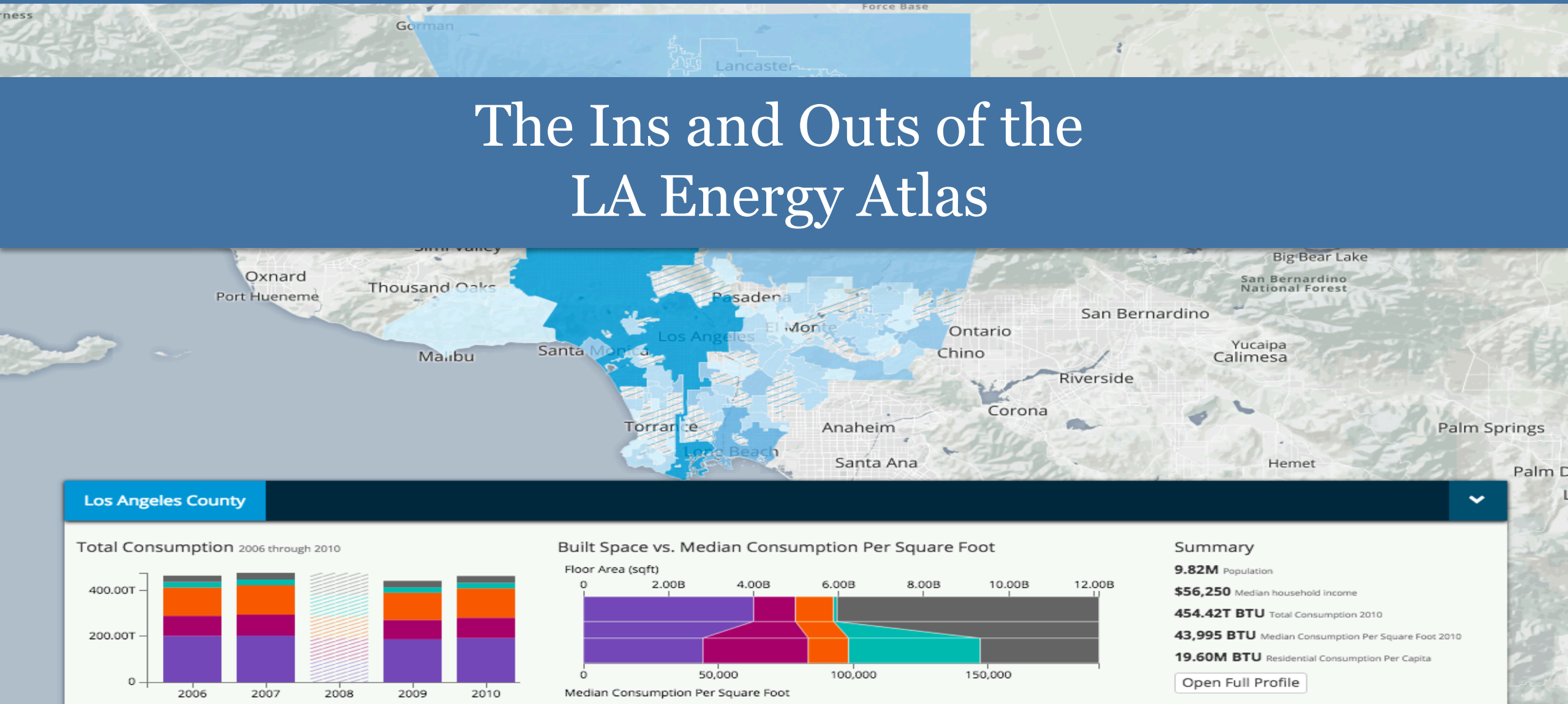


# The Ins and Outs of the LA Energy Atlas



November 16, 2015

# WEBINAR LOGISTICS

## Questions:

At any point during the webinar, you can type your question into the question text box and click send. All questions directed towards a speaker will be read aloud and answered at the end of the presentations, as long as time permits.

The screenshot shows the GoToWebinar Control Panel interface. At the top, it says "GoToWebinar Control Panel". Below that is a section titled "Audio" with two radio buttons: "Use Telephone" and "Use Mic & Speakers". The "Use Mic & Speakers" option is selected. Below the audio controls, there is a microphone icon, the word "MUTED" in red, a speaker icon, and a volume slider. Below the audio section is a "Talking:" label. Underneath is a section titled "Questions" with a large text box for entering a question. Below the text box is a "Send" button. At the bottom of the panel, it says "Webinar Now" and "Webinar ID# 349-759-329". The GoToWebinar logo is at the very bottom.

# AGENDA

## Welcoming Remarks



**Krista Kline**

LA Regional Collaborative for Climate Action and Sustainability/  
Alliance of Regional Collaboratives for Climate Adaptation

## The Ins and Outs of the LA Energy Atlas



**Zoe Elizabeth**

California Center for Sustainable Communities

Special Guest: **Ron Mohr**, County of Los Angeles

A stylized black line-art graphic of a city skyline with various building shapes of different heights and widths.

Relevant research & information

Relevant outreach & training

Good decision-making,  
policy development, & action

# LARC

Los Angeles Regional Collaborative  
for Climate Action and Sustainability

Krista Kline, *Managing Director*

And the ultimate alliance...

The Alliance of Regional Collaboratives on Climate Action

ARCCA



CAPITAL REGION  
CLIMATE READINESS  
COLLABORATIVE



Bay Area  
Regional  
Collaborative



SIERRA  
CAMP

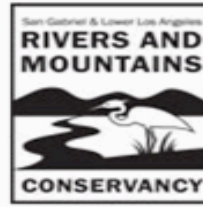
LARC

Los Angeles Regional Collaborative  
for Climate Action and Sustainability



Climate  
Collaborative  
SAN DIEGO REGION

## Our current members:



SOUTH BAY CITIES  
COUNCIL OF GOVERNMENTS





**Thank you.**

**LARC**

Los Angeles Regional Collaborative  
for Climate Action and Sustainability



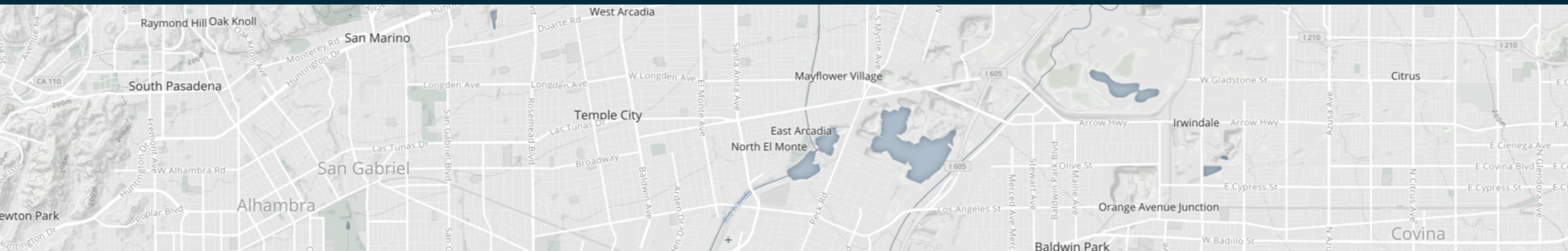
**[larc@ioes.ucla.edu](mailto:larc@ioes.ucla.edu)**



**[LARegionalCollaborative.com](http://LARegionalCollaborative.com)**



**[@The\\_LARC](https://twitter.com/The_LARC)**



# LA Energy Atlas

A first of its kind interactive website built with the largest set of publicly available disaggregated energy data in the nation.

Map **Table** Profiles Strategies.



# The LA Energy Atlas is a project of the California Center for Sustainable Communities at UCLA

Principal Investigator: Stephanie Pincetl, PhD

Project Manager: Zoe Elizabeth (presenter)

## Project Partners:



# Purpose

- Researchers and decision-makers need disaggregated energy data for California meet its energy goals.
- Local governments need disaggregated data to inform energy programs, to build meaningful greenhouse gas inventories
- In the building sector, historic lack of data access from energy providers has impeded understanding necessary to implement effective, targeted programs. Privacy has been stated as a primary obstacle to data sharing.
- The Energy Atlas represents a major step forward in unlocking the power of disaggregated energy data.
- UCLA looks forward to working with stakeholders across the state to further improve access and information

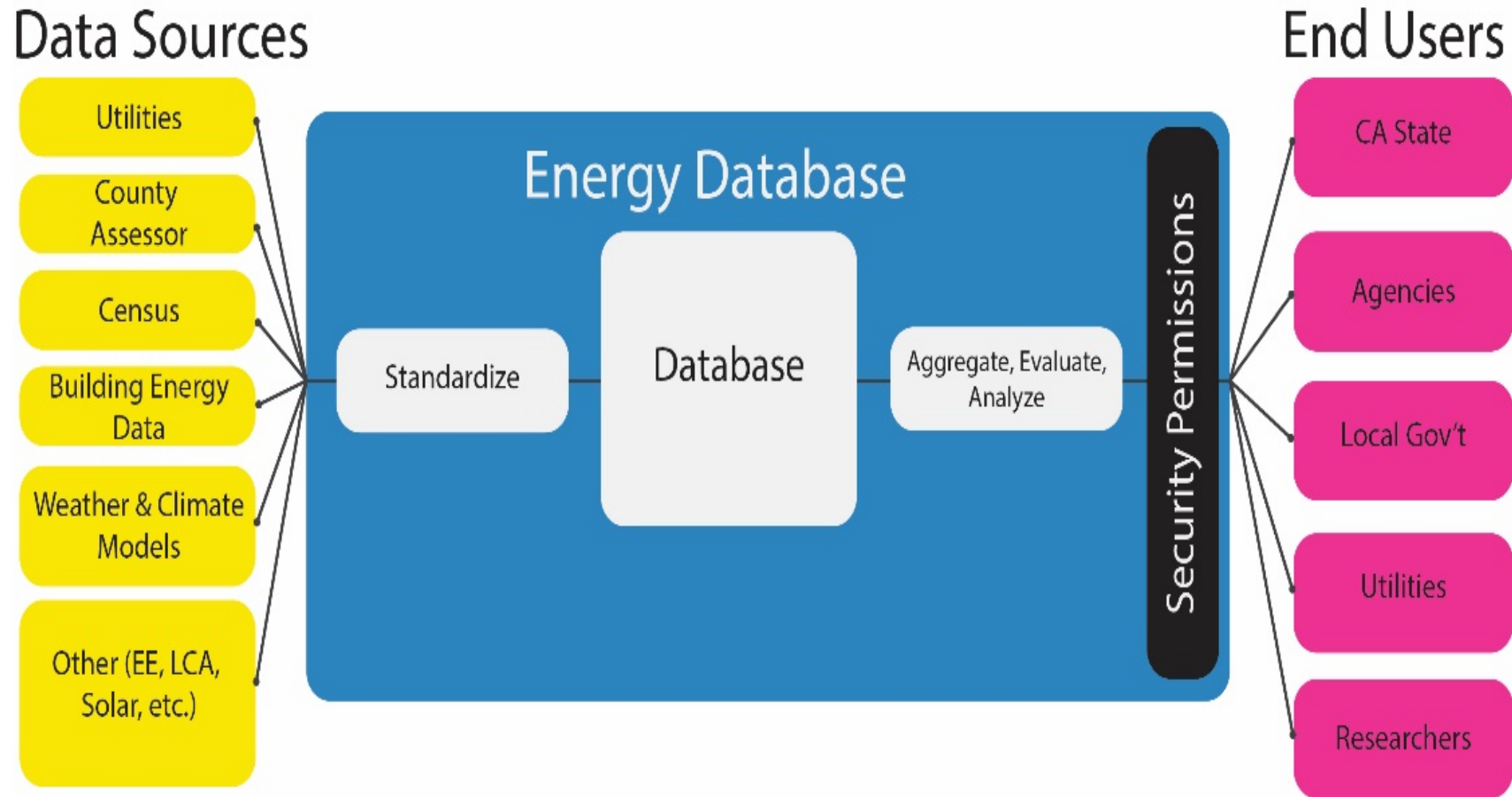
# Why Los Angeles?

- 25% of the State's population and energy consumption
- 50% of the State's disadvantaged population
- Diverse demographics, building stock, geography and climate
- UCLA looks forward to working with others to expand to additional geographies.

# Overview

- Backed by a powerful geospatial relational database with over 500 million records of address level energy consumption
- Developed through an active 2-year collaborative stakeholder driven process
- Connects energy consumption to building characteristics, sociodemographics and other meaningful variables
- Data is aggregated to protect customer privacy
- The underlying database, though not publicly available, provides a flexible and dynamic platform to answer policy questions in a timely manner

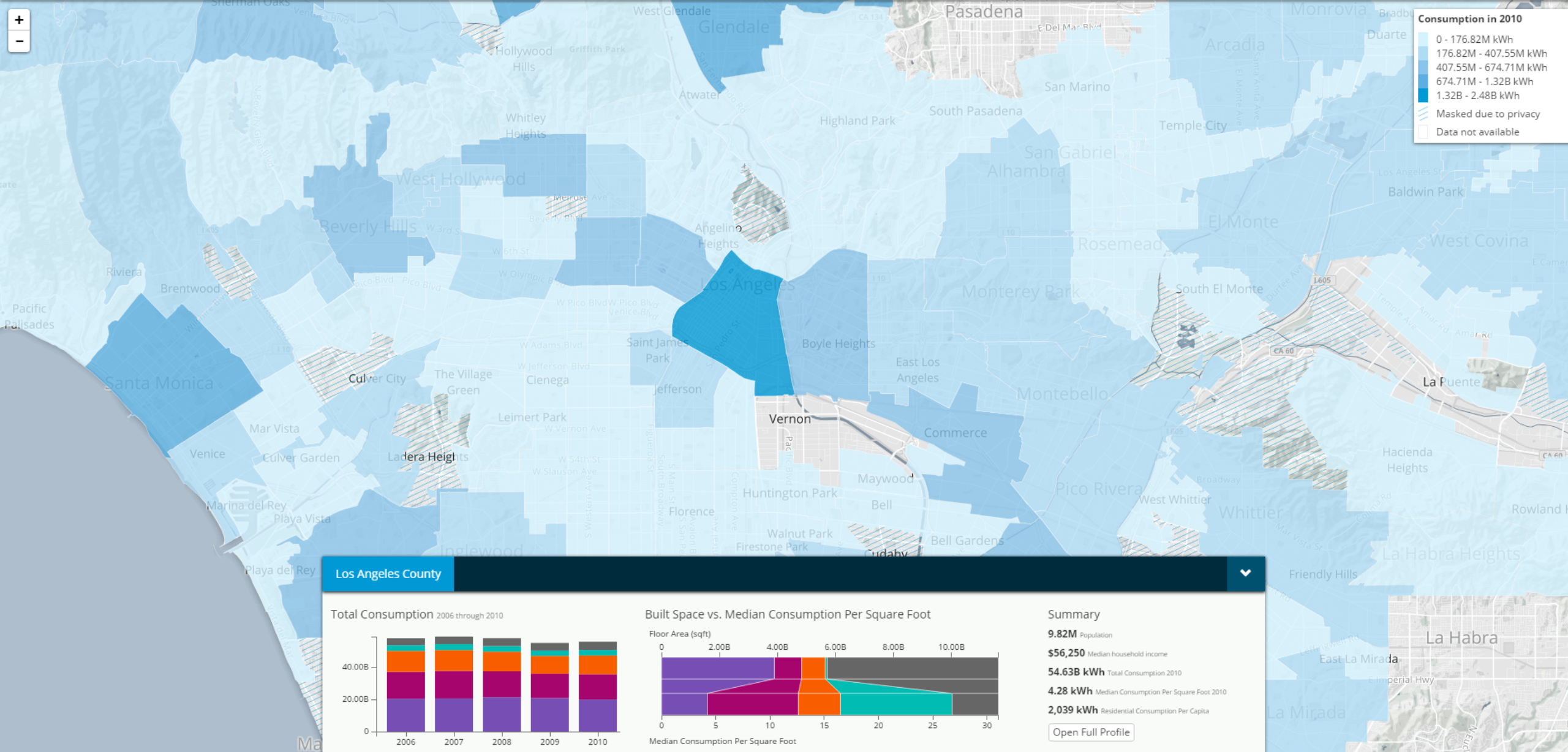
# Database



# Website Components

- Data for over 90 cities and over 200 neighborhoods
- All data is downloadable in CSV or Excel
- Interactive map showing total and normalized consumption metrics
- Detailed, printable, factsheets for each geography
- Data table that enables comparison across geographies and across variables
- Data stories that describe statistically derived patterns across the County
- A strategy section provides an overview of energy policies and programs



Show me **All Building Types ▾** **Electricity Consumption ▾** as **Total ▾** by **Neighborhoods ▾****All Building Types** **Residential** **Commercial** **Industrial** **Institutional** **Unavailable** **Masked**

Residential Single Family Multi Family Condo Commercial Industrial Institutional Other Mixed Uncategorized Unavailable Masked

# Los Angeles County

## Consumption (BTU) in 2010

**9.82M** Total Population (100% of LA County)

**2,405** Population Per Square Mile

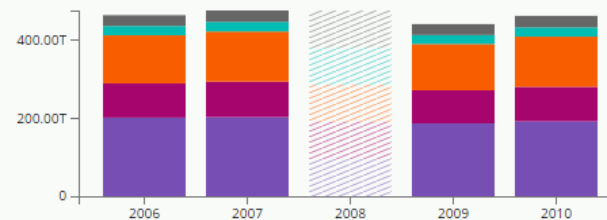
**\$56,250** Median Household Income

**47.14B kWh** Net Solar Potential

**1,018** Vulnerable CalEnviroScreen Census Tracts



## Summary



**454.42T BTU** Total Consumption (BTU)

**0.29%** change from 2006 through 2010

**100%** of LA County's Total Consumption

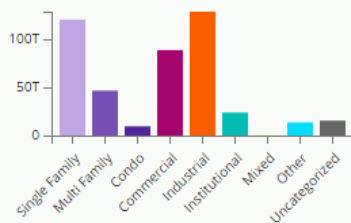
This graph shows consumption from 2006 through 2010. Note that 2008 natural gas data was not available for analysis.

## Building Types

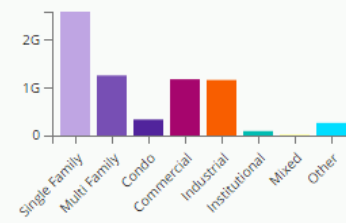
**43,995 BTU** Consumption (BTU) Per Square Foot

**0%** Above LA County Average

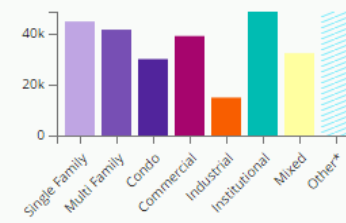
Total Consumption in 2010



Built Space (Square Feet)



Median Consumption Per Square Foot All Building Types



Add ▾

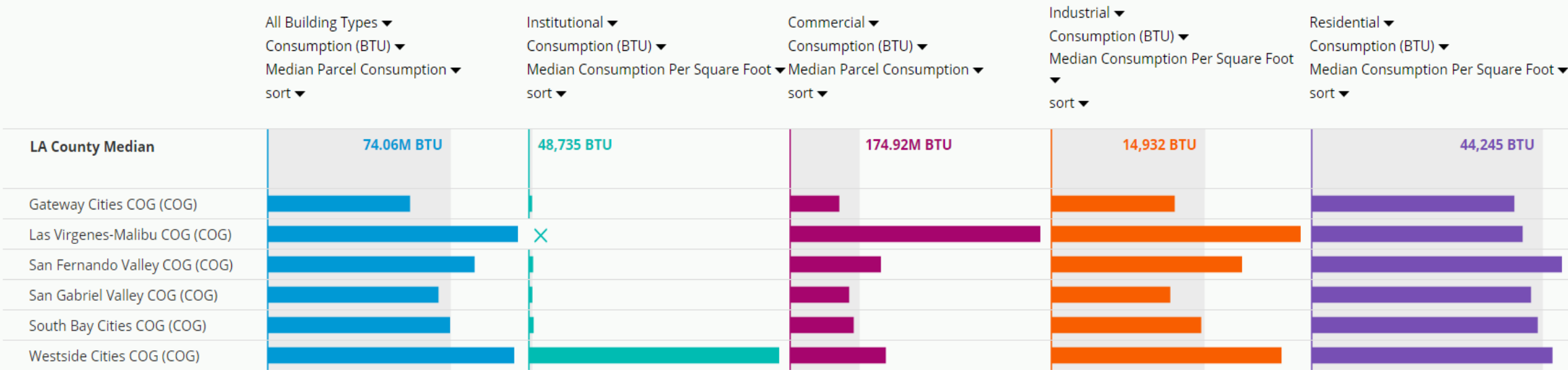
Sort ▾

Clear

Info

On this page, you can access the data across a range of different variables, including geographies, building types, energy use units and consumption type. You can also download the data by clicking on the “Download Data” button at the top right.

Got it!



# Example Information

- On average poorer areas use more energy per square foot and less energy per person
- Malibu uses nearly 10 times more energy on a per capita basis than Hawaiian Gardens
- In Los Angeles, smaller buildings use a considerable amount of energy
- Newer homes used less energy per square foot than older ones, while newer commercial buildings used more energy per square foot than older ones

# Example Analysis

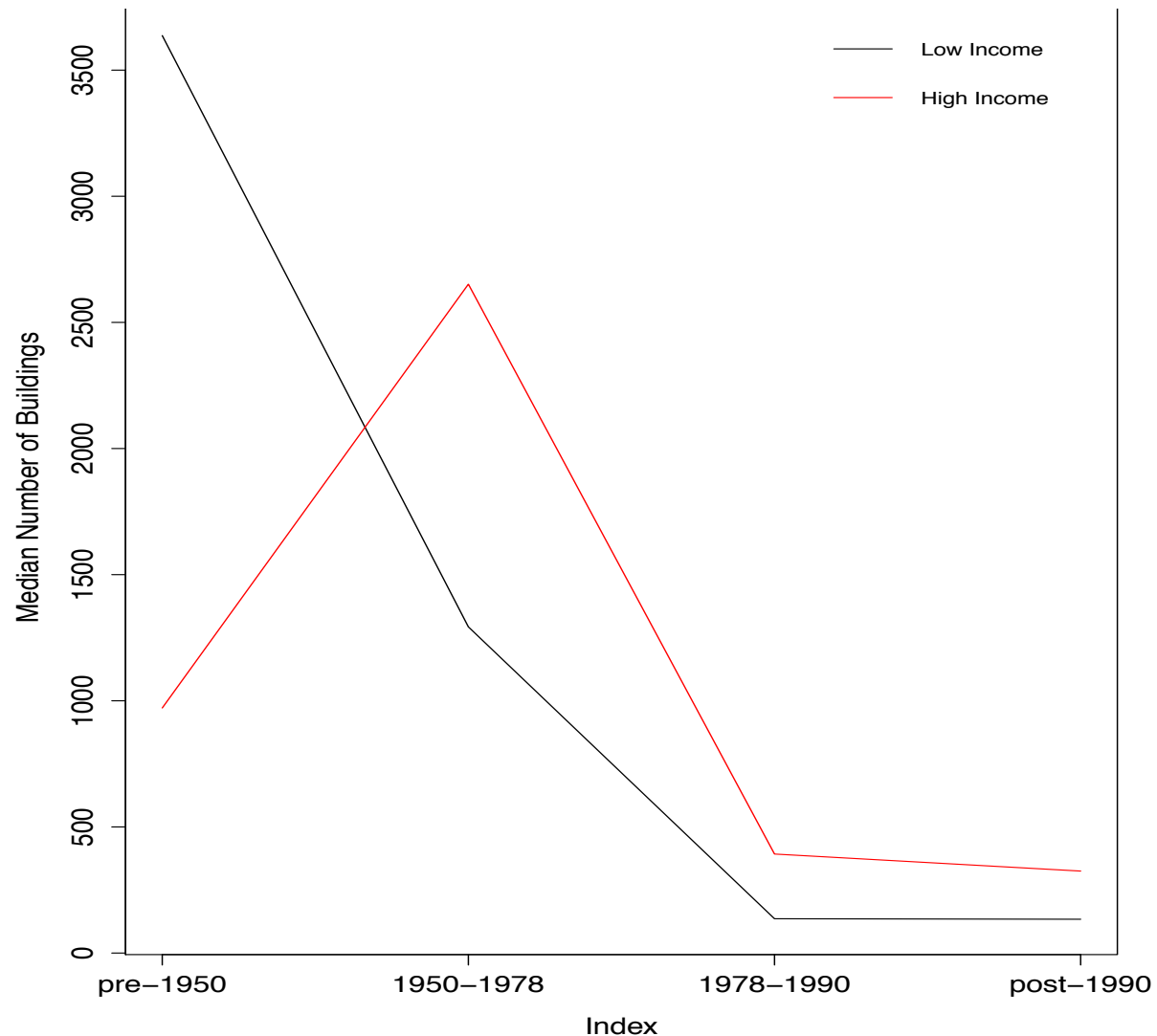
## Comparing Single-Family and Multi-Family?

	<b>Median Energy Use Intensity (BTU/sq-ft)</b>		
	<b>residential.btu</b>	<b>single.family.btu</b>	<b>multi.family.btu</b>
Median (all Nbhds)	58,629	59,587	56,724
Broadway-Manchester	69,350	74,102	64,248
Chesterfield Square	66,044	66,917	62,234
Florence-Firestone	70,518	73,729	67,337
Harvard Park	70,575	72,120	67,335
Westmont	71,922	72,710	70,922
West Compton	72,069	72,127	56,688
East Compton	76,947	78,948	66,272

Erik Porse, CCSC Research Scientist

# Additional Detail

Median number of buildings in lower-income (black) and higher income (red) neighborhoods by building vintage categorizations. Lower-income neighborhoods tend to have older buildings, while higher-income neighborhoods have more buildings built after 1950. The predominance of older buildings in lower-income areas may contribute to greater energy use per square foot. – (Erik Porse, CCSC Research Scientist)





# The Importance of Collaboration

- University provides advanced technology and research
- County implements programs and responds to State legislation
- LARC serves local governments, environmental NGOs and others
- Stakeholders provided detailed and high level feedback on what they wanted out of the tool
- Building the project through collaboration was essential to its success.

# Questions?

# LA County

A User's Perspective  
Presentation by Ron Mohr

# Benefits to LA County

(i.e. why the County participated)

- The Energy Atlas provides LA County benefits of disaggregated data available to research universities
- UCLA has the research and technology capacity to implement this solution in a way the County does not
- UCLA benefited from the County's superior GIS department and solar map
- UCLA was committed to creating a useful tool and took feedback every step of the way

# Uses for Local Governments

- Consistent and reliable greenhouse gas accounting
- Energy Efficiency program targeting
- Grant and proposal data requirements
- Energy disclosure ordinances
- Program and investment tracking overtime
- Grid planning (adaptation and future resiliency)
- Research and development

# THANK YOU

Join us for our next Learning Session:

## **Building Business Resiliency**

December 2<sup>nd</sup> | 12:00-1:00pm

Meg Arnold, Valley Vision

Katy Maher, Center for Climate and Energy Solutions

Christopher Benjamin, Pacific Gas and Electric Company

Learn more about ARCCA:

[www.arccacalifornia.org](http://www.arccacalifornia.org)

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