



Southeast Alaska Bioenergy Project

2006 SE Conference
Sept 19, 2006
Ketchikan, Alaska





Original Problem and Directive

- Large Forest Harvests and Residues
- Continuing Growth in unused residues
- Desire to convert residues to useful product

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Original Path to a Project

-NREL and related technologies

-Ketchikan Pulp Mill Site

-Size Project for 6 million gallons per year
Ethanol

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Technologies Considered

- Cellulose conversions
- Other wood material conversions
- Gasification and related processing

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Situation Changes

- Tongass Forest harvest limitations
- KPC operations
- Veneer mill operations
- Feed character changes

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New Technologies

- Organisms for C5 conversions
- Gasification related alternatives
- Organisms and catalysts for syngas conversions

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New Project Considerations

- Product yields determine economic project size
 - Organism processing has limitations
- Steam Reforming gives quality syngas
- Catalysts provide high value products

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Pilot Scale Testing

- Steam Reforming
- Catalytic Conversion
- SE Alaska Residue Samples

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Reactor

DI Water Tank

An industrial facility featuring a large grey cylindrical tank with an 'omcot' logo, a tall cooling tower, and a large white hopper. A black conveyor belt is visible on the left. In the foreground, there is a white propane tank with 'MetroGas' and 'FLAMMABLE' markings. The scene is set outdoors under a clear sky.

Elevating Screw

Cooling Tower

Lower Feed Tank

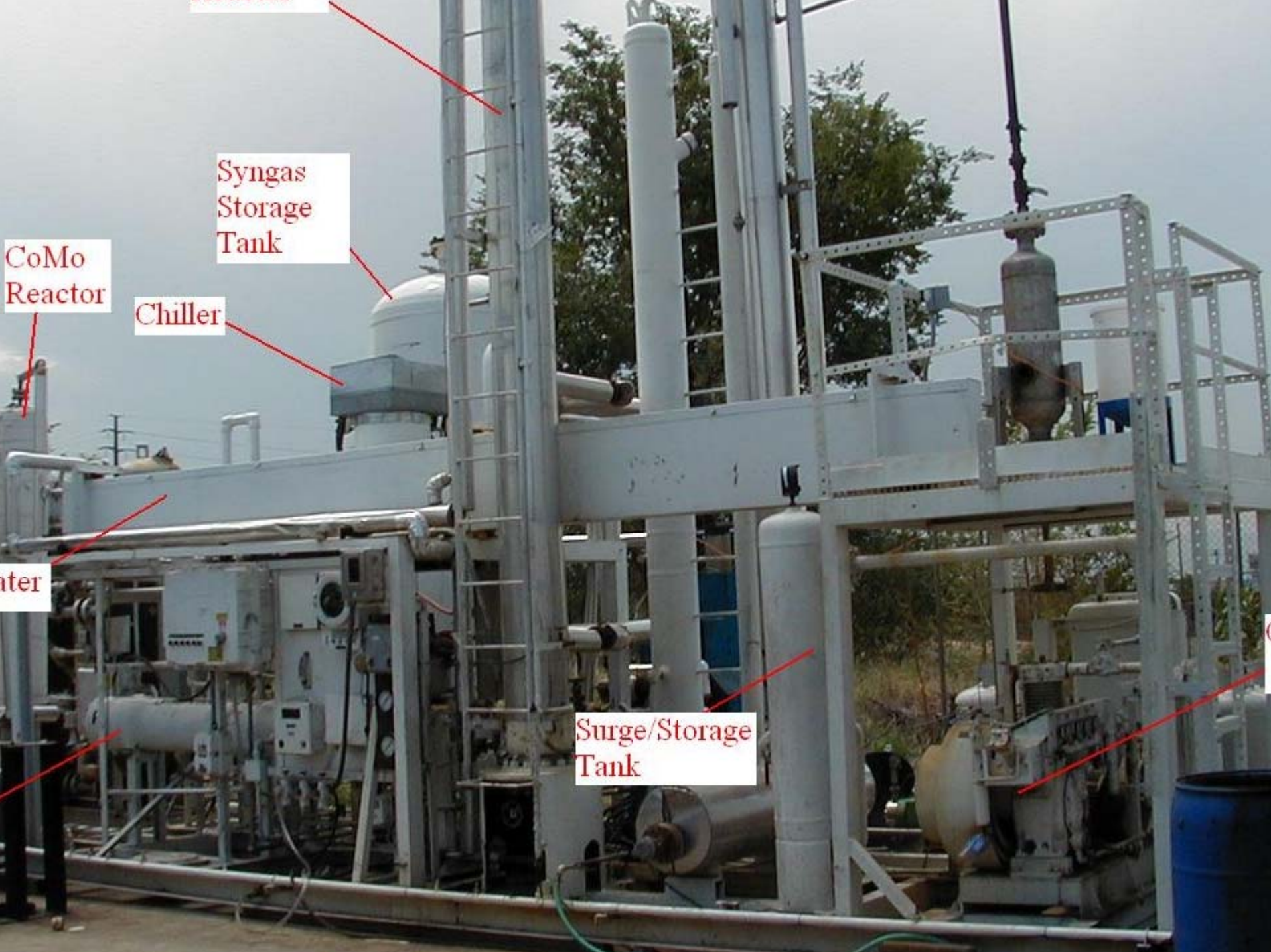
CoMo
Reactor

Syngas
Storage
Tank

Chiller

nter

Surge/Storage
Tank





Current Testing

- 85 hour test run
- Restart Sept 18
- Basis for Design

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New Project Expectations

- Higher Product yields require less feed materials
- Extra product values for other fuels/electricity
- Other feed materials are acceptable

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- # Needed for Project Success
- Location suitable for 250-350 DTPD
 - Wood residues, Municipal Solid Wastes, etc.

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Contact Information

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