

MATRIX COMPARING ENERGY SUPPLY ALTERNATIVES

All values shown for relative order of magnitude comparisons only. Cost estimates based on current capital costs, amortized @5.5% over 25 years, and \$7.50 per mmBtu gas. Does not include embedded energy in facilities)

30-Jan-08

ISSUE	ALTERNATIVE					
	BIOMASS CAPACITY	NUCLEAR CAPACITY	SOLAR UTILITY	DOWNTOWN CHILLED WATER	ADDITIONAL DSM	CONVERT ELECTRIC WATER HEATERS TO GAS
DESCRIPTION	Construct Generation Facility	Joint Ownership Share of Levy Power Plant	Issue RFP for Third Party to Own Operate and Maintain Distributed Solar With PPA Purchase and Resale to Premise	Replace CT's at Kelly with systems similar to the Shands Energy Plant, and distribute chilled water to 4000 tons downtown	Based on results of measurement an verification, redo previous studies to ascertain new goals.	Fund gas line extensions and replace electric water heaters where feasible. May need to be mandatory.
CONCEPT	Renewable Resources		Enlist 3rd Party to reduce annualized cost by more than half- up to 70% reduction if system designed to optimize rebates.	Uses natural Gas		Uses natural gas
CAPACITY AVAILABLE	30-100 MW	18-20 MW	20 MW residential 60 MW commercial 28 MW coincidental (assuming only roof top installations)	10 - 14 MW	TBD (54 MW by 2017 in current Plan)	48 MW (assuming 80% feasible)
FINANCIAL STRUCTURE	Own or Take and Pay	Joint Ownership	PPA and Customer agreements	Own, produce revenue stream	No retained equity	Own property in ROW only
EQUIVALENT COST PER MWH	\$90-110	\$70 (old numbers)	\$150-180	\$70 (Also get chilled water)	TDB (GRU share <\$50)	TBD- (\$150-180 @prelim cap cost)
EQUIVALENT COST PER TON CARBON REDUCTION (all cost attributed to carbon reduction)	\$71	\$63	\$515 (@\$8 per watt) \$154 (@ 70% cost reduction)	\$46	TDB (GRU share <\$48)	\$64
AIR EMISSIONS	Yes	No	No	Yes	No	Yes
SOLID WASTE	Yes - may require land filling	Yes hazardous	No	No	No	No
LOCAL ECONOMIC IMPACT	Yes- Plant operations as well as harvesting and transportation	Not in Alachua County	Some (installation and maintenance only)	Some - plant operations	Some (installation and maintenance only)	Some (installation and maintenance only)