

SOLUTIONS FOR ENVIRONMENT AND BUSINESS

Pellet Supply Chain Solutions

World BioPower Conference

Rotterdam 13th March 2012

WEYERHAEUSER | SOLUTIONS

EXPERTISE FOR A SUSTAINABLE PLANET



SOLUTIONS FOR ENVIRONMENT AND BUSINESS

WEYERHAEUSER SOLUTIONS DEVELOPS, MANAGES, AND COMMERCIALIZES FOREST-BASED SOLUTIONS TO MITIGATE RISKS, DIVERSIFY INVESTMENTS, AND EXPAND ECONOMIC OPPORTUNITIES.

WE HELP CUSTOMERS UNLOCK THE ECONOMIC AND ENVIRONMENTAL POTENTIAL OF FORESTS.

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Presentation Content

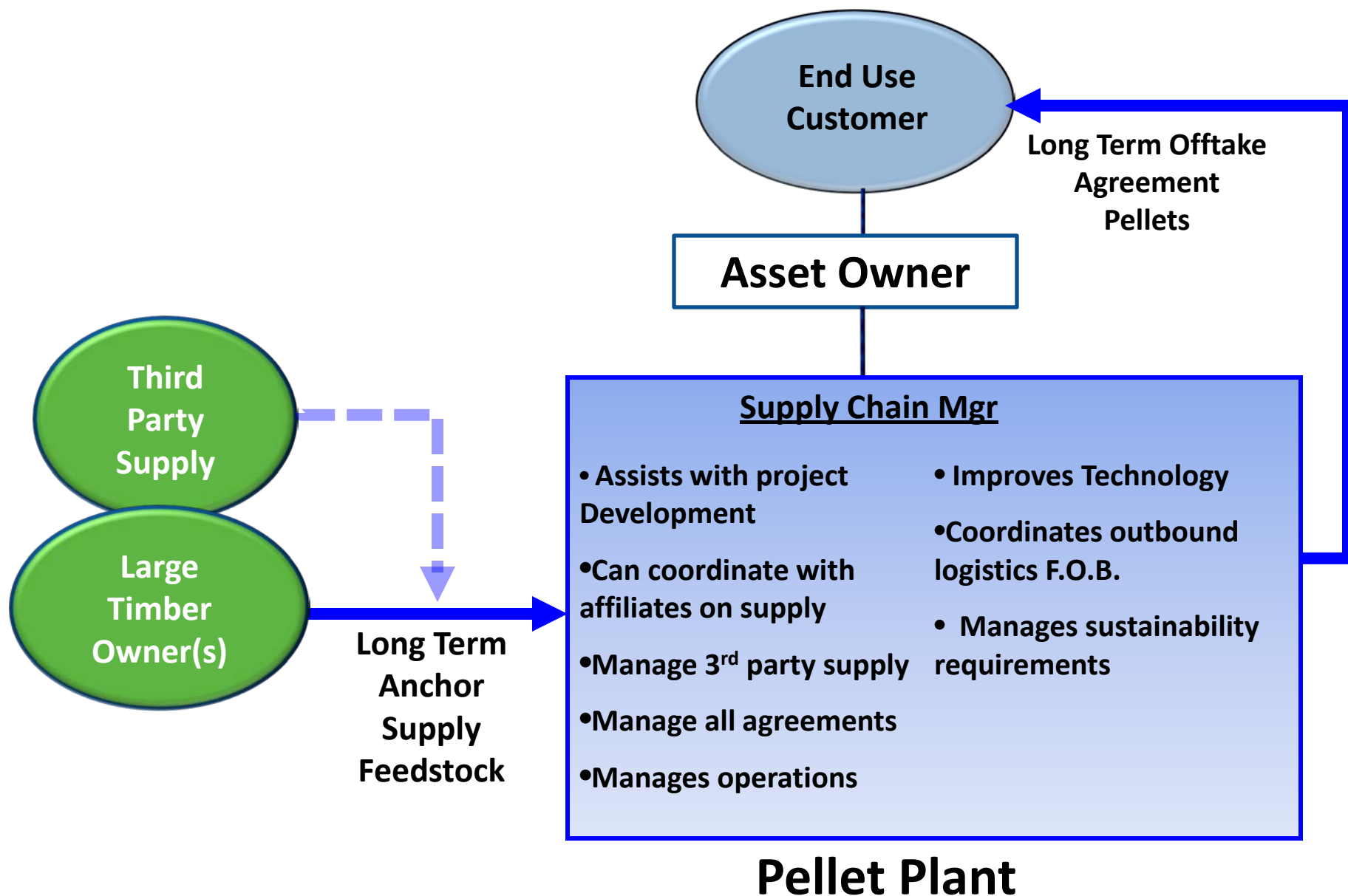
- Challenges with current pellet supply chain models
- WY Solutions supply chain models
 - End User Model
 - Investor Driven Model
 - Resource Forward Model
- Conclusions

Challenges in current pellet supply

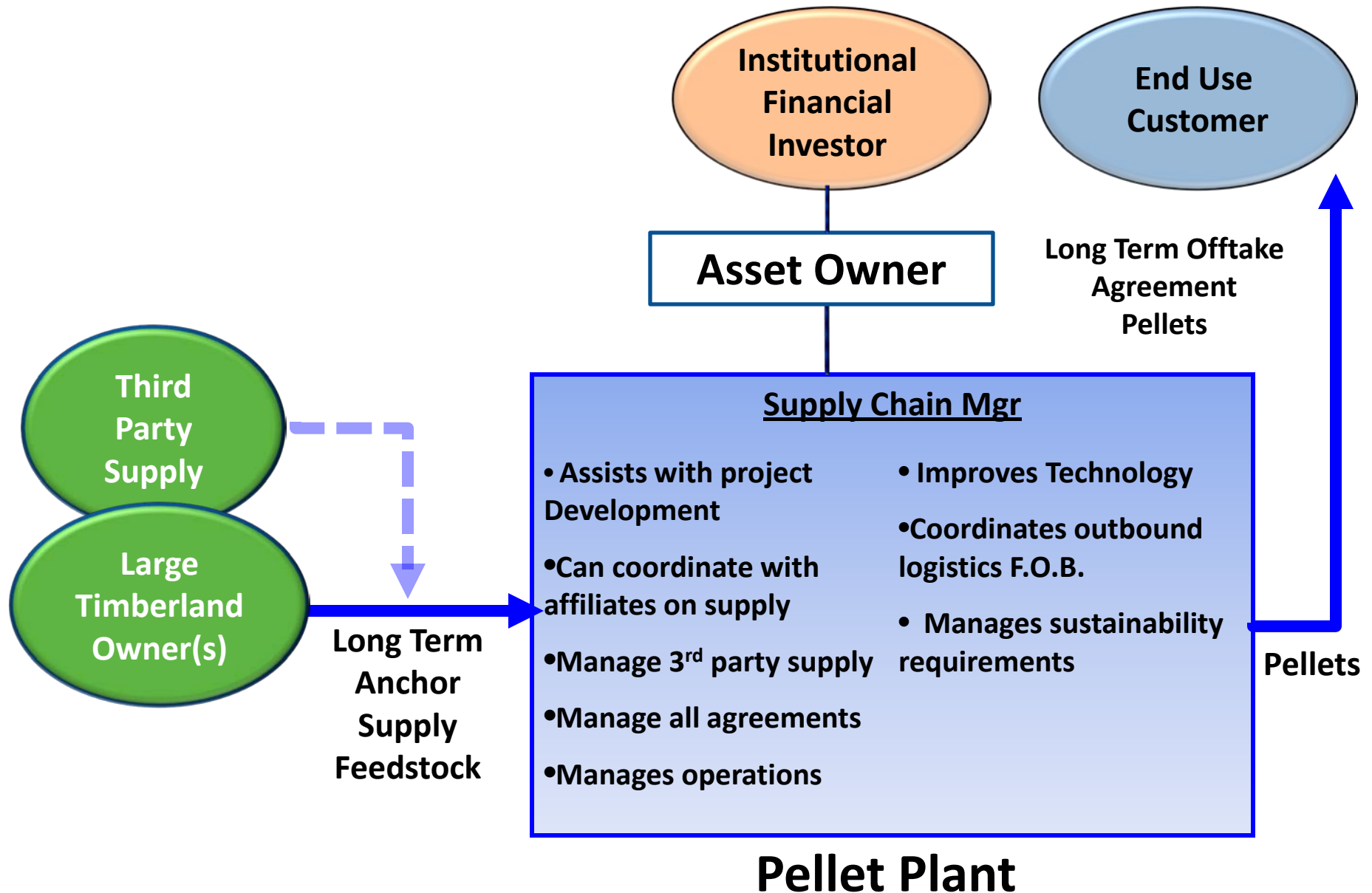
- **Lack of vertical integration**
 - Economics integration with traditional forest products (wood, fibre)
 - Demand side perceives risk in resource management and supply chain management
 - Commodity pricing / margins require minimal participants in supply chain
- **Difficulty ramping up scale supply to meet projected demand**
 - Few large timber owners, many small scale owners
 - Difficulties in project finance (resource, capital and market risks)
 - Asymmetry between fibre supply commitments and pellet supply commitments
- **Sourcing must meet sustainability requirements**
 - Variety of certification schemes in use (ATFS, SFI, FSC, etc)
 - Need transparency in supply chain for GHG LCA requirements
 - Demonstrating sustainability requires extensive knowledge of forestry, harvest and haul practices



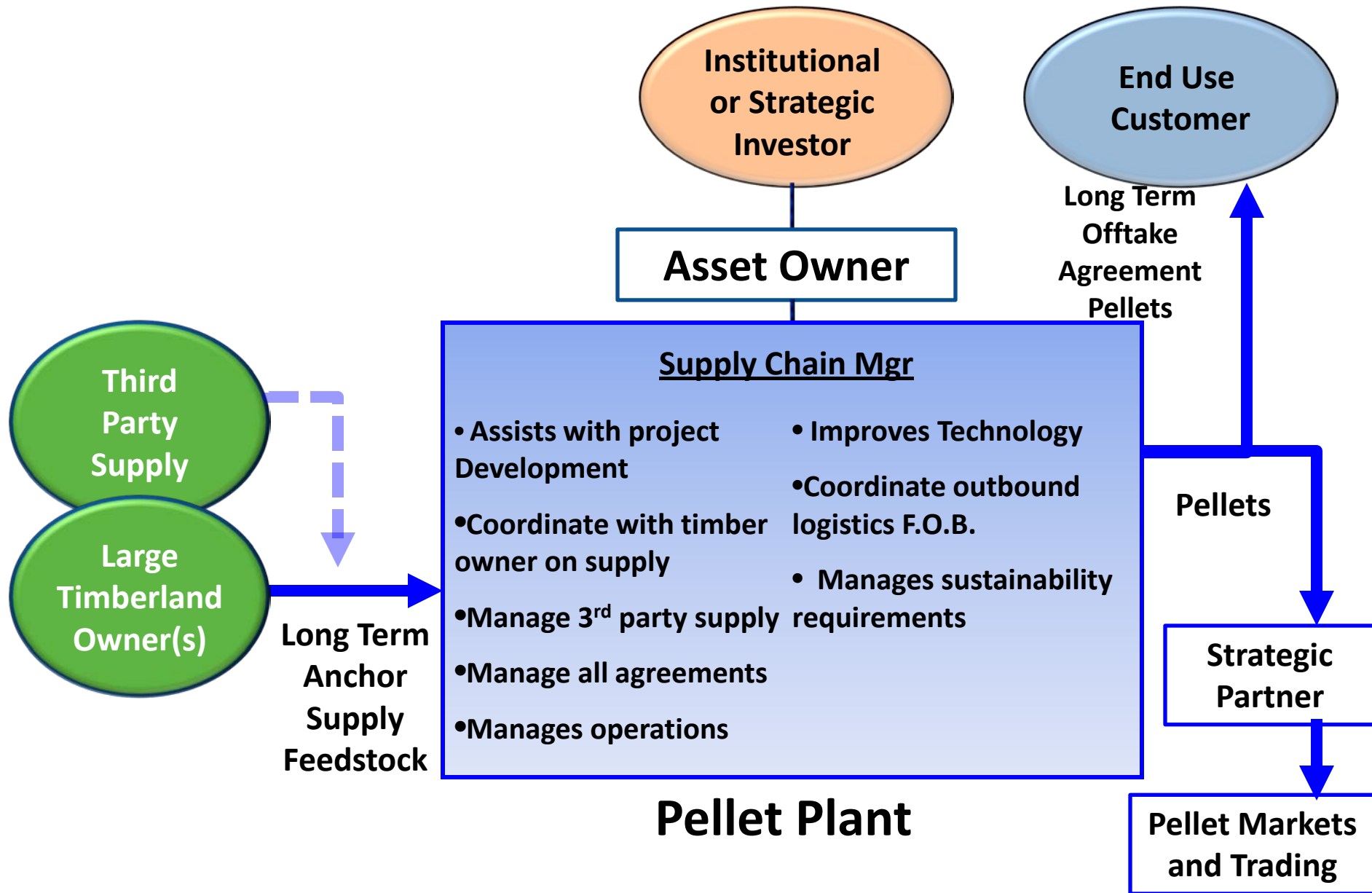
Solution #1: Demand-Side Direct Invest Model



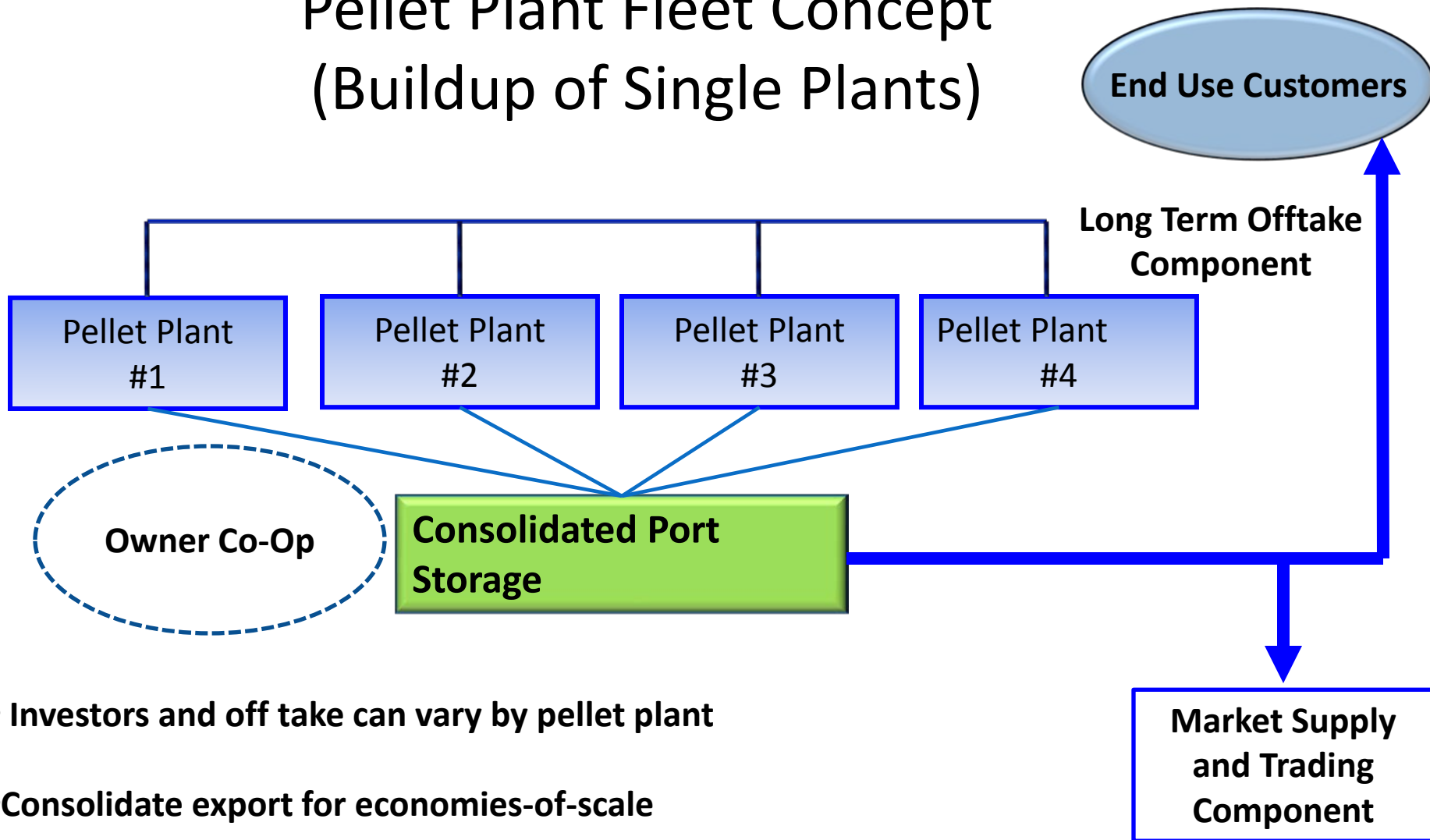
Solution #2: Investor - Driven Model



Solution #3: Resource Forward Model



Pellet Plant Fleet Concept (Buildup of Single Plants)



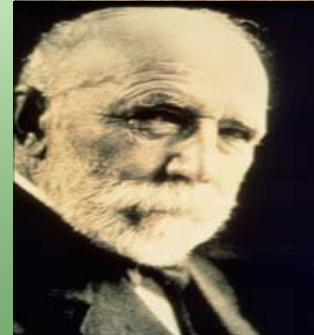
- Investors and off take can vary by pellet plant
- Consolidate export for economies-of-scale
- Provides cumulative 1+ Mio tonnes per year of blue-chip, sustainable supply
- Provides mixture of secured supply and market offering

Conclusions

- Current pellet supply models present challenges on scale, supply chain alignment and risk profile
- Weyerhaeuser Solutions has developed an innovative service model that:
 - reduces project risk
 - Creates alignment for long-term, large-scale supply relationships
 - Reduces commercial risk for investment capital
 - Ensures product meets sustainability and carbon LCA requirements
- More information available at:

www.WY.com/Solutions

james.leitheiser@weyerhaeuser.com



“This is not for us, nor for our children, but for our grandchildren.”

– Frederick Weyerhaeuser, founder, 1900