INDUSTRY APPROACHES TO SUSTAINABILITY AND CLIMATE CHANGE

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Context

• Extensive Goods Movement System in Southern California is important to the economy

• Southern California has worst air quality in the nation with strict federal deadlines

• Ambitious GHG reduction goals for the State of California, some will effect freight transportation.

• Led by CARB, state is working on Sustainable Freight Initiative (SFI), which includes emissions, efficiency and competitiveness targets.
Research Goal

• Examples of industry sustainability initiatives
• Learn more about how public agencies can support and encourage best practices
  • What types of programs are the easiest and most effective to implement
  • What type of support is needed?
• Build relationships to encourage greater industry voice in planning decisions
Research/Interview Questions

• What sustainability best practices have been implemented by goods movement dependent industries?
  • Warehousing
  • Transportation
  • Manufacturing
• What has driven these decisions?
  • Costs, ROI, regulations, public image, operational efficiencies...
• What have been the biggest obstacles/challenges for implementation?
• What metrics are being used to measure success?
• What resources were consulted?
• What can public agencies do to support best practices?
  • Are these best practices replicable?
Methods

• Document review and interviews
  • Professional Associations
  • Advocacy/Consulting Groups
  • Academic publications
  • CSR reports

• Interviewees:
  • Grocery Distribution Center, Sustainability Manager
  • Third Party Logistics Provider (3PL), Business Owner
  • Shipping Line, Sustainability Manager
  • Packaged food company, Sustainability Manager
  • Consulting Group, (BSR)
  • International Warehouse Logistics Association (IWLA)
“Sustainable Freight”
Areas of Opportunity for Improvement

Production

Warehousing

Transportation
Transportation Related Improvements

• Vehicle Improvements - reduce fuel or emissions
  • Cleaner/more efficient vehicles or clean fuels
• Operational Practices - reduce trips or VMT
  • consolidation of loads, partnerships to share space, route optimization
  • Reduce idling
• Mode Shift
## Example Best Practices

<table>
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<tr>
<th>Practice</th>
<th>Ruamsook and Thomchick</th>
<th>Environmental Defense Fund (EDF)</th>
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<tr>
<td>Efficient Routing</td>
<td>UPS “Package Flow”</td>
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<td>Reduce Idling</td>
<td>Walmart - automatic turn off</td>
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<tr>
<td>Reduce Speed</td>
<td>Staples, Schneider National, Con-way</td>
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<tr>
<td>Redesign Packaging</td>
<td>Genco, Unilever, Walmart, Nike, Starbucks, Aveda, HP, Apple</td>
<td>Caterpillar, Hewlett Packard,</td>
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<td>Collaborative Routing “truck pooling”</td>
<td>Ex) Empty Miles Program</td>
<td>Ocean Spray and Tropicana; Sunmaid; Daltile and Whirlpool</td>
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<td>Maximizing Truck Load</td>
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<td>Kraft, Walmart</td>
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<td>Jelly Belly, Michael Kors</td>
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<td>Cleaner Vehicles</td>
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<td>Lowes, Target, Home Depot</td>
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Findings – Warehousing

• Energy efficiency
  • Energy efficient lights (LED)
  • Automatic doors for refrigerated areas
  • Solar roofs not cost effective.

• Recycled materials
  • Plastic wrap, cardboard, wood pallets, food composting

• 3PL had zero landfill goal, with competitions between warehouses.
Findings - Transportation

• Clean Vehicles
  • Packaged food company – electric box trucks, CNG vehicles, CNG fueling stations, in house maintenance and trainings, some propane trucks
  • Grocery distribution company – upgraded to newest models, but no alt fuels
  • 3PL – electric cargo handling equipment
  • No control over external fleets

• Fuel Savings – aerodynamics, reduced idling
Findings - Transportation

• Mode Shift – 3PL will use train if possible, it is 30-40% cheaper

• Routing
  • All to come extent
  • Vessel company – advanced efficiency monitoring
  • 3PL used off-peak schedule and terminal appointment system

• Less than Truckload – depends on clients, might use LTL service
  • Food company used drop-frames to expand truck volume.
Findings – Public Sector Role

- Education and outreach
  - Have a website that consolidates programs, grant opportunities, rebates, ideas, incentives and other resources
- Public funding and incentives
- Have a personable and collaborative approach
- Recognize high cost of doing business in CA
- Enforcement and maintain a level playing field
- Address traffic problem
  - Build more and pay for it with general taxes, not toll
  - Traffic is out of their control but could be up to a 30% waste in fuel
- Encourage growth of fueling infrastructure
Next Steps

• Continue interviews for a better sense of opportunities and challenges
• Continue to foster dialog between industry and public sector
• Incorporate opportunities and challenges into future planning and policy initiatives
Thank you!

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