

Composite Exhibit "A"

Indian River Shores Sale/Transfer Rate Impact Analysis

Assumptions

Effective Date
Shores Allocation

10/1/2016
8.7%

Assumes sale/transfer would occur at beginning of FY 2017
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

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	
<i>Total Commercial</i>	<i>142,039,194</i>	<i>163,384,139</i>	<i>8,918,407</i>	<i>314,341,740</i>	
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%	
<i>Total Commercial</i>	<i>45.2%</i>	<i>52.0%</i>	<i>2.8%</i>	<i>100%</i>	
Industrial	100.0%	0.0%	0.0%	100%	
Outdoor Lighting	40.0%	51.3%	8.8%		1 use % of customer accounts

	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 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	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																													
Retail sales growth rate	0.5%																												
Indian River Shores % to Load	1.5%																												
Winter Peak	MW	175	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
Summer Peak	MW	182	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214
Annual Peak Adj for Non-Firm Load	MW	168	173	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197
Average Peak	MW	140.3	144.4	143.3	144.3	145.3	146.3	147.3	148.3	149.3	150.3	151.3	152.3	153.3	154.3	155.3	156.3	157.3	158.3	159.3	160.3	161.3	162.3	163.3	164.3	165.3	166.3	167.3	
NEI	MW/HR	751,075	670,207	674,057	679,265	704,453	704,262	704,487	712,029	712,500	718,168	712,788	712,377	718,009	718,629	741,044	744,719	744,443	751,183	751,296	757,726	749,324	749,342	771,139	772,024	778,250	782,604	786,714	
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%	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%	
Retain Rate	MW/HR	777,659,440	655,940,760	661,242,484	666,536,866	662,849,440	673,211,807	678,657,093	679,938,117	683,336,007	688,300,297	690,110,017	692,690,115	697,358,688	700,646,467	704,164,624	707,664,421	711,120,763	714,762,739	718,316,611	721,912,287	723,537,287	729,163,687	732,451,455	736,475,312	740,127,680	743,828,819	747,517,871	751,163,663
System Losses	%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	
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%	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%	
FFL 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%	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%	
Net Gas Prices Low Forecast	\$/MMBTU	\$3.29	\$3.49	\$3.68	\$3.91	\$4.07	\$4.19	\$4.30	\$4.44	\$4.56	\$4.66	\$4.74	\$4.80	\$4.93	\$5.03	\$5.14	\$5.24	\$5.30	\$5.36	\$5.40	\$5.43	\$5.45	\$5.47	\$5.49	\$5.50	\$5.51	\$5.52	\$5.53	\$5.54
Gas Transportation	\$/MMBTU	\$0.26	\$0.28	\$0.30	\$0.32	\$0.33	\$0.34	\$0.35	\$0.36	\$0.37	\$0.38	\$0.39	\$0.40	\$0.41	\$0.42	\$0.43	\$0.44	\$0.45	\$0.46	\$0.47	\$0.48	\$0.49	\$0.50	\$0.51	\$0.52	\$0.53	\$0.54	\$0.55	\$0.56
Site 1 & 2 Coal Price Delivered	\$/MMWh	\$41.43	\$42.34	\$43.44	\$44.64	\$45.82	\$47.08	\$48.36	\$49.61	\$50.84	\$52.05	\$53.24	\$54.41	\$55.56	\$56.70	\$57.82	\$58.91	\$60.00	\$61.07	\$62.13	\$63.18	\$64.22	\$65.24	\$66.25	\$67.24	\$68.21	\$69.17	\$70.12	\$71.05
OUC System Fuel Cost	\$/MMWh	\$33.79	\$33.38	\$33.47	\$33.32	\$33.90	\$34.38	\$34.76	\$34.19	\$35.55	\$36.96	\$38.50	\$39.25	\$40.00	\$40.74	\$41.47	\$42.19	\$42.90	\$43.60	\$44.29	\$44.97	\$45.64	\$46.30	\$46.95	\$47.60	\$48.24	\$48.88	\$49.51	\$50.14
EMPA Contracts (St. Lucie, Stairton & Shulten 2)																													
Capacity	MW	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	
Delivered Energy	MWh/yr	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	306,418	
Total Project Cost	\$	\$1,327,378	\$1,547,074	\$1,647,217	\$1,714,116	\$1,812,431	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	\$1,842,644	
Project Cost	\$/MMWh	\$43.20	\$48.34	\$48.23	\$48.68	\$49.49	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	\$49.78	
OUC Revised Contract (VB Offer)																													
Demand Rate Oct-Dec	MW	\$8,331	\$8,331	\$8,331	\$10,885	\$10,930	\$10,993	\$10,986	\$11,007	\$11,038																			
Demand Rate Jan-Sep	MW	\$8,331	\$8,331	\$10,885	\$10,930	\$10,993	\$10,986	\$11,007	\$11,038	0																			
Demand Billing Determinants Oct-Dec	MW	83	83	83	83	83	83	83	83	83																			
Demand Billing Determinants Jan-Sep	MW	83	83	87	88	89	90	91	92	\$0.00																			
Fuel Price	\$/MMWh	\$33.79	\$33.38	\$33.47	\$33.32	\$33.90	\$34.38	\$34.76	\$34.19	\$35.55	\$36.96	\$38.50	\$39.25	\$40.00	\$40.74	\$41.47	\$42.19	\$42.90	\$43.60	\$44.29	\$44.97	\$45.64	\$46.30	\$46.95	\$47.60	\$48.24	\$48.88	\$49.51	
Energy Delivered	MWh/yr	457,326	377,319	380,614	384,008	387,376	391,003	394,608	398,153	401,711																			
Demand Charge	\$	\$6,821,321	\$5,144,344	\$11,010,303	\$11,714,430	\$11,876,595	\$12,043,417	\$12,206,378	\$12,373,241	\$12,540,910																			
Energy Charge	\$	\$15,007,081	\$13,308,865	\$14,141,447	\$14,904,278	\$15,706,411	\$16,541,376	\$17,409,216	\$18,309,107	\$19,241,216																			
Total Cost	\$/MMWh	\$54.16	\$50.21	\$56.69	\$56.94	\$57.30	\$57.24	\$57.30	\$57.30	\$57.30																			
OUC Peaking Proposal (VB Offer)																													
Demand Rate Oct-Dec	MW	\$5,366	\$5,366	\$5,836	\$6,105	\$6,623	\$7,146	\$7,666	\$8,187	\$8,708																			
Demand Rate Jan-Sep	MW	\$5,366	\$5,366	\$6,105	\$6,623	\$7,146	\$7,666	\$8,187	\$8,708	0																			
Contract Capacity	\$/MMWh	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4																			
Capacity Factor	%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.3%																			
Fuel Price	\$/MMWh	\$33.79	\$33.38	\$33.47	\$33.32	\$33.90	\$34.38	\$34.76	\$34.19	\$35.55	\$36.96	\$38.50	\$39.25	\$40.00	\$40.74	\$41.47	\$42.19	\$42.90	\$43.60	\$44.29	\$44.97	\$45.64	\$46.30	\$46.95	\$47.60	\$48.24	\$48.88	\$49.51	
Energy Delivered	MWh/yr	8,481	8,481	8,481	8,481	8,481	8,481	8,481	8,481	1,577																			
Demand Charge	\$	\$5,625,751	\$5,366,444	\$5,962,397	\$6,246,690	\$6,819,296	\$7,437,372	\$8,101,270	\$8,811,210	\$9,567,246																			
Energy Charge	\$	\$18,227	\$14,974	\$16,766	\$18,131	\$19,751	\$21,632	\$23,766	\$26,163	\$28,913																			
All-in Costs	\$/MMWh	\$48.19	\$43,414	\$45,393	\$48,440	\$52,044	\$56,129	\$60,845	\$66,166	\$72,074																			
BFS Market Supply (post 2023)																													
Peak Capacity	MW	120	106	106	123	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	
Average Capacity	MW	133	82	83	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	
Outstand Charge	\$/MMWh	\$9,855	\$18,500	\$19,783	\$11,082	\$13,201	\$13,500	\$13,800	\$14,100	\$14,400	\$14,700	\$15,000	\$15,300	\$15,600	\$15,900	\$16,200	\$16,500	\$16,800	\$17,100	\$17,400	\$17,700	\$18,000	\$18,300	\$18,600	\$18,900	\$19,200	\$19,500	\$19,800	
Non-Fuel Energy Charge	\$/MMWh	\$3.80	\$3.31	\$4.00	\$4.15	\$4.28	\$4.41	\$4.54	\$4.67	\$4.80	\$4.93	\$5.06	\$5.19	\$5.32	\$5.45	\$5.58	\$5.71	\$5.84	\$5.97	\$6.10	\$6.23	\$6.36	\$6.49	\$6.62	\$6.75	\$6.88	\$7.01	\$7.14	
Fuel Charge	\$/MMWh	\$59.81	\$56.88	\$58.14	\$59.87	\$61.61	\$63.35	\$65.09	\$66.83	\$68.57	\$70.31	\$72.05	\$73.79	\$75.53	\$77.27	\$79.01	\$80.75	\$82.49	\$84.23	\$85.97	\$87.71	\$89.45	\$91.19	\$92.93	\$94.67	\$96.41	\$98.15	\$99.89	
Delivered Energy	MWh/yr	\$14,684	\$14,750	\$14,835	\$15,000	\$15,127	\$15,277	\$15,437	\$15,597	\$15,757	\$15,917	\$16,077	\$16,237	\$16,397	\$16,557														

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

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

Indian River Shores Average Annual kWh/Residential Customer:

$$\begin{aligned} \text{Shores Total Residential kWh(11 months)} &= 46,177,422 \\ \text{Times 12 divided by 11 (to estimate annual kWh)} &= 50,375,369 \\ \text{Divided by 2,775 Shores Residential Customers} &= \\ &18,153 \text{ kWh/customer/year} \\ &1,513 \text{ kWh/customer/month} \end{aligned}$$

City Average Annual kWh/Residential Customer:

$$\begin{aligned} \text{City Total Residential kWh} &= 313,820,920 \\ \text{Times 12 divided by 11 (to estimate annual kWh)} &= 342,350,095 \\ \text{Divided by 28,556 Total City Residential Customers} &= \\ &11,989/\text{kWh/customer/year} \\ &999 \text{ kWh/customer/month} \end{aligned}$$

Combined Charges per kWh (Energy Charge + BPCA Charge:

$$\begin{aligned} 0 - 1,000 \text{ kWh/customer/month} &11.375 \text{ cents/kWh} \\ \text{Above 1,000 kWh/customer/month} &13.995 \text{ cents/kWh} \end{aligned}$$

$$\begin{aligned} \text{Shores Average Energy Revenues/month} &= \\ (\$0.11375 \times 1,000) + (\$0.13995 \times 513) &= \$ 185.53/\text{customer} \end{aligned}$$

$$\begin{aligned} \text{City Average Energy Revenues/month} &= \\ \$0.11375 \times 999 &= \$ 113.64/\text{customer} \end{aligned}$$

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.

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