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# Fuel & Energy Management

October 28, 2009





*Seek opportunities to reduce  
Amtrak's carbon footprint and  
become more energy-efficient . . .*

# Reducing Carbon Footprint and Gaining Sustainability

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- Charter member of Chicago Climate Exchange (CCX) – agreed to reduce diesel emissions by 6% from 2003 to 2010; currently ahead of interim targets
- Partnered with Carbonfund.org - Amtrak customers can purchase carbon offsets for their Amtrak trip
- Recently joined The Climate Registry and will publicly report Amtrak's greenhouse gas emissions starting in 2011 (for 2010)
- Signed on to American Public Transportation Association (APTA) Sustainability Commitment: develop sustainability inventory and establish goals
- Focused efforts on locomotive improvements and fixed facilities to reduce energy and water usage

# Fuel and Energy Committee

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- The Fuel and Energy Management Committee was formed to develop plans and implement processes whereby Amtrak can acquire, store, distribute, and consume energy more efficiently and effectively
- Subcommittees were formed to focus on the following six areas:
  - Fuel Conservation
  - Fuel Processes
  - Fuel Facilities
  - Fuel Logistics
  - Safety & Environmental
  - Energy Reduction

# Fuel Management Overview

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- Reduce fuel consumption via improved train handling policies and procedures using state-of-the-art technology and training
- Revise fuel policies and procedures, streamline processes, and determine overall owner and organizational structure
- Fuel facilities review completed in February; short-term and long-term requirements are being finalized
- Fueling logistics review is underway to determine optimal location and type of fueling across system
- Continue emissions reduction program, conduct bio-diesel trial testing, and purchase GenSet locomotives



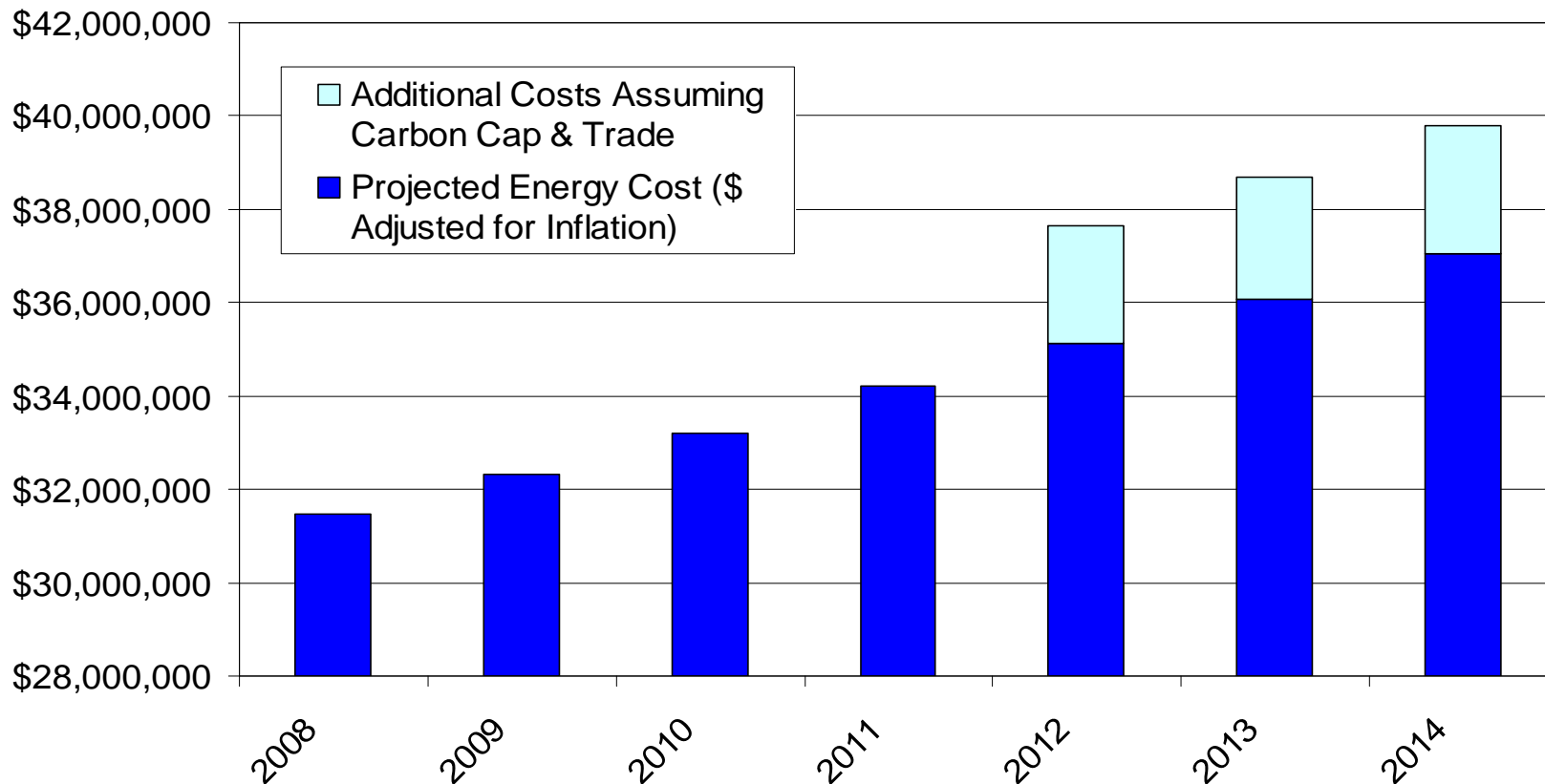
# Energy & Utility Statistics

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- Traction power expense
  - FY07 - \$97.9m
  - FY08 - \$105.4m
  - FY09 Forecast - \$105.5m
- Station/facilities utility expense
  - FY07 - \$46.2m
  - FY08 - \$51.4m
  - FY09 Forecast - \$54.5m
- 1,700 accounts
  - Electricity 70%, natural gas 20%, water/sewer & steam 10%
- 900 sites - facilities/stations
  - 80% of expense at 20 sites

# Energy Costs – Growth Expected

## Projected Cost of Energy – Amtrak “Top 20” Facilities





# Energy Management at Amtrak

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- Utilities Management group was formed in 2006
- Immediate focus on opportunities to identify billing errors & eliminate waste via leak repairs & more efficient use of energy
- A web based utilities system was implemented May 2007
  - Automated bill payment and availability of the invoice on line
  - Identification of usage anomalies based on previous usage patterns
  - Basic & Custom Reporting for real time and historical usage data
- Procured electricity & natural gas for our Facilities/Stations from TPS
- Since 2006 Amtrak has saved/avoided costs in excess of **\$17 million**





# Energy Reduction Program

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- Executive level commitment
- Develop specific usage reduction goals
- Automated reporting in place to measure and monitor energy usage
- Created accountability at the division / facility level
- Structure is being developed to determine required resources to maintain facilities and stations
- Facility Energy Audits – Top 20 Facilities
  - Completed 7 energy audits to date; additional 3 in FY09 and 5 in FY10 planned
  - \$100k savings achieved to date
  - Additional \$1.0 million in savings projected over next 12 months

# Audit Findings

- Leaking and non-insulated steam piping
- Unrepaired air leaks
- Unrepaired water leaks
- Control systems deactivated
- Building envelope issues
- Unnecessary open doors



## Audit Findings (Cont'd.)



**The lights on the right cost 44% less to operate**



# Investment

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- Develop five year capital plan to address energy efficiency
  - Lighting and HVAC controls and system efficiency upgrades
  - Underground piping infrastructure replacement

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# Appendix