

# Energy Efficiency, Land Use, and Equity

Joanna Gubman | 2022 ACEEE Summer Study

Executive Director, Urban Environmentalists Environmental Director, YIMBY Action





- Nearly 5,000 activists working to integrate land use policy with environmental policy
- Vision: transform cities and towns into more sustainable, human-centered, and just communities through land use policy reform





- A network of activists fighting for more inclusive, diverse & abundant housing options
- Vision: an integrated society where everyone has access to a safe, affordable home near jobs, services, and opportunity.

#### Who I am



Joanna Gubman (she/her) Environmental Director, YIMBY Action Executive Director, Urban Environmentalists

- Past: Commissioner's Advisor & Administrative Law Judge at the California PUC; EE non-resource program implementer at Navigant (now Guidehouse); energy & transportation researcher in Germany
- Live in San Francisco
- Jewish, in a biracial family
- Love bicycling... and turtles!

#### Agenda

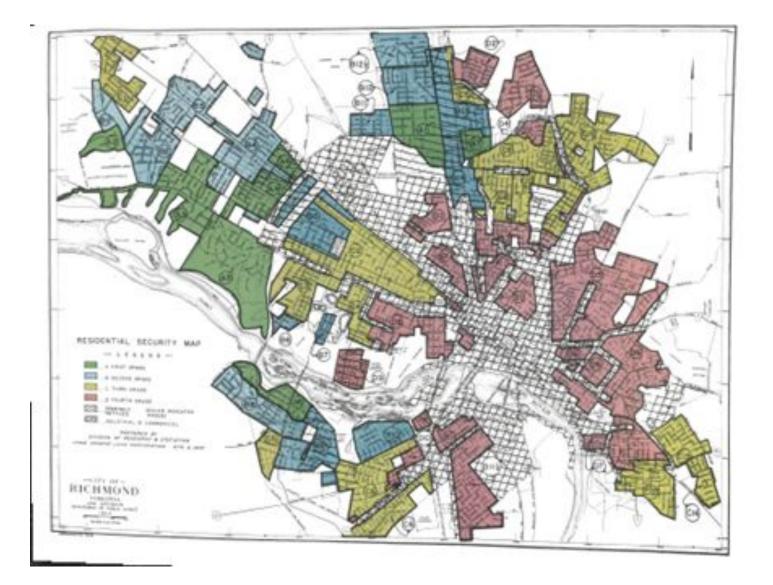
- I. A brief history of land use injustice in the US
- II. How do sprawl, disinvestment, and exclusion relate to EE?
- III. How can we do better?
- IV. Q&A

tice in the US and exclusion relate to EE?

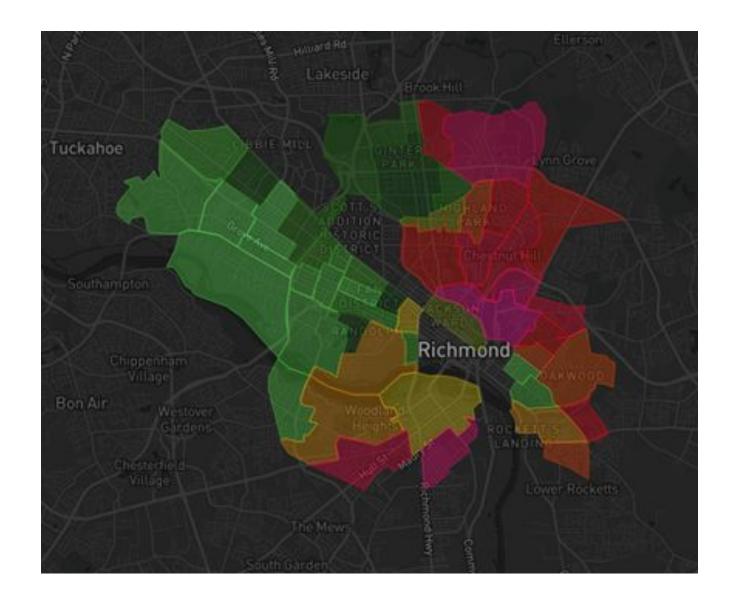
# Land Use Injustice in the US

## **Redlining: impacts persist**

#### **Redlining in Richmond, Virginia**



#### Today's Social Vulnerability Index



## White supremacy: it's not just redlining



Sources: Top Left: <u>DC Policy Center</u>. DC Public Library, Star Collection © Washington Post. Top Right: Digital Scholarship Lab, "Renewing Inequality," American Panorama, ed. Robert K. Nelson and Edward L. Ayers. Richmond, VA: University of Richmond. Accessed June 2022.

- Racial restrictive covenants
- Single-detached homes
- Segregated public & private housing developments
- Urban Renewal
- Car-centric design
- Opposition to infill housing in wealthy neighborhoods



# How do Sprawl, Disinvestment, and Exclusion Relate to EE?

## What's wrong with these land uses?

#### Consider Land Use Equity, Energy, and Climate Risk

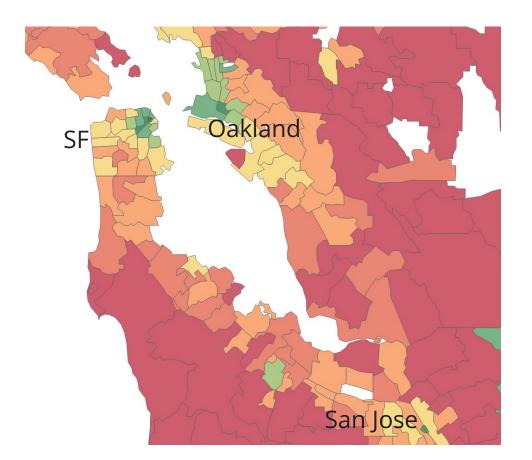


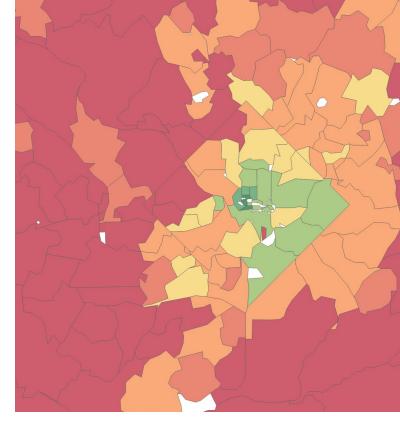






## **Outer suburbs: ~1.5x greater emissions/household\***





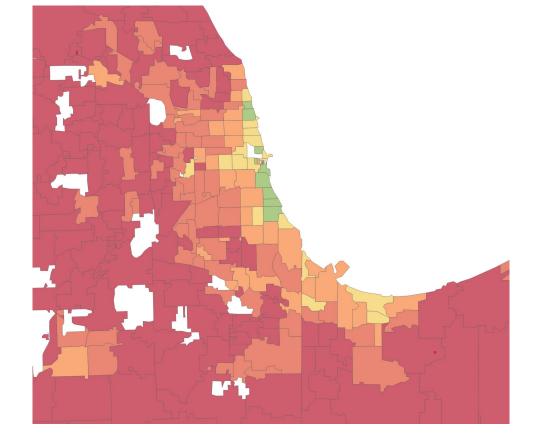
San Francisco Bay Area

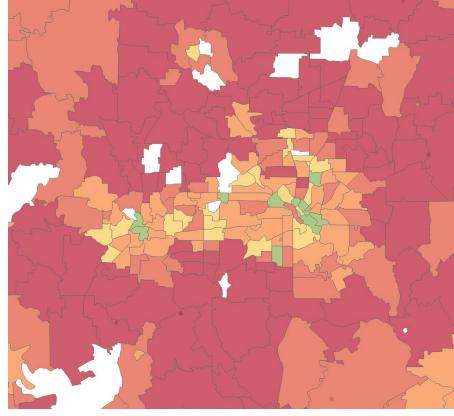
Washington, D.C.

\*After controlling for income, assuming same generation mix. Before controlling for income it is ~3-4x. Calculated on a consumption basis.

Sources: <u>CoolClimate Maps</u>, UC Berkeley Cool Climate Network, 2013. <u>Zack Subin</u>, RMI, 2021.







Chicago

Dallas

Total Household Carbon Footprint (tCO2e/yr)

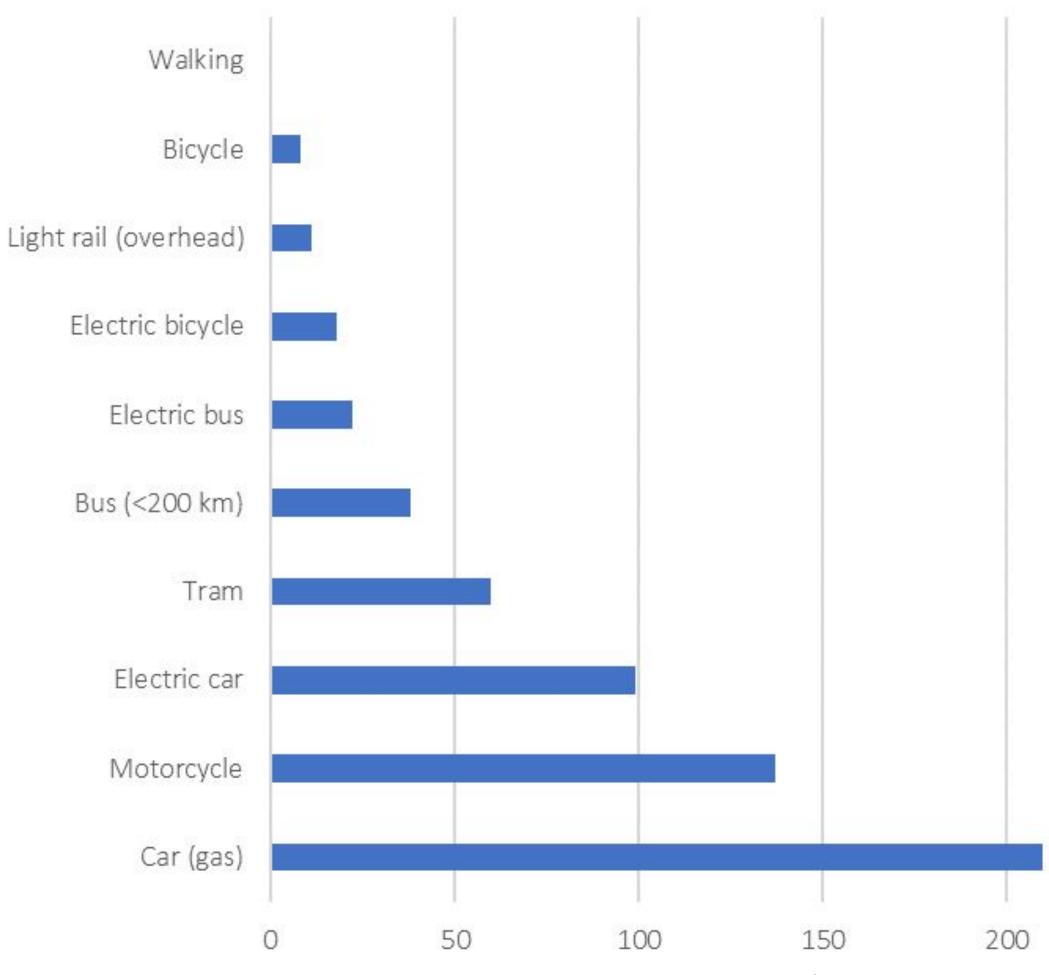


#### Car-centric sprawl is not energy efficient

Electric cars are essential. So are heat pumps.

And they are not enough.

Source: <u>https://tnmt.com/infographics/carbon-emissions-by-transport-type</u>

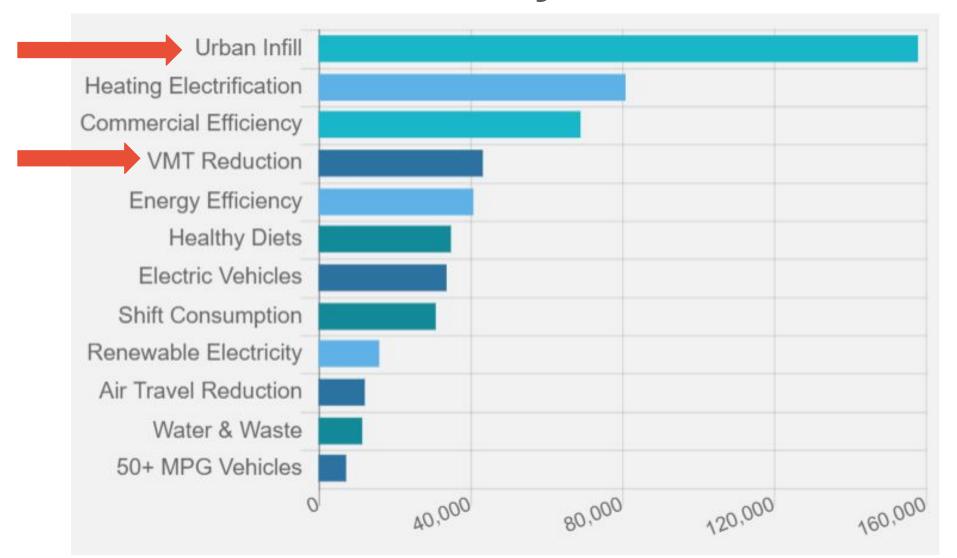


Typical carbon emissions by transport type (g/person-km)

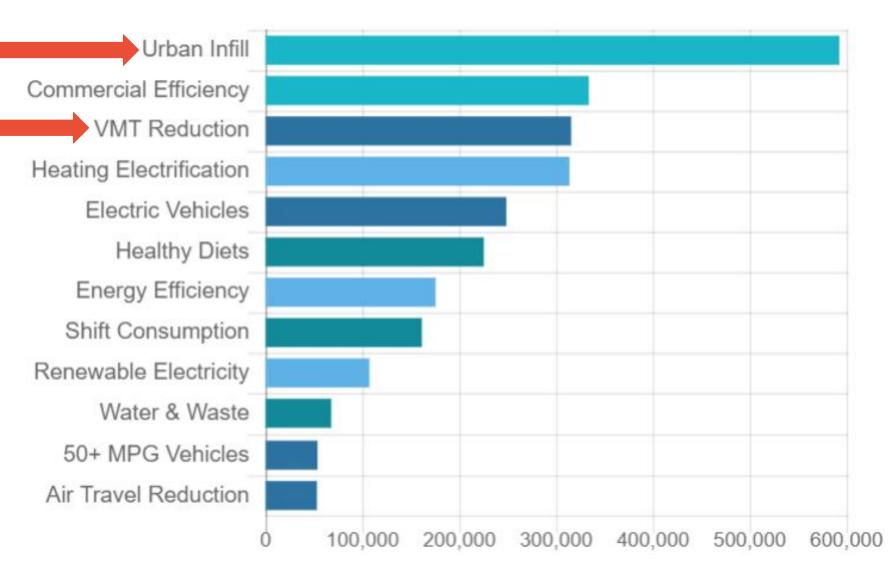
#### Walkable, bikeable communities: a key local climate action

#### 2030 savings potential (tons of greenhouse gasses) in...

**Berkeley**, CA



#### Sacramento, CA



## What's wrong with these land uses? Do today's EE programs help?

#### Consider Land Use Equity, Energy, and Climate Risk









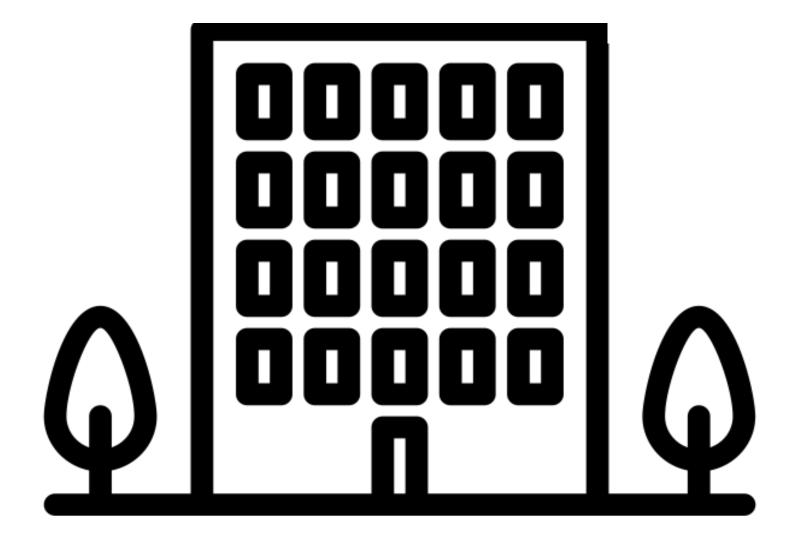
EE is not just about better technology or behavioral choices.

It's also about changing what and whom we prioritize in terms of land, funding, and time.

# What's stopping us?

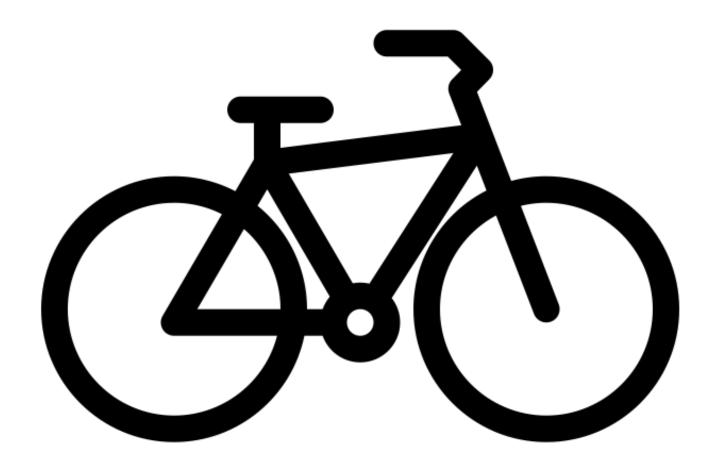
Could these be EE programs?

### Dense housing: funding & technical assistance



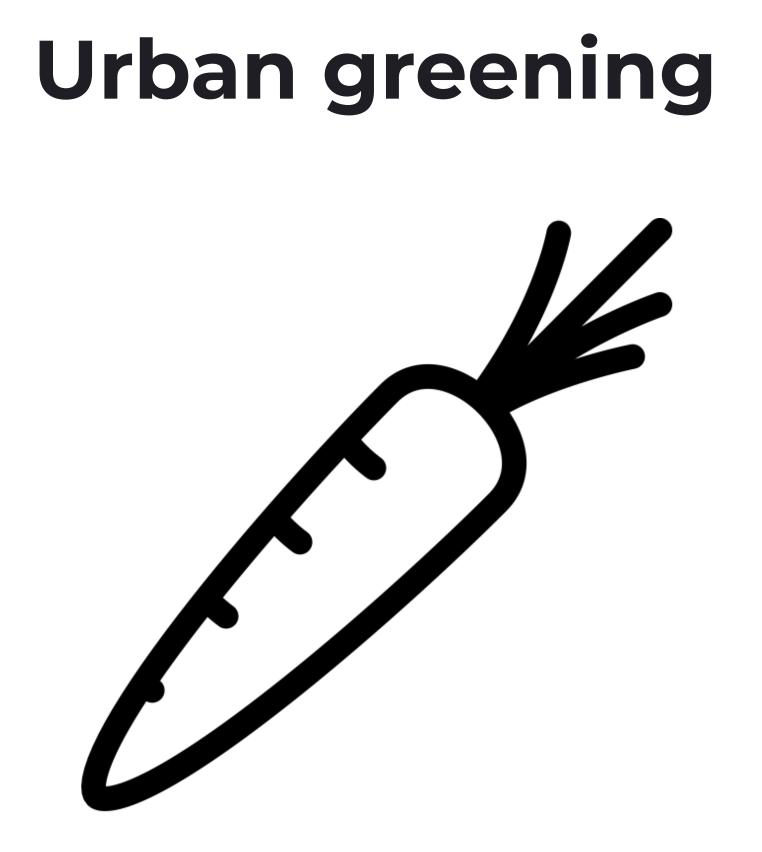
- Rezoning & incentives for dense multifamily, mixed-use development
- Streamlining new housing in exclusionary neighborhoods
- Education and outreach on energy and other benefits

## Support walking, transit & micromobility (not cars)



- Transit-only lanes & protected bike lanes
- Secure bicycle parking
- Pedestrian plazas
- Advocacy to reduce parking mandates





- Community gardens
- Tree planting
- Bioswales
- Public green space

# Let's support land use justice!

Everyone who wants it should be able to afford to live in a safe, comfortable dwelling in a climate-resilient location with car-free access to jobs, amenities, and green space and thus have an inherently lower carbon & environmental footprint.

Energy efficiency programs can and should help.

# Thank you

Let's connect:

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