



Plum Creek

Growing Value from Exceptional Resources

Governor's 2013 Forest Products Summit

Growing the Timber Industry Through Renewable Energy

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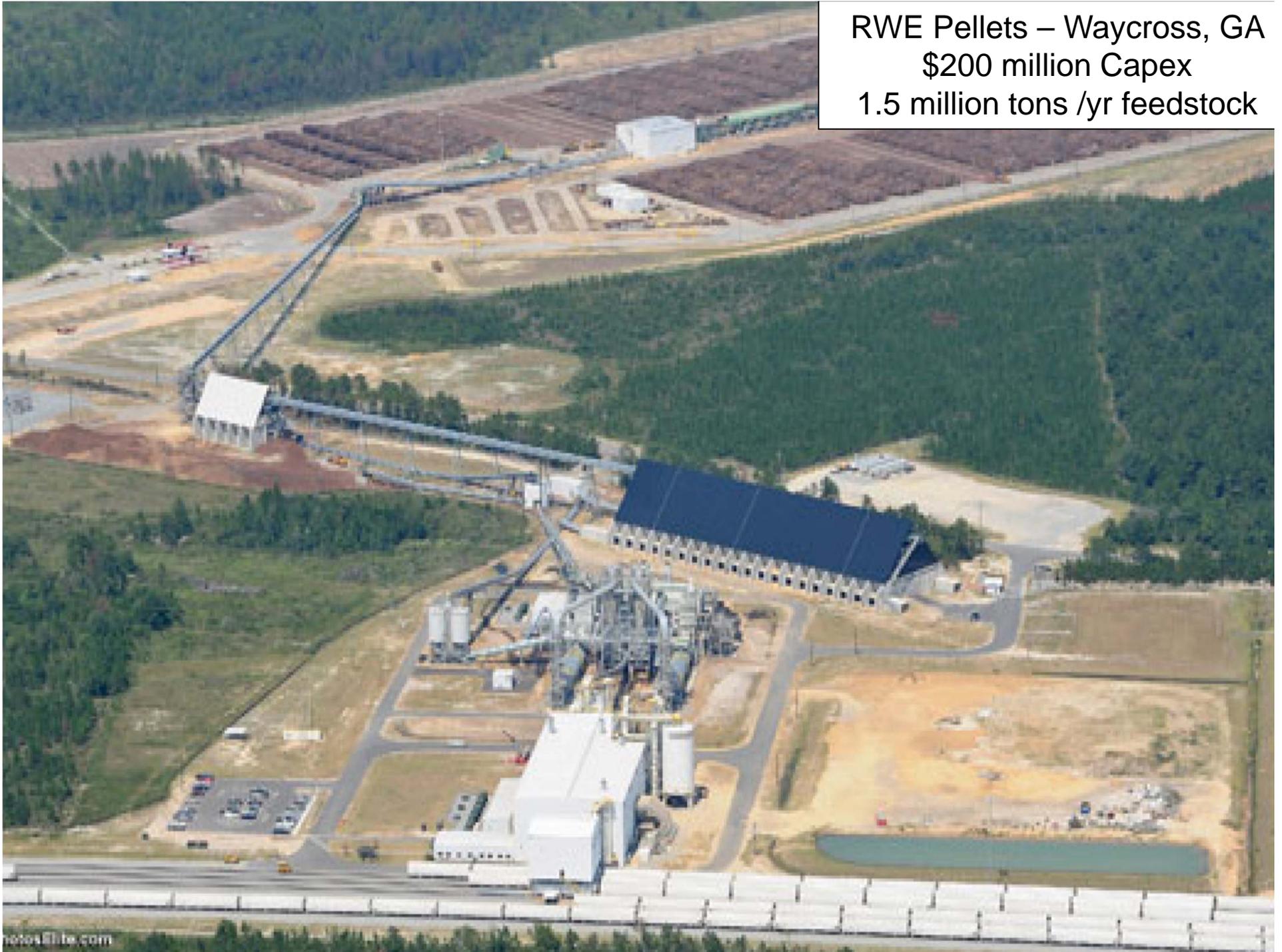
What's at Stake for Forestry?



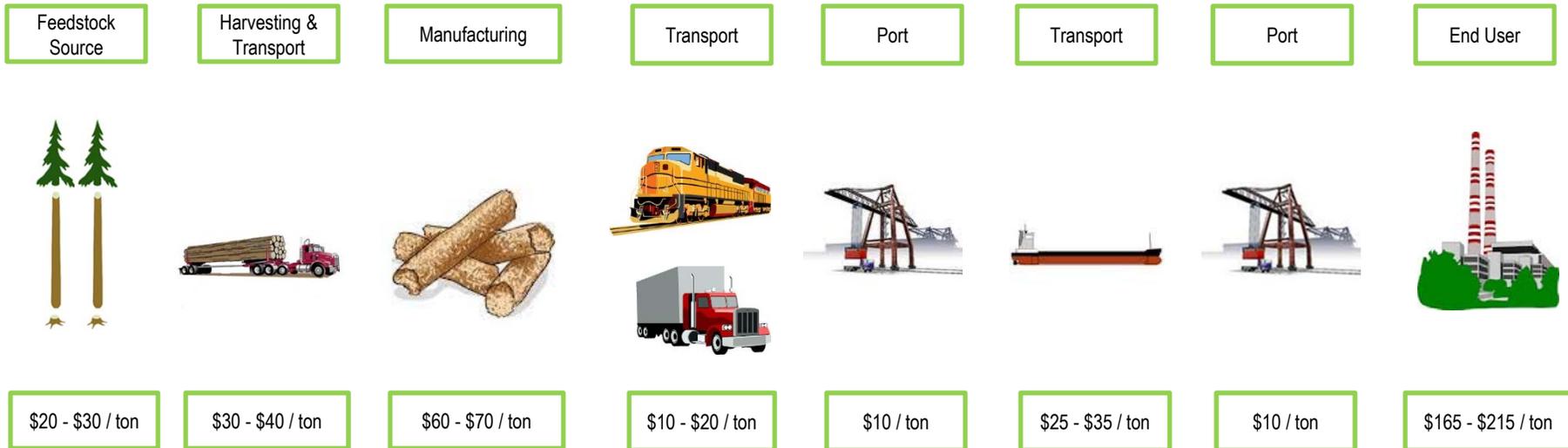
- ▶ Private forests contribute
 - 2.5 million jobs worth \$87 billion in paychecks
 - \$115 billion towards GDP
 - Rural economic health
- ▶ New markets can replace declining fiber markets
 - Paper mill closures – 126 mills in the last 10 years
 - Paper production – 25% decline in production since 2000
- ▶ New markets provide forestry opportunities
 - Thinning opportunities for improved forest health and productivity
 - Better use of every tree harvested

Source: Forest2Market/ NAFO

RWE Pellets – Waycross, GA
\$200 million Capex
1.5 million tons /yr feedstock



Wood Pellets



Note: \$\$ per dry ton

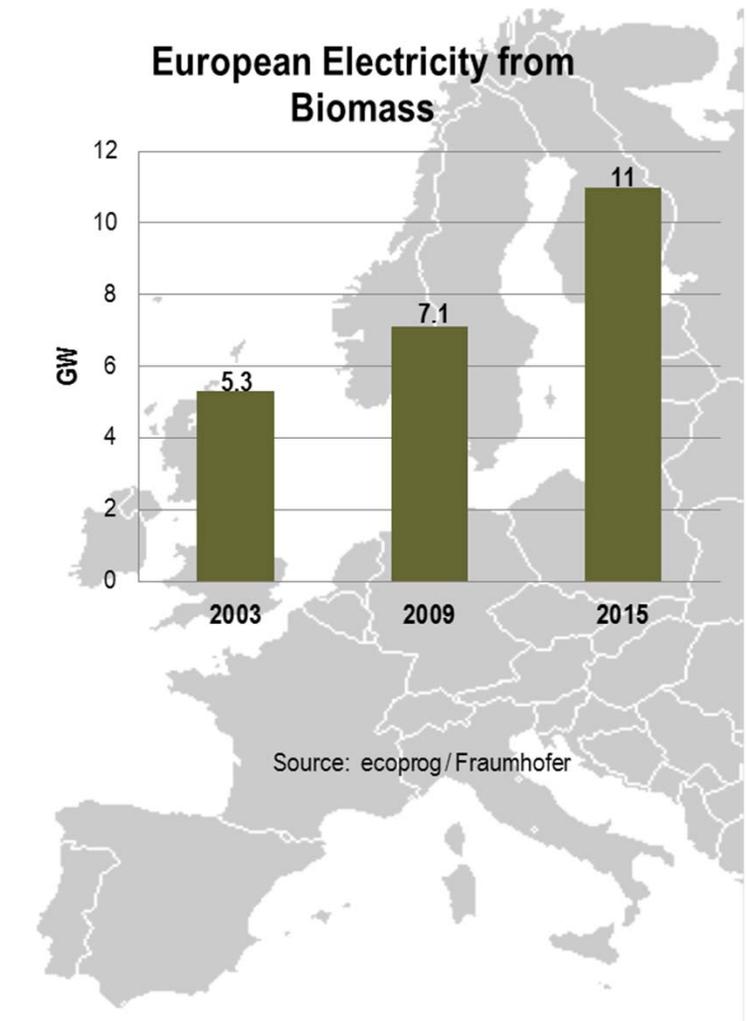
► Challenges

- Long term, predictably priced fiber supply
- Supply chain (transport costs) - approx. 40% of total cost of pellet
- Port infrastructure
- Sustainability Requirements

Europeans Are First To Market



- ▶ European driver is carbon mitigation & capacity gap
 - 28% of existing UK older power capacity coming offline by 2016 - dependable “base-load” power required
- ▶ EU Markets supported by policy mandates
- ▶ North American Wood Pellet exports – rapidly expanding
 - Major producing regions: U.S. South, BC, Eastern Canada
 - Current Annual Export Shipments
 - Canada ~ 1.4mm tons
 - U.S. ~ 1.8mm tons



U.S. Is well positioned for Pellet Exports



- ▶ Established supply chain and contractor capacity
- ▶ Sustainability Programs
- ▶ U.S. Laws (Clean Air, Water, State BMP's)

Michigan

- ▶ Challenges:
 - Proximity to major ports
 - Attracting producers through incentives
- ▶ Opportunities:
 - Leveraging existing logistics infrastructure
 - Major Railroads
 - St. Lawrence Seaway
 - Forest Resources

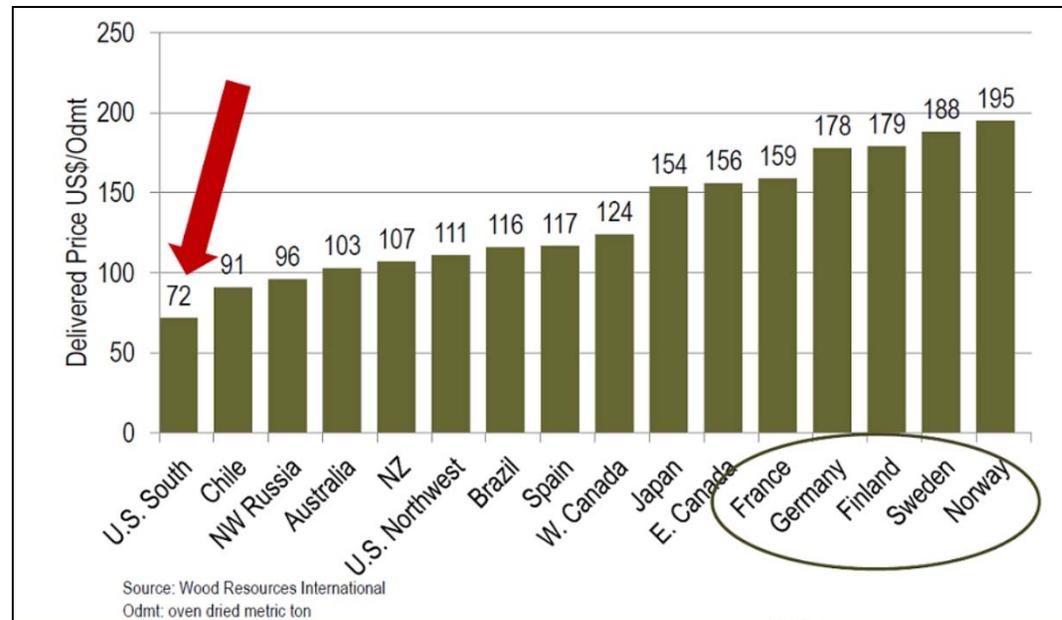


U.S. has recently become the largest pellet exporter



- ▶ Established supply chain and contractor capacity
- ▶ Lowest cost of softwood fiber globally
- ▶ Close proximity to major pellet markets in EU
- ▶ Cost & carbon emissions footprint is beneficial

- S.E. Ports \approx 3,300 mi.
- Brazil \approx 4,200 mi.
- BC \approx 8,400 mi.
- Australia \approx 12,000 mi.
- **Michigan \approx 3,800 mi**



Customer Profile -



Oil

Coal

Gas

 Biomass is the 4th Energy Source

Drax Group subsidiary to invest US\$120M in Louisiana, build wood pellet facility in Bastrop and storage-and-shipping facility in Baton Rouge as part of plan to become predominantly biomass-fueled energy generator

Power company Drax and Plum Creek Timber finalize 10-year fiber supply agreement for up to 770,000 tons/year of wood to feed two wood pellet manufacturing plants planned for US South Jan 23, 2013 – Business Wire