2 The Calpine Osprey proposal, which was ranked No. 1 in the or A. Uninary analysis, retained its position as the most cost-effective submittal. The more detailed 3 4 simulation indicated that Seminole would employ its 350 MW commitment of 5 Osprey capacity at an initial capacity factor of 60% and that it would increase to 70%6 over the period 2004-2008. Compared to the second, third, and fourth best proposals. 7 the Calpine Osprey bid will save Seminole \$16,834,000, \$33,838,000, and 8 \$53,515,000 in total revenue requirements, (net present value) over the period 2004-9 2008 respectively. The results are also shown on Exhibit No. (GSZ-5). In Exhibit No. (GSZ-5) we compared the bids after expressing each in terms of 10 11 the equivalent 350 MW offer. The results are shown in Volume I, Section C of the

12 Exhibit to the Joint Petition.

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13 Q. What did Seminole do next?

14 A. We compared the Calpine proposal with the self-build option.

## 15 Q. How did you develop the cost of the self-build option?

A. We began with the direct construction costs provided to us by Black and Veatch. We developed the revenue requirements by making certain assumptions regarding loan amounts, interest rates, and term of the loan. Because we have not firmed up fuel or fuel transportation arrangements for a self-build option, we assumed the fuel and fuel transportation costs would be equivalent to those of the Calpine facility, thereby enabling us to compare the self-build to Calpine on a fixed cost basis only.

22 Q. Please elaborate on the financial assumptions you employed.

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1	A.	Seminole traditionally has evaluated financing assuming a 30-year loan guarantee of
2		by the Rural Utilities Services ("RUS"). Seminole developed the case using this
3		method, but also looked at an RUS-guaranteed 6% loan having a payback period of
4		17 years. This will be the amount of time remaining on the Seminole - Member
5		Wholesale Power Contract in 2004. As a sensitivity, Seminole also, looked at a non-
6		RUS guaranteed loan with 7 % interest.
7	Q.	Did you make any assumptions regarding the proposed power purchase
8		transaction on Seminole's cost of capital?
9	A.	We assumed there would be no impact.
10	Q.	Please explain.
11	A.	RUS is the primary source of our funding. The criterion that RUS applies to gauge
12		risk relates to interest coverage ratings. In our experience, RUS does not regard a
13		power purchase agreement as more risky financially than construction and
14		ownership.
15	Q.	Once you fully developed the revenue requirements of the self-build option, how
16		did it compare with the Calpine proposal?
17	A.	When viewed on a five-year basis, the Calpine proposal was more cost-effective,
18		saving Seminole \$6,376,000 over the initial term. This is the pertinent time frame
19		for the analysis, in view of the reopener provision to which Calpine and Seminole
20		have agreed.
21	Q.	What happened after Seminole determined that the Calpine proposal is its best
22		alternative to meet its 2004 need for capacity?

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Docket No. \_\_\_\_\_ Witness: Garl S. Zimmerman Exhibit No. \_\_\_\_ (GSZ-4)

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Table 9   Ranking of Peaking Capacity Bids				
Average Annual Cost (Nominal \$/MWh)	Rank			
\$99.20	1			
\$103.96	2	(		
\$110.42	3			
\$119.73	4	ę		
\$129.68	5	C		

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Docket No. \_\_\_\_\_ Witness: Garl S. Zimmerman Exhibit No. \_\_\_ (GSZ-5)

Table 11   Calpine Osprey : Savings (PVRR) when compared to:						
Bidder	Period of Comparison	MW	Additional Costs			
Bidder 2 Bidder 3 Bidder 4	2004 - 2008 2004 - 2008 2004 - 2008	350 350 350	\$16,834,000 \$33,838,000 \$53,515,000			
Seminole self-build	2004-2008	350	\$6,376,000			

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**Peaking** - Peaking capacity bids were evaluated in three stages. First, the bids were compared / against each other in order to rank the offers based on overall cost. To derive the utilization  $\mathcal{L}$ 3 characteristics necessary to the analysis, Seminole simulated the addition of a combustion turbine to Seminole's resources for the period June, 2004 - December, 2008. The operational parameters for a GE 7 FA unit were used in the simulation, as all but one of the respondents based their proposals on 5 this unit. (The other bidder offered capacity from GE 7EA turbines, which are very similar to the 7FA  $\dot{\psi}$ in operation.) Fuel costs were considered to be a pass-through. The quoted demand costs (\$/MW) proved to be the critical variable for peaking capacity, as other variables - fuel costs, hours of xoperation, start-up costs were equal or substantially similar. Using demand costs plus fixed values 9 for energy, service hours, and the number of unit starts for each bid, Seminole calculated an average  $\dot{D}$ annual cost in nominal dollars per megawatt hour. The results of this analysis are shown in the Table 9.

Table 9		ן יכ
Ranking of Peaking Capa	13	
Average Annual Cost (Nominal \$/MWh)	Rank	ONFIDENTIA
\$99.20	1	COM IL
\$103.96	2	17
\$110.42	3	18
\$119.73	4	19
\$129.68	5	20

Next, the bid ranked No. 1 was compared to the cost of equivalent additional PR purchases. This analysis indicated that the least cost bid was not economically superior to the existing PR contract.

4. These results confirmed the economic advantage of the No. 1 bid, which produced total system 7 revenue requirements that were lower than Bids No. 3 and No. 4, by \$9,668,000 and \$15,290,000  $\stackrel{?}{_{\sim}}$  respectively (in 2004 dollars). Seminole also concluded from these studies that the No. 2 ranked bid  $\stackrel{?}{_{\sim}}$  was economically superior to Bids No. 3 and No. 4. The last study compared the No. 1 ranked bid  $\stackrel{'}{_{\sim}}$  to the No. 2 ranked bid with 350 MW of capacity. The comparison showed that bid No. 1 would  $\stackrel{?}{_{\sim}}$  save Seminole \$16,834,000 (\$4,809,000 per 100 MW) in evenue requirements over the 4-1/2  $\stackrel{'}{_{\sim}}$  year period, as compared to the No.2 bid.

As a result of this second phase evaluation process, the No. 1 ranked bid was confirmed as the least-cost intermediate capacity alternative. The next three bids retained their original positions as No. 2, No. 3 and No. 4.

Finally, Seminole compared the costs of the No. 1 ranked bidder to the turnkey self-build engineers' estimates prepared by Black and Veatch. Seminole analyzed the self-build alternatives under several forecasts of future financial conditions. The financing options included Rural Utilities Services ("RUS") guaranteed financing at 6% interest with a 30-year loan period; RUS guaranteed financing at 6% with a 17-year loan period (the time remaining on the Seminole-Member Wholesale Power Contract); and non-RUS guaranteed financing at 7% interest. When comparing the costs of the self-build option with the power purchase option, Seminole assumed that purchasing power instead of constructing a unit would have no effect on Seminole's cost of capital. It has been Seminole's experience that RUS, Seminole's principal source of financing, does not regard the purchase option as more risky than the self-build option. Unit cost averages for the first five years of ownership and over the loan terms were compared with the costs of the No. 1 ranked purchase power offer. The results of the analysis are summarized in Table 11.

prey : Savings (PVRI	R) when compar	ed to:
od of Comparison	MW	Additional Costs
2004 - 2008	350	\$16,834,000
2004 - 2008	350	\$33,838,000
2004 - 2008	350	\$53,515,000
2004-2008	350	\$6 376 000
	prey : Savings (PVR)   od of Comparison   2004 - 2008   2004 - 2008   2004 - 2008   2004 - 2008   2004 - 2008	prey : Savings (PVRR) when comparison   od of Comparison MW   2004 - 2008 350   2004 - 2008 350   2004 - 2008 350   2004 - 2008 350   2004 - 2008 350   2004 - 2008 350   2004 - 2008 350

Note: The above self-build cost assumes that the capacity not needed by Seminole could be sold for the time period not needed. For purposes of the comparison, costs were based on the assumption that each bidder would offer 350MW.

After taking comparative costs and strategic concerns into account, the No. 1 ranked bid, submitted by Calpine, was selected as the preferred Seminole option to fulfill the 2004 need.

## 6. <u>MEMORANDUM OF UNDERSTANDING</u>

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Based on the results of the evaluation of competing proposals, Seminole and Calpine negotiated basic commercial terms, which are reflected in the Memorandum of Understanding, a copy of which is included as Appendix I-C to Volume 1 of Exhibits to the Joint Petition. (The public version has been redacted to protect confidential, commercially sensitive terms.)

The terms to which Seminole and Calpine have agreed provide significant benefits to Seminole. While Seminole is acquiring 350MW of firm capacity, the pricing provisions in the MOU reflect the efficiencies and economies of scale that are associated with a 500+ MW class unit. Seminole's ability to purchase optional firm capacity (to the extent it has not been firmly committed to others) enhances its strategic flexibility. Because Calpine intends to bring the unit on line prior to