

Transportation
Safety and Mobility

MAY 2019

Project Title:

Freight Efficiency Strategies: A White Paper Series to Inform the California Sustainable Freight Action Plan

Task Number: 2987

Start Date: October 1, 2015

Completion Date: May 1, 2016

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Freight Efficiency Strategies: A White Paper Series to Inform the California Sustainable Freight Action Plan

In July 2015, Governor Jerry Brown issued Executive Order B-32-15, directing several state agencies to work together in developing an integrated action plan that will “establish clear targets to improve freight efficiency, transition to zero-emissions technologies, and increase competitiveness of California’s freight system” and that plan should “identify state policies, programs, and investments to achieve these targets”.

WHAT IS THE NEED?

In response to the Governor’s Executive Order, an interagency group was formed to oversee the development of the California Sustainable Freight Action Plan (CSFAP). Members of the interagency group include the California Air Resources Board (ARB), the California Department of Transportation (Caltrans), the California Energy Commission (CEC), and the Governor’s Office of Business and Economic Development (GO-Biz) as well as the California State Transportation Agency (CalSTA), the California Environmental Protection Agency (CalEPA), and the Natural Resources Agency (CNRA).

WHAT WAS OUR GOAL?

As part of developing the plan, the interagency group solicited feedback from a broad range of stakeholders through a variety of engagement activities and outreach efforts. A component of this engagement was the development of the Freight Efficiency Strategies Development Group (FESDG) made up of freight experts from academia, industry, and government. The purpose and main task of this group was to produce a series of white papers that identify promising strategies for increasing the efficiency of the freight system. A series of six papers were developed over the course of six months. Each paper focuses on a specific theme for increasing freight efficiency within the larger freight system.



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WHAT DID WE DO?

The content of the white papers produced by the group represents discussions among many individuals representing various freight industry stakeholders. It may not reflect consensus on the part of all of the participants, nor do these papers necessarily represent the official opinion or policy of the represented organizations, but rather a range of thinking that might be used to inform and build consensus for the development of the California Sustainable Freight Action Plan. Given the perspective of the various freight stakeholders, paper authors have attempted to include dissenting opinions and areas of concurrence where they may exist.

The six white papers include:

1. Funding for Freight Infrastructure and Clean Equipment. Lead Authors: Will Kempton and Garth Hopkins, California Transportation Commission. The white paper provides an overview of the need for additional funding for both continued development of California's freight infrastructure and expansion of clean equipment for freight.
2. Strategies to Maximize Asset Utilization in the California Freight System: Part 1 – Background and General Recommendations. Lead Author: Miguel Jaller, University of California, Davis.
3. Strategies to Maximize Asset Utilization in the California Freight System: Part II – Strategies. Lead Author: Miguel Jaller, University of California, Davis.
4. Planning and Policy. Lead Authors: Tom O'Brien, California State University, Long Beach
5. Operational Modernization at Distribution Nodes. Lead Authors: Tom O'Brien, California State University, Long Beach
6. Information Technology. Lead Author: Genevieve Giuliano, University of Southern California

WHAT WAS THE OUTCOME?

This white paper series has presented eight possible IT strategies to address the Governor's order to increase the efficiency and sustainability of California's freight system. The researcher's approach was to frame the problem as one of delay from congestion or uncertainty. Their goal was to identify strategies that generate eco-efficiencies; strategies that both increase efficiency by reducing delays and generate environmental benefits (reduced fuel consumption and GHG emissions). They organized their strategies around two themes: 1) Information problems in the goods movement supply chain, and 2) Information problems in statewide trucking. They identified eight strategies that were recommended for consideration of implementation. All strategies require additional study before their contribution to efficiency or GHG reduction can be estimated.

WHAT IS THE BENEFIT?

Their assessment criteria include cost, implementation time frame, degree of difficulty, potential for efficiency gains, and potential for GHG reductions. All assessments are relative to one another (e.g. "high" means high relative to the other strategies). They stress that these are highly subjective ratings based on very limited information. In general, the highest cost strategies have the longest time frames, the most challenges, and the greatest potential gains. The lowest cost strategies are easier to implement, but due to their limited nature are not expected to have major impacts on efficiency or GHG reductions. These strategies provide a useful starting point for developing a statewide freight efficiency program to achieve California's efficiency goals.

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<http://ncst.ucdavis.edu/research/white-papers/>