3/6/06
#050879

STAFF ANSWERS
TO MAYOR HANRAHAN'S QUESTIONS
E-MAILED MARCH 3, 2006

Regarding Demand Projections

1a. The following table summarizes the status of GRU's long term firm wholesale contracts. Combined, these loads represent 4.7% of our peak demand.

Counter Party	Current Load	Expiration Date
Starke	3 MW (fixed)	12/31/06
Alachua	22 (growing)	12/31/07
Seminole	15 (growing)	12/31/12

1b. These are firm contracts that have been beneficial to our ratepayers. It would be expensive to terminate these contracts early because of contractual obligations, but not because of physical connectivity. Staff has received notice that the Starke contract will not be extended. It would be beneficial to our ratepayers to extend the Alachua and Seminole contracts if energy supply pricing competitive to other options available to these systems can be maintained. Progress Energy and FMPA are currently interested in serving these loads, and have similar amounts of coal fired generation capacity in their fleet as we do. Progress Energy has 29% and FMPA has 38% coal fired generation capacity, compared to our 36%.

1c. Recently announced projects, as well as growing national interest in plug-in hybrids, suggest that current forecasts may be conservative (low), as was suggested by ICF in their analysis. Participation in chilled water systems is a cost-effective way to promote energy conservation in these larger projects and providing chilled water services is being pursued by staff. Large projects located in High Springs, Lacrosse and Hawthorne are located outside the GRU retail electric service territory. These communities do not own and operate their own electric distribution systems therefore, unlike Alachua and Starke; they are not likely to seek wholesale service from third party suppliers like GRU.

Regarding Buying and Selling Power on the Grid

a. From an operational standpoint, failure to maintain adequate reserves would fall under regulations under development by the North American Electric Reliability Council (NERC). Future policies could result in the imposition of grid interconnection constraints and/or limiting GRU's access to emergency energy supply backup resources if and when needed. Under the Energy Policy Act of 2005 (EPAct 2005) FERC is to establish an Electrical Reliability Organization. Fines to be assessed against an interconnected electric utility's failure to

maintain adequate reliability operating standards are clearly being contemplated but have not yet been codified.

b. The 30 MW constraint noted by ICF related to the hypothetical failure of a transformer at our Parker Road substation under future conditions. Staff believes this potential constraint would be resolved well before actually becoming an operating constraint under existing state planning protocols.

c. Formal action by the City Commission eliminated consideration of that option in February of 2004. The current commission may wish to revisit that option in the future.

Regarding the Maximum Demand Side Management Option, Plus Solar

a. Staff agrees that a DSM scenario under base case assumptions and with TRC Benefit/Cost ratios greater than 1.0 would be more reasonable for goal setting than the maximum DSM case presented by ICF (ICF applied worst case fuel and carbon costs and Benefit/Cost ratios down to 0.5).

b. Each utility system is different and GRU's retail load characteristics are unique, which affects DSM potential. For example, electrical energy consumption per residential customer on the Gainesville system is lower than all other generating utilities in Florida. IOU's in Florida are allowed by the FPSC to recover DSM program costs separately from the rates under which they have a regulated rate of return on investment. Using the Total Resource Cost (TRC) test for assessing the cost effectiveness of DSM projects would increase the per capita investment above the amount now spent based upon the use of the Rate Impact Measure (RIM) test criteria. The amount of investment in DSM programs that can be justified will vary greatly based on the cost of generating resources used to provide energy to retail customers. The amount of additional spending that is economically justified under current circumstances depends upon the selection of energy supply alternatives selected by the commission and the standards adopted for how the community deems what will "cost effective" (e.g., TRC, RIM, etc.).

c. Staff believes ICF's final report provides a full explanation of the cost-effectiveness of solar thermal and photovoltaic technologies. Even the most robust solar program would not avoid a substantial proportion of demand in a cost-effective manner.

d. Local governments in Florida are currently not able to institute more stringent building codes pursuant to state law. There are other powers the City Commission could invoke to promote energy conservation, such as through housing, licensing, and development codes.

e. Yes, but they would have to be mandatory to be effective, would need to impose price sanctions on normal diurnal activities, and are likely to adversely affect lower income households disproportionately.

Current Energy Plan Proposal

a. No, the greenhouse gas fund was not taken into account.

b. The best local estimate of benignly harvested forest waste wood from a twenty-five mile radius was about 1400 tons per day (Post and Cunilio- 2003). Given that there is competition for this resource, staff has based its plans on about half of this (equivalent to 30 MW). If the resources are in fact available at a cost equal to or below that of coal, a 220 MW CFB could handle up to about 50 MW of biomass without substantial capacity or efficiency penalty. We are unclear as to what the ability of IGCC is to handle various amounts of biomass and/or the accompanying capacity and efficiency penalties.

c. Potential harm to the environment was one of the criteria staff required to be applied in the Post and Cunilio study described in b. above.

d. The reduced open-air burning of biomass was not taken into account by ICF. Air impacts associated with the transportation of fuels was not taken into account, either.

Regarding IGCC Option.

a. Answer deferred to ICF.

b. Many parties say these problems will be resolved, but second generation plants using this technology have yet to be constructed.

c. Rating Agencies will take all financial, management and operating issues and practices into consideration when issuing financial ratings in the future. Certainly one factor that will be assessed will be the utility's capacity to absorb performance risk and how such risk will be mitigated in the financial plan proposed for any project. If consumers are required to absorb greater financial risk, this additional risk will result in higher end user costs to consumers.

d. Answer deferred to ICF.

e. The geology in Florida is not favorable for carbon sequestration, so it is unlikely that carbon will be captured during the lifetime of this project.

f. While it is possible that GRU could qualify for loan guarantees, it is not sufficiently certain to considering including the potential for loan guarantees in financial projections at this time.

Regarding the Maximum DSM Plus Biomass Option

a. Additional capacity will be needed late in the study period which ICF assumed would be peaking only. The amounts and timing depend on the scenario and option being studied.

b. CSX currently ships substantial amounts of biomass as fuel and as OSB feed stock. Rail transport could possibly meet some portion of the biomass need but the amount is uncertain at this time.

c. Answer deferred to ICF.

Regarding Natural Gas Option

a. Additional peaking capacity is needed at the end of the planning period under every scenario tested.

b. Virtually all utilities and consultants in the industry do not see natural gas generation as a lower cost solution for supplying base load generation in the long term.

c. Delay of a solid fuel option is estimated to cost 10-20 million dollars per year (2003 Dollars).

Regarding Carbon Emissions

a. The proposed greenhouse gas fund would not reduce greenhouse gas emissions to prior levels due to the increases resulting from the addition of electrical production facilities under conditions of increasing electrical demand.

b. The estimates of the future value of excess environmental allowances are likely to fluctuate widely and it would not be prudent to count on the value of these allowances as a firm revenue stream. The City Commission may wish to consider the economic value of these allowances in the future, when related values become more predictable, for application toward future DSM program costs.