



LEED AND THE CLIMATE ACTION PLAN

Facilities & Transportation Committee
November 2020

Context for LEED policy in the city

- In 2008 with the first Climate Action Plan, there was no state green building code. LEED was one of the only green building standards available.
- Since then, the state has developed robust energy and green building codes (CALGreen).
- LEED and CALGreen are complementary:
 - Projects built to CALGreen are pre-approved for significant streamlining of fundamental LEED requirements.
 - LEED goes beyond code, particularly for issues that cross site boundaries or extend past construction

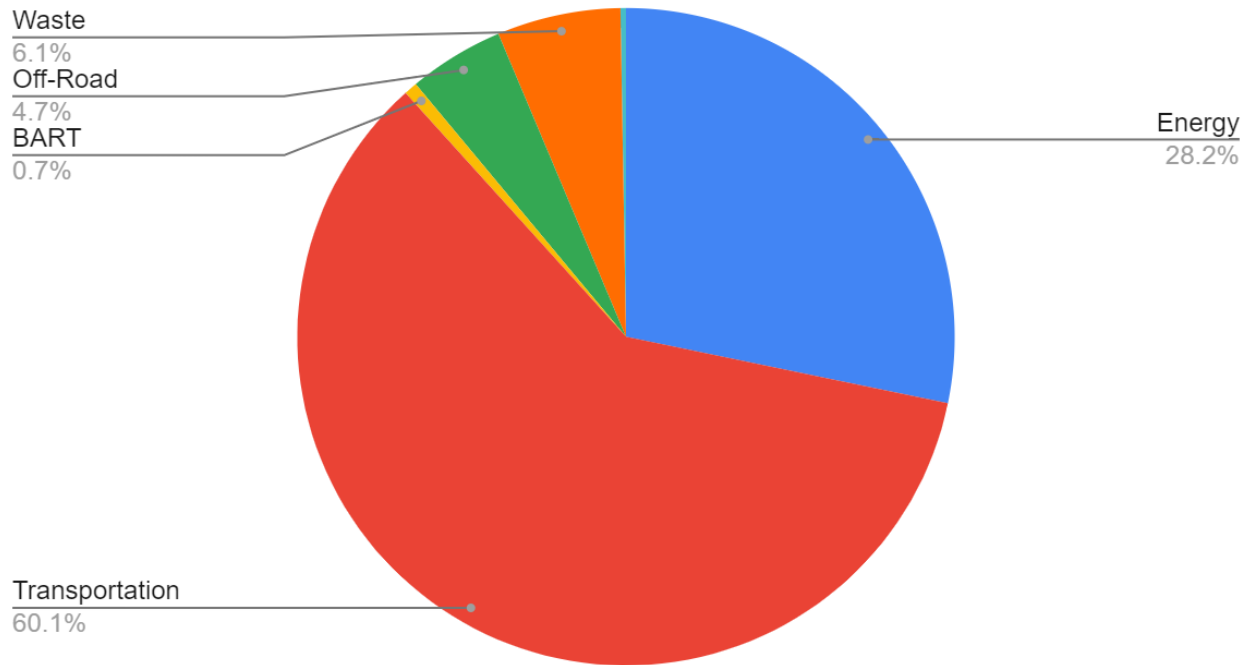


Goals in the Climate Action Plan

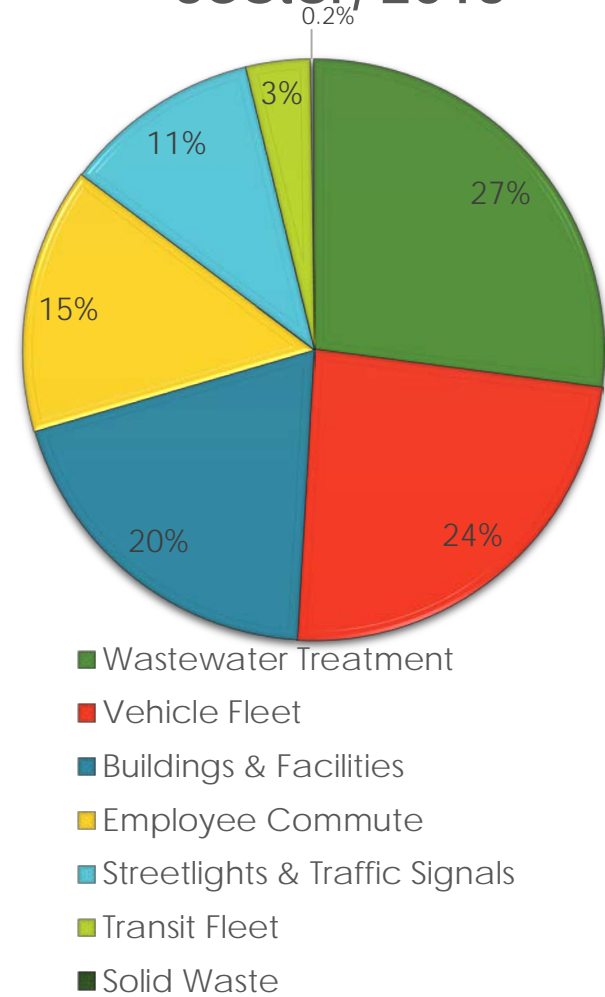
- Council targets for GHG emissions
 - 40% reduction by 2030
 - 80% reduction by 2050
- Energy and water conservation
- Enhancement of public health
- Conservation of biological resources and ecological habitats
- Leadership in green building standards

Buildings

San Leandro Community GHG Emissions 2017



Municipal Inventory by Sector, 2015



Why LEED?

Reduced
water and
energy costs

Healthier
indoor
environment

Enhanced
worker
productivity

Reduced
CO2
emissions

Leader in
green
buildings

Profitable, cost-effective



- Building owners report **10% or greater increase in asset value** from green building investment
- LEED buildings report **almost 20% lower maintenance costs** than typical commercial buildings; retrofits **decrease operational costs by almost 10%** in one year

Source: US Green Building Council

Good for Economy

- In LA, **tenants are willing to pay** \$2.91/ft² for LEED certified space in comparison to \$2.16/ft² for traditional spaces, 34.72% increase
- From 2011-14, **national green construction generated \$167.4 billion in GDP**. In 2014, LEED employment directly contributed \$1.09 billion in individual income tax to states.



Source: US Green Building Council

Public Health



- National Institute of Building Sciences study found **each \$1 spent on mitigation activities** strengthening buildings and improving drainage conditions **saves \$6 in response and recovery costs**
- Air quality improvements, increased worker productivity, cooler temperatures

Environmental Savings

- DOE study of 22 LEED buildings found they had **34% less CO2 emissions**, **25% less energy consumption**, **11% less water consumption**, and **more than 80 million tons of waste diverted from landfills**
- Study of LEED schools found **average energy reduction of 33% compared with conventional design** = average savings of \$0.38/sq ft per year

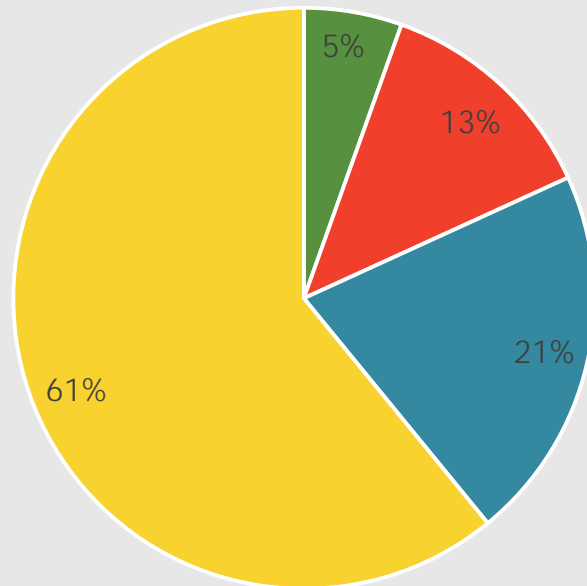


Source: US Green Building Council

LEED and CALGreen

LEED Points and CALGreen

- Points met by CALGreen
- Points met with additional changes to CALGreen
- Points significantly different to CALGreen
- Points not in CALGreen



- Comparison of CALGreen 2013 and LEED (CALGreen 2016 is similar to 2013 version) by StopWaste
- LEED points significantly different missing from CALGreen:
 - Bicycling facilities
 - Green vehicles and parking footprint
 - Energy efficiency
 - Graywater systems and water usage reduction
 - Reused materials
 - On site renewable energy
 - Heat island effect
 - Hydrofluorocarbons

LEED and Climate Action Plan

LEED Points	Climate Action Plan Goals
Graywater irrigation and water reduction	Water conservation
Energy efficiency	Energy conservation and efficiency
Green vehicles	Electric vehicle infrastructure
Bicycle facilities	Bicycle infrastructure
On site renewable energy	Renewable energy and reduced GHG emissions
Heat island effect	Reduced heat island effect and cooler temperatures
Reused materials	Circular economy and sustainable materials management
Hydrofluorocarbons	Reduced GHG emissions

City Building Projects

- LEED Silver goal set for City Building projects with construction costs equal to or greater than \$3M (SLMC section 3.19 updated 2008)
- Indexed for Inflation the threshold is now \$4.1M of construction cost per building.
- Typically cost to include LEED is additional 5% to 10% of construction cost
- Projects to date:
 - Senior Community Center (certified 2011)
 - Estudillo Callan Garage (certified 2013)
 - WPCP Administrative Building (certified 2017)
 - Farrelly Pool (in construction)
- Future Projects
 - Mulford Marina Library



Farrelly Pool

Construction cost = \$6.2M

31 features of project qualify for 67 LEED rating points.
Many features are easy to include and some are already required by the green building code

Following items are not likely to have been included without LEED requirement:

LEED application	\$10k
HVAC supplemental commissioning	\$50k
Solar	\$60k
Increased water infiltration	\$220k

