

# **Bartow Repowering Project**



**Progress Energy**

# The Bartow Repowering Project

- Project needed to increase generation capacity
- Other Project Benefits
  - Reduces air emissions
  - Increases efficiency
  - Increases system reliability
  - Cost effective growth
  - No new land required

# The Bartow Repowering Project

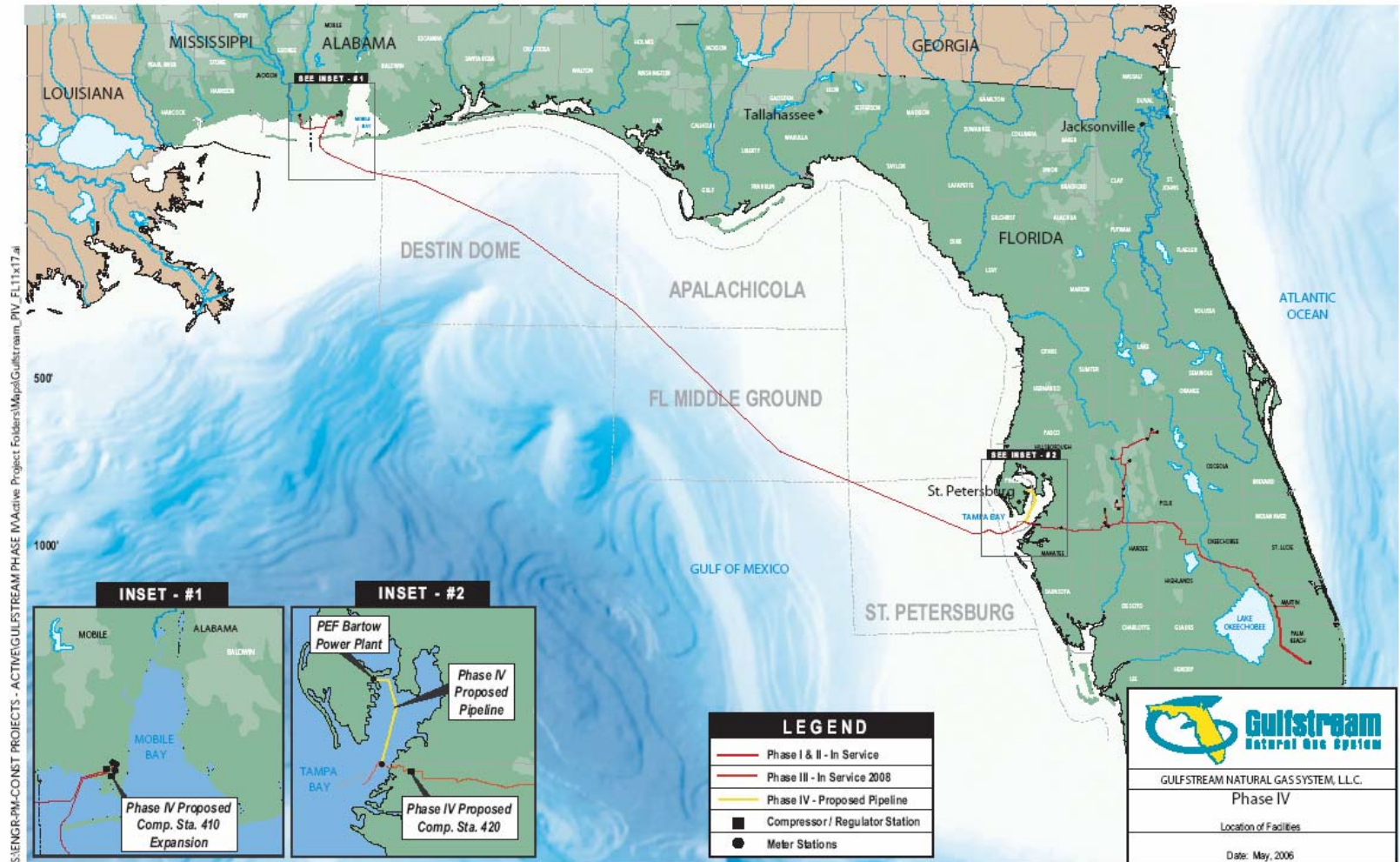
- Project includes 3 “pieces”
  - Natural Gas Pipeline (Gulfstream)
  - Combined-cycle Power Plant (Progress Energy)
  - Transmission Upgrades (Progress Energy)

# The Bartow Repowering Project

- Fuel Supply Pipeline
  - 17.5 miles of 20 inch pipeline
  - 155,000 dekatherms daily firm capacity
  - 23 years guaranteed supply
  - Project beginning now

# The Bartow Repowering Project

GULFSTREAM NATURAL GAS SYSTEM, L.L.C.



# The Bartow Repowering Project

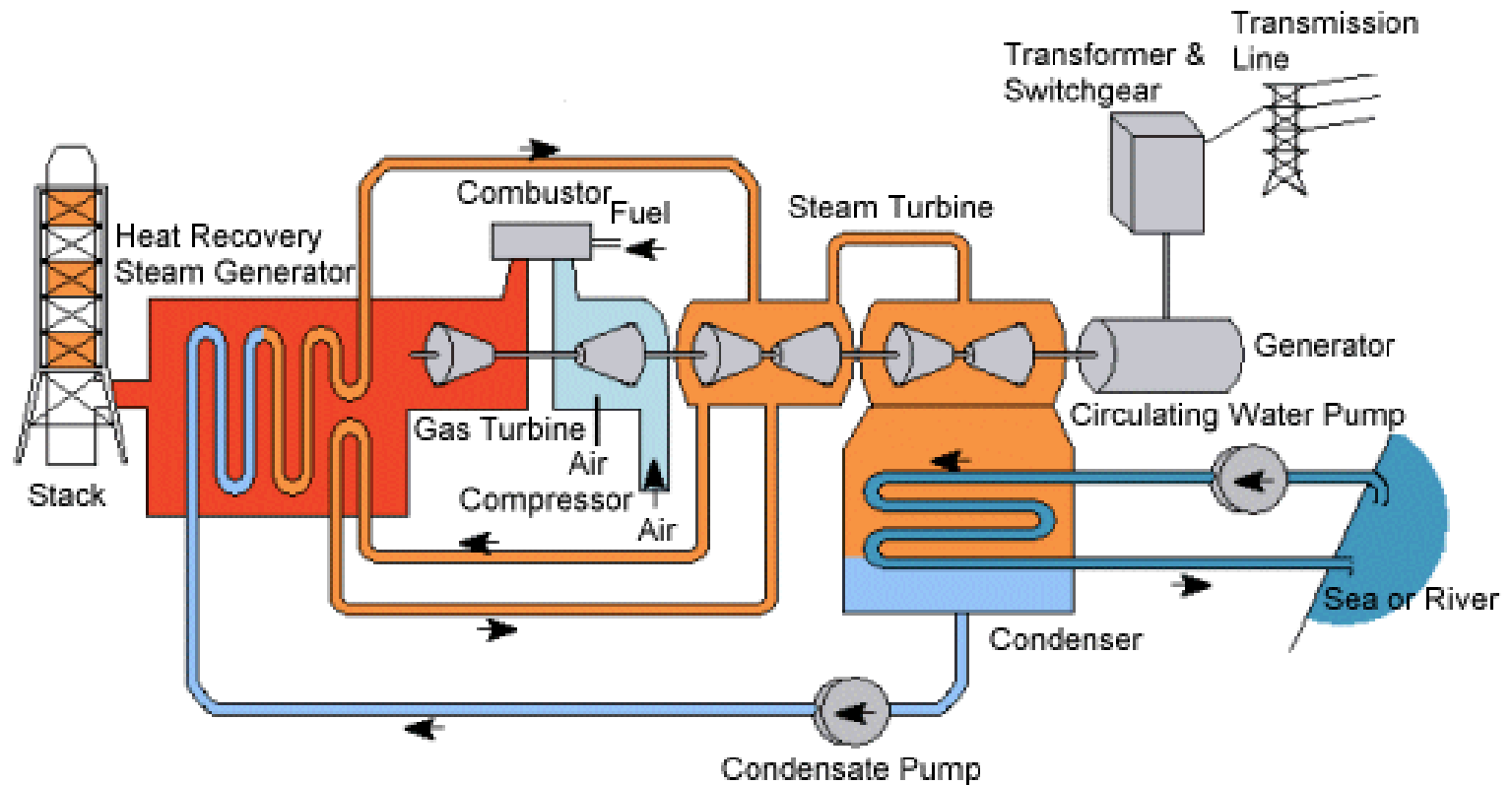
- Combined-Cycle Power Plant
  - Natural gas as primary fuel
  - Capability to also run on distillate oil
  - Highly efficient 4x4x1 design
  - Simple cycle bypass dampers and stacks
  - 1,260MW @ ISO conditions
  - Heat Rate of 7,060 BTU/kWhr

# The Bartow Repowering Project

- Combined Cycle Power Plant
  - ▶ 4 Siemens 501FD combustion turbine generators equipped with evaporative coolers and power augmentation
  - ▶ 4 triple pressure heat recovery steam generators with simple cycle bypass stacks, duct firing and SCR
  - ▶ 1 Mitsubishi Steam Turbine Generator

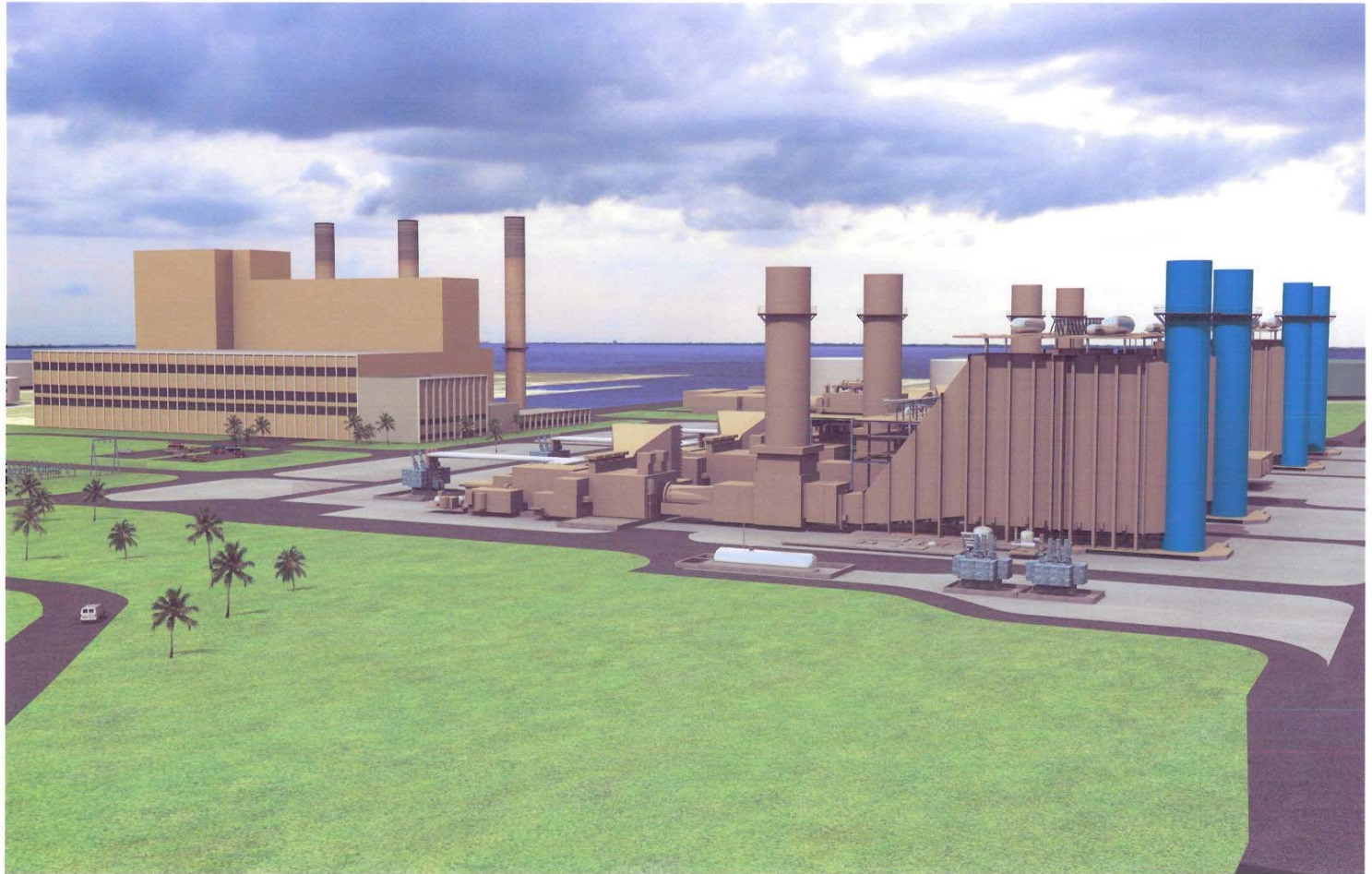
# The Bartow Repowering Project

## Combined Cycle Process



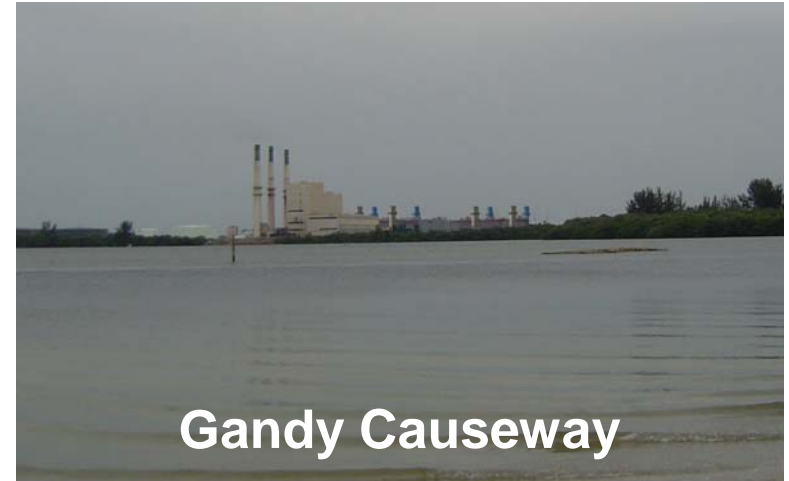


# The Bartow Repowering Project



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## Visual Impact Analysis



# The Bartow Repowering Project

- Transmission Upgrade
  - Extension to existing Bartow 230kV substation
  - 4.5 miles of new 230kV underground transmission
  - Upgrades to several other 230kV substations



# The Bartow Repowering Project



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## Timetable

- Construction begins = DEC 2006
- Commercial Operation = JUN 2009

Thank you for your time.

Questions?