

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 SUPPLEMENTAL TESTIMONY OF MYRON R. ROLLINS

3 ON BEHALF OF

4 JEA

5 DOCKET NO. 080614

6 NOVEMBER 21, 2008

7
8 **Q. Please state your name and business address.**

9 A. My name is Myron R. Rollins. My business address is 11401 Lamar Avenue,
10 Overland Park, Kansas 66211.

11
12 **Q. By whom are you employed and in what capacity?**

13 A. I am employed by Black & Veatch Corporation. My current position is Director.

14
15 **Q. Have you previously filed testimony in this proceeding?**

16 A. Yes. My direct testimony in this proceeding was filed September 30, 2008.

17
18 **Q. What is the purpose of your supplemental testimony in this proceeding?**

19 A. The purpose of my supplemental testimony is to discuss revisions to and additional
20 analyses in support of the Greenland Energy Center (GEC) Combined Cycle
21 Conversion Project Need for Power Application, Exhibit No. __[GEC-1]. I also will
22 discuss how renewable energy technologies may be impacted by recent credit market
23 developments, the impact of a one year delay of the Project on JEA's capacity needs,

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1 and the potential impact of JEA's DSM portfolio on JEA's projected need for
2 capacity.

3

4 **Q. What precipitated the changes to the Need for Power Application and additional**
5 **supporting analyses?**

6 A. As discussed in the supplemental testimony of Mr. Gilbert, in response to recent credit
7 market developments, JEA has changed its forecast of the long-term interest rate and
8 is delaying capital expenditures from fiscal year 2009 to 2010. Additional economic
9 analyses have been performed to reflect these changes. The results of the additional
10 economic analyses are discussed in the supplemental testimony of Mr. Kushner.

11

12 **Q. Are you sponsoring any exhibits to your testimony?**

13 A. Yes. Exhibit No. __[MRR-2R] is a revised version of Exhibit No. __[MRR-2]
14 submitted with my original direct testimony. Exhibit No. __[MRR-4] and Exhibit No.
15 [MRR-5] present JEA's annual capacity requirements for the base case load forecast
16 for the summer and winter seasons, respectively. Exhibit No. __[MRR-6] and Exhibit
17 No. __[MRR-7] present JEA's annual capacity requirements after including the impact
18 of JEA's planned Demand Side Management (DSM) program on the base case load
19 forecast for the summer and winter seasons, respectively. All of these exhibits reflect
20 a one year delay in the commercial operation date of the GEC simple cycle
21 combustion turbines.

22

1 **Q. Are there any changes or corrections to your direct testimony filed September 30,**
2 **2008?**

3 A. Yes. On page 9, line 8, the reference to a 5.0 percent long-term tax-exempt bond
4 interest rate should be changed to 7.0 percent. On page 10, line 2, the 20-year fixed
5 charge rate should be changed to 10.412 percent rather than 8.972 and the 25-year
6 fixed charge rate should be 9.425 percent rather than 7.915 percent. On page 13, line
7 12, the 41 MW should be changed to approximately 48 MW. Exhibit No. __[MRR-2]
8 should reflect the one year delay in the date that GEC combustion turbines 1 and 2 are
9 added to JEA's system and is replaced by Exhibit No. __[MRR-2R].

10
11 **Q. Are there any changes or corrections to the sections of the GEC Need for Power**
12 **Application, Exhibit No. __[GEC-1] that you sponsored in your direct testimony?**

13 A. Yes. On page 1-4 Section 1.9 of the GEC Need for Power Application, Exhibit No. –
14 [GEC-1], \$122.6 changes to \$21.6. On pages 4-1 and 4-2, the tax exempt municipal
15 bond rate, the present worth discount rate, and the interest during construction rate
16 should all be changed to 7.0 percent rather than 5.0 percent. On page 4-2, the 20-year
17 FCR should be changed to 10.412 percent from 8.972 percent, and the 25-year FCR
18 should be changed to 9.425 percent rather than 7.915 percent. On Page 12-1, the
19 second bullet should be changed to indicate that the GEC simple cycle combustion
20 turbines are planned for operation in 2011, rather than 2010. On pages 12-3 and 12-4,
21 Tables 12-1 and 12-2 should be replaced by Exhibit No. __[MRR-4] and Exhibit No.
22 __[MRR-5], respectively. Corresponding discussions of capacity requirements
23 throughout the GEC Need for Power Application should reflect those presented in
24 Exhibit No. __[MRR-4] and Exhibit No. __[MRR-5].

1

2 **Q. Is the change in long-term interest rate (and the resulting FCR calculations)**
3 **appropriate for estimating the economic impact of recent credit market**
4 **developments?**

5 A. Yes. JEA's current forecast of a long-term interest rate of no more than 7 percent is
6 reasonable and appears to be conservative based on current interest rates for long-term
7 municipal bonds, which are currently below 6 percent.

8

9 **Q. How may the competitiveness of renewable resources be affected as a result of the**
10 **recent credit market developments?**

11 A. The recent credit market developments will likely impact (increase) the cost of
12 financing renewable resources. An increase in financing costs would impact
13 renewable resources whether they are developed by utilities or by private development
14 companies. Due in part to their financial structure, private development companies
15 could actually see larger increases in costs than utilities.

16

17 **Q. How does a one year delay of the GEC combined cycle conversion project impact**
18 **JEA's expected need for additional capacity?**

19 A. A one year delay in the commercial operation date of the GEC combustion turbines
20 increases JEA's need for capacity in the summer of 2010 to 300 MW, which will
21 require JEA to purchase additional capacity in 2010 to meet projected loads plus
22 reserve margin. A one year delay in the commercial operation date of the GEC
23 conversion project will require JEA to purchase about 167 MW of capacity during the

1 summer of 2012 to meet the projected load plus reserve margin. The supplemental
2 testimony of Mr. Gilbert discusses JEA's ability to make these increased short-term
3 purchases. JEA's projected need for capacity without the GEC combined cycle
4 conversion is about 242 MW in 2013 and grows to about 393 MW in 2015.

5
6 **Q. How may DSM mitigate the need for additional short-term purchases?**

7 A. The DSM portfolio discussed in the direct and supplemental testimony of Mr. Vento is
8 projected to decrease the net firm load as the DSM portfolio is implemented and to
9 decrease, but not eliminate, JEA's need for additional short-term purchases due to a
10 one year delay in the GEC conversion project. Exhibit Nos. ___[MRR-6] and [MRR-7]
11 summarize JEA's need for additional capacity after the implementation of the DSM
12 program discussed in Mr. Vento's supplemental testimony. The DSM program is
13 projected to decrease JEA's need for summer capacity to about 269 MW in 2010 and
14 to about 48 MW in 2012. Without the GEC combined cycle conversion, JEA's need
15 for capacity is about 97 MW in 2013 and grows to about 248 MW by 2015.

16
17 **Q. Does this conclude your supplemental testimony?**

18 A. **Yes.**

JEA Simple Cycle Combustion Turbine Additions

SUMMER			
Year	Capacity Need	CT Addition	Remaining Capacity Need
	MW	MW	MW
2009	168	Kennedy-150	18
2010	450	-----	300
2011	525	GEC 1 & 2-284	91
2012	601	-----	167

WINTER			
Year	Capacity Need	CT Addition	Remaining Capacity Need
	MW	MW	MW
2008/2009	(129)	-----	(129)
2009/2010	22	Kennedy 8-191	(169)
2010/2011	468	-----	277
2011/2012	556	GEC 1 & 2 - 376	(11)

Projected Reliability Levels - Summer/Base Case												
Year	2008 Net Generating Capacity (MW)	Purchases ² (MW)	Sales ³ (MW)	Net Firm Planned Capacity Retirements ⁴ (MW)	Net Firm Capacity Additions ⁵ (MW)	Net System Capacity (MW)	System Peak Demand		Reserve Margin ¹		Excess/(Deficit) to Maintain 15% Reserve Margin	
							Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)	Before Int. and Load Mgt. (%)	After Int. and Load Mgt. (%)	Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)
2008	3,367	216	(376)	0	0	3,207	2,941	2,824	9.0%	13.5%	(176)	(41)
2009	3,367	216	(376)	(51)	150	3,306	3,007	2,890	9.9%	14.4%	(152)	(18)
2010	3,367	9	(376)	(51)	150	3,099	3,072	2,955	0.9%	4.9%	(435)	(300)
2011	3,367	9	(376)	(51)	434	3,383	3,138	3,021	7.8%	12.0%	(226)	(91)
2012	3,367	9	(376)	(51)	434	3,383	3,204	3,087	5.6%	9.6%	(301)	(167)
2013	3,367	9	(376)	(51)	434	3,383	3,269	3,152	3.5%	7.3%	(377)	(242)
2014	3,367	9	(376)	(51)	434	3,383	3,335	3,218	1.4%	5.1%	(452)	(317)
2015	3,367	9	(376)	(51)	434	3,383	3,400	3,283	-0.5%	3.0%	(527)	(393)
2016	3,367	9	0	(51)	434	3,759	3,466	3,349	8.5%	12.3%	(227)	(92)
2017	3,367	9	0	(51)	434	3,759	3,531	3,414	6.4%	10.1%	(302)	(167)
2018	3,367	0	0	(51)	434	3,750	3,597	3,480	4.3%	7.8%	(386)	(252)
2019	3,367	0	0	(51)	434	3,750	3,662	3,545	2.4%	5.8%	(462)	(327)
2020	3,367	0	0	(51)	434	3,750	3,728	3,611	0.6%	3.9%	(537)	(403)
2021	3,367	0	0	(51)	434	3,750	3,794	3,677	-1.1%	2.0%	(613)	(478)
2022	3,367	0	0	(51)	434	3,750	3,859	3,742	-2.8%	0.2%	(688)	(553)
2023	3,367	0	0	(51)	434	3,750	3,925	3,808	-4.5%	-1.5%	(763)	(629)
2024	3,367	0	0	(51)	434	3,750	3,990	3,873	-6.0%	-3.2%	(839)	(704)
2025	3,367	0	0	(51)	434	3,750	4,056	3,939	-7.5%	-4.8%	(914)	(780)
2026	3,367	0	0	(51)	434	3,750	4,121	4,004	-9.0%	-6.4%	(990)	(855)
2027	3,367	0	0	(51)	434	3,750	4,187	4,070	-10.4%	-7.9%	(1,065)	(930)

¹ Reserve margin calculated as (Net System Capacity - System Peak Demand) / (System Peak Demand).
² Assumes UPS purchase through May 2010.
³ Assumes FPL contract to purchase 30 percent of SJRPP ends on March 31, 2016.
⁴ Retirement of JD Kennedy CT 3 in March 2009.
⁵ Addition of JD Kennedy CT 8 in March 2009 and GEC CTs 1 and 2 in June 2011.

Projected Reliability Levels - Winter/Base Case												
Year	2008 Net Generating Capacity (MW)	Purchases ² (MW)	Sales ³ (MW)	Net Firm Planned Capacity Retirements ⁴ (MW)	Net Firm Capacity Additions ⁵ (MW)	Net System Capacity (MW)	System Peak Demand		Reserve Margin ¹		Excess/(Deficit) to Maintain 15% Reserve Margin	
							Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)	Before Int. and Load Mgt. (%)	After Int. and Load Mgt. (%)	Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)
2008	3,621	291	(383)	0	0	3,529	3,079	2,946	14.6%	19.8%	(11)	142
2009	3,621	366	(383)	0	0	3,604	3,155	3,022	14.2%	19.3%	(24)	129
2010	3,621	366	(383)	(63)	191	3,733	3,232	3,099	15.5%	20.4%	16	169
2011	3,621	9	(383)	(63)	191	3,376	3,309	3,176	2.0%	6.3%	(430)	(277)
2012	3,621	9	(383)	(63)	567	3,751	3,386	3,253	10.8%	15.3%	(142)	11
2013	3,621	9	(383)	(63)	567	3,751	3,462	3,329	8.3%	12.7%	(230)	(77)
2014	3,621	9	(383)	(63)	567	3,751	3,539	3,406	6.0%	10.1%	(319)	(166)
2015	3,621	9	(383)	(63)	567	3,751	3,616	3,483	3.7%	7.7%	(407)	(254)
2016	3,621	9	(383)	(63)	567	3,751	3,693	3,560	1.6%	5.4%	(495)	(342)
2017	3,621	9	0	(63)	567	4,134	3,770	3,637	9.7%	13.7%	(201)	(48)
2018	3,621	0	0	(63)	567	4,125	3,846	3,713	7.3%	11.1%	(298)	(145)
2019	3,621	0	0	(63)	567	4,125	3,923	3,790	5.2%	8.8%	(386)	(233)
2020	3,621	0	0	(63)	567	4,125	4,000	3,867	3.1%	6.7%	(474)	(321)
2021	3,621	0	0	(63)	567	4,125	4,077	3,944	1.2%	4.6%	(563)	(410)
2022	3,621	0	0	(63)	567	4,125	4,153	4,020	-0.7%	2.6%	(651)	(498)
2023	3,621	0	0	(63)	567	4,125	4,230	4,097	-2.5%	0.7%	(739)	(586)
2024	3,621	0	0	(63)	567	4,125	4,307	4,174	-4.2%	-1.2%	(828)	(675)
2025	3,621	0	0	(63)	567	4,125	4,384	4,251	-5.9%	-2.9%	(916)	(763)
2026	3,621	0	0	(63)	567	4,125	4,461	4,328	-7.5%	-4.7%	(1,004)	(851)
2027	3,621	0	0	(63)	567	4,125	4,537	4,404	-9.1%	-6.3%	(1,092)	(940)

¹ Reserve margin calculated as (Net System Capacity - System Peak Demand) / (System Peak Demand).
² Assumes UPS purchase through May 2010.
³ Assumes FPL contract to purchase 30 percent of SJRPP ends on March 31, 2016.
⁴ Retirement of JD Kennedy CT 3 in March 2009.
⁵ Addition of JD Kennedy CT 8 in March 2009 and GEC CTs 1 and 2 in June 2011.

Projected Reliability Levels - Summer/DSM Case												
Year	2008 Net Generating Capacity (MW)	Purchases ² (MW)	Sales ³ (MW)	Net Firm Planned Capacity Retirements ⁴ (MW)	Net Firm Capacity Additions ⁵ (MW)	Net System Capacity (MW)	System Peak Demand		Reserve Margin ¹		Excess/(Deficit) to Maintain 15% Reserve Margin	
							Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)	Before Int. and Load Mgt. (%)	After Int. and Load Mgt. (%)	Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)
2008	3,367	216	(376)	0	0	3,207	2,941	2,824	9.0%	13.6%	(175)	(41)
2009	3,367	216	(376)	(51)	150	3,306	3,001	2,884	10.1%	14.6%	(146)	(11)
2010	3,367	9	(376)	(51)	150	3,099	3,045	2,928	1.8%	5.8%	(403)	(269)
2011	3,367	9	(376)	(51)	434	3,383	3,079	2,962	9.9%	14.2%	(158)	(24)
2012	3,367	9	(376)	(51)	434	3,383	3,100	2,983	9.1%	13.4%	(182)	(48)
2013	3,367	9	(376)	(51)	434	3,383	3,143	3,026	7.6%	11.8%	(232)	(97)
2014	3,367	9	(376)	(51)	434	3,383	3,209	3,092	5.4%	9.4%	(307)	(173)
2015	3,367	9	(376)	(51)	434	3,383	3,274	3,157	3.3%	7.2%	(382)	(248)
2016	3,367	9	0	(51)	434	3,759	3,340	3,223	12.5%	16.6%	(82)	53
2017	3,367	9	0	(51)	434	3,759	3,405	3,288	10.4%	14.3%	(157)	(22)
2018	3,367	0	0	(51)	434	3,750	3,471	3,354	8.0%	11.8%	(242)	(107)
2019	3,367	0	0	(51)	434	3,750	3,537	3,420	6.0%	9.7%	(317)	(183)
2020	3,367	0	0	(51)	434	3,750	3,602	3,485	4.1%	7.6%	(392)	(258)
2021	3,367	0	0	(51)	434	3,750	3,668	3,551	2.2%	5.6%	(468)	(334)
2022	3,367	0	0	(51)	434	3,750	3,733	3,616	0.5%	3.7%	(543)	(408)
2023	3,367	0	0	(51)	434	3,750	3,799	3,682	-1.3%	1.8%	(619)	(484)
2024	3,367	0	0	(51)	434	3,750	3,864	3,747	-2.9%	0.1%	(694)	(559)
2025	3,367	0	0	(51)	434	3,750	3,930	3,813	-4.6%	-1.6%	(769)	(635)
2026	3,367	0	0	(51)	434	3,750	3,996	3,879	-6.2%	-3.3%	(845)	(711)
2027	3,367	0	0	(51)	434	3,750	4,061	3,944	-7.7%	-4.9%	(920)	(786)

¹ Reserve margin calculated as (Net System Capacity - System Peak Demand) / (System Peak Demand).
² Assumes UPS purchase through May 2010.
³ Assumes FPL contract to purchase 30 percent of SJRPP ends on March 31, 2016.
⁴ Retirement of JD Kennedy CT 3 in March 2009.
⁵ Addition of JD Kennedy CT 8 in March 2009 and GEC CTs 1 and 2 in June 2011.

Projected Reliability Levels - Winter/DSM Case												
Year	2008 Net Generating Capacity (MW)	Purchases ² (MW)	Sales ³ (MW)	Net Firm Planned Capacity Retirements ⁴ (MW)	Net Firm Capacity Additions ⁵ (MW)	Net System Capacity (MW)	System Peak Demand		Reserve Margin ¹		Excess/(Deficit) to Maintain 15% Reserve Margin	
							Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)	Before Int. and Load Mgt. (%)	After Int. and Load Mgt. (%)	Before Int. and Load Mgt. (MW)	After Int. and Load Mgt. (MW)
2008	3,621	291	(383)	0	0	3,529	3,079	2,946	14.6%	19.8%	(12)	141
2009	3,621	366	(383)	0	0	3,604	3,147	3,014	14.5%	19.6%	(15)	138
2010	3,621	366	(383)	(63)	191	3,733	3,198	3,065	16.7%	21.8%	55	208
2011	3,621	9	(383)	(63)	191	3,376	3,235	3,102	4.3%	8.8%	(345)	(192)
2012	3,621	9	(383)	(63)	567	3,751	3,276	3,143	14.5%	19.4%	(16)	137
2013	3,621	9	(383)	(63)	567	3,751	3,334	3,201	12.5%	17.2%	(83)	70
2014	3,621	9	(383)	(63)	567	3,751	3,411	3,278	10.0%	14.4%	(171)	(18)
2015	3,621	9	(383)	(63)	567	3,751	3,488	3,355	7.6%	11.8%	(260)	(107)
2016	3,621	9	(383)	(63)	567	3,751	3,565	3,432	5.2%	9.3%	(348)	(195)
2017	3,621	9	0	(63)	567	4,134	3,642	3,509	13.5%	17.8%	(54)	99
2018	3,621	0	0	(63)	567	4,125	3,718	3,585	11.0%	15.1%	(150)	3
2019	3,621	0	0	(63)	567	4,125	3,795	3,662	8.7%	12.7%	(239)	(86)
2020	3,621	0	0	(63)	567	4,125	3,872	3,739	6.5%	10.3%	(327)	(174)
2021	3,621	0	0	(63)	567	4,125	3,949	3,816	4.5%	8.1%	(416)	(263)
2022	3,621	0	0	(63)	567	4,125	4,025	3,892	2.5%	6.0%	(503)	(350)
2023	3,621	0	0	(63)	567	4,125	4,102	3,969	0.6%	3.9%	(592)	(439)
2024	3,621	0	0	(63)	567	4,125	4,179	4,046	-1.3%	2.0%	(680)	(527)
2025	3,621	0	0	(63)	567	4,125	4,256	4,123	-3.1%	0.1%	(769)	(616)
2026	3,621	0	0	(63)	567	4,125	4,333	4,200	-4.8%	-1.8%	(858)	(705)
2027	3,621	0	0	(63)	567	4,125	4,409	4,276	-6.4%	-3.5%	(945)	(792)

¹ Reserve margin calculated as (Net System Capacity - System Peak Demand) / (System Peak Demand).
² Assumes UPS purchase through May 2010.
³ Assumes FPL contract to purchase 30 percent of SJRPP ends on March 31, 2016.
⁴ Retirement of JD Kennedy CT 3 in March 2009.
⁵ Addition of JD Kennedy CT 8 in March 2009 and GEC CTs 1 and 2 in June 2011.