VOLVO LIGHTS

LIGHTS Project

Keith Brandis

VOLVO LIGHTS

- **Low Impact Green Heavy Transport Solutions**
- **Public-Private Partnership Totaling $90 MUSD**
  - California Air Resources Board (CARB) awarded bid of $45M to South Coast Air Quality Management District for Volvo LIGHTS project
  - Supported with Cap-and-Trade funds
- **Project Objectives: Advance the use of end-to-end near-zero emission vehicles & equipment to minimize emissions from freight movement**
  - Reduce greenhouse gas emissions
  - Improve air quality
  - Provide more sustainable freight movement
  - Exhibit a holistic approach to support the commercial introduction of near-zero emission heavy-duty trucks

VOLVO LIGHTS

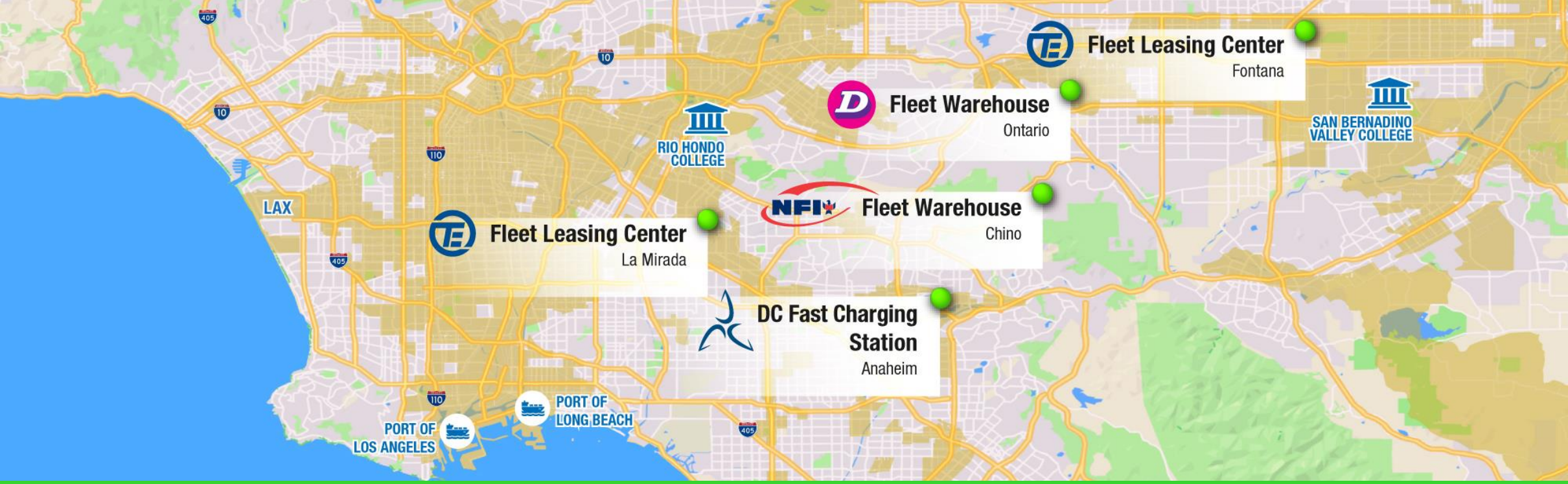
Demonstrating innovations critical to the commercial success of battery electric trucks and equipment for goods movement

LIGHTSproject.com

Advanced Vehicle Technologies

Charging Infrastructure

Sales & Service Network



23 Battery Electric Heavy-Duty Trucks

29 Battery Electric Equipment

58 Public & Private Chargers

2 Electric Truck After Market Service Centers

2 Colleges Designing Electric Truck Maintenance Programs

1.8 Million KWH Solar Energy Generation

2 Ports Providing Infrastructure Planning

Disadvantaged Communities Disproportionately Exposed to Unhealthy Air

Project Partners

South Coast AQMD

VOLVO

DEPENDABLE Supply Chain Services

NFI

TEC Equipment Your Best Business Partner

RIO HONDO COLLEGE

San Bernardino Valley College

LA THE PORT OF LOS ANGELES

The Port of LONG BEACH

SOUTHERN CALIFORNIA EDISON An EDISON INTERNATIONAL® Company

Trillium A Lennox Company

greenlots A Member of the Shell Group

UCR College of Engineering-Center for Environmental Research & Technology

CALSTART

REACH OUT Strengthening Communities

CALIFORNIA CLIMATE INVESTMENTS Cap and Trade Dollars at Work

Volvo LIGHTS is part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment —particularly in disadvantaged communities. www.caclimateinvestments.ca.gov

Heavy Duty Truck Electrification in Virginia

- Volvo Trucks begins BEV production at the New River Valley Plant by end of 2020
  - Commercial roll-out to be announced later
- Focus first on high population, dense traffic areas with short-haul trucks
  - Private charging infrastructure is costly and time consuming
  - Public charging must overcome regulations
  - States and municipalities need to support with incentives for early adoption
  - Electrical grid may need upgrades

Thank you