LA's Green New Deal and Building Decarbonization:

What's Ahead for Affordable Housing?

March 18, 2020

SCANPH
Southern California Association of NonProfit Housing

California Housing Partnership

AGENDA

- Welcome
- LA City Building Decarbonization Goals
  - EBEWE Ordinance
- LADWP Energy Efficiency Programs
  - $100 Million for Low-Income MF Customers
- LIWP Case Study
- Q&A

SPEAKERS

Blanca de la Cruz, Sustainable Housing Program Director
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California Housing Partnership

Megan Ross
Climate Advisor, Buildings
American Cities Climate Challenge
Office of Mayor Eric Garcetti

GREEN NEW DEAL

PLAN

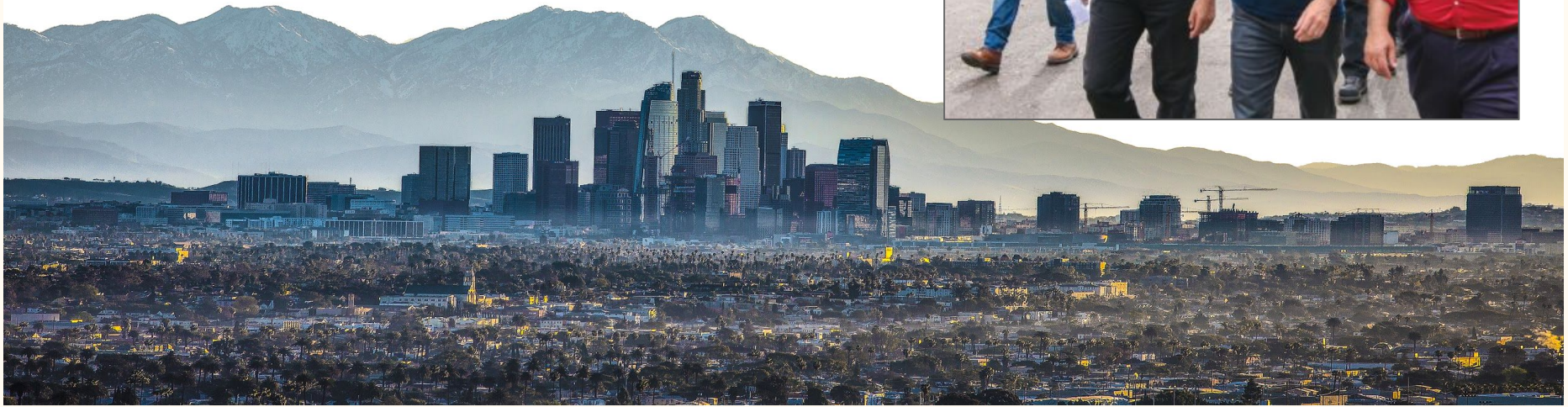
L.A.’s Green New Deal and Building Decarbonization Goals

Eric Garcetti #lamayor

Climate Change and the 21st Century in L.A.

- Air Quality/Pollution
- Public Health Emergencies
- Fire
- Drought
- Extreme Heat
- Aging Infrastructure

...and many other risks



Can Cities Actually Meet the Paris Commitments on Their Own?

LA Mayor Garcetti Rallies 'Climate Mayors' To Adopt Paris Goals

Eric Garcetti
June 1, 2017 ·

We will lead on global climate change! Trump rejected the Paris Agreement, but mayors and cities are stepping up.

Stand with 68 #ClimateMayors (and counting) to say we can and will uphold Paris Agreement goals. Add your name »

ERICGARCETTI.COM

Stand with the Paris Agreement on climate

Join our coalition of 68 Climate Mayors representing 38 million Americans:…

American Mayors Vow To Fight Climate Change Despite Withdrawal From Paris Agreement

Mayors Of Cities Under Climate Change Threats Are Stepping Up To Take Action

Garcetti Pledges Carbon Neutral Los Angeles by 2050

POSTED BY CONTRIBUTING EDITOR ON JUNE 7, 2018 IN BUSINESS | 169 VIEWS | LEAVE A RESPONSE

What's Special about L.A.'s "Paris Compatible" PLAN

- Cities are delivering on the 2015 Paris Agreement
  - Maintaining global temp. rise below 2.0 degrees, aiming for 1.5
- C40's "Deadline 2020" report provides the way forward:
  - 1.5 degree threshold is possible
  - Requires deep GHG reductions (net zero) by 2050
  - Only achievable if major progress is made by 2020
- L.A.'s Green New Deal in 2019 was one of the first Paris Compatible plans at the city level
  - All C40 cities are required to have Paris Compatible plans in 2020

The Future We Want for L.A.

L.A.’s Green New Deal’s Key Principles

Act with urgency to eliminate carbon emissions

Deliver environmental justice and equity

Create pipelines to good paying jobs and create a fair and equitable green economy that grows the middle class

Lead by example

L.A.’s “Five Zeros”

Emissions must decline everywhere, as soon as possible. L.A.’s GND puts our city on the road to a zero carbon future across the board.

Zero Carbon Grid

Achieve 100% renewable energy by 2045

Zero Carbon Buildings

100% net-zero carbon new buildings by 2030 & all buildings by 2050

Zero Carbon Transportation

100% zero emission vehicles in the city by 2050

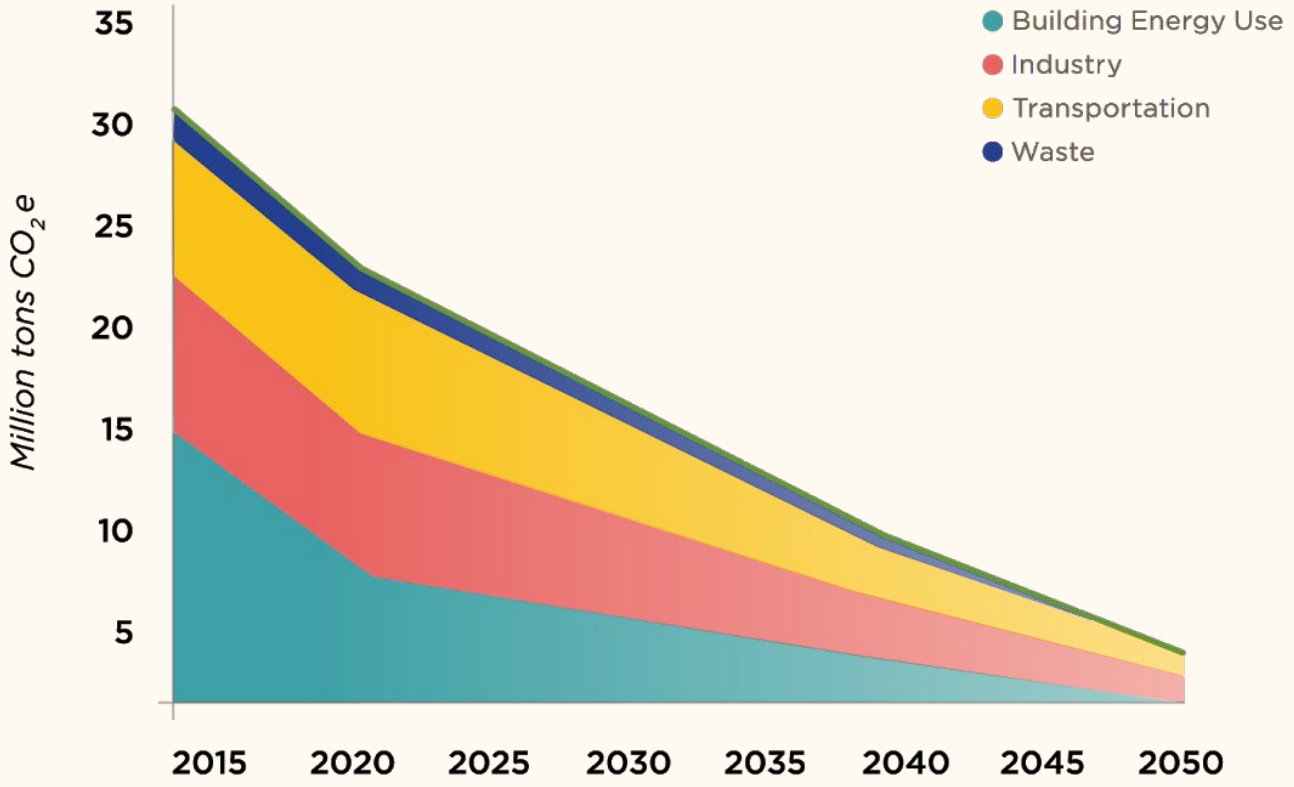
Zero Waste

100% landfill diversion rate by 2050

Zero Wasted Water

100% of our wastewater recycled by 2035

L.A.’s Path to Zero Emissions



Zero Carbon Buildings Goals

- **All new buildings will be net zero carbon by 2030**
- **100% of buildings will be net zero carbon by 2050**
- **Reduce building energy use per sq.ft. for all building types**
  - **22% by 2025**
  - **34% by 2035**
  - **44% by 2050**

Zero Carbon Buildings Impacts

CLEAN & HEALTHY BUILDINGS

Top Five Areas of Impact

- Access & Equity
- Quality Jobs
- Workforce Development
- Health & Wellbeing
- Climate Mitigation

Support
175,000
JOBS BY 2050

Prevent
70
RESPIRATORY AND CARDIOVASCULAR HOSPITAL ADMISSIONS ANNUALLY

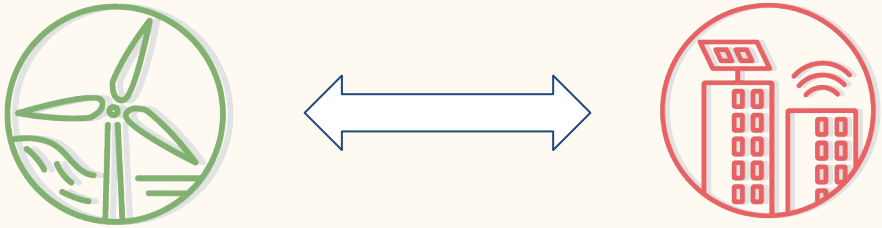
Save
$1.9 BILLION
FROM PREVENTED DEATHS AND HOSPITAL ADMISSIONS ANNUALLY

Prevent
190
PREMATURE DEATHS ANNUALLY

What Is a “Net Zero Carbon Building?”

1 - it is *highly energy efficient*

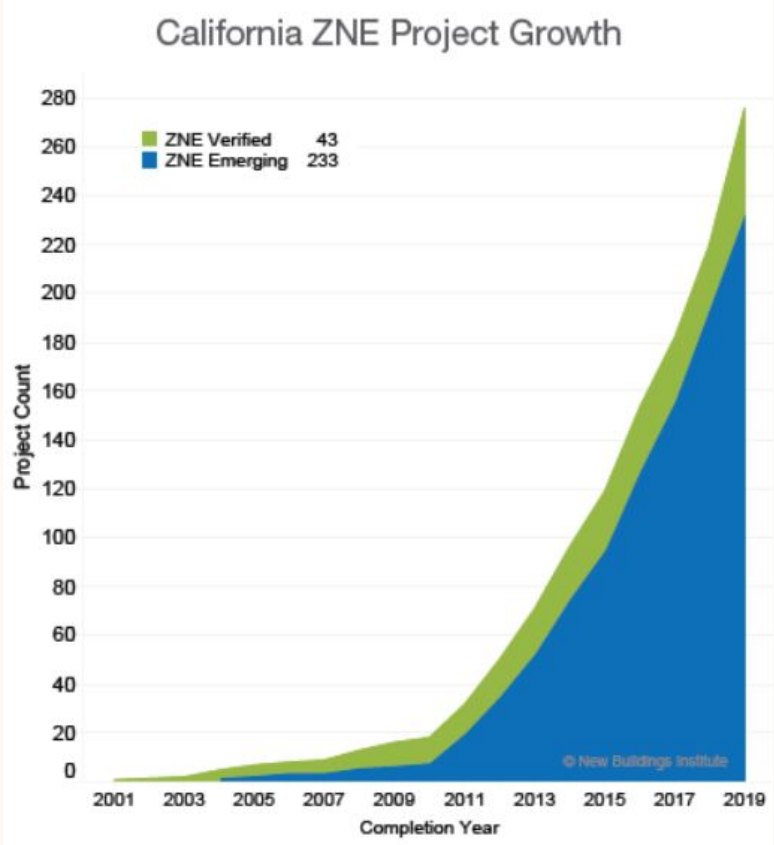
2 - its *on-site renewable energy produced is greater than or equal to the energy it draws* from the grid



Zero Carbon Grid

Zero Carbon Buildings

California Trends in Zero Net Energy Buildings

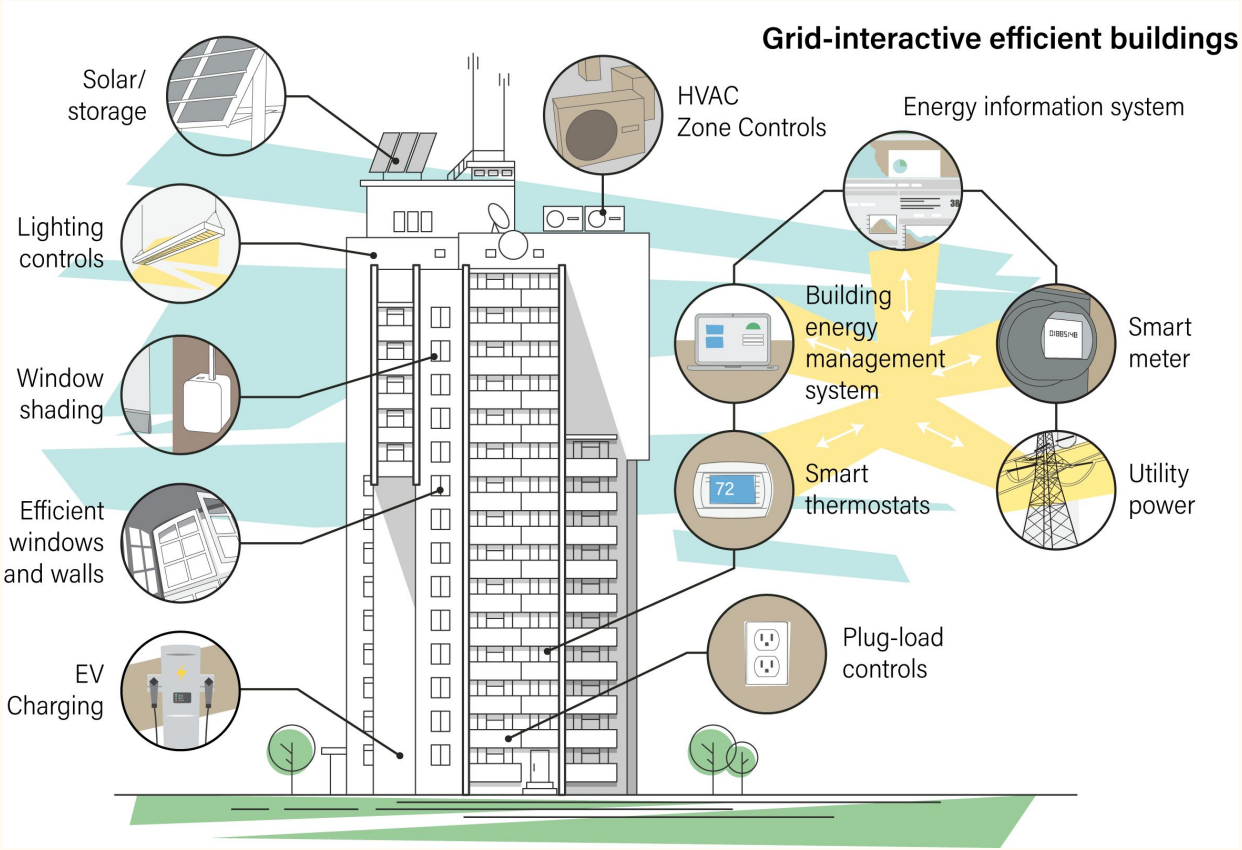


California “Getting to Zero” Projects as of 2019:

- 33% Office
- 30% Education
- 17% Multifamily
- 20% Other

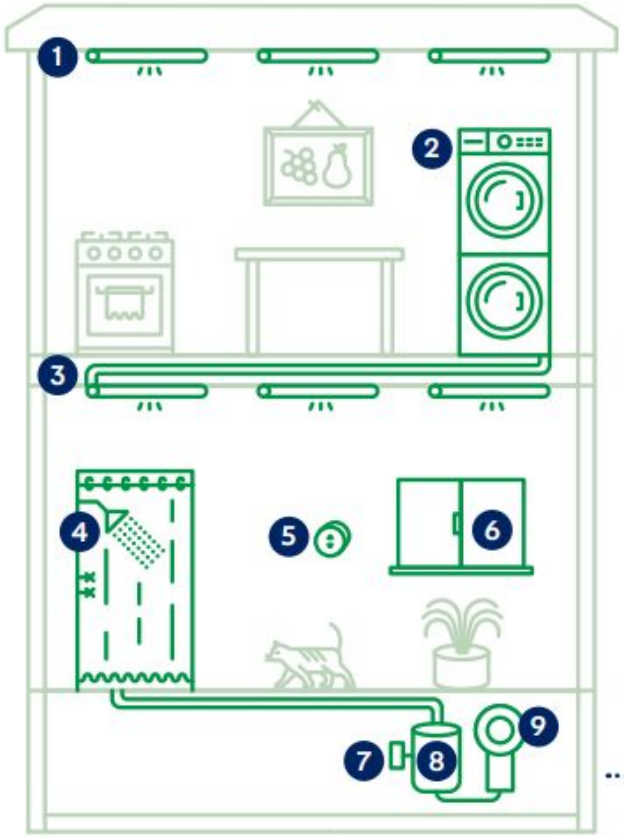
Source: New Buildings Institute. “California Getting to Zero Watchlist.” August 29, 2019.

Improving Energy Efficiency in Buildings



Source: American Council for an Energy-Efficient Economy. “Grid interactive buildings.” November 20, 2019.

Improving Energy Efficiency in Buildings



Sample Building Improvements	Estimated Savings (per building)	Job-hours
1 LED Lighting	4%	4
2 Efficient Laundry	2%	6
3 Water Heater Pipe Wrap	5%	3
4 Showerhead Aerators	2%	2
5 Wi-Fi Thermostats	4%	2
6 Insulated Windows	7%	4
7 Heating and Cooling controls	4%	6
8 Zero-gas Heat Pump Hot Water Heater	22%	7
9 Heat Pump HVAC Systems	20%	12
Adds up to:	68%	43

Source: Energy Efficiency for All. “Affordable Homes First.” May 2019.

Progress in Place: Energy Benchmarking & Performance

Existing Building Energy and Water Efficiency (EBEWE) Ordinance

- Since 2017, ordinance has rolled out gradually by building size
  - All privately-owned buildings 20,000 sq ft or larger
  - All City-owned buildings 7,500 sq ft or larger
- Report on energy and water benchmarking
  - Confirms building EUI and CO_2 emissions from energy use
- Report on energy and water performance starting in 2021
  - Confirms improvement in EUI over time

For support, visit ***betterbuildingsla.com***

EBEWE Energy and Water Benchmarking

- Single process, three steps:
  - Obtain energy & water data from LADWP and SoCalGas
  - Prepare report in EPA's ENERGY STAR Portfolio Manager
  - Submit report to LA Dept. of Building and Safety
- Due each year on June 1

For support, visit ***betterbuildingsla.com***

EBEWE Energy and Water Performance

- Multiple ways to comply:
  - Certified energy/water audit & retro-commissioning report
  - Proven energy/water performance (multiple options)
- Beginning in 2021, due on a five-year schedule according to your building's descriptive information (last digit of AIN)

For support, visit ***betterbuildingsla.com***

EBEWE Energy Use Performance - Ways to Comply

Pick One:

- Obtain an **energy audit** certified by a licensed engineer/architect and **complete retro-commissioning** (repairs & maintenance of existing systems for HVAC, lighting, water heating, and renewable energy)
- Earn **ENERGY STAR certification** that year, or 2 of the 3 previous years
- Prove that your building's **energy performance is 25% better than the median** for similar buildings
- Prove that your building's **EUI has decreased 15%** in the last 5 years
- Complete **4+ prescriptive measures** outlined in the ordinance

For support, visit ***betterbuildingsla.com***

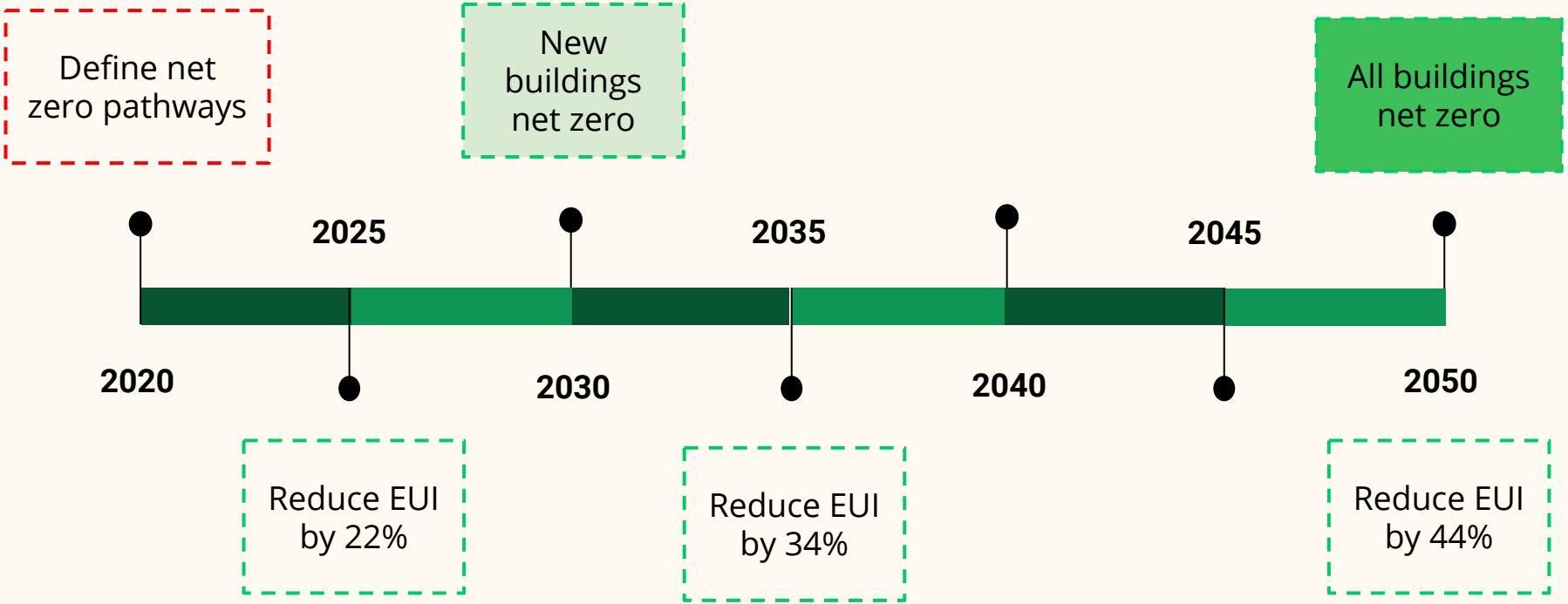
EBEWE Water Use Performance - Ways to Comply

Pick One:

- Obtain a **water audit** supervised by a licensed engineer/architect and **complete retro-commissioning** (repairs & maintenance of existing systems for potable water distribution, landscape irrigation, and reuse)
- Prove that your building's **WUI has decreased 20%** in the last 5 years
- Complete **2+ prescriptive measures** outlined in the ordinance

For support, visit ***betterbuildingsla.com***

Reaching Zero Carbon Buildings Goals



Considerations to Develop Zero Carbon Pathways

- What effects will be felt specifically by deed-restricted affordable housing owners, versus naturally-occurring?
- What is the balance of benefits and responsibilities between owners and tenants?
- What are the cost implications to building owners? What timing and resource availability could affect these costs?
- What kind of support will the affordable housing community need from City government?

What other questions should be considered?

Stakeholder Outreach to Develop Zero Carbon Pathways

As the City of L.A. develops pathways to Net Zero Carbon Buildings goals, the City will seek perspectives from:

- Affordable housing owners & tenants
- Environmental justice advocates
- Labor unions, trades, and transitional workers
- Commercial building owners & developers
- Residential building owners & tenants

Who else should be on this list?

LADWP Energy Efficiency Programs

Board approved $100 M for low-income multifamily customers in 2018

- Home Energy Improvement Program (HEIP)
- AC Optimization Program
- Low-Income Weatherization Program (LIWP) model

LOW INCOME WEATHERIZATION PROGRAM

Case Study:

Low-Income Weatherization Program (LIWP-MF)

Florence Avenue Villas

Los Angeles, CA

Background:

- Century Housing + RNLA
- Built in 1994
- 20 units
- Retrofit as part of TCAC rehab

Program benefits:

- Free comprehensive technical assistance
- $117,533 LIWP incentive for emissions reduction (energy efficiency)
- $110,505 in additional resources in coordination with LABBC

Energy Retrofit Measures

- Envelope upgrades (including new roof and code-compliant windows
- **High efficiency electric heat pumps**
- **Solar thermal system for domestic hot water**
- Ductwork sealing
- Comprehensive LED lighting upgrade
- New ENERGY STAR refrigerators
- Low-flow aerators and showerheads

Utility Savings

Realized Owner Utility Savings -

- Analysis after one year
  - **30% reduction in actual owner energy use**
  - **34% cost savings in owner utility bills from energy efficiency measures and solar thermal**

Resident-Benefitting Upgrades -

- Installed measures that directly impact resident utility bill savings included dual pane windows, cool roofs, LED lighting, and ENERGY STAR refrigerators
- **Modeled estimates predict an annual savings of 30% for resident electricity bills**

LOW INCOME WEATHERIZATION PROGRAM

Homeless Funding Carveout

- Of the **$9.5 M, up to $2M** are available to properties serving homeless populations
- Building types: Permanent Supportive Housing, Transitional Housing, Shelters
- Located in or outside of DACs
- Carveout guidelines are in progress

Contact: Michael Claproth at mclaproth@chpc.net

Questions & Answers

COMMENTS & QUESTIONS TO: Blanca de la Cruz at bdelacruz@chpc.net