From: Schef Wright [schef@gbwlegal.com]
Sent: September 13, 2015 4:52 PM
To: O'Connor, Jim; Coment, Wayne
Subject: Backup for Estimated NPV of Rate Impact of Shores Transfer
Attachments: Print Copy of Rate Impact Analysis Shores Transfer.600PM.9-11-2015.pdf; Print Copy of Debt Service Analysis.600PM.9-11-2015.pdf; FY 15-16 Budget Op Expense update for Partial Sale IRS .pdf; Print Copy of BPS w Shores.600PM.9-11-2015.pdf; Print Copy of BPS wo Shores(rev5.600PM.9-11-2015).pdf; Shores Residential Usage vs. City Average.09-09-2015.docx; Customer Billing Data and Demographics.docx

Dear Jim –

As we have discussed, attached are the spreadsheets that show the backup for the estimated NPV impact on the City's remaining electric customers and citizens if the customers in Indian River Shores were no longer to be served by the City. The sheets are in logical order, i.e., summary first followed by the backup spreadsheets, where applicable, in the order in which they are listed in the summary table, with the backup for using 8.7% as the allocation factor for several of the cost components at the end.

You will note that the bottom line NPV value shown here is $64.5 million, and not %66 million as we discussed last Wednesday. The reason for this slight difference is that, in reviewing the detail in the spreadsheets on Thursday and Friday, we discovered that one of the formulas was picking up a value that was inadvertently left in the spreadsheets.

Please distribute these to the City Council and the Finance and Utility Commission members as you deem appropriate.

I'm available to answer any questions.

All the best, Schef

Indian River Shores Sale/Transfer Rate Impact Analysis

Assumptions

Effective Date	10/1/2016	Assumes sale/transfer would occur at beginning of FY 2017
Shores Allocation	8.7%	Based on Shores kWh sale revenues as a percent of total, probably conservative because Shores has 8.5% of kWh sales but also Shores has a higher percentage of residential customers and significantly higher average use per residential customer than Vero Beach average, both factors increasing revenue percentage.

Cost Categories	Shores Allocation Methodology	FY 2016 Vero Beach Budget Amount	Pro Forma FY 2016 Budget without IRS (VB Staff analysis)	Shores Allocation	Assumed Annual Escalation Rate	Time Period for Present Value	PV of Impact of Shores Departure
General Fund Transfer (Return on Equity)	Shores percentage of total revenues	$5,440,000	$5,440,000	$473,280	2.50%	30 years	$11,175,961
Outstanding Electric Fund Debt Series 2003A	Shores percentage of total revenues	$5,500,000	$5,500,000	$478,500	N/A; used actual debt service values for all years, 2017 2022	Through 2022, i.e., remaining term of City electric debt	$2,457,738
Non Departmental Fixed Costs (Primarily A&G, Prof Svcs, Insurance)	Pro forma budget values per Vero Beach Staff estimates ; allocated on basis of Shores percentage of total revenues	$8,749,109	$7,289,921	$634,223	2.50%	30 years	$14,976,447
Other Electric Fund Expenses (Cust Svc, T&D, Elect. Sys Design, Elect. Metering)	Pro forma budget values per Vero Beach Staff estimates ; allocated on basis of Shores percentage of total revenues	$8,704,000	$8,374,000	$728,538	2.50%	30 years	$17,203,583
Bulk Power Supply Differential Cost w/o IRS	PV of Differential Power Supply Costs with and without Shores thru 2043, which is the last year of the expected term of FMPA contracts	Analysis based on production cost model in attached spreadsheets entitled BPS with Shores and BPS without Shores				26 years	$18,646,800
						TOTAL	**$64,460,529**

Contingent Liabilities Not Quantified To Be Addressed

Big Blue Site Remediation
St. Lucie II early retirement
Stanton 2 early retirement for Clean Power Plan
Stanton 1 early retirement for Clean Power Plan

Electric Fund Long Term Debt

Fiscal Year	Principal	Interest	Debt Service
2017	$4,225,000	$1,251,000	$5,476,000
2018	$4,400,000	$1,043,250	$5,443,250
2019	$4,600,000	$818,250	$5,418,250
2020	$4,800,000	$607,250	$5,407,250
2021	$5,000,000	$386,250	$5,386,250
2022	$5,225,000	$130,625	$5,355,625
Total	**$28,250,000**	**$4,236,625**	**$32,486,625**

Present Value Debt Service	$28,249,858
IRS Allocation	$2,457,738

		FY 15 16 PROPOSED BUDGET	FY 15 16 WITHOUT IR SHORES
Operating Expenses			
Power Resources			
Personnel		2,550,113	2,550,113
Operating		881,817	881,817
Transfer to Fund 405		335,000	335,000
	Total	3,766,930	3,766,930
Purchased Power		59,250,000	59,250,000
Customer Service			
Personnel		1,466,846	1,353,824
Operating		521,833	474,868
	Total	1,988,679	1,828,692
Transmission & Distribution			
Personnel		3,592,725	3,592,725
Operating		1,673,333	1,522,733
	Total	5,266,058	5,115,458
Electric System Design			
Personnel		513,953	513,953
Operating		91,874	83,605
	Total	605,827	597,558
Electric Metering			
Personnel		725,494	725,494
Operating		119,840	109,054
	Total	845,334	834,548
Non Departmental			
Personnel		292,840	292,840
Operating		4,456,269	3,420,269
Debt Service		5,500,000	5,500,000
Transfer to the R&R Fund (Fund 403)		4,000,000	3,576,812
Transfer to the General Fund (6% of customer revenue)		5,440,000	5,440,000
	Total	19,689,109	18,229,921
Total Operating Expenses		**91,411,937**	**89,623,109**
	Op Expense Reduction (before changes to Purch Pwr and GF Xfr)		**1,788,828**

Bulk Power Cost Model with Indian River Shores 2016 2043 (expiration of St. Lucie Contract)

		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
System Load Data															
Retail sales growth rate	0.50%														
Winter Peak	MW	175	176	177	178	179	179	180	181	182	183	184	185	186	187
Summer Peak	MW	161	162	163	164	165	165	166	167	168	169	170	171	171	172
Annual Pk adj for Non Firm Load	MW	165	166	167	168	169	169	170	171	172	173	174	175	176	177
Average Peak	MW	140.3	141.0	141.8	142.5	143.2	144.0	144.7	145.5	146.2	147.0	147.7	148.5	149.3	150.0
NEL	MW Hrs	751,475	755,232	759,008	762,803	766,617	770,450	774,303	778,174	782,065	785,975	789,905	793,855	797,824	801,813
Sys Load Factor	%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%
Retail Sales	kW Hrs	717,658,440	721,246,732	724,852,966	728,477,231	732,119,617	735,780,215	739,459,116	743,156,412	746,872,194	750,606,555	754,359,587	758,131,385	761,922,042	765,731,652
System Losses	%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Production Model															
Global Inputs															
OUC Transmission Losses	%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
FPL Transmission Losses	%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%
Nat Gas Prices Low Forecast	$/M2BTU	$3.29	$3.49	$3.68	$3.91	$4.07	$4.19	$4.30	$4.39	$4.48	$4.56	$4.66	$4.78	$4.90	$5.03
Gas Transportation	$/M^{2}BTU	$0.95	$0.98	$1.01	$1.04	$1.07	$1.10	$1.13	$1.17	$1.20	$1.24	$1.28	$1.32	$1.35	$1.40
Stn 1 & 2 Coal Price Delivered	$/MW hr	$41.41	$42.94	$42.84	$44.68	$46.72	$48.96	$51.31	$53.86	$56.41	$59.16	$62.02	$65.08	$68.14	$71.50
OUC System Fuel at Gen	$/MW hr	$33.79	$35.38	$36.47	$38.32	$39.90	$41.36	$42.76	$44.19	$45.55	$46.96	$48.50	$50.23	$51.98	$53.84
FMPA Contracts (St. Lucie, Stanton & Stanton 2)															
Capacity	MW	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	30.0	30.0	30.0
Delivered Energy	MW Hrs	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	175,287	175,287	175,287
Total Project Costs	$	$25,327,578	$25,747,674	$25,647,217	$25,778,116	$23,284,933	$23,750,631	$24,225,644	$24,710,157	$25,204,360	$25,708,447	$26,222,616	$15,401,236	$15,709,261	$16,023,446
Projected Cost	$/MW Hr	$83.20	$84.58	$84.25	$84.68	$76.49	$78.02	$79.58	$81.17	$82.80	$84.45	$86.14	$87.86	$89.62	$91.41
OUC Revised Contract (VB Offer)															
Demand Rate Oct Dec	MW	$8,331	$8,331	$8,851	$10,885	$10,930	$10,951	$10,986	$11,007	$11,038					
Demand Rate Jan Sep	MW	$8,331	$8,851	$10,885	$10,930	$10,951	$10,986	$11,007	$11,038	0					
Demand Billing Determinant Oct Dec	MW	84	85	86	87	88	89	90	91	92					
Demand Billing Determinant Jan Sep	MW	85	86	87	88	89	90	91	92	$0.00					
Fuel Price	$/MW Hr	$33.79	$35.38	$36.47	$38.32	$39.90	$41.36	$42.76	$44.19	$45.55					
Energy Delivered	MW Hrs	437,596	441,353	445,130	448,925	452,739	456,572	460,424	464,295	104,735					
Demand Charges	$	$8,632,325	$9,144,248	$11,010,202	$11,714,259	$11,876,995	$12,045,417	$12,206,778	$12,373,281	$3,103,910					
Energy Charges	$	$15,067,061	$15,908,795	$16,540,800	$17,525,488	$18,405,508	$19,241,882	$20,057,400	$20,903,007	$4,861,042					
Total Cost	$	$23,699,386	$25,053,043	$27,551,002	$29,239,747	$30,282,504	$31,287,299	$32,264,179	$33,276,287	$7,964,953					
	$/MW Hr	$54.16	$56.76	$61.89	$65.13	$66.89	$68.53	$70.07	$71.67	$76.05					
OUC Peaking Proposal (VB Offer)															
Demand Rate Oct Dec	MW	$5,566	$5,566	$5,836	$6,105	$6,625	$7,146	$7,666	$8,187	$8,708					
Demand Rate Jan Sep	MW	$5,566	$5,836	$6,105	$6,625	$7,146	$7,666	$8,187	$8,708						
Contract Capacity	BTU/kW hr	54	54	54	54	54	54	54	54	54					
Capacity Factor	%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.3%					
Fuel Price	$/MW Hr	$53.76	$56.33	$58.89	$61.85	$64.07	$65.87	$67.44	$68.96	$70.33					
Energy Delivered	MW Hrs	9,461	9,461	9,461	9,461	9,461	9,461	9,461	9,461	1,577					
Demand Charges	$	$3,674,751	$3,808,444	$3,986,207	$4,288,090	$4,631,896	$4,975,372	$5,319,179	$5,663,150	$1,437,286					
Energy Charges	$	$518,227	$542,974	$567,696	$596,151	$617,551	$634,922	$650,066	$664,715	$112,989					
All in Costs	$	$4,192,978	$4,351,418	$4,553,903	$4,884,240	$5,249,447	$5,610,294	$5,969,245	$6,327,866	$1,550,274					
	$/MW Hr	$443.19	$459.94	$481.34	$516.26	$554.86	$593.00	$630.95	$668.85	$983.18					
BPS Market Supplier (post 2023)															
Peak Capacity	MW									120	121	122	145	146	147
Average Capacity	MW									146	95	96	119	119	120
Demand Charge	$/MW mo									$9,955	$10,500	$10,763	$11,032	$11,307	$11,590
Non Fuel Energy Charge	$/MW Hr									$3.80	$3.91	$4.01	$4.15	$4.28	$4.41
Fuel Charge	$/MW Hr									$35.81	$36.68	$38.14	$39.67	$41.26	$42.91
Delivered Energy	MW Hrs									371,335	481,557	485,487	618,568	622,537	626,526
Demand Costs	$									$13,347,482	$11,967,500	$12,364,828	$15,687,379	$16,183,707	$16,695,580
Non Fuel Energy Costs	$									$1,089,842	$1,884,970	$1,957,363	$2,568,728	$2,662,767	$2,760,225
Fuel energy Costs	$									$13,547,798	$17,661,837	$18,518,210	$24,538,149	$25,683,431	$26,881,927
Total BPS Supplier Costs	$									$27,985,122	$31,514,306	$32,840,401	$42,794,256	$44,529,905	$46,337,732
										$75.36	$65.44	$67.64	$69.18	$71.53	$73.96
FPL Transmission															
FPL Transmission Rate + Anc Sers	$/MW mo	$1,603	$1,623	$1,643	$1,664	$1,684	$1,705	$1,727	$1,748	$1,770	$1,792	$1,815	$1,837	$1,860	$1,884
FPL Transmission Charges	$	$2,698,545	$2,746,425	$2,795,152	$2,844,741	$2,895,207	$2,946,566	$2,998,833	$3,052,024	$3,106,157	$3,161,246	$3,217,310	$3,274,365	$3,332,429	$3,391,520
Total Bulk Power Supply Costs		$55,918,487	$57,898,561	$60,547,274	$62,746,845	$61,712,091	$63,594,791	$65,457,901	$67,366,334	$65,810,866	$60,384,000	$62,280,328	$61,469,857	$63,571,595	$65,752,698
Cost per MW Hr at Vero Beach Del Pt		$74.41	$76.66	$79.77	$82.26	$80.50	$82.54	$84.54	$86.57	$84.15	$76.83	$78.85	$77.43	$79.68	$82.01
Cost per MW Hr at Retail		$77.92	$80.28	$83.53	$86.13	$84.29	$86.43	$88.52	$90.65	$88.12	$80.45	$82.56	$81.08	$83.44	$85.87
Rate Differential w/o IRS			$3.58	$3.77	$3.83	$3.50	$3.54	$3.60	$3.65	$2.09	$0.75	$0.73	$0.36	$0.35	$0.33
Rate Impact to VB Customers			$2,365,725	$2,503,178	$2,551,984	$2,341,748	$2,386,445	$2,433,090	$2,479,900	$1,424,866	$515,298	$502,627	$252,986	$243,707	$233,703
PV Rate Impact to VB Customers			$18,646,800												

		FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
System Load Data															
Winter Peak	MW	188	189	190	191	192	192	193	194	195	196	197	198	199	200
Summer Peak	MW	173	174	175	176	177	177	178	179	180	181	182	183	184	185
Annual Pk adj for Non Firm Load	MW	178	179	180	181	182	182	183	184	185	186	187	188	189	190
Average Peak	MW	150.8	151.6	152.4	153.2	154.0	154.8	155.6	156.4	157.2	158.0	158.8	159.6	160.4	161.3
NEL	MW Hrs	805,822	809,851	813,901	817,970	822,060	826,170	830,301	834,453	838,625	842,818	847,032	851,267	855,524	859,801
Sys Load Factor	%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%
Retail Sales	kW Hrs	769,560,311	773,408,112	777,275,153	781,161,529	785,067,336	788,992,673	792,937,636	796,902,324	800,886,836	804,891,270	808,915,727	812,960,305	817,025,107	821,110,232
System Losses	%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Production Model															
Global Inputs															
OUC Transmission Losses	%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
FPL Transmission Losses	%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%
Nat Gas Prices Low Forecast	$/M2BTU	$5.18	$5.34	$5.50	$5.66	$5.83	$6.01	$6.19	$6.37	$6.56	$6.76	$6.96	$7.17	$7.39	$7.61
Gas Transportation	$/M^{2}BTU	$1.44	$1.48	$1.52	$1.57	$1.62	$1.67	$1.72	$1.77	$1.82	$1.87	$1.93	$1.99	$2.05	$2.11
Stn 1 & 2 Coal Price Delivered	$/MW hr	$73.65	$75.86	$78.13	$80.48	$82.89	$85.38	$87.94	$90.58	$93.29	$96.09	$98.98	$101.94	$105.00	$108.15
OUC System Fuel at Gen	$/MW hr	$55.45	$57.12	$58.83	$60.60	$62.42	$64.29	$66.22	$68.20	$70.25	$72.36	$74.53	$76.76	$79.07	$81.44
FMPA Contracts (St. Lucie, Stanton & Stanton 2)															
Capacity	MW	30.0	30.0	30.0	30.0	30.0	30.0	30.0	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Delivered Energy	MW Hrs	175,288	175,289	175,290	175,291	175,292	175,293	175,293	112,347	112,347	112,347	112,347	112,347	112,347	112,347
Total Project Costs	$	$16,344,008	$16,670,983	$17,004,500	$17,344,689	$17,691,684	$18,045,620	$18,406,533	$12,032,865	$12,273,523	$12,518,993	$12,769,373	$13,024,761	$13,285,256	$13,550,961
Projected Cost	$/MW Hr	$93.24	$95.11	$97.01	$98.95	$100.93	$102.95	$105.00	$107.10	$109.25	$111.43	$113.66	$115.93	$118.25	$120.62
BPS Market Supplier (post 2023)															
Peak Capacity	MW	148	149	150	151	152	152	153	171	172	173	174	175	176	177
Average Capacity	MW	121	122	122	123	124	125	126	143	144	144	145	146	147	148
Demand Charge	$/MW mo	$11,880	$12,177	$12,481	$12,793	$13,113	$13,441	$13,777	$14,121	$14,474	$14,836	$15,207	$15,587	$15,977	$16,376
Non Fuel Energy Charge	$/MW Hr	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41
Fuel Charge	$/MW Hr	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91
Delivered Energy	MW Hrs	630,534	634,562	638,611	642,679	646,768	650,877	655,008	722,106	726,278	730,471	734,685	738,920	743,177	747,454
Demand Costs	$	$17,223,482	$17,767,911	$18,329,380	$18,908,418	$19,505,572	$20,121,403	$20,756,491	$24,207,459	$24,952,776	$25,720,946	$26,512,670	$27,328,666	$28,169,676	$29,036,466
Non Fuel Energy Costs	$	$2,777,883	$2,795,629	$2,813,464	$2,831,388	$2,849,402	$2,867,506	$2,885,705	$3,181,310	$3,199,691	$3,218,164	$3,236,730	$3,255,388	$3,274,140	$3,292,985
Fuel energy Costs	$	$27,053,898	$27,226,730	$27,400,425	$27,574,990	$27,750,427	$27,926,742	$28,103,982	$30,982,888	$31,161,904	$31,341,816	$31,522,627	$31,704,342	$31,886,966	$32,070,502
Total BPS Supplier Costs	$	$47,055,263	$47,790,269	$48,543,269	$49,314,796	$50,105,401	$50,915,651	$51,746,178	$58,371,657	$59,314,371	$60,280,926	$61,272,026	$62,288,396	$63,330,782	$64,399,954
		$74.63	$75.31	$76.01	$76.73	$77.47	$78.23	$79.00	$80.84	$81.67	$82.52	$83.40	$84.30	$85.22	$86.16
FPL Transmission															
FPL Transmission Rate + Anc Sers	$/MW mo	$1,907	$1,931	$1,955	$1,980	$2,004	$2,029	$2,055	$2,080	$2,106	$2,133	$2,159	$2,186	$2,214	$2,241
FPL Transmission Charges	$	$3,451,656	$3,512,855	$3,575,136	$3,638,518	$3,703,021	$3,768,664	$3,835,468	$3,903,452	$3,972,639	$4,043,048	$4,114,702	$4,187,622	$4,261,831	$4,337,352
Total Bulk Power Supply Costs		$66,850,927	$67,974,108	$69,122,905	$70,298,003	$71,500,105	$72,729,935	$73,988,178	$74,307,975	$75,560,532	$76,842,967	$78,156,101	$79,500,779	$80,877,869	$82,288,267
Cost per MW Hr at Vero Beach Del Pt		$82.96	$83.93	$84.93	$85.94	$86.98	$88.03	$89.11	$89.05	$90.10	$91.17	$92.27	$93.39	$94.54	$95.71
Cost per MW Hr at Retail		$86.87	$87.89	$88.93	$89.99	$91.08	$92.18	$93.31	$93.25	$94.35	$95.47	$96.62	$97.79	$98.99	$100.22
Rate Differential w/o IRS		$0.36	$0.38	$0.40	$0.42	$0.45	$0.47	$0.49	$0.40	$0.42	$0.44	$0.45	$0.47	$0.49	$0.51
Rate Impact to VB Customers		$250,483	$267,547	$284,901	$302,549	$320,496	$338,745	$357,297	$293,909	$307,570	$321,473	$335,620	$350,016	$364,666	$379,572

Bulk Power Cost Model without Indian River Shores 2016 2043 (expiration of St. Lucie Contract)

		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
System Load Data															
Retail sales growth rate	0.50%														
Indian River Shores % or load	8.5%														
Winter Peak	MW	175	161	162	163	163	164	165	166	167	168	168	169	170	171
Summer Peak	MW	161	148	149	150	151	151	152	153	154	154	155	156	157	158
Annual Pk adj for Non Firm Load	MW	165	151	152	153	153	154	155	156	157	158	158	159	160	161
Average Peak	MW	140.3	128.6	129.3	130.0	130.6	131.3	132.0	132.7	133.4	134.1	134.8	135.5	136.2	136.9
NEL	MW Hrs	751,475	691,037	694,493	697,965	701,455	704,962	708,487	712,029	715,590	719,168	722,763	726,377	730,009	733,659
Sys Load Factor	%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%
Retail Sales	kW Hrs	717,658,440	659,940,760	663,240,464	666,556,666	669,889,449	673,238,897	676,605,091	679,988,117	683,388,057	686,804,997	690,239,022	693,690,218	697,158,669	700,644,462
System Losses	%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Production Model															
Global Inputs															
OUC Transmission Losses	%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
FPL Transmission Losses	%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%
Nat Gas Prices Low Forecast	$/M2BTU	$3.29	$3.49	$3.68	$3.91	$4.07	$4.19	$4.30	$4.39	$4.48	$4.56	$4.66	$4.78	$4.90	$5.03
Gas Transportation	$/M2BTU	$0.95	$0.98	$1.01	$1.04	$1.07	$1.10	$1.13	$1.17	$1.20	$1.24	$1.28	$1.32	$1.35	$1.40
Stn 1 & 2 Coal Price Delivered	$/MW hr	$41.41	$42.94	$42.84	$44.68	$46.72	$48.96	$51.31	$53.86	$56.41	$59.16	$62.02	$65.08	$68.14	$71.50
OUC System Fuel at Gen	$/MW hr	$33.79	$35.38	$36.47	$38.32	$39.90	$41.36	$42.76	$44.19	$45.55	$46.96	$48.50	$50.23	$51.98	$53.84
FMPA Contracts (St. Lucie, Stanton & Stanton 2)															
Capacity	MW	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	30.0	30.0	30.0
Delivered Energy	MW Hrs	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	304,418	175,287	175,287	175,287
Total Project Costs	$	$25,327,578	$25,747,674	$25,647,217	$25,778,116	$23,284,933	$23,750,631	$24,225,644	$24,710,157	$25,204,360	$25,708,447	$26,222,616	$15,401,236	$15,709,261	$16,023,446
Projected Cost	$/MW Hr	$83.20	$84.58	$84.25	$84.68	$76.49	$78.02	$79.58	$81.17	$82.80	$84.45	$86.14	$87.86	$89.62	$91.41
OUC Revised Contract (VB Offer)															
Demand Rate Oct Dec	MW	$8,331	$8,331	$8,851	$10,885	$10,930	$10,951	$10,986	$11,007	$11,038					
Demand Rate Jan Sep	MW	$8,331	$8,851	$10,885	$10,930	$10,951	$10,986	$11,007	$11,038	0					
Demand Billing Determinant Oct Dec	MW	84	85	86	87	88	89	90	91	92					
Demand Billing Determinant Jan Sep	MW	85	86	87	88	89	90	91	92	$0.00					
Fuel Price	$/MW Hr	$33.79	$35.38	$36.47	$38.32	$39.90	$41.36	$42.76	$44.19	$45.55					
Energy Delivered	MW Hrs	437,596	377,159	380,614	384,086	387,576	391,083	394,608	398,151	90,111					
Demand Charges	$	$8,632,325	$9,144,248	$11,010,202	$11,714,259	$11,876,995	$12,045,417	$12,206,778	$12,373,281	$3,103,910					
Energy Charges	$	$15,067,061	$13,594,865	$14,143,427	$14,994,278	$15,756,411	$16,481,926	$17,190,276	$17,925,107	$4,182,276					
Total Cost	$	$23,699,386	$22,739,113	$25,153,629	$26,708,537	$27,633,407	$28,527,343	$29,397,055	$30,298,387	$7,286,187					
	$/MW Hr	$54.16	$60.29	$66.09	$69.54	$71.30	$72.94	$74.50	$76.10	$80.86					
OUC Peaking Proposal (VB Offer)															
Demand Rate Oct Dec	MW	$5,566	$5,566	$5,836	$6,105	$6,625	$7,146	$7,666	$8,187	$8,708					
Demand Rate Jan Sep	MW	$5,566	$5,836	$6,105	$6,625	$7,146	$7,666	$8,187	$8,708						
Contract Capacity	BTU/kW hr	54	54	54	54	54	54	54	54	54					
Capacity Factor	%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.3%					
Fuel Price	$/MW Hr	$53.76	$56.33	$58.89	$61.85	$64.07	$65.87	$67.44	$68.96	$70.33					
Energy Delivered	MW Hrs	9,461	9,461	9,461	9,461	9,461	9,461	9,461	9,461	1,577					
Demand Charges	$	$3,674,751	$3,808,444	$3,986,207	$4,288,090	$4,631,896	$4,975,372	$5,319,179	$5,663,150	$1,437,286					
Energy Charges	$	$518,227	$542,974	$567,696	$596,151	$617,551	$634,922	$650,066	$664,715	$112,989					
All in Costs	$	$4,192,978	$4,351,418	$4,553,903	$4,884,240	$5,249,447	$5,610,294	$5,969,245	$6,327,866	$1,550,274					
	$/MW Hr	$443.19	$459.94	$481.34	$516.26	$554.86	$593.00	$630.95	$668.85	$983.18					
BPS Market Supplier (post 2023)															
Peak Capacity	MW									120	106	106	129	130	131
Average Capacity	MW									133	82	83	105	106	107
Demand Charge	$/MW mo									$9,955	$10,500	$10,763	$11,032	$11,307	$11,590
Non Fuel Energy Charge	$/MW Hr									$3.80	$3.91	$4.03	$4.15	$4.28	$4.41
Fuel Charge	$/MW Hr									$35.81	$36.68	$38.14	$39.67	$41.26	$42.91
Delivered Energy	MW Hrs									319,484	414,750	418,345	551,090	554,722	558,372
Demand Costs	$									$12,174,151	$10,339,792	$10,688,086	$13,960,125	$14,404,419	$14,862,692
Non Fuel Energy Costs	$									$937,663	$1,623,462	$1,686,664	$2,288,513	$2,372,703	$2,459,965
Fuel energy Costs	$									$11,656,067	$15,211,557	$15,957,178	$21,861,358	$22,885,649	$23,957,685
Total BPS Supplier Costs	$									$24,767,882	$27,174,812	$28,331,927	$38,109,996	$39,662,772	$41,280,342
										$77.52	$65.52	$67.72	$69.15	$71.50	$73.93
FPL Transmission															
FPL Transmission Rate + Anc Sers	$/MW mo	$1,603	$1,623	$1,643	$1,664	$1,684	$1,705	$1,727	$1,748	$1,770	$1,792	$1,815	$1,837	$1,860	$1,884
FPL Transmission Charges	$	$2,698,545	$2,504,703	$2,549,184	$2,594,454	$2,640,524	$2,687,410	$2,735,126	$2,783,686	$2,833,105	$2,883,399	$2,934,583	$2,986,673	$3,039,685	$3,093,634
Total Bulk Power Supply Costs		**$55,918,487**	**$55,342,908**	**$57,903,933**	**$59,965,347**	**$58,808,311**	**$60,575,678**	**$62,327,069**	**$64,120,096**	**$61,641,808**	**$55,766,658**	**$57,489,127**	**$56,497,905**	**$58,411,717**	**$60,397,422**
Cost per MW Hr at Vero Beach Del Pt			**$80.09**	**$83.38**	**$85.91**	**$83.84**	**$85.93**	**$87.97**	**$90.05**	**$86.14**	**$77.54**	**$79.54**	**$77.78**	**$80.02**	**$82.32**
Cost per MW Hr at Retail			**$83.86**	**$87.30**	**$89.96**	**$87.79**	**$89.98**	**$92.12**	**$94.30**	**$90.20**	**$81.20**	**$83.29**	**$81.45**	**$83.79**	**$86.20**

		FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
Winter Peak	MW	172	173	173	174	175	176	177	178	179	180	181	181	182	183
Summer Peak	MW	158	159	160	161	162	162	163	164	165	166	166	167	168	169
Annual Pk adj for Non Firm Load	MW	162	163	163	164	165	166	167	168	169	170	171	171	172	173
Average Peak	MW	137.6	138.3	139.0	139.7	140.4	141.2	141.9	142.6	143.4	144.1	144.9	145.6	146.4	147.1
NEL	MW Hrs	737,327	741,014	744,719	748,443	752,185	755,946	759,726	763,524	767,342	771,179	775,034	778,910	782,804	786,718
Sys Load Factor	%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%
Retail Sales	kW Hrs	704,147,684	707,668,423	711,206,765	714,762,799	718,336,613	721,928,296	725,537,937	729,165,627	732,811,455	736,475,512	740,157,890	743,858,679	747,577,973	751,315,863
System Losses	%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
OUC Transmission Losses	%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
FPL Transmission Losses	%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%
Nat Gas Prices Low Forecast	$/M2BTU	$5.18	$5.34	$5.50	$5.66	$5.83	$6.01	$6.19	$6.37	$6.56	$6.76	$6.96	$7.17	$7.39	$7.61
Gas Transportation	$/M2BTU	$1.44	$1.48	$1.52	$1.57	$1.62	$1.67	$1.72	$1.77	$1.82	$1.87	$1.93	$1.99	$2.05	$2.11
Stn 1 & 2 Coal Price Delivered	$/MW hr	$73.65	$75.86	$78.13	$80.48	$82.89	$85.38	$87.94	$90.58	$93.29	$96.09	$98.98	$101.94	$105.00	$108.15
OUC System Fuel at Gen	$/MW hr	$55.45	$57.12	$58.83	$60.60	$62.42	$64.29	$66.22	$68.20	$70.25	$72.36	$74.53	$76.76	$79.07	$81.44
Capacity	MW	30.0	30.0	30.0	30.0	30.0	30.0	30.0	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Delivered Energy	MW Hrs	175,288	175,289	175,290	175,291	175,292	175,293	175,293	112,347	112,347	112,347	112,347	112,347	112,347	112,347
Total Project Costs	$	$16,344,008	$16,670,983	$17,004,500	$17,344,689	$17,691,684	$18,045,620	$18,406,533	$12,032,865	$12,273,523	$12,518,993	$12,769,373	$13,024,761	$13,285,256	$13,550,961
Projected Cost	$/MW Hr	$93.24	$95.11	$97.01	$98.95	$100.93	$102.95	$105.00	$107.10	$109.25	$111.43	$113.66	$115.93	$118.25	$120.62
Peak Capacity	MW	132	133	133	134	135	136	137	154	155	156	157	158	159	160
Average Capacity	MW	108	108	109	110	110	111	112	129	130	131	131	132	133	134
Demand Charge	$/MW mo	$11,880	$12,177	$12,481	$12,793	$13,113	$13,441	$13,777	$14,121	$14,474	$14,836	$15,207	$15,587	$15,977	$16,376
Non Fuel Energy Charge	$/MW Hr	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41	$4.41
Fuel Charge	$/MW Hr	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91	$42.91
Delivered Energy	MW Hrs	562,039	565,725	569,429	573,152	576,893	580,653	584,433	651,177	654,995	658,832	662,687	666,563	670,457	674,371
Demand Costs	$	$15,335,378	$15,822,927	$16,325,804	$16,844,484	$17,379,462	$17,931,244	$18,500,354	$21,883,356	$22,558,659	$23,254,706	$23,972,134	$24,711,597	$25,473,768	$26,259,343
Non Fuel Energy Costs	$	$2,476,122	$2,492,359	$2,508,678	$2,525,078	$2,541,560	$2,558,125	$2,574,777	$2,868,827	$2,885,646	$2,902,549	$2,919,537	$2,936,609	$2,953,767	$2,971,010
Fuel energy Costs	$	$24,115,035	$24,273,172	$24,432,100	$24,591,823	$24,752,345	$24,913,669	$25,075,843	$27,939,609	$28,103,409	$28,268,028	$28,433,470	$28,599,739	$28,766,840	$28,934,776
Total BPS Supplier Costs	$	$41,926,535	$42,588,459	$43,266,581	$43,961,385	$44,673,367	$45,403,038	$46,150,974	$52,691,792	$53,547,713	$54,425,283	$55,325,141	$56,247,945	$57,194,375	$58,165,130
		$74.60	$75.28	$75.98	$76.70	$77.44	$78.19	$78.97	$80.92	$81.75	$82.61	$83.49	$84.39	$85.31	$86.25
FPL Transmission Rate + Anc Sers	$/MW mo	$1,907	$1,931	$1,955	$1,980	$2,004	$2,029	$2,055	$2,080	$2,106	$2,133	$2,159	$2,186	$2,214	$2,241
FPL Transmission Charges	$	$3,148,539	$3,204,414	$3,261,278	$3,319,148	$3,378,042	$3,437,978	$3,498,974	$3,561,049	$3,624,221	$3,688,512	$3,753,939	$3,820,523	$3,888,285	$3,957,246
Total Bulk Power Supply Costs		**$61,419,081**	**$62,463,856**	**$63,532,359**	**$64,625,222**	**$65,743,092**	**$66,886,636**	**$68,056,481**	**$68,285,706**	**$69,445,458**	**$70,632,788**	**$71,848,453**	**$73,093,229**	**$74,367,916**	**$75,673,337**
Cost per MW Hr at Vero Beach Del Pt		**$83.30**	**$84.30**	**$85.31**	**$86.35**	**$87.40**	**$88.48**	**$89.58**	**$89.43**	**$90.50**	**$91.59**	**$92.70**	**$93.84**	**$95.00**	**$96.19**
Cost per MW Hr at Retail		**$87.22**	**$88.27**	**$89.33**	**$90.41**	**$91.52**	**$92.65**	**$93.80**	**$93.65**	**$94.77**	**$95.91**	**$97.07**	**$98.26**	**$99.48**	**$100.72**

INDIAN RIVER SHORES AVERAGE RESIDENTIAL USAGE/REVENUES VS. CITY AVERAGES

Indian River Shores Average Annual kWh/Residential Customer:

Shores Total Residential kWh(11 months) = 46,177,422

Times 12 divided by 11 (to estimate annual kWh) = 50,375,369

Divided by 2,775 Shores Residential Customers =
18,153 kWh/customer/year
1,513 kWh/customer/month

<u>City Average Annual kWh/Residential Customer</u>:

City Total Residential kWh = 313,820,920

Times 12 divided by 11 (to estimate annual kWh) = 342,350,095

Divided by 28,556 Total City Residential Customers =
11,989/kWh/customer/year
999 kWh/customer/month

<u>Combined Charges per kWh (Energy Charge + BPCA Charge</u>:

0 – 1,000 kWh/customer/month 11.375 cents/kWh
Above 1,000 kWh/customer/month 13.995 cents/kWh

<u>Shores Average Energy Revenues/month</u> =
($0.11375 x 1,000) + ($0.13995 x 513) = $ 185.53/customer

<u>City Average Energy Revenues/month</u> =
$0.11375 x 999 = $ 113.64/customer

Shores Average Revenue/kWh (12.227 c/kWh) is 7.4% > City Average (11.375 c/kWh)

Supports assumption that Shores revenue % (assumed 8.7%) is slightly greater than Shores % of kWh consumed/sold (8.5%), probably conservative.

<u>Source</u>: Customer Billing Data, 11 months, Sept 2013-July 2014, provided by COVB Finance Department. Copy attached.

Customer Billing Data - 11 months Sep 13-Jul 14

Customer Class	Number of Accts			
	INSIDE	OUTSIDE	IRS	TOTAL
Residential	9,865	15,916	2,775	28,556
Commercial	2,701	2,206	179	5,086
Commercial Demand	302	260	16	578
Industrial	1	-	-	1
Outdoor Lighting	32	41	7	80
	12,901	18,423	2,977	34,301

Customer Class	Percentage of Total Accounts			
	INSIDE	OUTSIDE	IRS	TOTAL
Residential	34.5%	55.7%	9.7%	100%
Commercial	53.1%	43.4%	3.5%	100%
Commercial Demand	52.2%	45.0%	2.8%	100%
Industrial	100.0%	0.0%	0.0%	100%
Outdoor Lighting	40.0%	51.3%	8.8%	100%
	37.6%	53.7%	8.7%	100%

Customer Class	kWh Sales - Not full FY -11 mos					
	INSIDE	OUTSIDE	IRS	TOTAL		
Residential	102,366,572	165,276,926	46,177,422	313,820,920		
Commercial	46,312,538	34,457,389	2,222,764	82,992,691		
Commercial Demand	95,726,656	128,926,750	6,695,643	231,349,049		
Total Commercial	*142,039,194*	*163,384,139*	*8,918,407*	*314,341,740*		
Industrial	17,976,400	-	-	17,976,400		
Outdoor Lighting	-	-	-	-	not available	
			-		converted to 12 months	
	262,382,166	328,661,065	55,095,829	646,139,060		704,878,975

Customer Class	kWh Sales percentage of total				
	INSIDE	OUTSIDE	IRS	TOTAL	
Residential	32.6%	52.7%	14.7%	100%	
Commercial	55.8%	41.5%	2.7%	100%	
Commercial Demand	41.4%	55.7%	2.9%	100%	
Total Commercial	*45.2%*	*52.0%*	*2.8%*	*100%*	
Industrial	100.0%	0.0%	0.0%	100%	
Outdoor Lighting	40.0%	51.3%	8.8%	1	use % of customer accounts