

OAK RIDGE FOREST PRODUCTS

SUPPLYING WOOD FUEL TO
ORNL BIOMASS
GASIFICATION PLANT

CHRIS KEZIAH

Challenges to BioMass Fuels

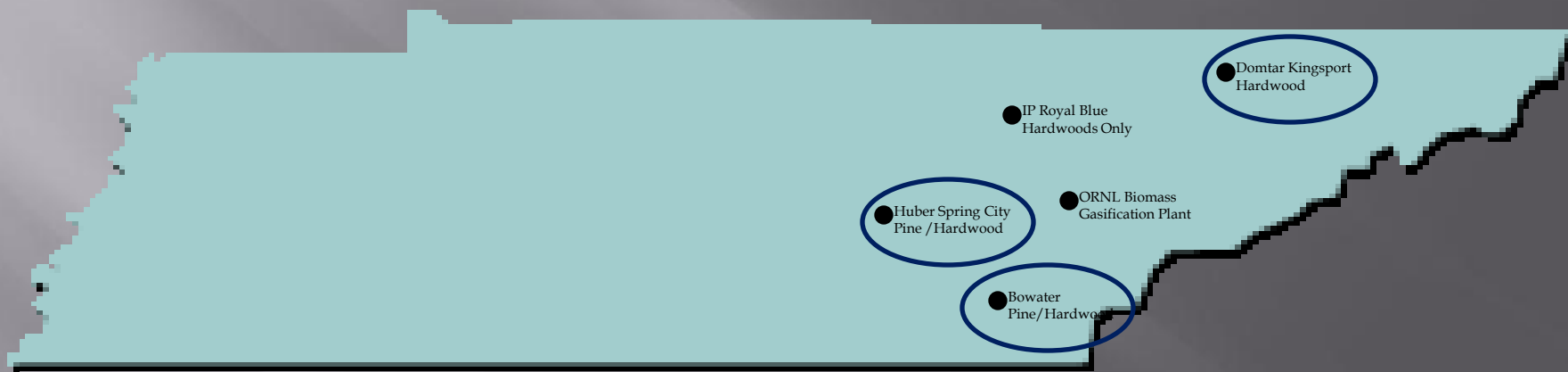
- ▣ Biomass Supply
 - ▣ Usage estimated at 6-8 truckloads/day
 - ▣ Varying Demand Levels
 - ▣ Procurement Area - Supply/Cost procurement limitations
 - ▣ Supplier Coordination

- ▣ Planning/Storage
 - ▣ Changing mindset of Tap on/Tap off
 - ▣ Limited Fuel Storage

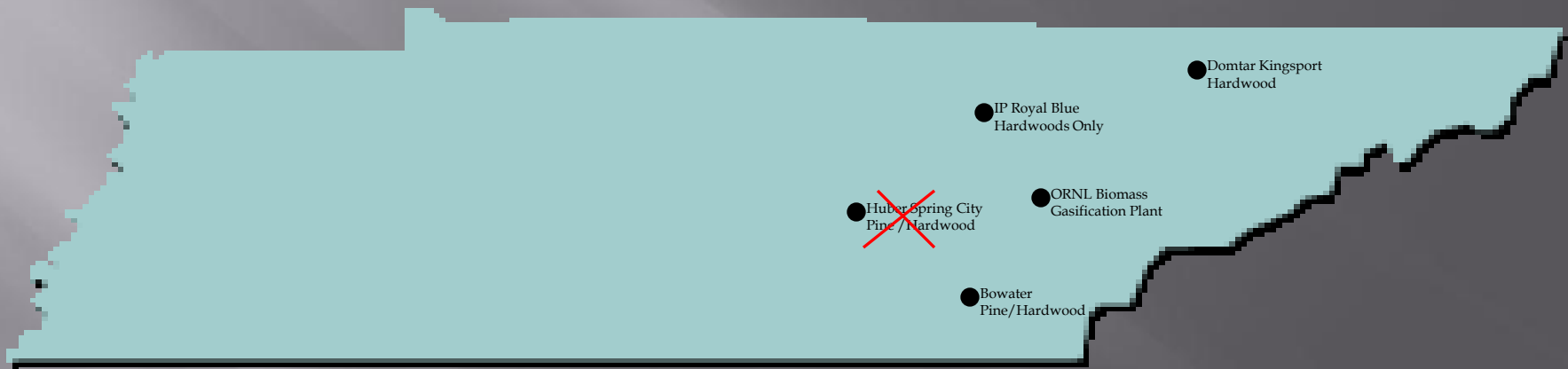
Procurement Area Wood Chip/Pulpwood Users



Procurement Area Biomass Users

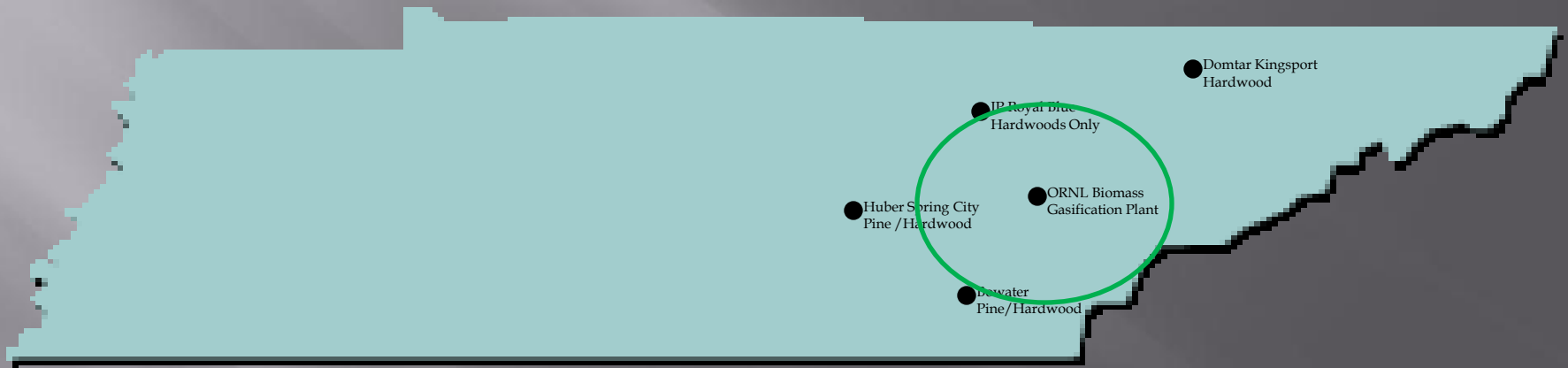


Procurement Area Biomass Users



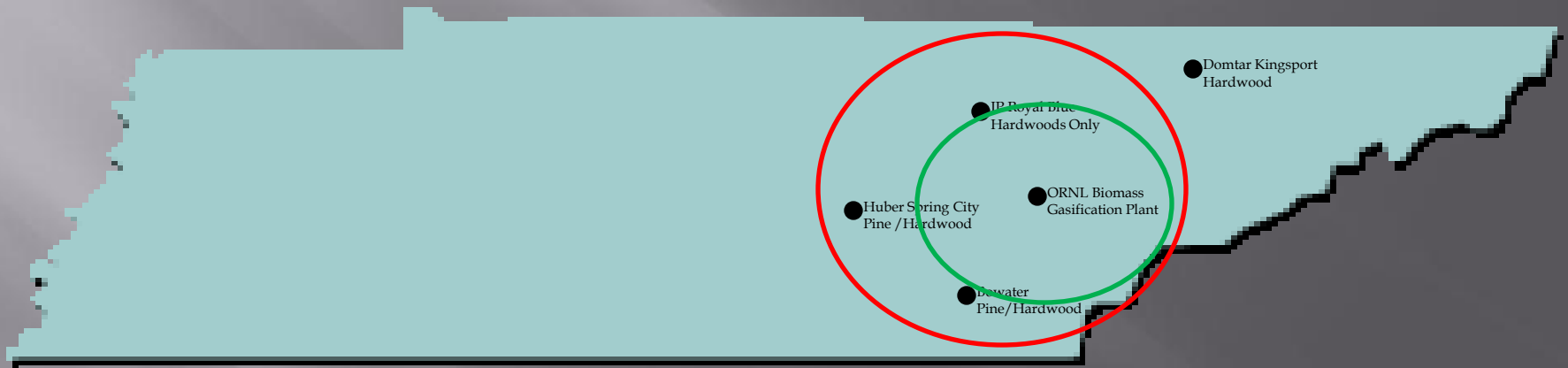
- JM Huber Spring City Closed by end 2011
- Domtar Kingsport reduced Biomass use by 1/3 effective 2012
- Bowater has not bought biomass fuel on outside market on almost 1 year

Procurement Area



— Wood Procurement Area

Procurement Area



— Wood Procurement Area

— Fuel Procurement Area

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Opportunities Ahead

- ▣ Utilizing Fuel from within the Reservation
- ▣ Finding Additional Fuel Supplies
 - Finding Lower Cost Fuel
 - ▣ Switch Grass
 - ▣ Green Wood Waste
 - Finding Consistent/Quality Supplies
 - Blending Supplies