

CSX & the Environment

Moving tomorrow responsibly





- A single train can carry the load of more than 280 trucks.
- On average, railroads are 3 or more times more fuel efficient than the alternative.
- The U.S. EPA estimates that moving freight by rail emits three times less nitrogen oxides and particulates than alternate modes of transportation.
- If just 10% of the freight that currently moves by truck were diverted to rail instead, fuel savings would approach 1 billion gallons per year.



- Railroad fuel efficiency has improved an average of 80% since 1980.
- In that time, through new technology and conservation efforts, CSXT reduced annual fuel use by 30 million gallons.
- One piece of technology critical to this success is the CSX-patented Auxiliary Power Unit (APU) that reduces CO₂ and NO_x emission by 85% during locomotive idling.
- Today, a gallon of diesel fuel moves a ton of freight 161 miles further than it did 20 years ago.

Investing for the Future

- In the past 5 years, CSX has invested more than \$1 billion to upgrade its locomotive fleet with more efficient, environmentally-friendly locomotives.
- By 2009, more than 1,200 CSXT locomotives will have new upgrades to further reduce emissions and reduce fuel consumption by 9.6 million gallons.



CSX Carbon Calculator is a new tool to help shippers determine potential CO2 emission reduction when shipping products on rail

The screenshot shows the CSX website's navigation menu with tabs for CUSTOMERS, SUPPLIERS, INVESTORS, EMPLOYEES, MEDIA, and GENERAL. The CUSTOMERS tab is active, showing a sidebar with links like 'Customers Home', 'New to CSX or Rail?', 'Customer Service', 'Tools', 'ShipCSX', 'EDI', 'Public Tools', 'Carbon Calculator', 'Business Groups', 'Prices, Tariffs, Fuel Surcharge', 'Customer News', and 'Contact Us'. The main content area features a banner image of a child looking at a green landscape. Below the banner, there's a 'Tools' section titled 'Take the Clean Air Challenge' with a sub-header 'Compare Carbon Emissions'. The text explains CSX's commitment to environmental stewardship and provides instructions for using the calculator. A form with input fields for distance (1000 Miles), total weight (10000 Tons), and cargo weight per truck (18 Tons) is present, along with a 'Calculate' button. To the right, there are links to learn more about CSX's environmental stewardship and logos for Climate Leaders and SmartWay Transport Partnership.

CUSTOMERS SUPPLIERS INVESTORS EMPLOYEES MEDIA GENERAL

Customers Home
New to CSX or Rail? >
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Tools
Take the Clean Air Challenge

At CSX, we are committed to moving what matters in ways that matter. We're doing our part to protect the environment and helping Americans live better, more productive lives.

Every day that a CSX locomotive hauls freight is a day that CSX helps keep our air cleaner. Trains can move a ton of freight up to 423 miles on a single gallon of fuel. Efficient use of fuel means less greenhouse gases or carbon emissions for our nation.

We invite you to use the tool below to calculate the difference you make by choosing rail. Everyone has a role in protecting the environment, let us help you with yours.

E-mail us at CleanAir@csx.com to ship by rail and make a difference today.

Compare Carbon Emissions * required field
Please complete the required fields and click 'Calculate'.

*What is the one-way distance of the move: Miles [Don't know the distance? Look it up here](#)

*What is the total weight of your freight: Tons

Cargo Weight per Truck: Tons Default weight is 18 tons.
Ton weight is U.S. measure:
1 ton = 2,000 lbs.

Calculate

[Return to previous page](#)

Learn more about CSX's environmental stewardship >

CSX is a proud member of:

CLIMATE LEADERS
U.S. Environmental Protection Agency

SmartWay™
Transport Partnership
U.S. ENVIRONMENTAL PROTECTION AGENCY

CSX Transportation Wins EPA's SmartWay Excellence Award
[Read about it >](#)

http://csx.com/?fuseaction=customers.emissions_carboncalculator



Committed to Improving

- First Railroad to Join EPA's Climate Leaders Program
- EPA Smart Way Charter Member
- Responsible Care Partner

Their
footprint
is getting
smaller.



**CLIMATE
LEADERS**
U.S. Environmental Protection Agency



 **SmartWay™**
Transport Partnership
U.S. ENVIRONMENTAL PROTECTION AGENCY

Recognition



- EPA SmartWay Excellence Award Winner 2007
- AAR/Chafee Environmental Excellence Award Winner 5/8 years
- AAR/Professional Environmental Excellence Award 2003, 2006, 2007
- TRANSCAER Award 2006
- Recipient USEPA Clean Air Act
- Technology Award for Idle Reduction APU

CSXT is committed to continued fuel and emission reductions

Technology Based

- **GENSET Locomotives**
- 1499 Auxiliary Power Units installed as fuel savers/EPA certified kits
- 712 Automated Stop/Start installations. (452 new locomotive purchases, 260 applications to existing fleet)

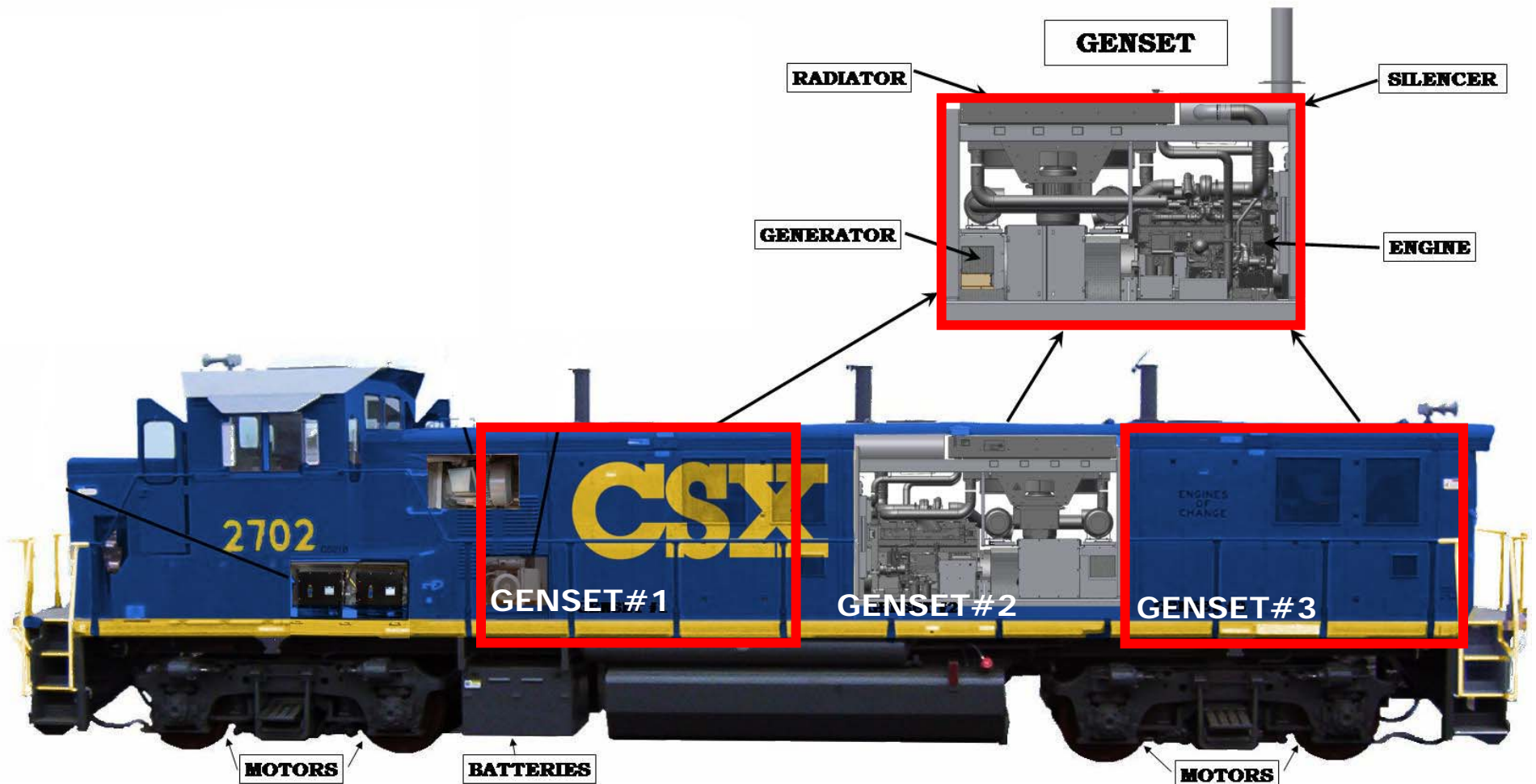
Behavior Based

- Locomotive Shut Down Policy and Rules
- Employee Training
- **Event Recorder Automatic Downloads (ERAD)**

What's a Genset?

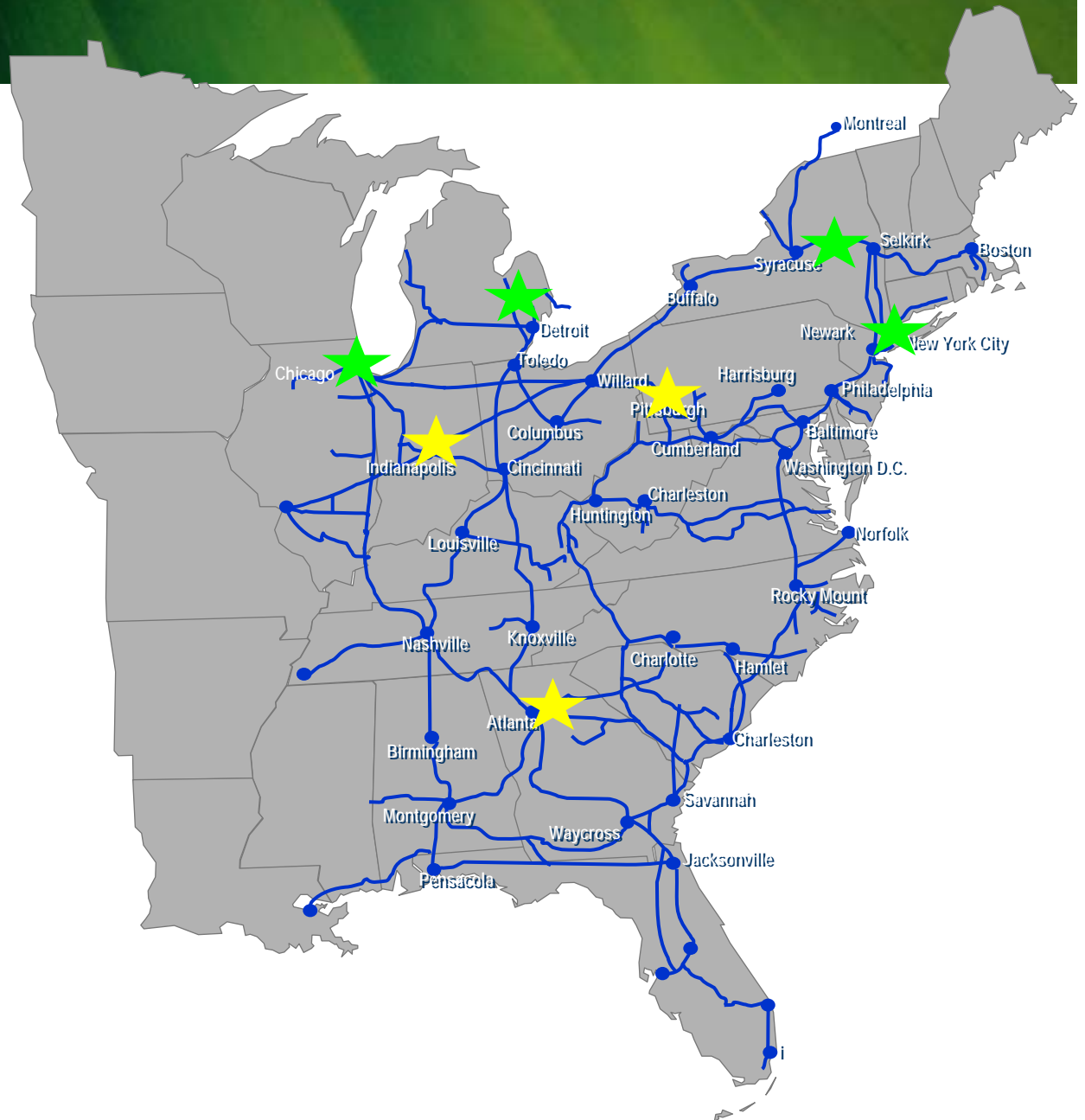
- New switch engine retrofit technology
- Older locomotive is stripped from the trucks/wheels up, removing the large 2000hp single diesel engine
- Three 700hp, ultra-clean truck diesel generators are fitted onto the platform, along with new cab and control equipment
- Emissions reduction of
 - 86% ozone precursors (smog)
 - 76% Particulate Matter
 - 20-40% reduction in greenhouse gas CO₂
- 20-40% fuel savings
- Quieter operations

Typical GENSET



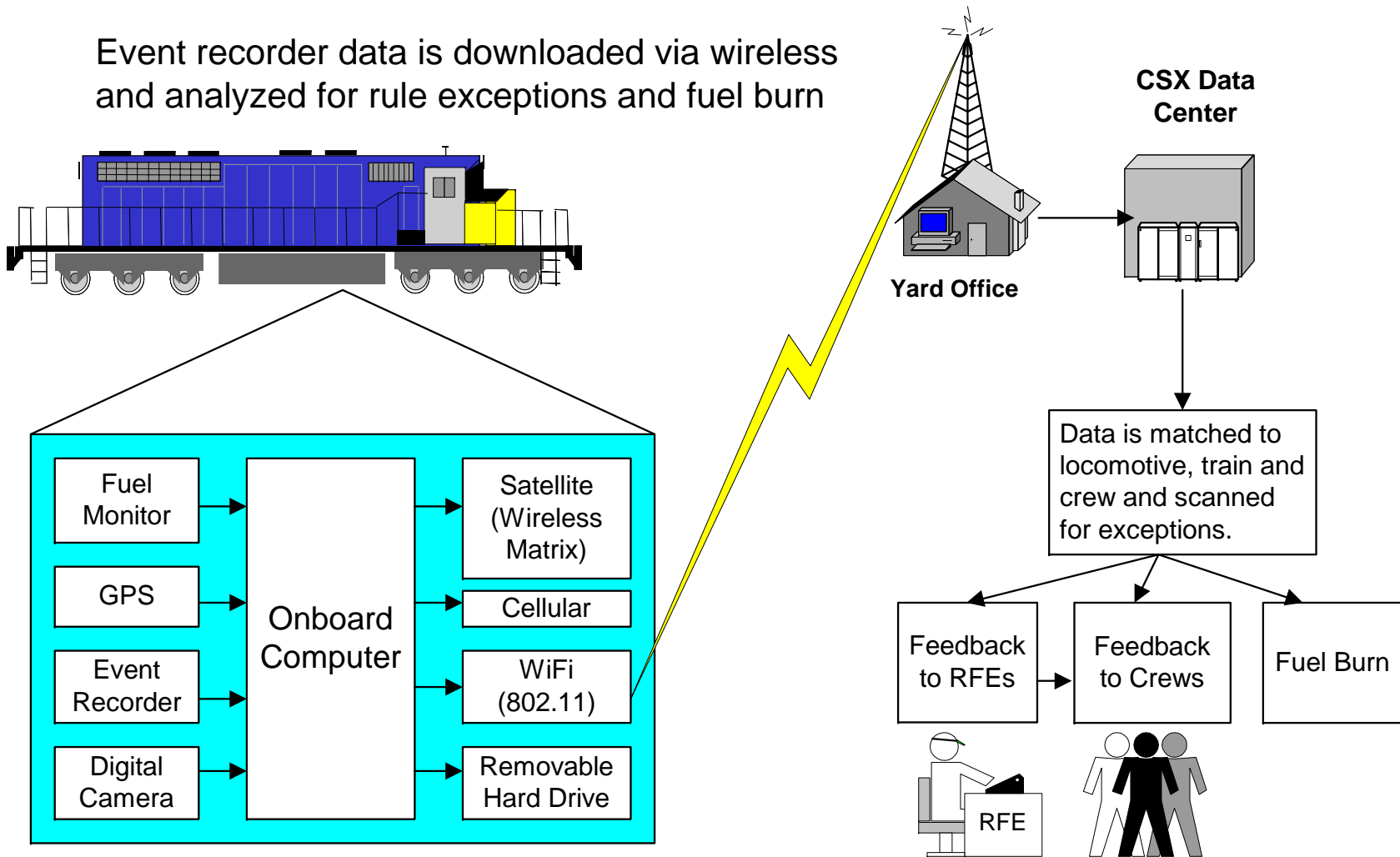
Genset Projects

- Detroit 2-4
- Rochester 5
- Bronx 4
- Chicago 4
- Indianapolis 2
- Atlanta TBD
- Pittsburg TBD
- Port Elizabeth TBD



ERAD is a tool used by the Road Foremen of Engines to improve engineer performance and reduce emissions

Event recorder data is downloaded via wireless and analyzed for rule exceptions and fuel burn



ERAD has saved over 8.5M gallons of fuel since 2005 through the road foremen's focus on power braking

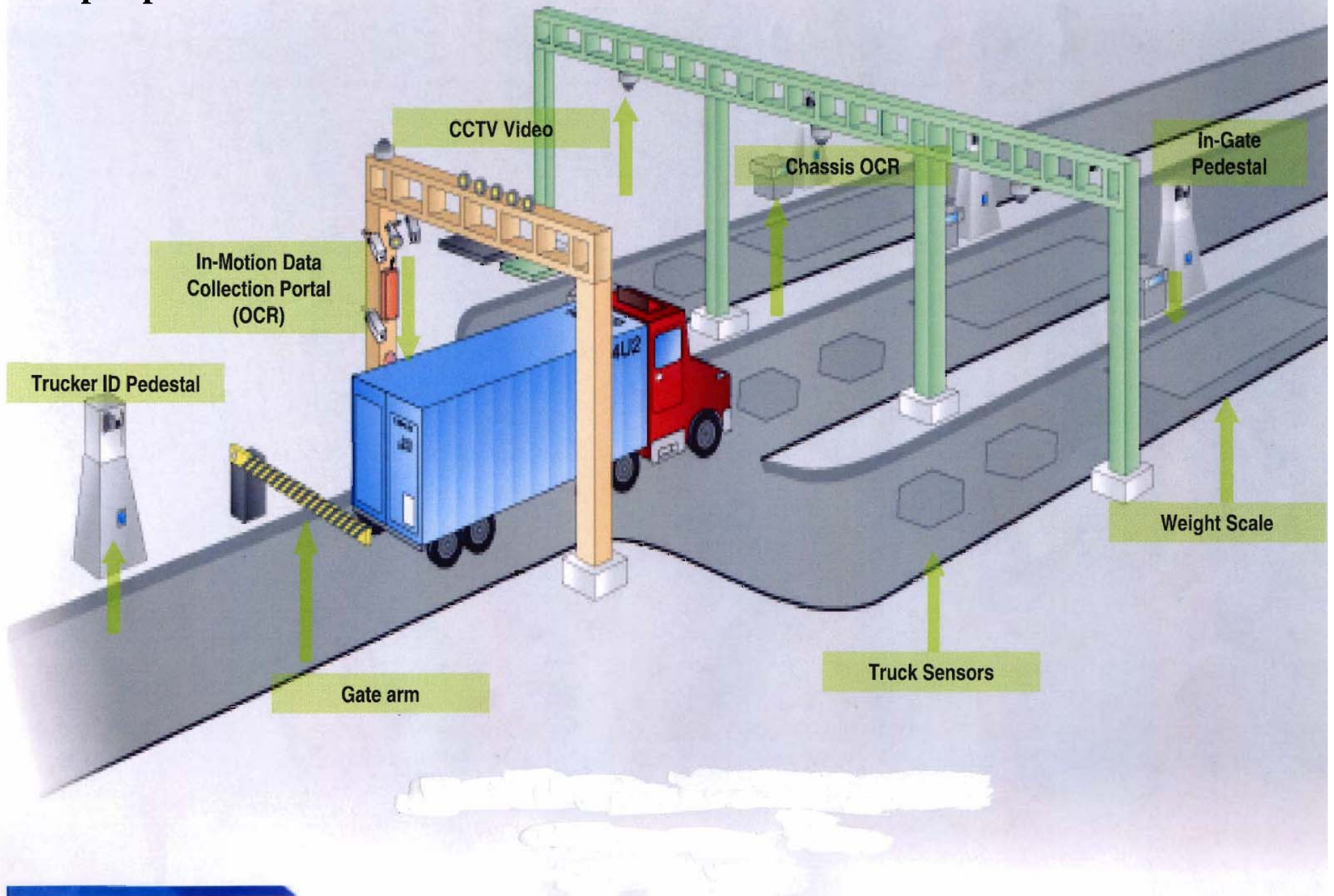
- Over 97,000 tons of CO₂ reduced
- ERAD will continue to be rolled out through 2009
 - Locomotive Installations -1300+ by year end
 - Entire road fleet by 2009
- Engineer Fuel Saving Program
 - Measure engineer fuel consumption
 - Identify and share best practices for fuel saving runs
- Fuel burn dashboard

CSX Intermodal is also committed to continued fuel and emission reductions

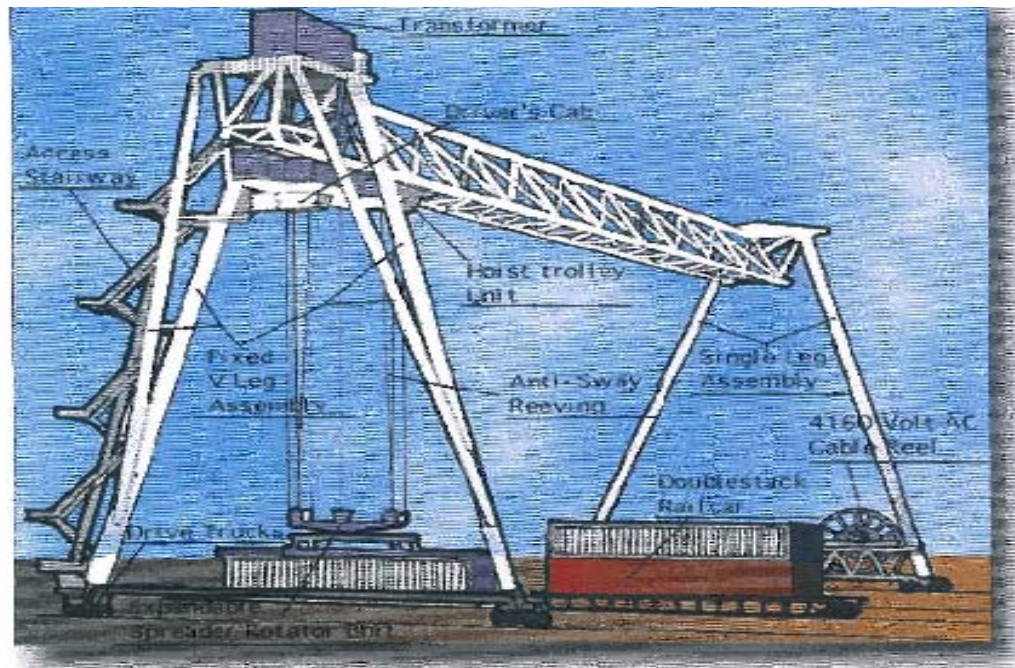
- RFT - Radio Frequency Technologies installed at 12 Terminals
 - Designated Parking System
 - Driving time is reduced from 53 minutes to 37 minutes
 - Reduced Pollution:
 - 42 Million grams NOx per year
 - 240 Million grams CO₂ per year
- Automated Gate System
 - Reduce idle of trucks - 91,250 hours
 - 13 Million grams NOx per year
 - 750 Million grams CO₂ per year
- RMG - Rail Mounted Gantry Crane
 - Improved safety and productivity
 - Eliminate diesel equipment at the Terminal

Embarcadero Systems Corporation
10 mph speed limit

SmartLOG Portal



Schematic of RMG working in Intermodal Facility



A large part of our advertising is focused on the environment – both in print...



*One train means up to 280 fewer trucks on the highway.
We don't share the roads, but we can make them more enjoyable to drive.*

When it's on our rails, it's off your roads. CSX.com



And on television.





Thank You!

