



PierPass

Innovative and Efficient
Technologies To Improve
Air Quality





Historical Efficiencies for Terminal Operators

- Dealt with cargo productivity
 - Labor + equipment + land = cost
- Better equipment
 - Faster, cheaper, safer
- Labor practices
 - Flexibilities, technology



New Efficiencies for Terminal Operators

- Cleaner equipment
 - Electrified cranes and handling equipment
 - New fuel standards
- Computerized systems
 - Planning, location management, inventory
- New technologies
 - RFID and GPS
- Efficient work practices



PierPass *and the OffPeak Program*

- Terminals working extra shifts at night
 - Behavioral modification on a industrial scale
 - Daytime fee as an incentive to use OffPeak
 - Reduces truck congestion reducing idle time
 - Less idling, less pollution
 - Improves cargo velocity overall
 - Improves terminal capacity
 - Better use of port assets



OffPeak Program

- 45% of traffic on OffPeak shifts
- Less congestion on the freeways
- Use of the internet for universal access to applications
- Positive opinion by the community and policy makers
- Model for other ports with congestion and pollution issues



RFID Technology

- Radio Frequency Identification Device
 - Unique electronic signature
 - Ties to data base of users
 - Eliminates Q&A between truck and terminals
 - Real time location management
 - Low tech for truck, high payoff for terminal
 - Integration into other IT systems



Thank You