an independent energy solutions company

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Biomass Cogeneration Facility
Savannah River Site, Aiken SC
Clean- Green- Sustainable Steam

SRS Community Forum January 27, 2012

Savannah River Site Project Overview

- *Project Background & Drivers*
- *Project Scope*
- *Project Benefits*
- *Program Status*

Project Background

- The existing D-Area Powerhouse was built in 1953 and provides steam to nuclear and industrial activities in F-, H-, and S-Areas. It is a co-generation facility and provides approximately one half (20 MW) of the Site's electrical demand.

Project Benefits

- Greenhouse Gas (GHG) emissions reduced by 100,000 tons a year significantly decreasing the carbon footprint of the SR Site
- Overall annual air emissions rates will decrease:
  - Particulate Matter - > 400 tons a year,
  - NOx by > 2,500 tons a year, and
  - SOx by more than 3,500 tons a year
- The amount of river water currently drawn from the Savannah River will decrease by over 2.8B gal per year
- Sustainable design methods are being used and energy efficient technologies incorporated

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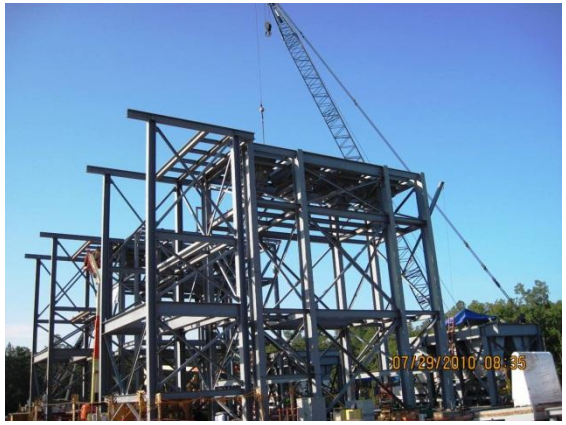
Sept 14 2009 to January 2012



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Integrated Project Team (IPT)

- IPT formed in September 2009
- Included CO, FPM, representatives of FRs, Permits, SRNS, technical representatives as required
- Held meetings almost every week for the two year construction of the project
- Provided input to the IMRT which has met almost every quarter

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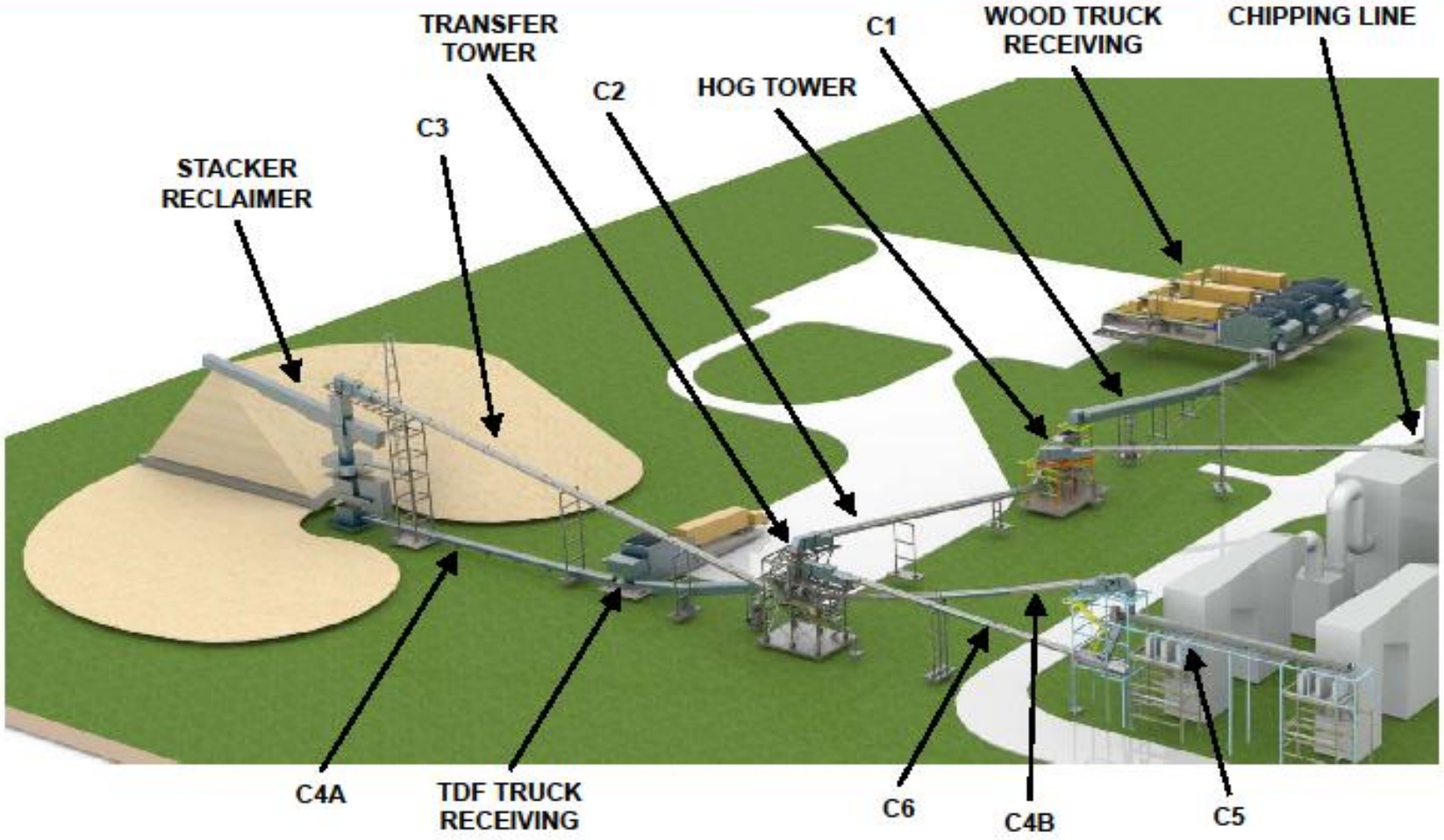
Rendering of Fuel Handling System



BRUKS Rockwood

Truck Off Loading Pad

- First footer poured in June 2010
- Three off loading pads
- Dump time is 6-10 minutes
- The hopper holds two loads (80T wood chips)
- 50 truck per day is about 1 truck load every 15 minutes

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Stacker Reclaimer

- First footer poured in May 2010
- Receives chips from the transfer tower
- Holds about 800 truck of wood chips (32K Tons)
- About a 30 day supply at 1KT per day

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Steam Line Interconnection

- Major Effort & Coordination with Ameresco, DOE & SRNS
- Coordinate interconnection during planned site steam outage
- Successfully completed April 12, 2011

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13.8 Kv Line Tie In

- Decision made to use the MOX substation vs F area
- Worked with SCEG, MOX, DOE SR
- 18 months of effort
- SCEG approved design in May
- Construction started in June
- Burma Road powered off of MOX substation August 10, 2011
- **Ameresco to provide 30% of the SRS power and 100% steam from renewable fuel**

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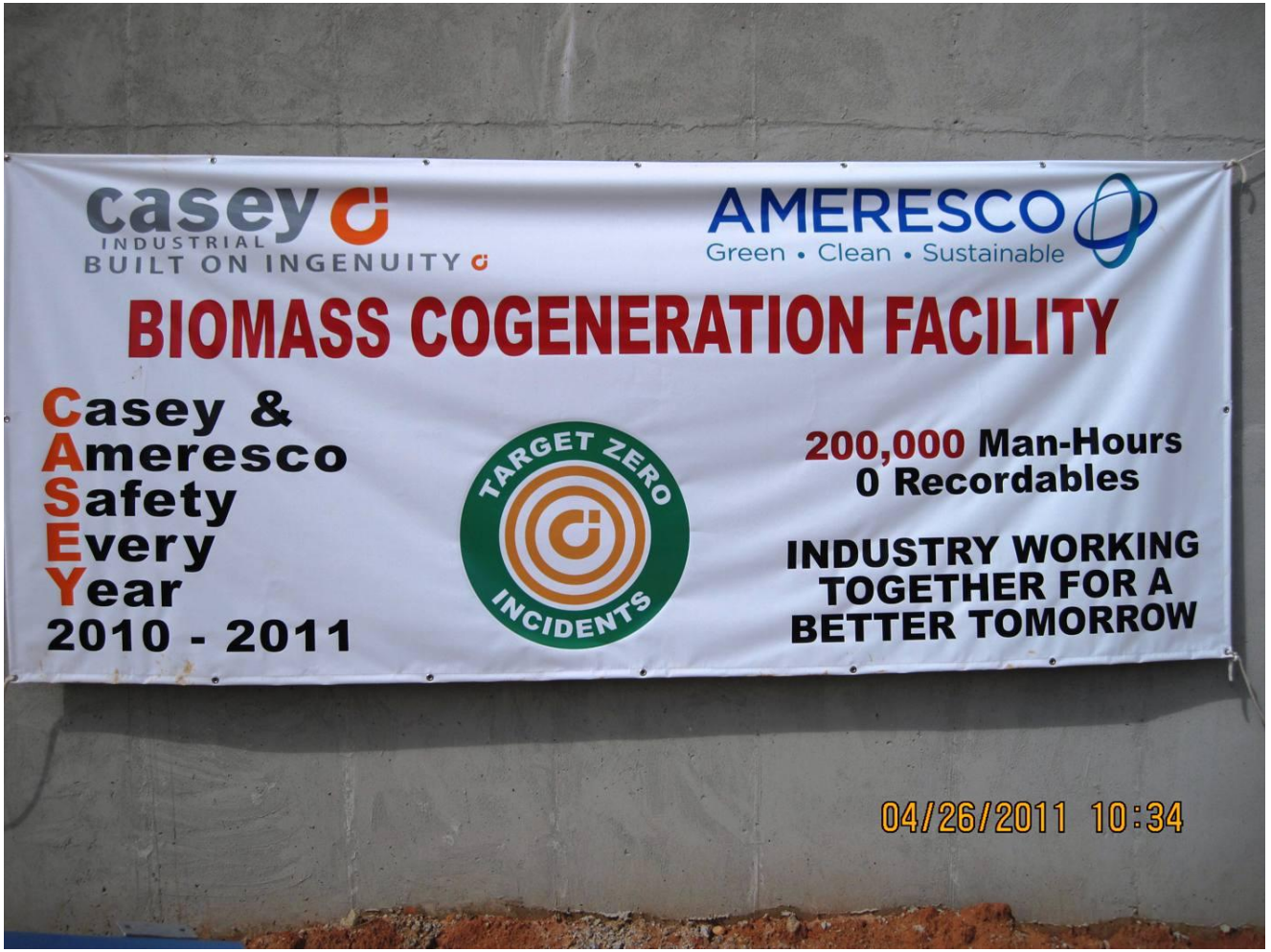
Burma Road Construction (from 3K feet)

Burma Road Construction Safety



Steps of Commissioning & Startup

- Steps of Commissioning & Startup
- Ameresco System Commissioning of 30 systems
- Ameresco Equipment Performance Testing
- DOE –SR Team Readiness Assessment

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Project Successes

- Construction Status
  - **Over 600,000 safe manhours**
  - 38 acres of site clearing, 150K CY of fill, 13,000 cubic yards of concrete, 812 Tons of steel, 42,000 Linear feet of pipe
  - 750,000 ft (142 miles) of cable
  - 200 Motors installed
  - 45 pieces of major equipment procured & installed
  - 1900 Instrumentation I/O loops
  - 150 workers (average on site during construction)
  - LEED Certified Administration Building installation in progress
- **Ameresco to provide 30% of the SRS power and 100% steam from renewable fuel by February 2012**
- **Great Team Effort – Ameresco & DOE & SRNS**

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Thank You