



# Carbon Footprinting at the Port of Los Angeles...and Beyond

Pacific Ports Clean Air  
Collaborative Conference

Lisa Wunder  
Assistant Supervisor, Air Quality  
Port of Los Angeles

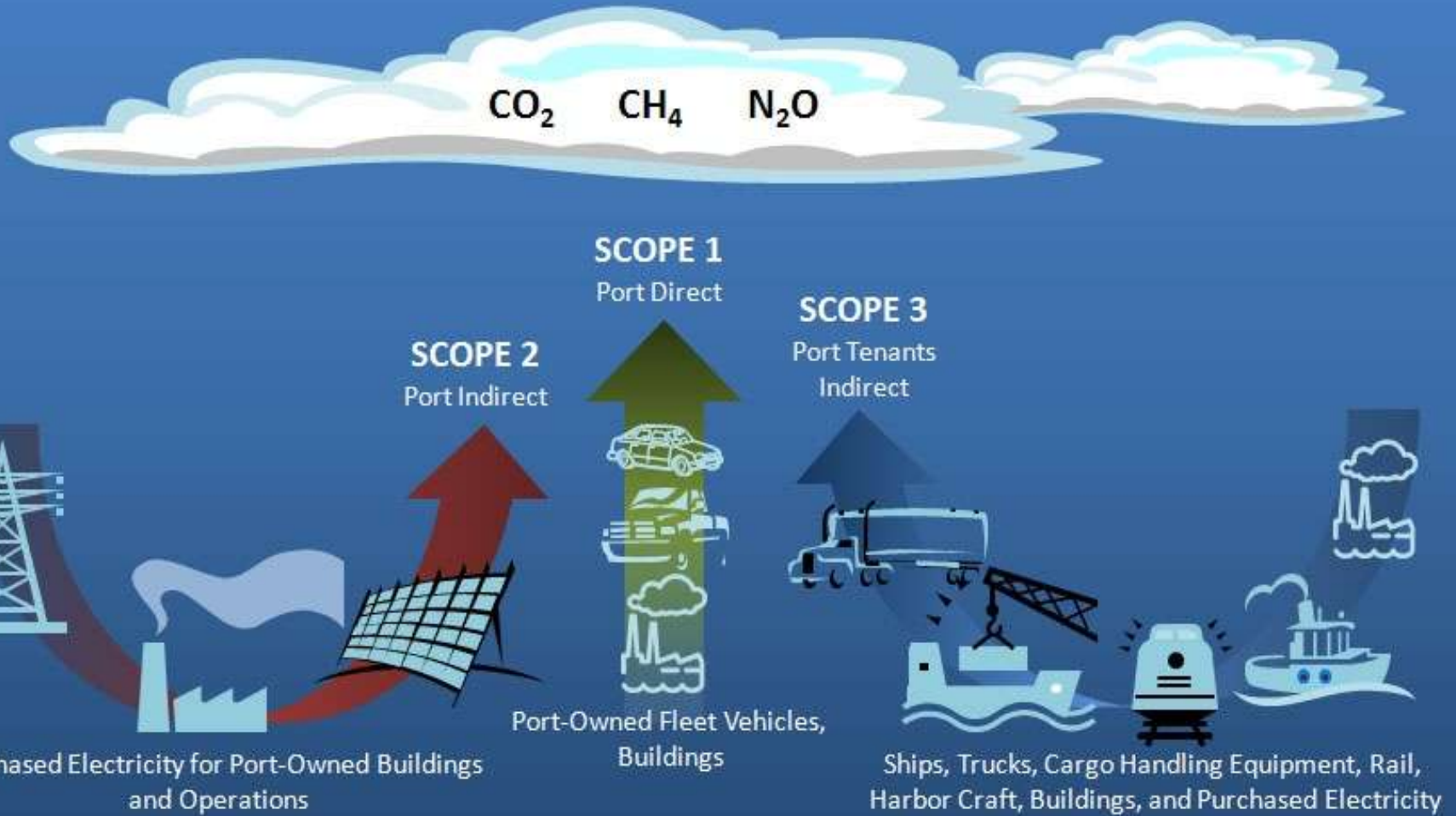
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# Carbon Footprint Definition

- What can make up a footprint?
- Why is it that “not one size fits all?”
  - Nature of ownership, control
  - Boundaries
  - Regulations
  - Strategic importance

# Scope 1, 2, and 3 Emissions





# Reasons for Ports to Prepare a Carbon Footprint

- Integrative planning while meeting attainment goals
- Companion to efficiency/optimization/automation planning
- Electrification/reduce dependency on fossil fuels
- Increasing focus of customers and their customers



# Carbon Footprinting at the Port of Los Angeles

The Port prepares three separate annual reports to document GHG Emissions

- Municipal (Scope 1 and 2)
  - Reported to CCAR/TCR
  - Third-Party Verified
- Municipal and Tenants
  - Annual Emission Inventories
- Expanded
  - Expanded for ships, trucks, trains





# Greenhouse Gas Plans

- Harbor Department Climate Action Plan (2007)
  - Scope 1 and 2 Emissions
  - CAAP Measures that have co-benefits
    - Vessel Speed Reduction (VSR)
    - Alternative Maritime Power (AMP)
- Climate Action Plan (in development)
  - Aligns with GreenLA and CARB goals (2020, 2030, 2050)
- Climate Adaptation (in development)
  - Partnership with RAND Corporation



# Harbor Department Climate Action Plan (2007)

## Harbor Department (Scope 1 and 2) Actions

- Green Buildings
- Water Conservation
- Alternate Fuel Vehicles
- Commuter Services
- Brownfield Remediation
- Green Purchase Policy
- Green Power
- Tree Planting
- Recycling
- Red Car
- Open Space
- Outreach



# Harbor Department Climate Action Plan (2007)

## Several CAAP measures reduce GHG emissions

- VSR
  - Fuel consumption benefit per visit - 8.7 tons
  - Fuel consumption benefit per year (LA/LB) – 27,000 tons
  - CO2 reduction per year (LA/LB) – 106,000 tons
- AMP
  - CO2 reduction per visit - 19.7 tons (includes electricity generation offset)
  - In 2007, China Shipping vessels visited POLA approximately 74 times
    - CO2 reduction in 2007 – 1,450 tons





# Port Climate Action Plan

## Mitigation Measures

- Municipal Actions
- Clean Air Action Plan (CAAP) Measures
- Additional measures to reduce GHGs through 2050

## Goals – Reduce GHG emission levels

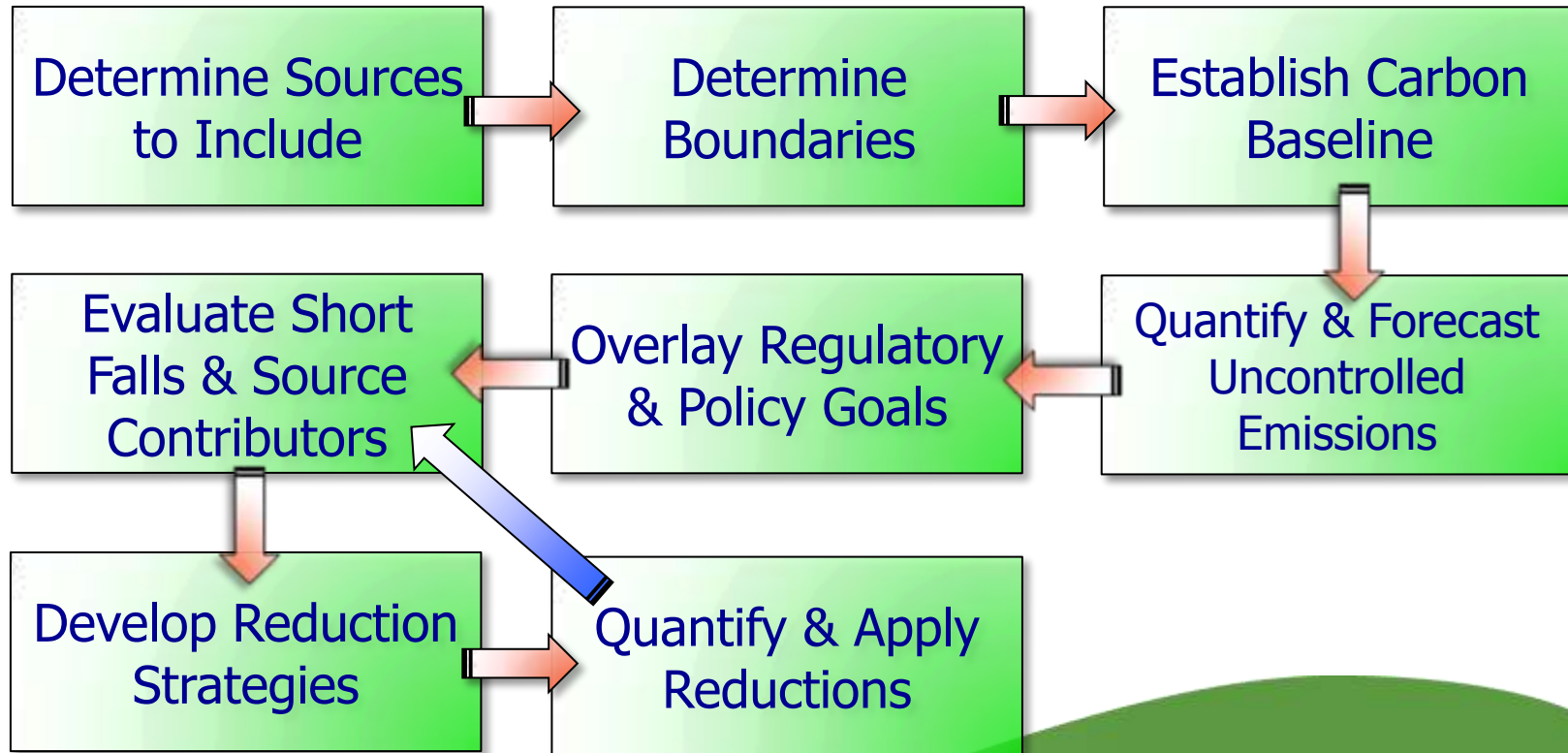
- 1990 levels by 2020 (CARB)
- 35% below 1990 levels by 2030 (City of LA)
- 80% below 1990 levels by 2050 (CARB)

*To meet these goals, Port operations must move from petroleum to renewable sources!*

# Integrating Themes

## Development of a “Climate Action Plan”

### ➤ Key Steps in the Process To-Date





# Port of Los Angeles Collaborative Efforts

*Working Together to Reach Our Goals*

- World Ports Climate Initiative (WPCI) –Carbon Footprinting Guide for Ports, Carbon Calculator, GHG Toolbox, Environmental Ship Index
- Pacific Ports Clean Air Collaborative (PPCAC) – Conference and Continuing Working Groups
- World Association for Waterborne Transport Infrastructure (PIANC) – Port Sustainability Reference Guide
- West Coast Ports Collaborative – Sustainable Construction Guidelines
- Port of Los Angeles/Shanghai Staff Exchange
- The Climate Registry (TCR) – Port Subgroup
- RAND Corporation – Climate Adaptation
- Technology Advancement Program





# World Ports Climate Initiative

## Mission Statement



- Raise Awareness in the Port & Maritime Community of Need for Action
- Initiate Studies, Strategies, & Actions to Reduce GHG Emissions & Improve Air Quality
- Provide a Platform for the Maritime Port Sector for the Exchange of Information
- Make Available Information on the Effects of Climate Change on the Maritime Port Environment & Measures for its Mitigation



# WPCI Carbon Footprinting Guide for Ports



IAPH • PORT ENVIRONMENT COMMITTEE  
**WPCI**



- Port of Los Angeles lead
- International Collaboration
- Living, User-Friendly Document that Ports with all Levels of Carbon Footprinting Experience Can Use
- Carbon Calculator  
[www.wpci.iaphworldports.org](http://www.wpci.iaphworldports.org)



# Contact Information



Lisa Wunder  
Assistant Supervisor, Air Quality  
Port of Los Angeles  
Environmental Management Division

P.O. Box 151  
San Pedro, CA 90731  
[lwunder@portla.org](mailto:lwunder@portla.org)

(310) 732-7688 direct  
(310) 732-3675 main  
(310) 547-4643 fax  
[www.portoflosangeles.org](http://www.portoflosangeles.org)

