

DOCKETED

Docket Number:	15-MISC-04
Project Title:	Fuels and Transportation Merit Review
TN #:	206135
Document Title:	Community Scale Carbon Negative Fleet
Description:	Powerpoint presentation for Blue Line
Filer:	Tami Haas
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	9/16/2015 2:42:45 PM
Docketed Date:	9/16/2015

ANAEROBIC DIGESTION FACILITY



**BLUELINE AD
SOUTH SAN FRANCISCO
SCAVENGER**

FARM



COMPOST

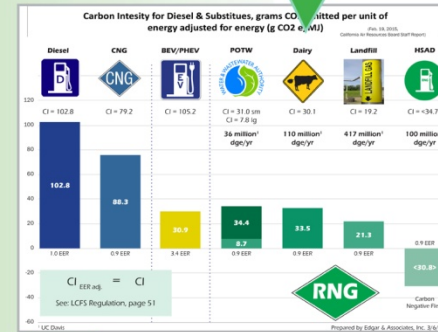
BIOGAS

FOOD WASTE/
GREEN WASTE



COMMUNITY SCALE CARBON NEGATIVE FLEET

BIOGAS CONDITIONING AND COMPRESSION



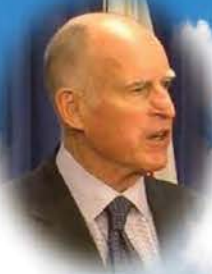
CNG GARBAGE TRUCK



FRANCHISE



RESTAURANT



40 % GHG Reduction below 1990
by 2030

Governor Brown's

FIVE PILLARS

50% LESS OIL
by 2030

Convert Organics to
Carbon Negative Fuel

Low Carbon
Fuel Standard



LCFS

10% LESS CARBON
INTENSITY
by 2020

50% RPS
RENEWABLE ENERGY
by 2030

NET ZERO



Renewable
Portfolio
Standard



RPS

33% RPS
RENEWABLE ENERGY
by 2020

DOUBLE ENERGY
EFFICIENCY
by 2030

Decarbonize
Economy

LEED
Certification

CALGreen

**Cal-
Green**

3 MILLION
METRIC TONS GHG
REDUCTIONS
by 2020

90% ORGANICS
RECYCLING
by 2025

MITIGATE
METHANE



Reduce
Short-Lived
Climate
Pollutants



SLCP

50% ORGANICS
RECYCLING
by 2020

15 MILLION TONS OF
COMPOST USE
by 2025

Sequester Carbon
Into Soil

Healthy Soils
Initiative



HSI

7.5 MILLION TONS
OF COMPOST USE
by 2020



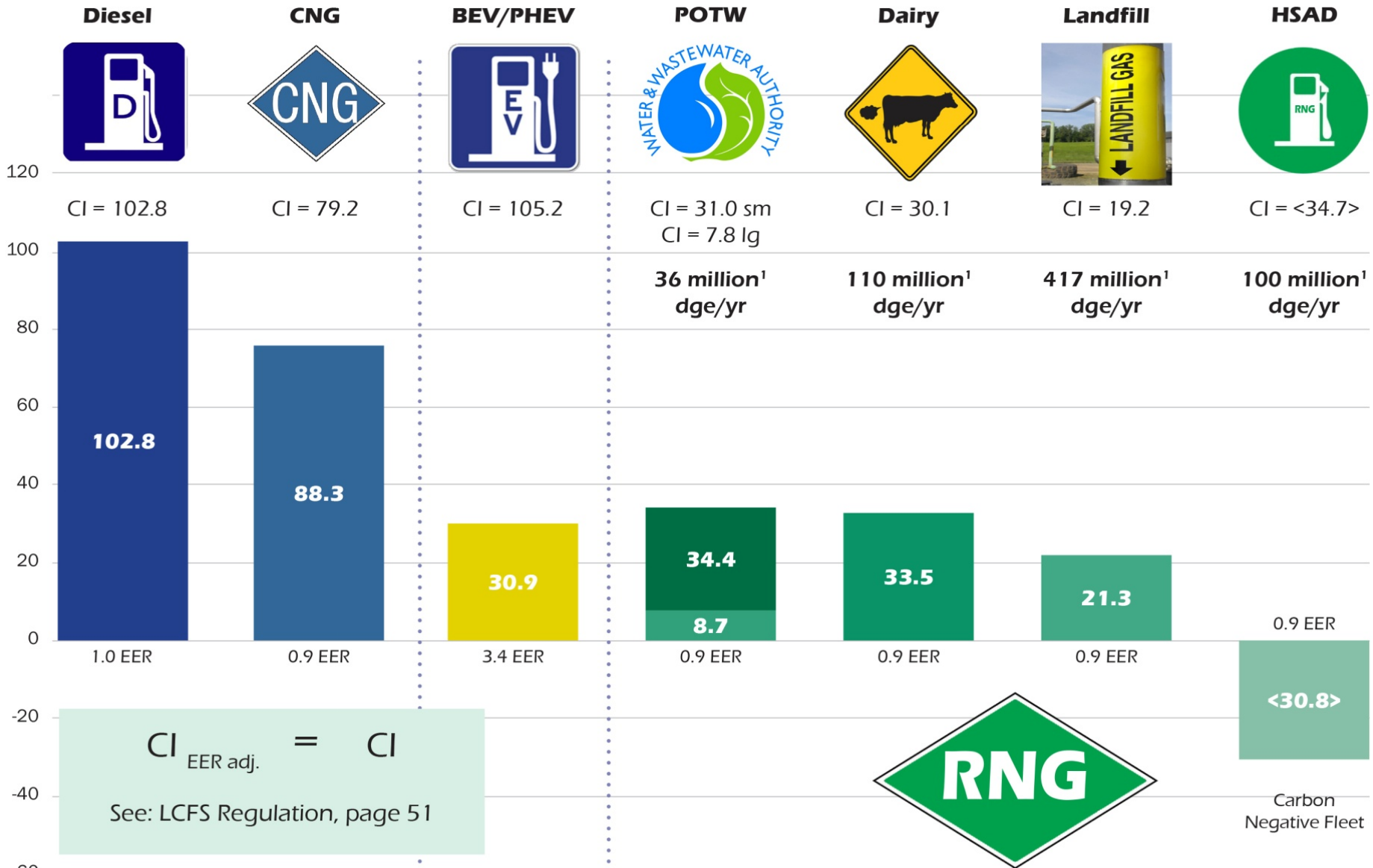
2015 - Executive Order B-30-15, SB 350, SB 32

2006 - California Global Warming Solutions Act - AB 32



Carbon Intensity for Diesel & Substitues, grams CO2 emitted per unit of energy adjusted for energy (g CO2 e/MJ)

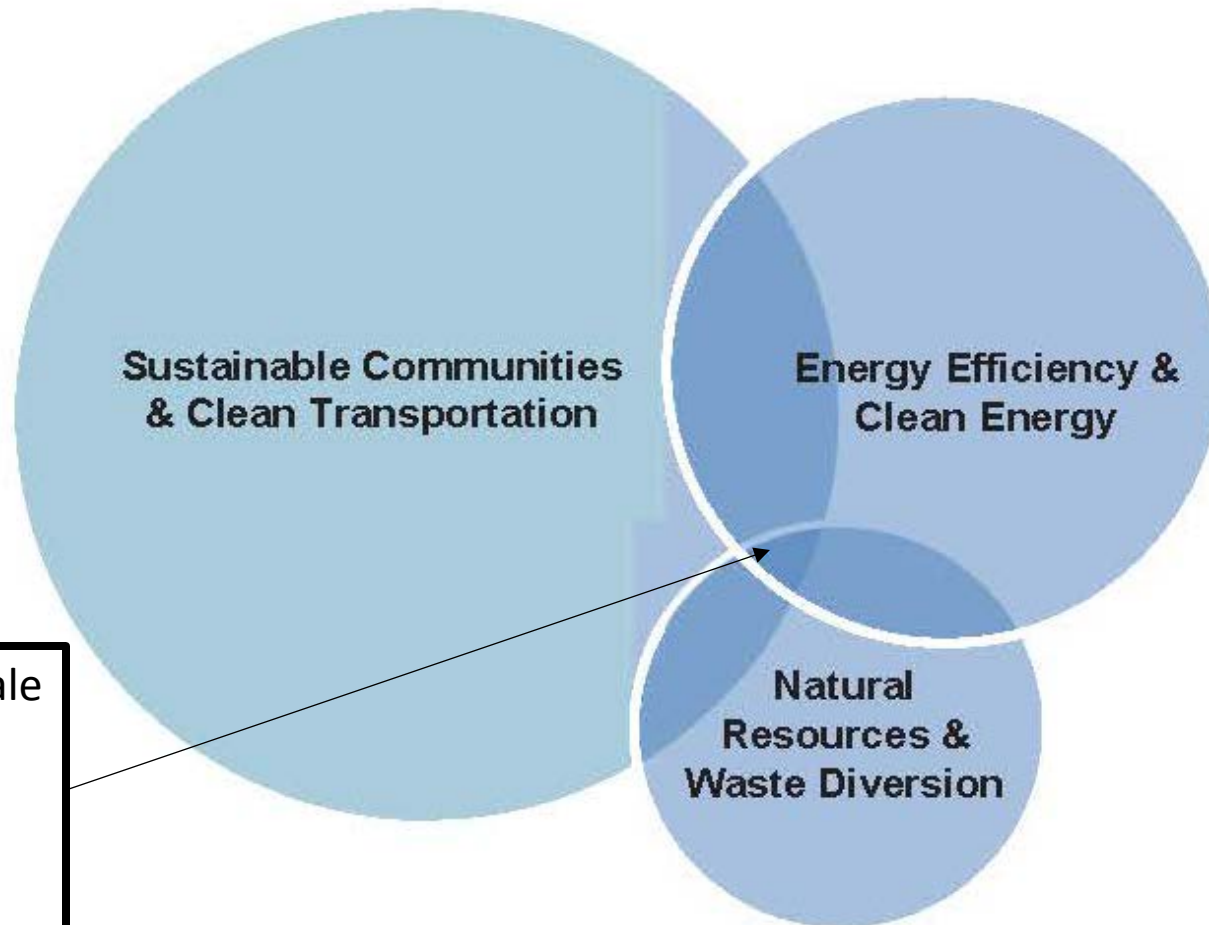
(Feb. 19, 2015,
California Air Resources Board Staff Report)



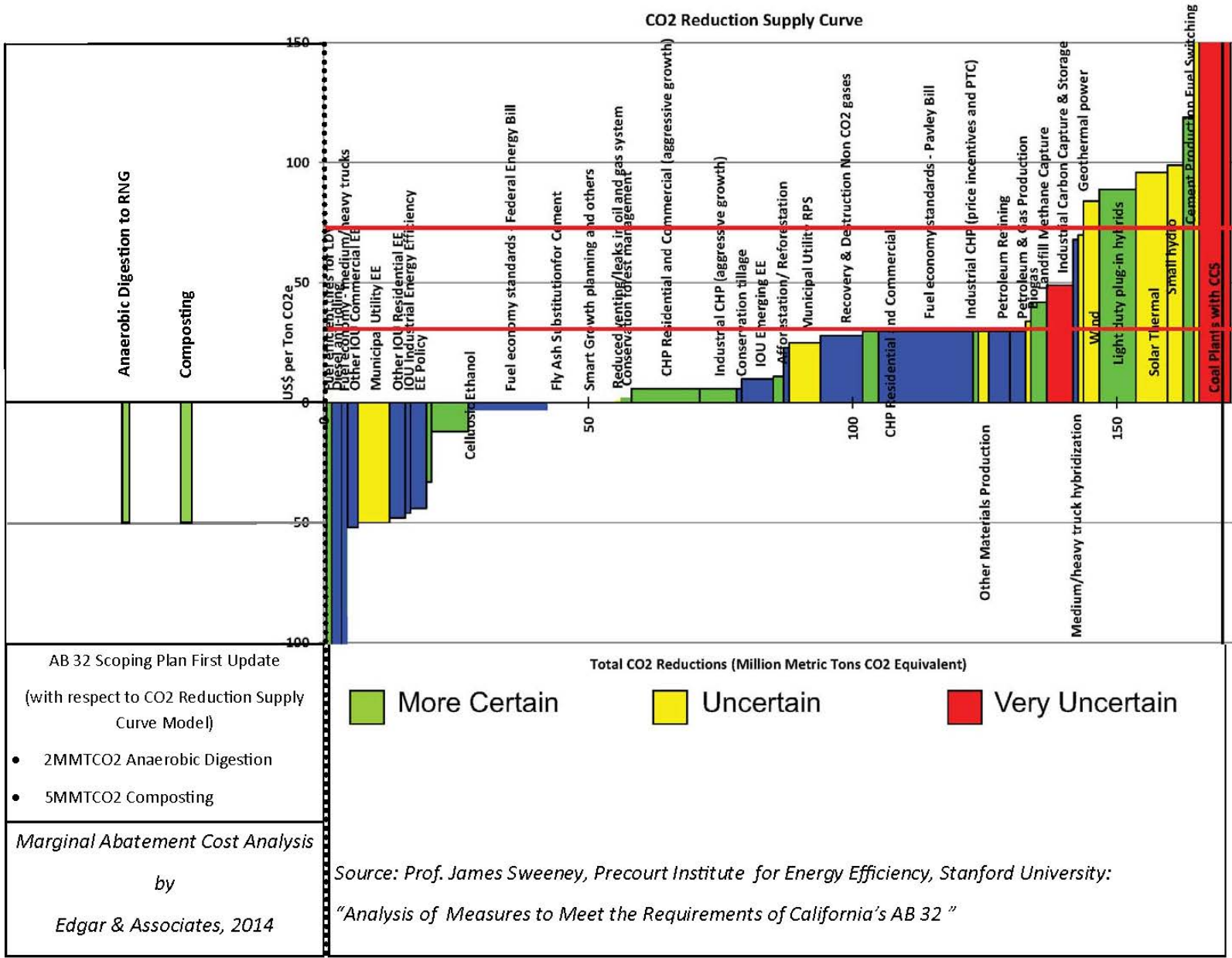
¹ UC Davis

Greenhouse Gas Reduction Fund – Investment Plan

Investment Priorities – Recommendations



Community-Scale
Distributed
Renewable
Transportation
Production
Facilities



Blueprint for Cities Los Angeles Case Study

1. Exclusive Franchise
 - Guarantee Contracted Tons for Term
2. Zero Waste by 2025
 - 90% diversion of waste
 - AB 1826/SB 605
3. Source-Separation
 - Clean Organics/Compost
 - Health Soils Initiative
4. Labor
 - Prevailing Wage
 - Safe Workplace
5. Environmental
 - Air Quality
 - Greenhouse Gas Reductions
 - Vehicles Mile Travel



Cleaning Up Waste and Recycling Management and Securing the Benefits

A Blueprint for Cities



AB 341/ AB 1826/ SB 605 Implementation to 2020 and 2025 Avoided Greenhouse Gases By Material



SB 605/AB 1594
2025
14,750,740 New Tons

AB 341/AB 1826
2020
8,162,806 New Tons

AB 341/AB 1826
2020
4,383,721 Avoided MTCO₂e

SB 605/AB 1594
2025
7,922,080 Avoided MTCO₂e

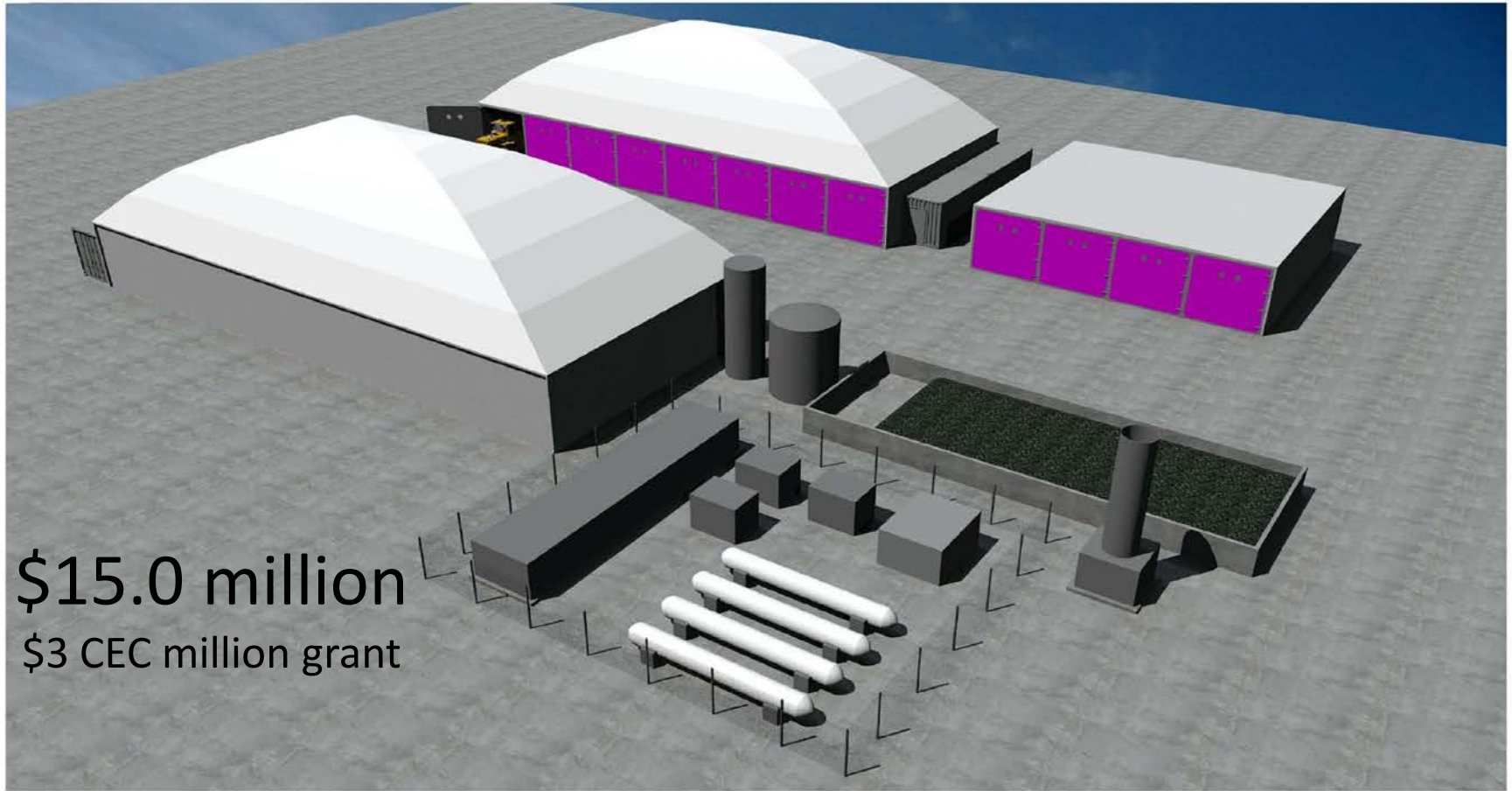
100 AD
Facilities

200 AD
Facilities

Food Waste Yard Trimmings Lumber Compostable Paper Greenwaste ADC

Napa AD Facility – 25,000 TPY

Distributed Renewable Transportation Production Facility



\$15.0 million
\$3 CEC million grant

PERSPECTIVE VIEW - FRONT

AB 32 Scoping Plan/CalRecycle Program EIR metrics –
Need 100 AD Facilities at 25,000 TPY by 2020

Community-Scale Distributed Transportation Production Facility

- Supply in balance with Demand
- Co-location
- Off-take RNG to on-site fleet
- Off-take digestate to clean compost

Barriers and Pitfalls

- No Pipeline
- No Interconnection
- No Authority to Construct for engines

Avoid Barriers and Pitfalls



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Carbon Negative Fleet

Community-Scale AD Facility

100,000 people

- 67% food/33% green
- 25,000 TPY or 100 TPD
- Biogas production - 3,350 cf/ton – 60% methane
- 92% methane to RNG
- 330,000 dge/year
- 13 dge/ton
- 916 dge/day
- Carbon Negative Fuel

Fleet

- 8 tons/load of organics
- 2 routes per day – 16 tons per day/truck – takes 6 trucks to AD
- 40 dge/truck/day and use 240 dge/day
- AD makes 916 dge/day
- Enough CNG to fuel the entire fleet of 35 that collects MSW, organics and recyclables

ANAEROBIC DIGESTION FACILITY



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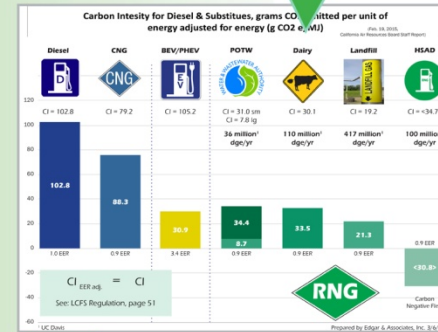
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FRANCHISE



RESTAURANT

SOUTH SAN FRANCISCO
SCAVENGER
COMPANY, INC.

Companies

South San Francisco Scavenger Company &
Blue Line Transfer

Founded

1914

Location

Jamie Court, South San Francisco CA

Cities Serviced

Millbrae, Brisbane, South San Francisco and
San Francisco International Airport

Number of Employees

100

Total Tonnage Collected per Year

Approx 220,000 tons of waste

Weighted Community Recycling Rate

59%

Total Number of On-Road Vehicles

Approximately 70

Mission Statement

South San Francisco Scavenger is committed to providing solid waste management services of the highest quality delivered with pride and professionalism to all our customers, utilizing environmentally sensitive equipment that is safe, efficient, reliable and appropriate to the work we perform. In carrying out our mission, we intend to provide and maintain the best possible work environment for our employees, fully cooperate with all governing and regulating agencies, and do our part to help create a sense of partnership between our company and the communities we serve."

GHG Reporting



- Voluntary reported to The Climate Registry
- CY 2006 - 2014
- Annual commitment thereafter
- Chosen to show the decrease in emissions from the fleet transition
- Went through verification so everything was public

Full Sustainability Reporting

- Sustainable San Mateo County Award



- Focus on Our Story with the community

- LEED Certified Office Building

- All of our historical achievements under

- Environment

- Employees

- Community

- Set 11 Goals and 31 Targets



Tie to Community/Stakeholders

Use our Sustainability Program to Integrate into our larger picture

- San Francisco Airport
- Genentech
- Cities' Climate Action Plan
- Land Use/Permitting



Policy Goals -> **CONTRACTS**

Climate Action Plans -> **LAND USE PERMITS**

Anaerobic Digestion



CEC Grant Opportunity

- Facility fit into our Sustainability Program
- Our goals and project objectives cited in Initial Study/Mitigated Negative Declaration!
- Now also in South San Francisco's Climate Action Plan

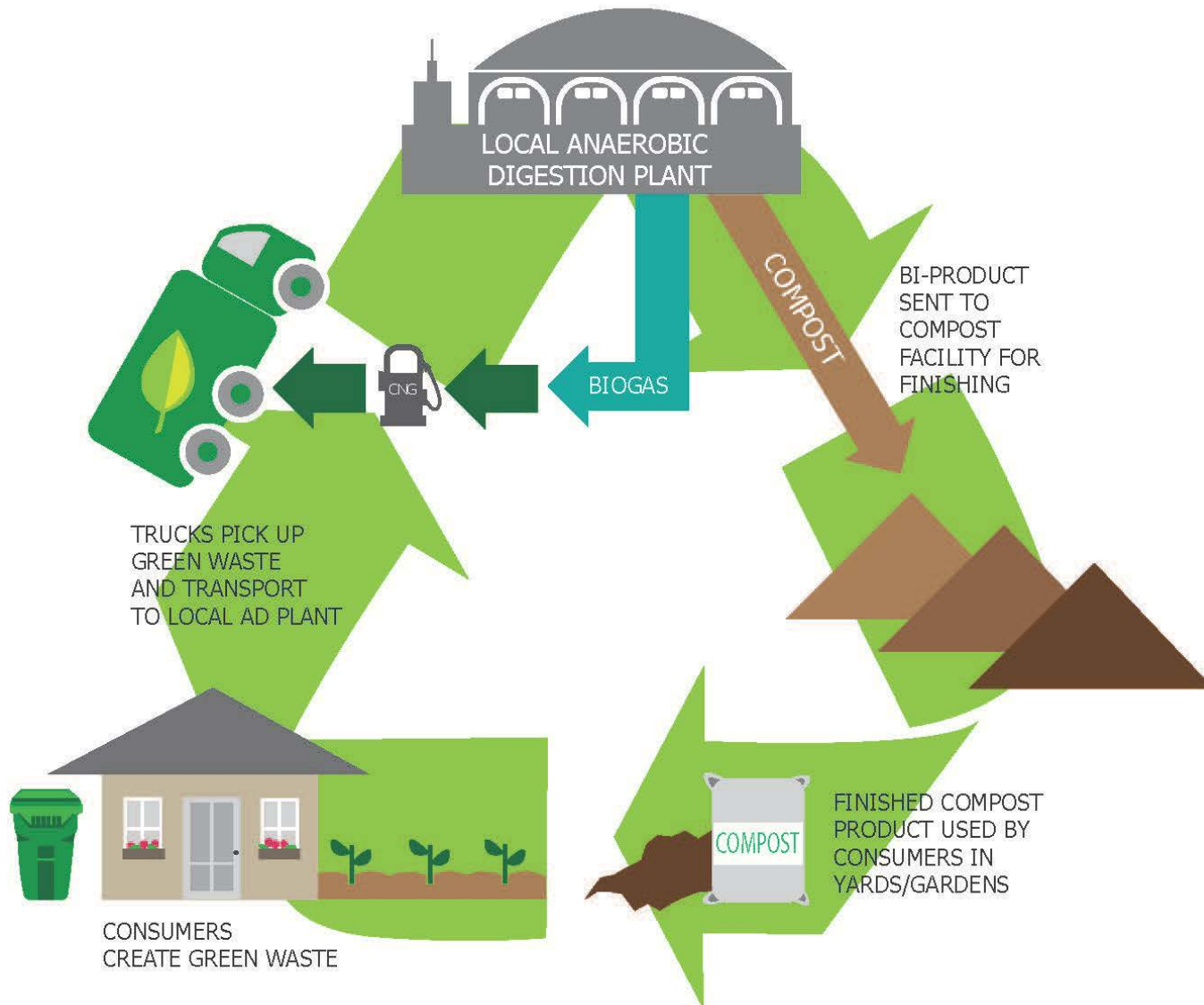
10. Project Objectives:

Project goals and objectives are to promote sustainability in the community, while addressing global environmental concerns, including:

- Help Blue Line meet Target 2.1 and Target 4.2 of their 2011 *First Sustainability Report*. Target 2.1 plans to convert 86% of the fleet to low/no emission technology by 2020, including seeking sources of biogenic CNG. Target 4.2 plans to increase the landfill diversion rate to 75% by 2020.

City of South San Francisco Official Ribbon Cutting





Summary

- Tie together business, Local and State Goals
 - Zero Waste
 - Low Carbon Fuel
 - GHG Reduction Strategies
 - Overall Sustainability

