

SECTION 1 - EXECUTIVE SUMMARY

GDS has concluded its high level peer review of the draft ICF Study provided to the City of Gainesville dated February 14, 2006, and this report summarizes our findings.

Key conclusions of this report include:

- The ICF draft study is what it is. That is, the study analyzes four specific, prescribed options for meeting the City of Gainesville's long term electrical needs. It only evaluates a narrow list of options, and does not pretend to be a fully developed power supply study reflecting a comprehensive review of all possible options to meet the City's needs.
- There are numerous feasible energy efficiency, load management, and demand response measures that ICF did not examine. Additional demand side measures could produce greater savings and could along with the addition of a small generator delay the need for additional supply side resources until 2020 (see attachment to this executive summary).
- ICF's estimate of potential demand side kWh savings (as a percent of annual GRU kWh sales) is very low compared to other studies.
- The ICF DSM analysis methodology "cripples" the potential energy and peak savings impacts of cost effective energy efficiency measures because of ICF's use of extremely low "applicability factors".
- The ICF study does not give weight to reduced risk from cost effective investments in DSM equipment and building materials. Investments in such efficiency measures will be dispersed throughout the homes and businesses in the City. Once these energy efficiency measures are installed, they operate quietly and economically with no fuel costs year after year after year, and with no emissions. Because hundreds of pieces of energy efficient equipment are installed in numerous residential and commercial businesses, the risk of failure is minuscule, while the risk of failure for a large, central station power plant is dramatically larger. This risk minimization benefit from DSM is an essential consideration for the City Commission.
- ICF did not evaluate a scenario where supply side options were delayed until such time as the resources were fully needed.
- It is unclear from ICF's results which is the best course of action of the four options evaluated. The ICF report in fact does not make any recommendations about which alternative the City should select.
- The criteria used by ICF may not adequately represent the stakeholders that have an interest in this important decision for the City.

- None of the supply side options evaluated by ICF are conventional technologies, meaning there is not a history of widespread use, and as a result they each carry technological risk to varying degrees.
- ICF's supply side modeling assumptions appear to generally be in the range of reasonableness, though we do note some exceptions, including in particular the financing costs associated with larger, less conventional technologies.
- The ICF draft study does not evaluate transmission solutions. It models GRU as an island from a capacity planning perspective (not day-to-day energy) and limits new supply side resources to only local options.
- The study does not give any weight to the reliability risk associated with large units supplying a major portion of the system's needs.

Peer Review of ICF Consulting's Draft Report to the City of Gainesville
Electrical Supply Needs (RFP No. 2005-147)

February 28, 2006

REVISED FIGURE ES-1 WITH GDS ADJUSTMENTS
Alternative Scenarios Analyzed by GDS

Year	Peak Demand		Peak Demand Plus Reserve Requirements	Existing Capacity Net of Retirements	Deficit/Surplus Relative to Existing Capacity	ICF DSM Adjustments		Additional DSM Adjustments		Additional Demand Response Adjustments		Wholesale Load Adjustments		Addition of 25 MW Generator in 2018	
	Peak Demand	Due to DSM Based on ICF Draft Report				Additional DSM from Measures Not Examined by ICF	Revised Capacity Surplus / (Shortfall)	Reduction from demand response and interruptible rate programs	Revised Capacity Surplus / (Shortfall)	Demand associated with wholesale customer loads	Revised Capacity Surplus / (Shortfall)	Addition of 25 MW plant in 2018	Revised Capacity Surplus / (Shortfall)		
2006	470	541	611	71		1	72	0	72	12	85	36	127	0	127
2007	483	555	611	56		2	58	0	58	12	72	38	116	0	116
2008	495	569	611	42		6	49	1	50	12	64	39	109	0	109
2009	508	584	611	27		9	37	2	39	13	54	40	100	0	100
2010	520	598	602	4		12	18	2	21	13	36	41	83	0	83
2011	532	612	579	(33)		17	(13)	3	(9)	13	6	42	54	0	54
2012	544	626	579	(47)		22	(21)	4	(16)	14	(1)	44	50	0	50
2013	556	639	579	(60)		28	(28)	6	(6)	14	(6)	45	46	0	46
2014	569	654	579	(75)		34	(36)	7	(28)	14	(12)	46	41	0	41
2015	580	667	579	(88)		40	(42)	8	(33)	15	(16)	47	38	0	38
2016	592	681	579	(102)		44	(51)	9	(41)	15	(24)	48	31	0	31
2017	603	693	579	(114)		49	(58)	10	(47)	15	(29)	49	27	0	27
2018	614	706	551	(155)		54	(93)	11	(81)	15	(63)	50	(5)	25	20
2019	625	719	537	(182)		59	(114)	12	(100)	16	(82)	51	(24)	25	(4)
2020	636	731	537	(194)		63	(122)	13	(107)	16	(89)	52	(29)	25	(4)
2021	648	745	537	(208)		65	(133)	13	(119)	16	(100)	53	(39)	25	(14)
2022	659	758	537	(221)		66	(145)	13	(130)	16	(111)	54	(49)	25	(24)
2023	671	772	454	(318)		68	(239)	14	(224)	17	(205)	55	(141)	25	(116)
2024	683	785	454	(331)		69	(252)	14	(236)	17	(217)	56	(152)	25	(127)
2025	694	798	454	(344)		71	(262)	14	(246)	17	(226)	57	(161)	25	(136)