



Greening the Fleet

Cleaner Air, Lower Carbon, and a Better
Economy

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Outline

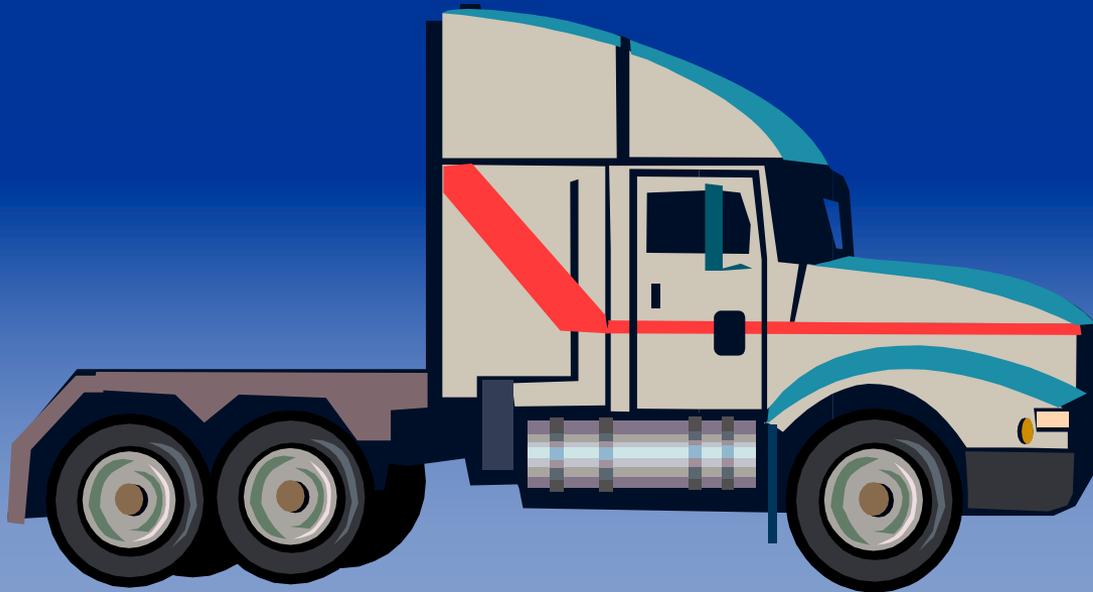
- What is Cascade Sierra Solutions?
- Mission & Purpose
- The Long Haul Truck
- Breaking Down Barriers
- Equipment
- Financing Options
- Funding Needs
- Q & A

What is Cascade Sierra Solutions?

- An organization of public and private partners, working together to:
 - Save fuel
 - Improve air quality
 - Slow climate change
- Non-regulatory, Not-for-profit
- Showcases multiple brands of fuel-saving technology at truck stops
- Provides a “one stop shop” for truckers

The CSS Mission

CSS identifies, promotes and finances technology to save fuel and reduce pollution from the legacy fleet of trucks.



The Role of CSS

Technology

Grants

Discounts

Rules

Tax credits

Offsets

Financing

Rebates

Technical Assistance



Trucking
Industry

The Long Haul Truck

- ✓ Travels over 500 miles a day
- ✓ 100,000 miles+ per year
- ✓ Uses 20,000+ gallons of diesel fuel
- ✓ Emits 220 tons of carbon dioxide per year
- ✓ 100,000 are on the I-5 corridor at any time



The Long Haul Truck

- ✓ Uses more fuel than any other vehicle
- ✓ Idles 1960 hours a year
- ✓ Wastes 2,000 gallons of fuel a year



Room for Improvement

With a complete upgrade we can save:



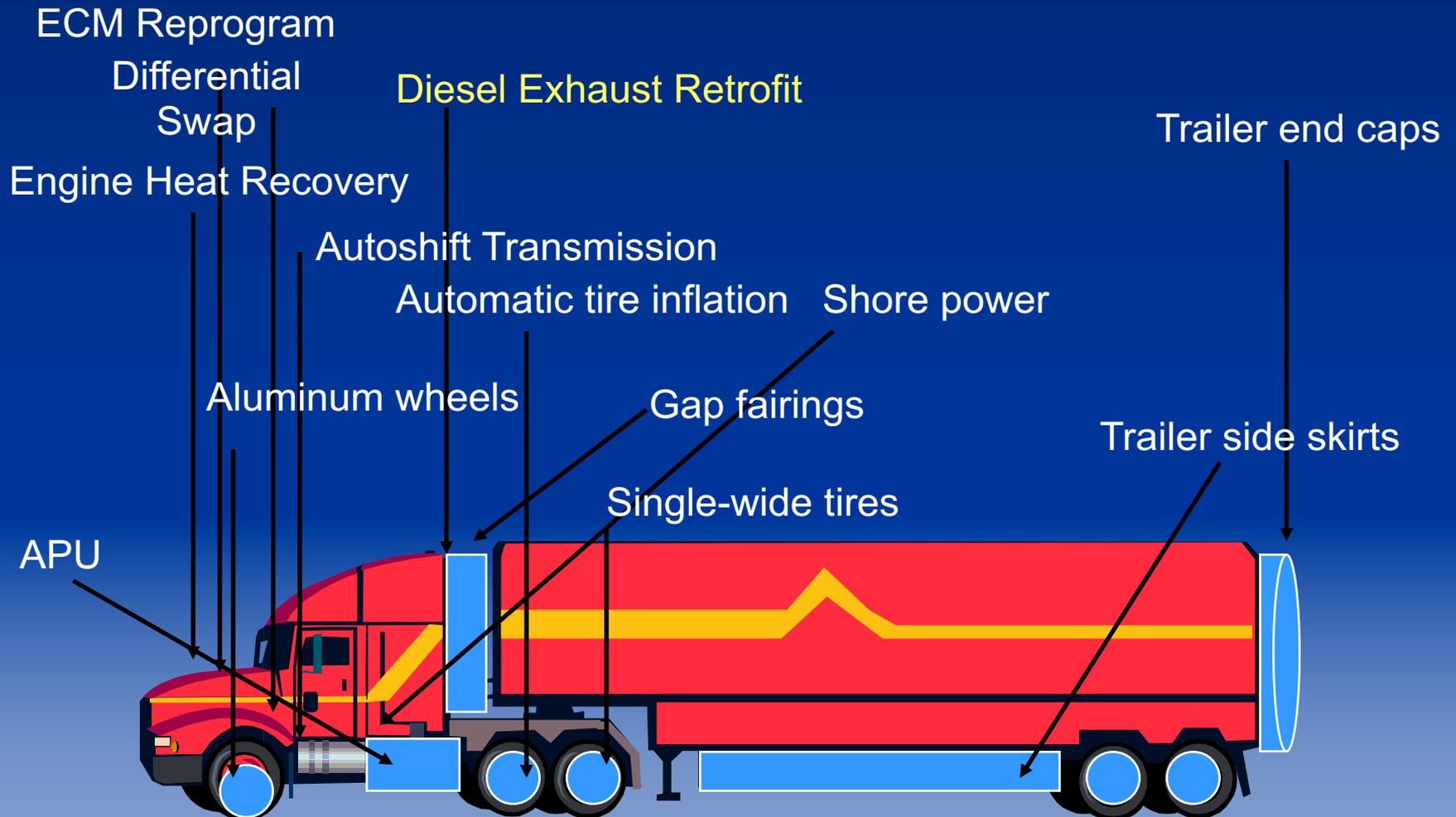
- ✓ 25% of the fuel consumed or 5,000 gallons per truck per year;
- ✓ 25% reduction in PM, NO_x, air toxics
- ✓ 50 metric tons of carbon dioxide per truck, per year

This is one of the biggest opportunities for reducing carbon emissions

Potential Improvement – Each Year

- Upgrading 30,000 trucks would save:
 - 150 million gallons of fuel
 - 625 tons of diesel particulate matter
 - 22,500 tons of oxides of nitrogen-NO_x
 - 1,500,000 tons of carbon dioxide
 - \$450 million in fuel savings

Truck with *SmartWay* Technology



CSS Strategies

- ✓ Implementing EPA SmartWay Upgrades
- ✓ Providing Affordable Upgraded Trucks
- ✓ Promoting new EPA SmartWay Certified Tractors & Trailers
- ✓ Promoting Alternative Fuel Vehicles; and
- ✓ Cleaner and Renewable Fuels

The CSS Outreach Center

Breaks down
barriers:

- ✓ Awareness
- ✓ Capital Cost
- ✓ Regulatory Information



Coburg, Oregon

Locations



US Department of Transportation
Federal Highway Administration
Office of Freight Management and Operations
Freight Analysis Framework

Estimated Average Annual Daily Truck Traffic

(1998)



Portland, Oregon



Sacramento, California

- Grand Opening in September 24th
- 2800 Square Ft
- Classroom
- Showroom for equipment

APUs



Heaters



Aerodynamics



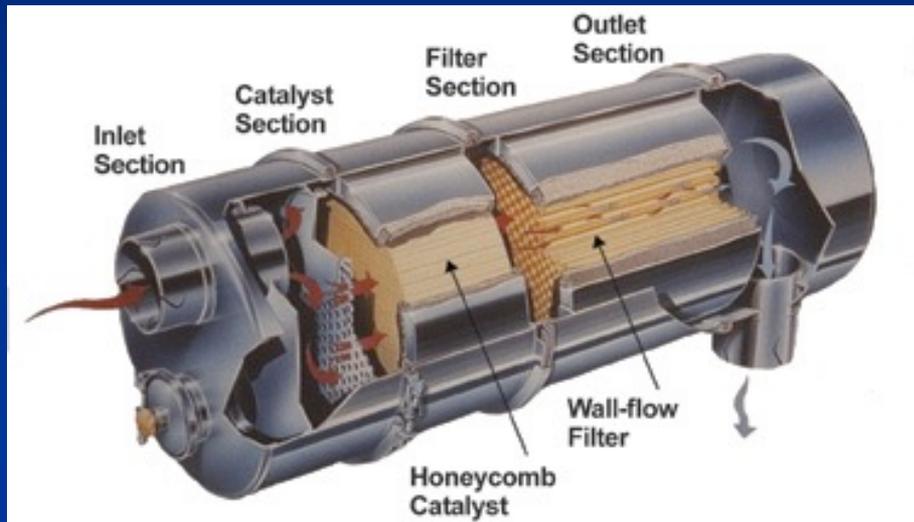
Tires & Wheels



Shore Power Hookups



Exhaust Retrofits



SmartWay Tractors



LNG Tractors



Fleet Case Study

- Replaced 300 trucks
- Baseline FE @ 5.8 mpg
- New truck FE @ 7.73 mpg
- 33.27% improvement
- Average VMT 150,000
- Fuel used before: 25,862 gal
- Fuel used after: 19,404 gal
- Savings of 6,458 gal
- 71 tons of GHGs
- $\$26,000 * 300 = \$7,800,000$

Fleet Case Study

ECM Reprogram: Limiter @ 68, Idle shutoff

Correct
Differential

Diesel Exhaust Retrofit

Autoshift Transmission

Automatic tire inflation

Full Aero Package

Aluminum wheels

Gap fairings

Tag Axle

Fuel Efficient Engine

Super Light Trailer

APU

Single-wide tires



Fleet Incentives



CSS Financing Options

- The CSS *Everybody Wins* Equipment Lease (\$10 Mil)
 - Low interest
 - Extended terms
- The CSS *Greenlease* (\$40 Mil) – Designed to help small businesses which often do not qualify for traditional financing.
 - 10 year payment plans for new trucks
 - 8% interest
 - Provides match for California ibond program
- SBA Loans up to (\$25K) per business
 - Higher interest
 - Extended terms
 - Processing fees
- Traditional Truck Financing – Daimler Chrysler, GE Capital

Incentives

- On-road voucher program (CA)
- BETC (OR)
- Grant processing services for truckers
 - EPA
 - CARB
 - DEQ
- Shorepower grants (OR)

Progress

- Truck Replacement Projects:
 - 380 completed
 - 300 in process
 - 1,200+ grants in process (CA)
- SmartWay upgrades:
 - 1,500 completed
 - 320 In Process
 - See the progress on our webpage:
www.cascadesierrasolutions.org

Contact Info



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