



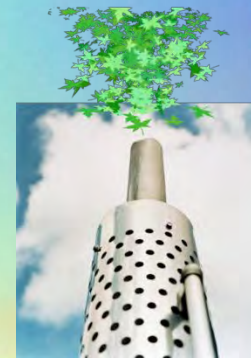
Saving Fuel & Reducing Emissions from Trucks

Sharon Banks, Founder and CEO
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What is Cascade Sierra Solutions?

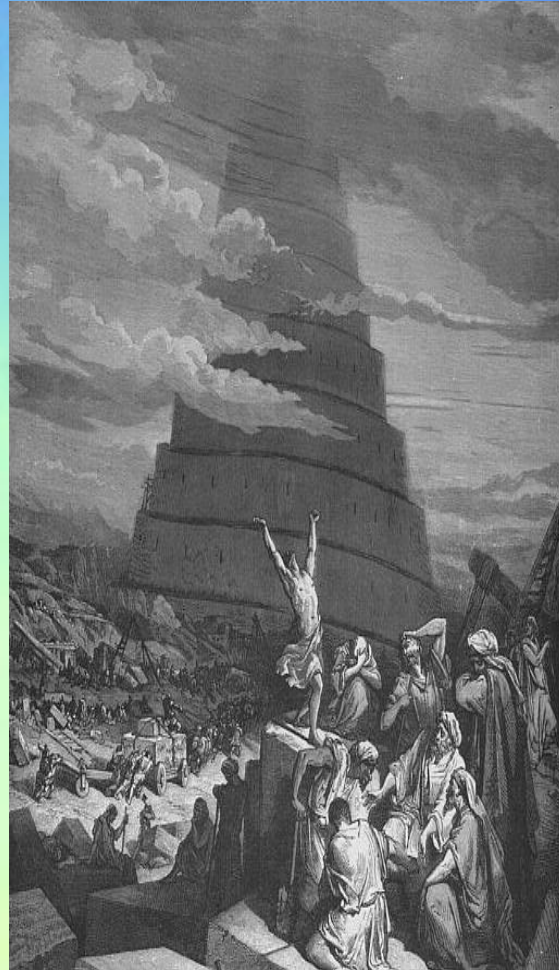
- **Cascade Sierra Solutions (CSS) is a 501(c)3 nonprofit organization**
- **Mission:**
CSS identifies, promotes and finances technology to save fuel and reduce pollution from the legacy fleet of trucks.



The Role of CSS



**“10-4 good buddy,
what’s your 20?”**

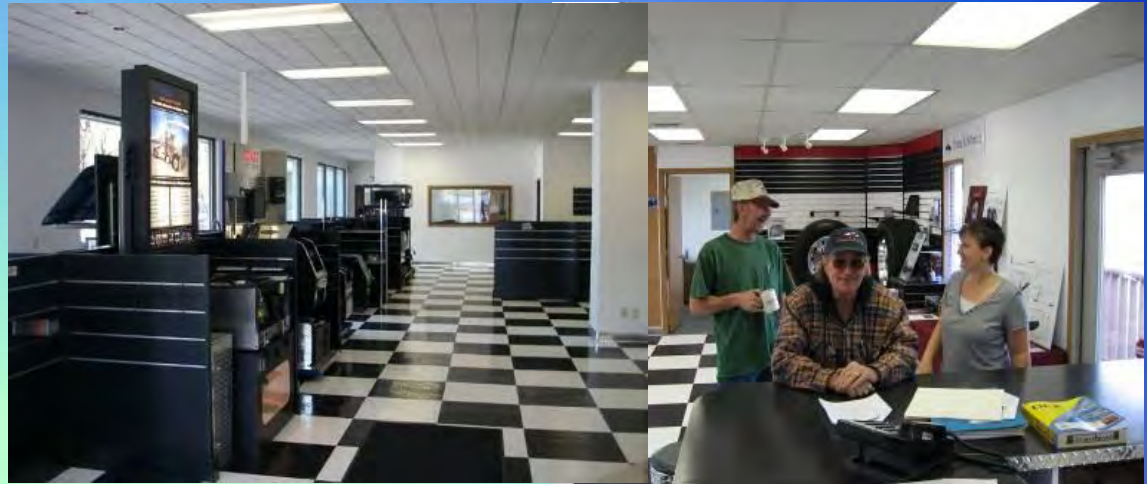


**“as
required by the
United States
Department of
Transportation:
a. 49 CFR,
CHAPTER 1, PART
173.127 (Division
5.1),”**

The CSS Outreach Center

Key Barriers:

- ✓ Awareness
- ✓ Capital Cost
- ✓ Education



Current Area of Operations



- Coburg, Feb, 2007
- Portland, June, 2008
- Sacramento, Sept, 2008
- Seattle, Nov, 2009
- Los Angeles, coming 2010
- Medford, coming 2011



The Future



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

Estimated Average Annual Daily Truck Traffic

(2020)

Truck Volume Scale



CSS Strategies

- ✓ EPA SmartWay Upgrades
- ✓ Truck Replacement
- ✓ Truck Stop Electrification (TSE)



SmartWay Upgrades

SmartWay Strategies Costs vs. Fuel Savings



Tractor (18% fuel savings)

Additional Costs per Tractor: \$20,025 - \$29,425
Additional Weight: 850 lbs (approx)

Trailer (16% fuel savings)

Additional Costs per Trailer: \$6,650 - \$9,100
Additional Weight: 900 lbs (approx)

* Fuels saving strategies are not cumulative. Conservative estimate of 25% overall savings yields ROI on all equipment = 1.8 yrs to 2.6 yrs. (Based on long-haul application, 120,000 annual VMT, 2,000 idle hours on APU, and \$3.00/gal.)

* Information Courtesy of Interstate Distributor Company: IDC Shippers Summit & Green Freight Training Program 2010

Truck Replacement

- Required for many California businesses
- Saves maintenance and fuel
- \$50,000 grants



Truck Stop Electrification



- Reduces fuel consumption from idling engines and TRUs
- Saves approx. 1 gallon/hr
- CSS establishing national network of 50 truck stops
- Grants for 20% off plug-in equipment



Public Sector Partners



Key Lending Partners

- Umpqua Bank
- ShoreBank Pacific
- Bank of the West
- GE Capital
- Volvo Equipment Finance
- Daimler Chrysler
- Navistar
- Liberty Bank



SHOREBANK PACIFIC



BANK OF THE WEST



GE Capital



National Awards

- EPA Smartway Awards (4 times)
- Federal Highway Administration Environmental Excellence Award
- Region 9 EPA Environmental Award



Ray Butler, Creswell, OR



“If you don’t go to Cascade Sierra Solutions you’ve got rocks in your head. It’s a win-win situation for both the truck driver and the environment.”

He estimates he saves 76 gallons a week with his truck now.

Alex Crider, Prineville, OR



Previously got 6.3-6.4mpg. Now with his APU and single-wide tires, Alex gets around 7.1mpg.

“I save over \$700/month.”



Gordon Trucking, Pacific, WA



With the help of a grant from EPA through CSS, Gordon Trucking installed over 1,800 sets of trailer skirts. These skirts are SAE tested to save 7% at freeway speed, and will save an estimated 840,000 gallons/year.



Ports of Seattle & Tacoma, WA

- \$5,000 grants to scrap dirty trucks pre-1994
- Over 200 dirty trucks scrapped



**Ghirmai Debessu, GDA Trucking,
Seattle, WA**



**Mohamed Salim and daughter
Zeinab, Seattle, WA**



Ports of LA and Long Beach



**Omar Hernandez, Cougar
Trucking, Long Beach, CA**

- **\$50,000 grants to scrap dirty trucks pre-1994**
- **Over 600 trucks scrapped**



CSS Progress to Date

- Upgraded or replaced over 4,000 trucks and over 2,500 trailers in 49 states
- Deployed over \$80 Million in clean transportation equipment
- Saved over 11 million gallons of fuel
- Saved over 110,000 tons CO₂ emissions



2013 goals

- 15 outreach centers nationwide
- Upgrade or replace 30,000 vehicles
- Save 660 million gallons of fuel

We're just getting started!



Contact Info



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