April 25, 2008



### **Current and Anticipated Operations**

- Florida Facilities
  - Plant City
  - Hardee Phosphate Complex
  - Tampa
  - Bartow
- CF's Florida Facilities consume approximately 581,000 MWH of electricity annually.
- Hardee will purchase 318,000 MWH from Progress Energy Florida in 2008 with repeating maximum demands of 57.5 MW. 17.7% of our operating cost is purchased electric power second only to employee wages.
- We produce approximately 3.6 million tons of phosphate rock at the Hardee Mine, and 2 million tons per year of dry, granular fertilizer products at Plant City.
- CF co generates approximately 260,000 MWH annually at Plant City from waste heat from sulfuric acid production
- Export approximately 2 MW to TECO
- Strategic Plan to increase fertilizer production by 10% by 2009
- Considering an additional fertilizer production increase of another 10%



### CF is an Energy Efficient Customer

- Our facilities operate 24 hours a day, 7 days a week. 81% of CF's electrical demand is during Progress Energy's off peak periods.
- Hardee runs a pure off peak schedule when lower production requirements allow, reducing our on peak demand to below 5%. We avoid on peak consumption at every opportunity.
- We build and maintain over 20 miles of power lines at no expense to the utility.
- Projects personnel consider energy efficiency in every evaluation.
- When we found that we could use waste heat to produce electricity, the savings justified constructing internal electric generation. The reduction in our electric bill will cover the capital cost of our generation within a reasonable time. The cost savings provided sufficient incentive to make the energy saving investment.
- TECo's average 2008 fuel cost is projected to be \$53.59/MWH. CF cogeneration reduces TECo's fuel cost by \$13,933,400 / year, but it doesn't qualify as a cost effective conservation program according to our utility.
- For the 12,000 MWH we sell to TECo each year, CF is paid less than TECo's average fuel cost. We receive no payment for the capacity.



## A Good Program That Fails Under Current Evaluation Methods

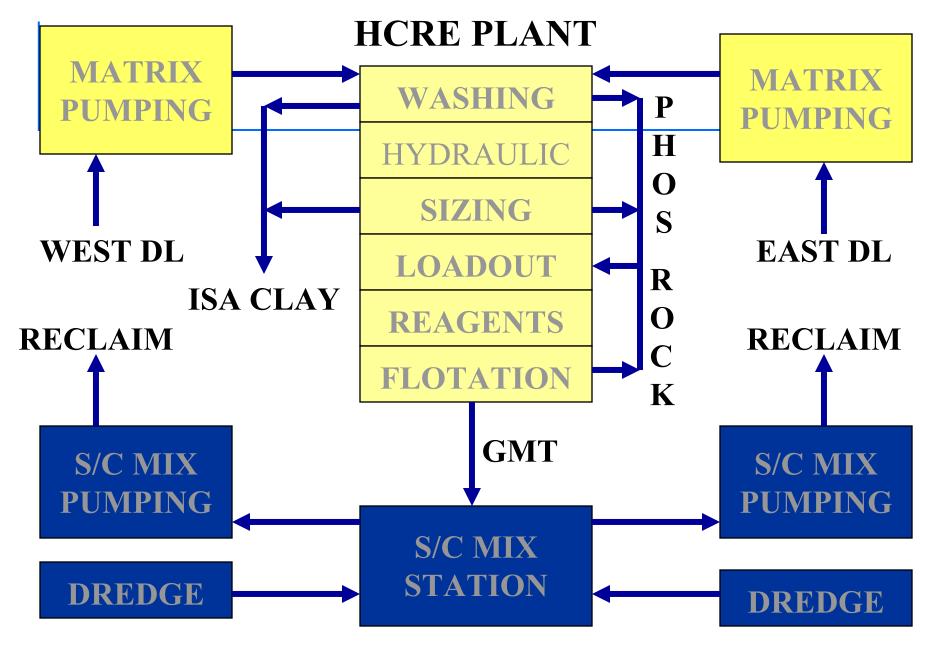
In 1993, CF's Hardee County Relocation and Expansion Project (HCRE) purchased 50,750 Horsepower in premium efficiency motors for our new facility. A modest incentive from FPC encouraged CF to make an energy efficient investment that electric bill savings alone would not justify. Large motors are very expensive, premium efficiency motors cost even 20% more. Unlike cogeneration, the savings on our power bill didn't justify the cost. FPC reimbursed \$6/HP while CF paid \$134/HP. When we purchased another 3,000 HP in premium efficiency motors in 1998 we were told that partnering with industry to be more energy efficient when buying large motors was no longer considered "cost effective". CF's original decision reduced Demand by .85 MW and annual consumption by 5,100 MWH, saving PEF \$225,000 in fuel cost this year.



## Recommended Regulatory Philosophy

Utilities are conflicted in their programs to reduce Demand and Usage because it lowers sales. Now that we have a mandate to make Florida "Greener" we need to seize the opportunity to implement and maintain programs that have major impact on our future carbon footprint. The FPSC must play a major role in designing and implementing Energy Conservation Programs. Utility managers have many responsibilities. Their primary responsibility to their families, holding companies and lenders for increased profits conflicts with their obligations to their captive customers and the environment. Regulators can even the playing field by devising means to protect customers and the environment without depriving utilities of their operating costs and a fair return on their investment.





HARDEE COUNTY RELOCATION & EXPANSION FLOW DIAGRAM

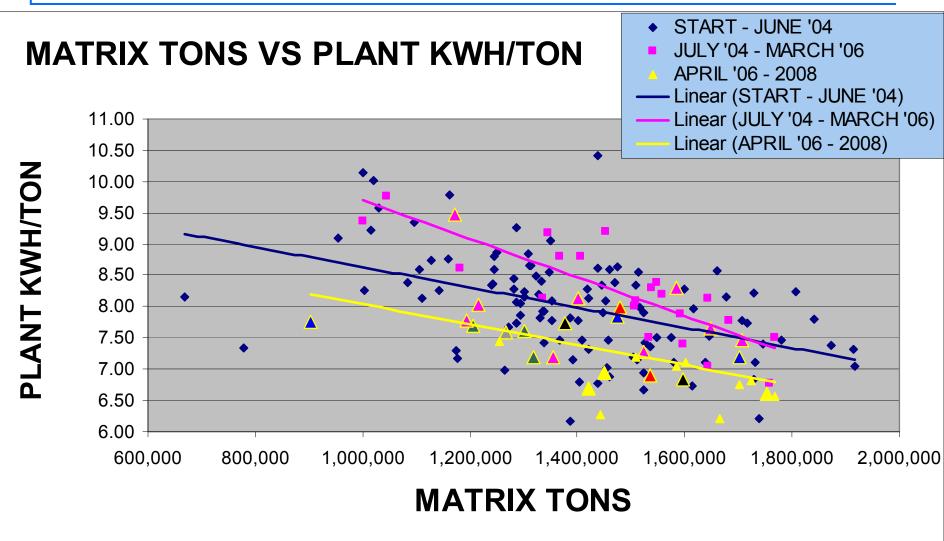


### Energy Conservation at Hardee I & II

- CF implemented an Energy Conservation Program at our 1.5
   Million TPY Hardee I mine from 1987 to 1992. We realized
   reductions of 39.1% KWH/Mat. T-M in Major Pump Lines and
   10.2% KWH/Mat. Ton in the Processing Plant = 33.2% Total KWH
   Reduction.
- CF implemented another Energy Conservation Program at our 3.5 Million TPY mine in April 2006. Overall Plant Reduction is about 13% KWH/Mat. Ton, and the potential is at least 23%.
  - Although both programs have been highly successful, potential exists for further reductions in KW Demand and KWH Usage. The same magnitude of reductions exists in all our homes, offices, schools and industrial plants throughout Florida. Please send signals via our utility bills to reinforce the benefits of reducing Demand and Usage that make Florida "Greener".



## Energy Efficiency at CF's Hardee II Beneficiation Plant





# Energy Efficiency in Sand/Clay Mix & Other Pumping at Hardee II

- In 2007, Hardee started a project to install 12 miles of 24" S/C Mix pipeline that will reduce our installed load by at least 6,000 HP annually for at least 25 years. I asked my utility if there was a program to reward such projects, and was informed that nothing is available. Again, please send signals through our utility bills that reinforce the benefits of reducing Demand and Usage that will make Florida's future "Greener".
- I am aware of thirteen (13) energy efficient 2,000 HP Variable Frequency Drives that have been placed in service in Florida's Phosphate Industry in the last 5 years. CF owns four of the units. Hardee's utility, Progress Energy Florida, does not have anything in their rate structure or energy conservation programs to encourage or reward the companies that have added 26,000 HP of "greener" load to the Florida Grid. Positive signals are not being sent to Florida ratepayers to encourage us to ramp up our energy efficiency programs and efforts.



# Energy Efficiency in Other Projects at Hardee II

- I will not labor you with other projects from the past, but current projects on the board this year include a full Performance Measurements Audit next month by Foxboro our DCS vendor that should reduce Hardee's carbon footprint and make us "greener". Energy audits are not cheap. A Key Performance Indicators (KPI) project slated for this year will make Hardee's front line operators more efficient and reduce Demand and Usage. Projects to speed up our draglines are and will make CF "greener".
- In my 26 years experience of managing a large power account for CF Industries, there has not existed so great an opportunity to impact Florida's future. We must seize the moment, enabling regulations and programs to conserve energy. Please send signals to all classes of Florida ratepayers that will stretch and reward us for doing the right thing for future generations.



# Benefits of Cogeneration & Energy Efficiency

No environmental emissions

No consumption of fossil fuel resources

No construction of inefficient generators



## Why the current opportunity?

- CF Plant City is currently increasing sulfuric acid production capacity
- Evaluating opportunities to generate additional power
- Considering the shutdown of older sulfuric acid production facilities less suitable to power generation opportunities
- Considering the retrofit of Heat Recovery Technology into existing/new sulfuric acid plants
- Potential incremental increase in net export power of 10 MW to 37 MW
- Hardee has asked Corporate for funds to add another dragline and pipeline at 9,500 HP and eventually up to 17,000 HP.



### **Problems and Solutions**

 Problem - Current cogeneration power values do not reflect fair market value

- Solutions
  - Net billing
  - Wheeling

