

Orlando Gasification Project Demonstration of a 285 MW Coal-Based Transport Gasifier

Managing Your Energy Portfolio in a Greener World

**The Institute for Professional and Executive Development,
Inc.**

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Orlando Utilities Commission

- Quasi governmental agency established by the Florida Legislature in 1923
- Provide electric and water services to 190,000 customers in City of Orlando, Orange, and Osceola County, Florida
- Long term record of reliable supply and environmental stewardship

OUC Financial Position

- \$ 2.7 Billion in assets
- \$ 746 Million gross revenue
- \$ 62 Million net income
- AA rated credit standing

Competitive Strategy

- Neutralize customers to the commodity cost of electricity
- Conservatively plan for physical supply
- Build in flexibility to maintain market neutrality
- Generate net income

Planning for Physical Supply

- In compliance with PSC requirements
- Retail load growth and firm obligations
- Reserve requirements of 15%
- Report 10 year plan to the PSC annually
- Develop base case to determine lowest cost to retail customers

Additional Planning Criteria

- Resource type: Base, intermediate, peaking
- Technology utilized: PC, CFB, CC, CT
- Primary fuel source: Coal, natural gas, oil, synthetic
- Uncertainty: Load growth, commodity fuels, cost of wholesale power, regulatory
- Environmental Performance

Planning for Physical Supply

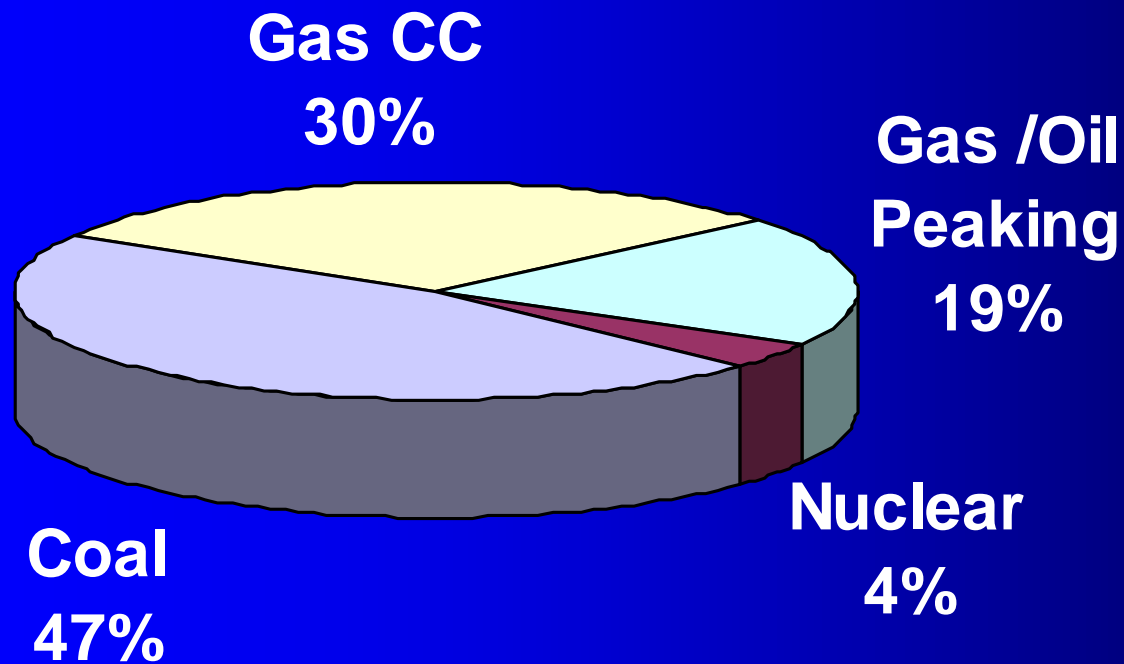
History of Additions

- McIntosh 3 1982
- St. Lucie 2 1983
- Stanton Energy Center 1 1987
- IR CT A&B 1989
- IR CT C&D 1992
- Stanton Energy Center 2 1996
- Stanton Energy Center CCA 2003

Generation Asset Optimization

- Develop competitive alternatives to base case
- Perform wholesale market optimization to identify positive scenarios
- Perform retail market optimization to determine the best scenario

Power Supply Portfolio Year 2006 by Fuel Type



Alternatives to Base Case

Summary of Results

- Combined cycle option has more economic potential than simple cycle base case
- Combined cycle with coal gasification has more economic potential than combined cycle option on natural gas alone
- Risk mitigation is a key issue

Orlando Gasification Project Overview

- \$235 million co-funded by DOE under the Clean Coal Power Initiative
- Southern Company/OUC joint partnership
- Located at the Stanton Energy Center in Orlando, Florida

Stanton Energy Center Overview

- Ultimate certification of 2000 MW's of coal or natural gas generation.
- Approximately 3280 acres of which 1100 acres is allocated for development of power generation and support facilities.
- Zero discharge facility with no impact to surface or groundwater
- Two 468 mw pulverized coal and one 633 mw gas combined cycle units

Stanton Energy Center Environmental Systems

Coal Units

- Electrostatic Precipitators
- Wet Flue Gas Desulfurization
- Selective Catalytic Reduction

Combined Cycle Unit

- Dry low NO_x burners with SCR

Balance of Plant

- Model for Regional Water Reuse

OUC's Stanton Energy Center Site

**Future IGCC
Coal Pile**

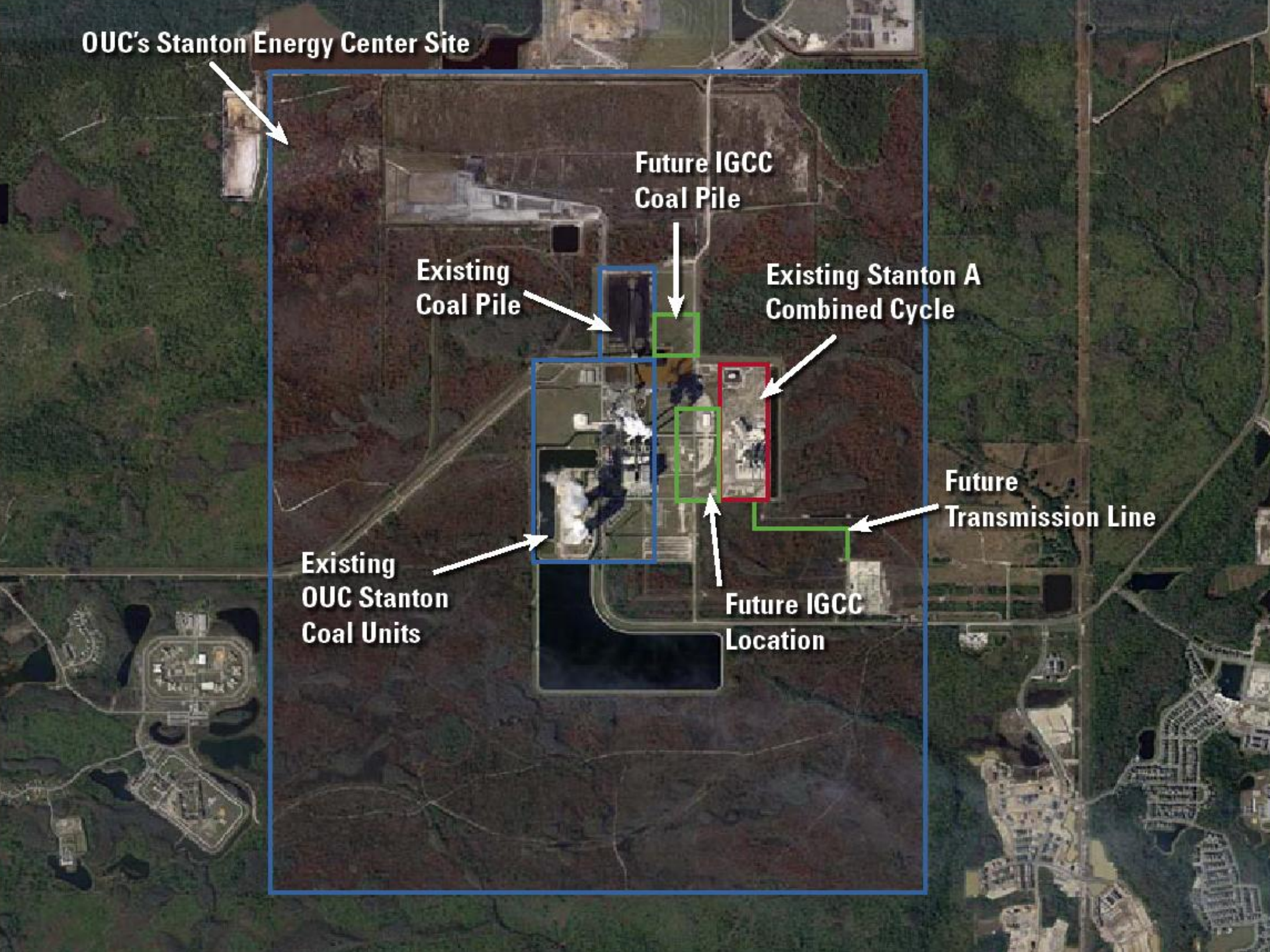
**Existing
Coal Pile**

**Existing Stanton A
Combined Cycle**

**Future
Transmission Line**

**Existing
OUC Stanton
Coal Units**

**Future IGCC
Location**

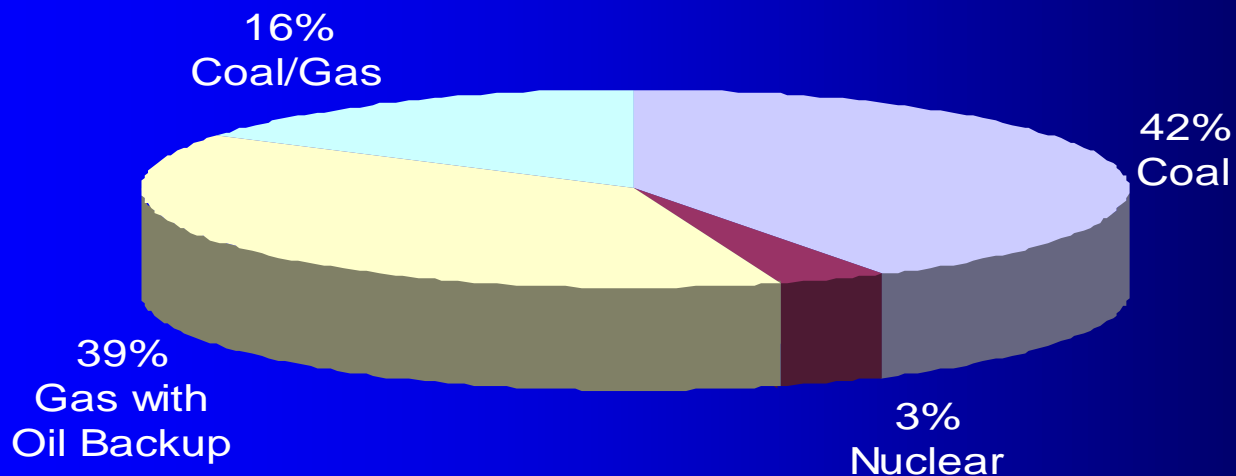


Competitive Alternatives

Project Risk Mitigation

- Fixed investment in Gasifier project
- Fuel switching capability
- Established Generation Technology
- DOE Funding participation

Power Supply Portfolio Year 2010 by Fuel Type



Orlando Gasification Project Details

- 285 MW IGCC comprised of two distinct projects:
 - 1x1 combined cycle (Owned 100% by OUC)
 - Jointly owned gasifier island (Owned: 65% Southern/35% OUC)
- Located at OUC's Stanton Energy Center
- PRB coal
- Electricity from the facility will serve OUC's retail customers
- Southern Company responsible for operation of the IGCC with a blended OUC and Southern Company staff
- KBR responsible for Gasification Island EPC
- June 1, 2010 COD for the IGCC

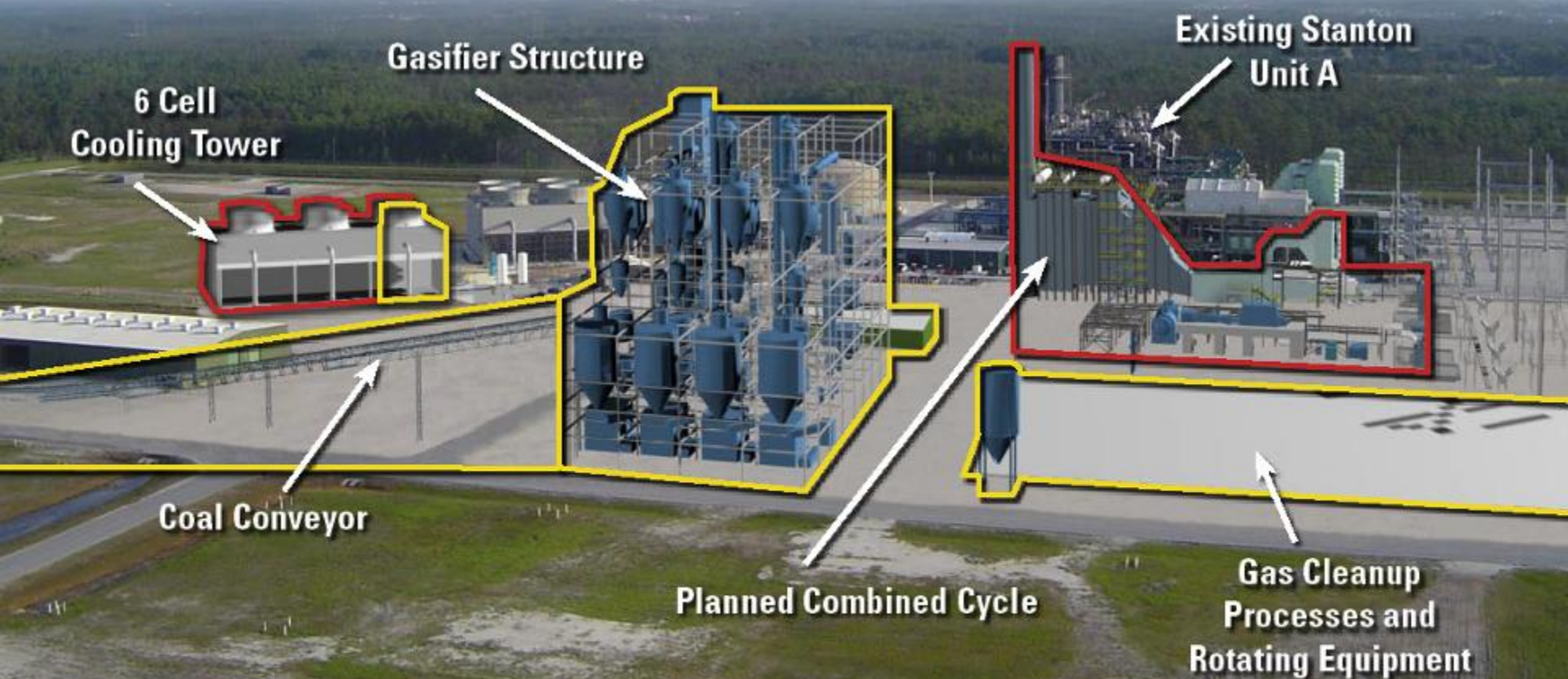
Stanton Energy Center



Air Blown Integrated Gasification Combined Cycle at the Stanton Energy Center

— Proposed OGP

— Planned CC Facilities (Related Action)



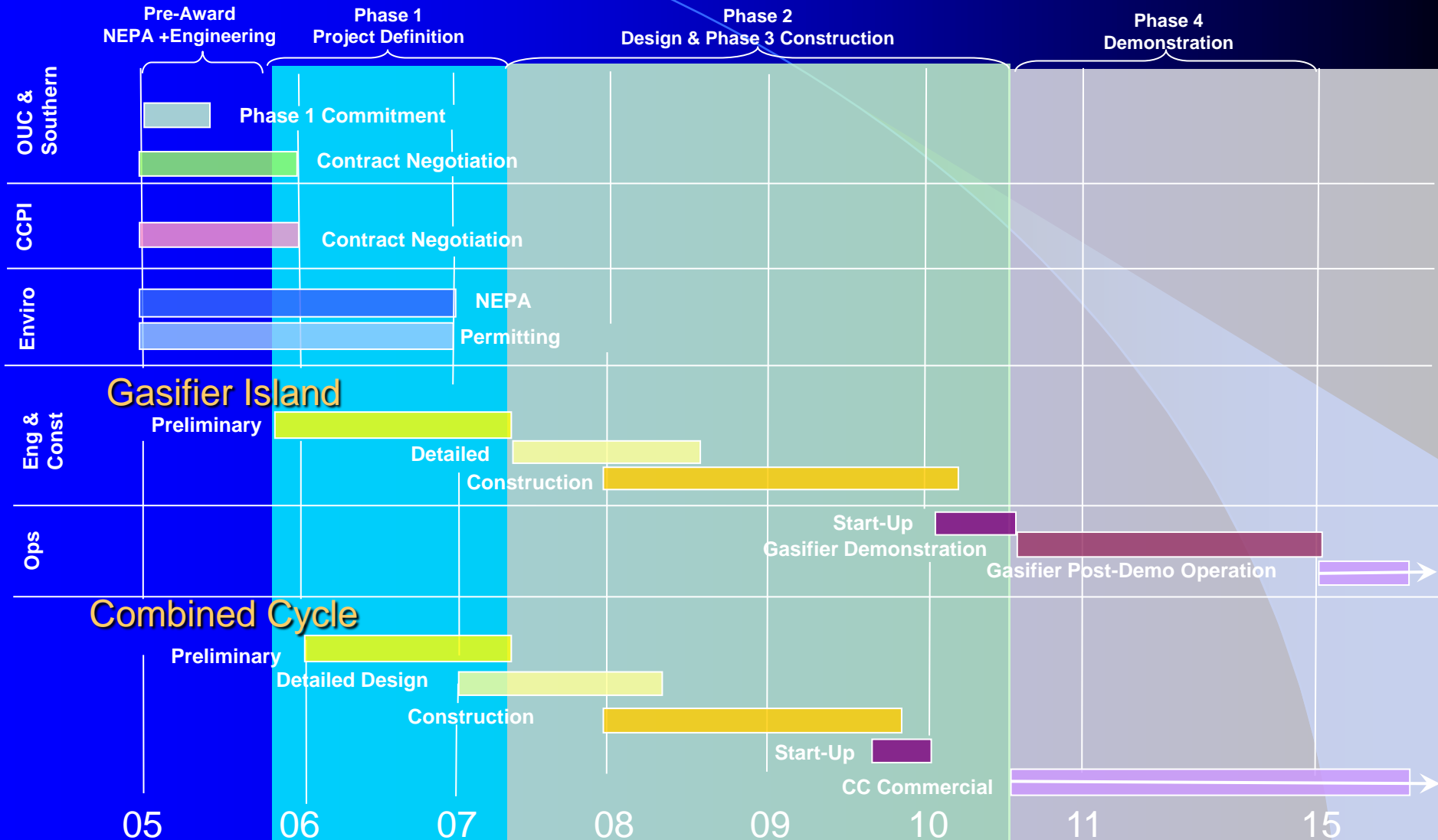
Project Status

- All contracts with the Major Participants are in place
 - DOE/Southern Company Cooperative Agreement
 - Subcontract with KBR for Gasifier Island
 - Commercialization Agreement between Southern Company and KBR
 - GE contract for CT supply and syngas testing
 - All contracts between OUC and Southern Company
 - Including ownership, capacity purchase and O&M

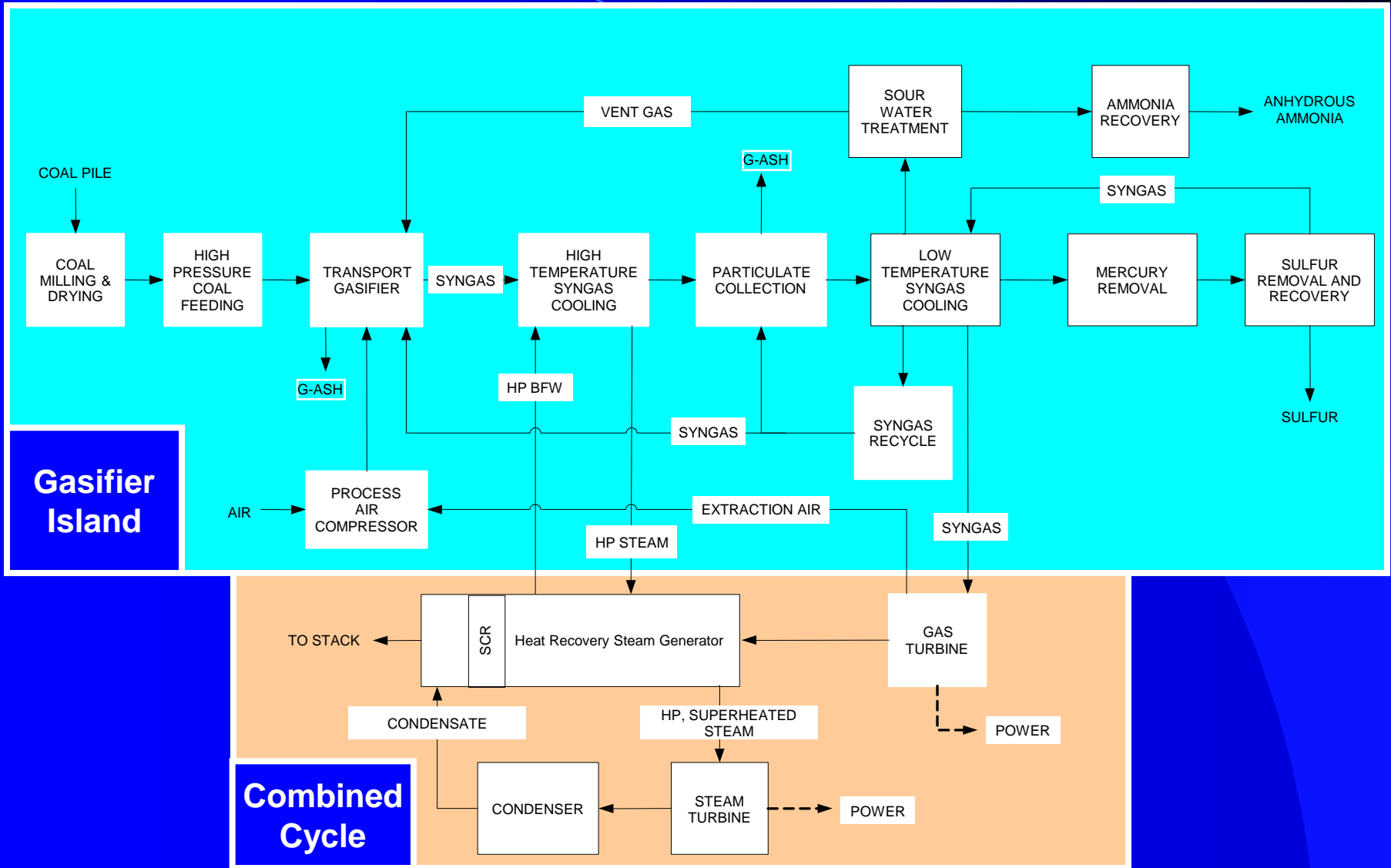
Project Status

- **Activities for 2006 included NEPA, SCA, Need for Power and Front End Engineering and Design (FEED).**
- **OUC's Need for Power Application was approved by the Florida Public Service Commission on 5/24/06.**
- **The Supplemental SCA was submitted to the Florida Department of Environmental Protection (FDEP) on 2/17/06. The Site Certification was approved by the Florida Department of Environmental Protection on 12/8/2006.**
- **NEPA completion is expected in February 2007.**
- **FEED is progressing and will be completed 1st Qtr 2007**
- **Detailed design and equipment procurement will begin in April of 2007**

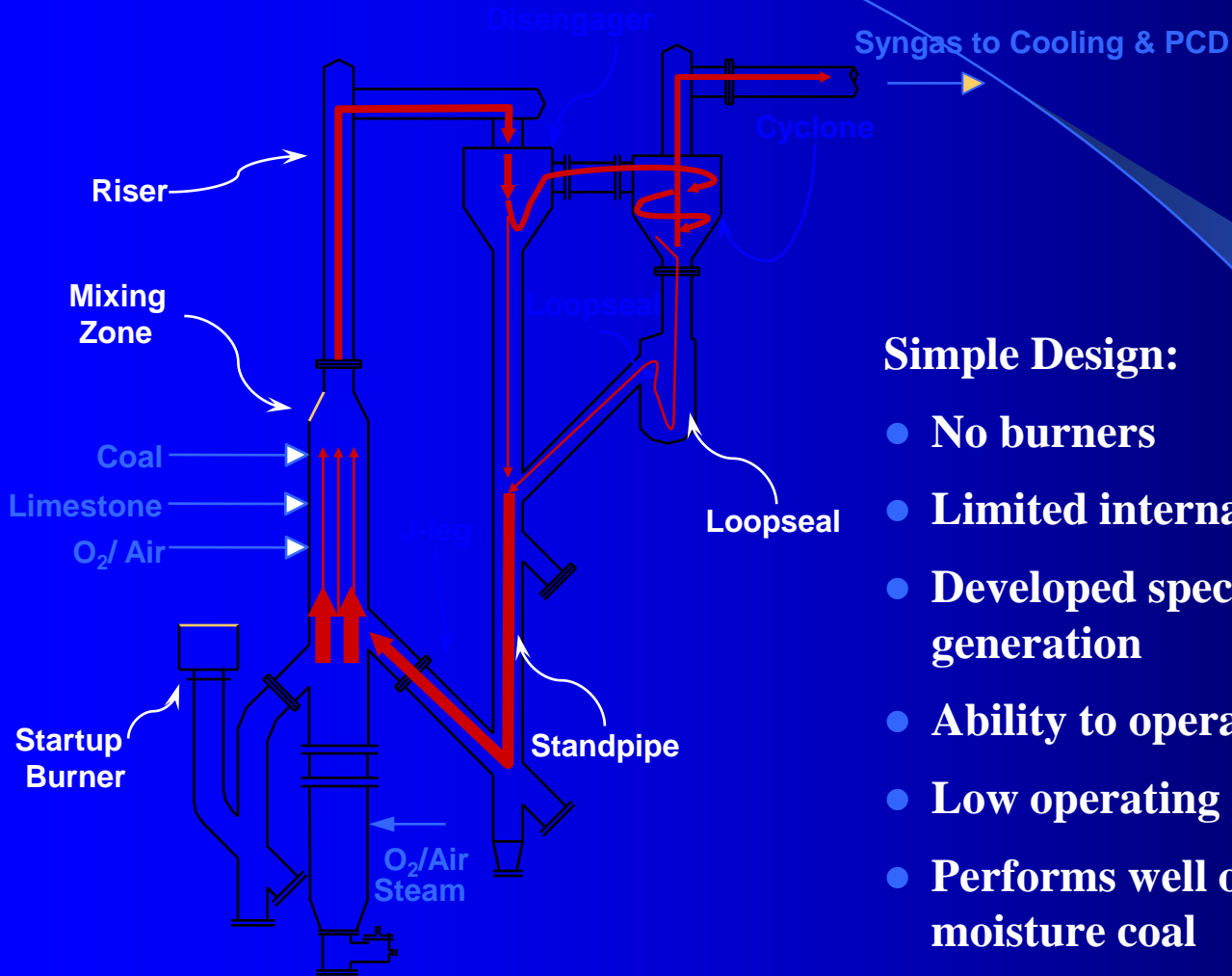
Orlando Project Timeline



Summary Flow Diagram



Transport Gasifier



Simple Design:

- No burners
- Limited internal parts
- Developed specifically for power generation
- Ability to operate air-blown
- Low operating temperature
- Performs well on high ash/high moisture coal
- Compatible with renewable fuels

Orlando Gasification Project In Summary

- Utilizes proven generation technology to meet retail load
- Provides additional fuel diversity in the asset base
- Consistent with OUC's commitment to advanced environmental technologies
- Provides positive economic potential in both wholesale and retail markets
- Provides another opportunity to enhance our joint partner relationship