 15,813
10	582,743	524,469	\$0.1100	\$ 64,102	\$ 57,692	\$ 0.140	\$ 73,426	\$ 15,734
11	579,829	521,846	\$0.1100	\$ 63,781	\$ 57,403	\$ 0.140	\$ 73,058	\$ 15,655
12	576,930	519,237	\$0.1100	\$ 63,462	\$ 57,116	\$ 0.140	\$ 72,693	\$ 15,577
13	574,045	516,641	\$0.1100	\$ 63,145	\$ 56,830	\$ 0.140	\$ 72,330	\$ 15,499
14	571,175	514,058	\$0.1100	\$ 62,829	\$ 56,546	\$ 0.140	\$ 71,968	\$ 15,422
15	568,319	511,487	\$0.1100	\$ 62,515	\$ 56,264	\$ 0.140	\$ 71,608	\$ 15,345
16	565,478	508,930	\$0.1100	\$ 62,203	\$ 55,982	\$ 0.140	\$ 71,250	\$ 15,268
17	562,650	506,385	\$0.1100	\$ 61,892	\$ 55,702	\$ 0.140	\$ 70,894	\$ 15,192
18	559,837	503,853	\$0.1100	\$ 61,582	\$ 55,424	\$ 0.140	\$ 70,539	\$ 15,116
19	557,038	501,334	\$0.1100	\$ 61,274	\$ 55,147	\$ 0.140	\$ 70,187	\$ 15,040
20	554,253	498,827	\$0.1100	\$ 60,968	\$ 54,871	\$ 0.140	\$ 69,836	\$ 14,965
<b>Total</b>	<b>11,630,539</b>	<b>10,467,485</b>	<b>\$0.1100</b>	<b>\$ 1,279,359</b>	<b>\$ 1,151,423</b>	<b>\$ 0.140</b>	<b>\$ 1,465,448</b>	<b>\$ 334,025</b>

Proposed SSA in the Amendment for Corona de Tucson (3%)								
Column	A	B	C	D	E	F	G	H
YEAR	Expected Performance Output (kWh)	Guaranteed Minimum Output (kWh)	Supplier Price (\$/kWh)	Total Annual Cost for Expected Perf. Output Electricity (\$) from Supplier Columns (A X C)	Total Annual Cost For Guaranteed Electricity (\$) From Supplier Columns (B X C)	Est. Trco Cost \$/kWh +/- 3%/year	Total Annual Cost For Guaranteed Electricity (\$) From Trco Columns (B X F)	Pima County Savings per year Columns (G - E)
1	609,634	548,671	\$0.1100	\$ 67,060	\$ 60,354	\$ 0.140	\$ 76,814	\$ 16,460
2	606,586	545,927	\$0.1100	\$ 66,724	\$ 60,052	\$ 0.144	\$ 78,723	\$ 18,671
3	603,553	543,198	\$0.1100	\$ 66,391	\$ 59,752	\$ 0.149	\$ 80,679	\$ 20,927
4	600,535	540,482	\$0.1100	\$ 66,059	\$ 59,453	\$ 0.153	\$ 82,684	\$ 23,231
5	597,532	537,779	\$0.1100	\$ 65,729	\$ 59,156	\$ 0.158	\$ 84,739	\$ 25,583
6	594,545	535,090	\$0.1100	\$ 65,400	\$ 58,860	\$ 0.162	\$ 86,844	\$ 27,984
7	591,572	532,415	\$0.1100	\$ 65,073	\$ 58,566	\$ 0.167	\$ 89,002	\$ 30,437
8	588,614	529,753	\$0.1100	\$ 64,748	\$ 58,273	\$ 0.172	\$ 91,214	\$ 32,941
9	585,671	527,104	\$0.1100	\$ 64,424	\$ 57,981	\$ 0.177	\$ 93,481	\$ 35,499
10	582,743	524,469	\$0.1100	\$ 64,102	\$ 57,692	\$ 0.183	\$ 95,804	\$ 38,112
11	579,829	521,846	\$0.1100	\$ 63,781	\$ 57,403	\$ 0.188	\$ 98,184	\$ 40,781
12	576,930	519,237	\$0.1100	\$ 63,462	\$ 57,116	\$ 0.194	\$ 100,624	\$ 43,508
13	574,045	516,641	\$0.1100	\$ 63,145	\$ 56,830	\$ 0.200	\$ 103,125	\$ 46,294
14	571,175	514,058	\$0.1100	\$ 62,829	\$ 56,546	\$ 0.206	\$ 105,688	\$ 49,141
15	568,319	511,487	\$0.1100	\$ 62,515	\$ 56,264	\$ 0.212	\$ 108,314	\$ 52,050
16	565,478	508,930	\$0.1100	\$ 62,203	\$ 55,982	\$ 0.218	\$ 111,005	\$ 55,023
17	562,650	506,385	\$0.1100	\$ 61,892	\$ 55,702	\$ 0.225	\$ 113,764	\$ 58,062
18	559,837	503,853	\$0.1100	\$ 61,582	\$ 55,424	\$ 0.231	\$ 116,591	\$ 61,167
19	557,038	501,334	\$0.1100	\$ 61,274	\$ 55,147	\$ 0.238	\$ 119,488	\$ 64,342
20	554,253	498,827	\$0.1100	\$ 60,968	\$ 54,871	\$ 0.245	\$ 122,458	\$ 67,587
<b>Total</b>	<b>11,630,539</b>	<b>10,467,485</b>	<b>\$0.1100</b>	<b>\$ 1,279,359</b>	<b>\$ 1,151,423</b>	<b>\$ 0.187</b>	<b>\$ 1,959,224</b>	<b>\$ 807,801</b>

