

A thick black L-shaped frame surrounds the text. The top horizontal bar is on the left, the left vertical bar is on the left, and the bottom horizontal bar is on the right, with a vertical bar on the right side.

# GETTING TO 100

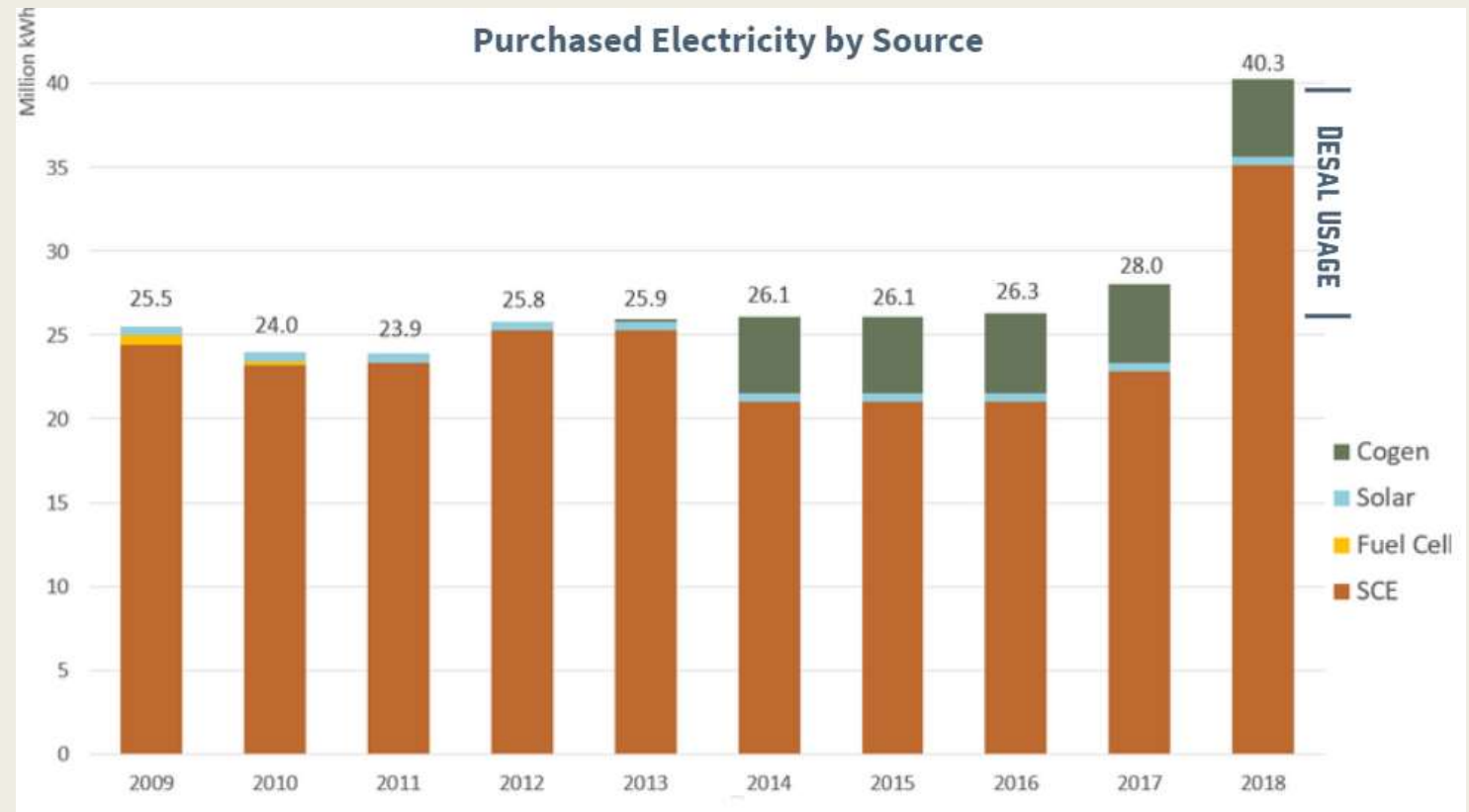
City of Santa Barbara's Quest for 100% Renewable Electricity

# Introduction – Who am I?

- Alelia Parenteau – Energy Program Supervisor
- Oversee:
  - *All utilities for the general fund*
  - *Energy use, Citywide*
  - *All energy projects, Citywide*
  - *City-owned or sited renewable energy assets*
  - *Electric Vehicle Infrastructure*
  - *Energy-related legislation, policy and programming*
  - *Some climate-related actions*
  - *Energy Strategy*

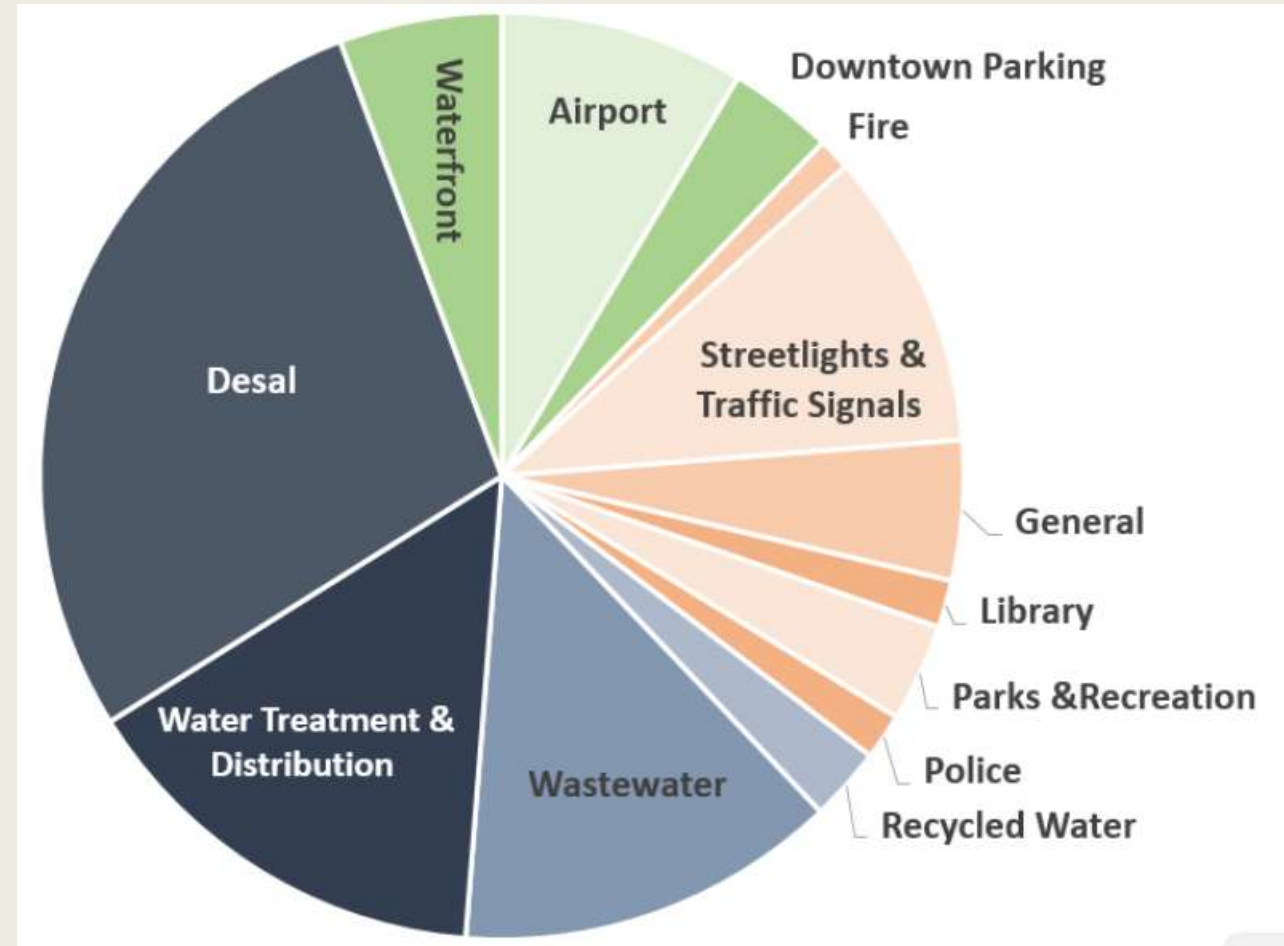
# Introduction – City of Santa Barbara’s Energy

- The City’s purchases approximately 40.3 GWh annually
- Annual Electrical expense of over \$4.5 Million
- Oversee a variety of electrical loads, including office space, water treatment facilities, airport, recreational facilities and community services



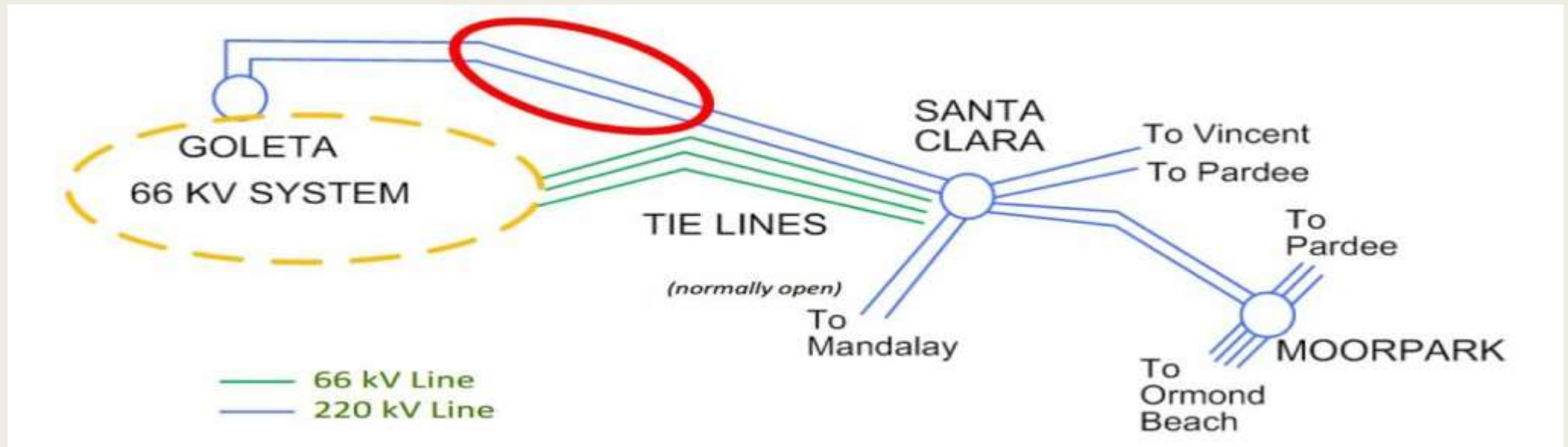
# Introduction – Water-Energy Nexus

- Over 50% of Municipal electrical load is used for water treatment
- City's desalination facility produces 30% of the City's overall water supply



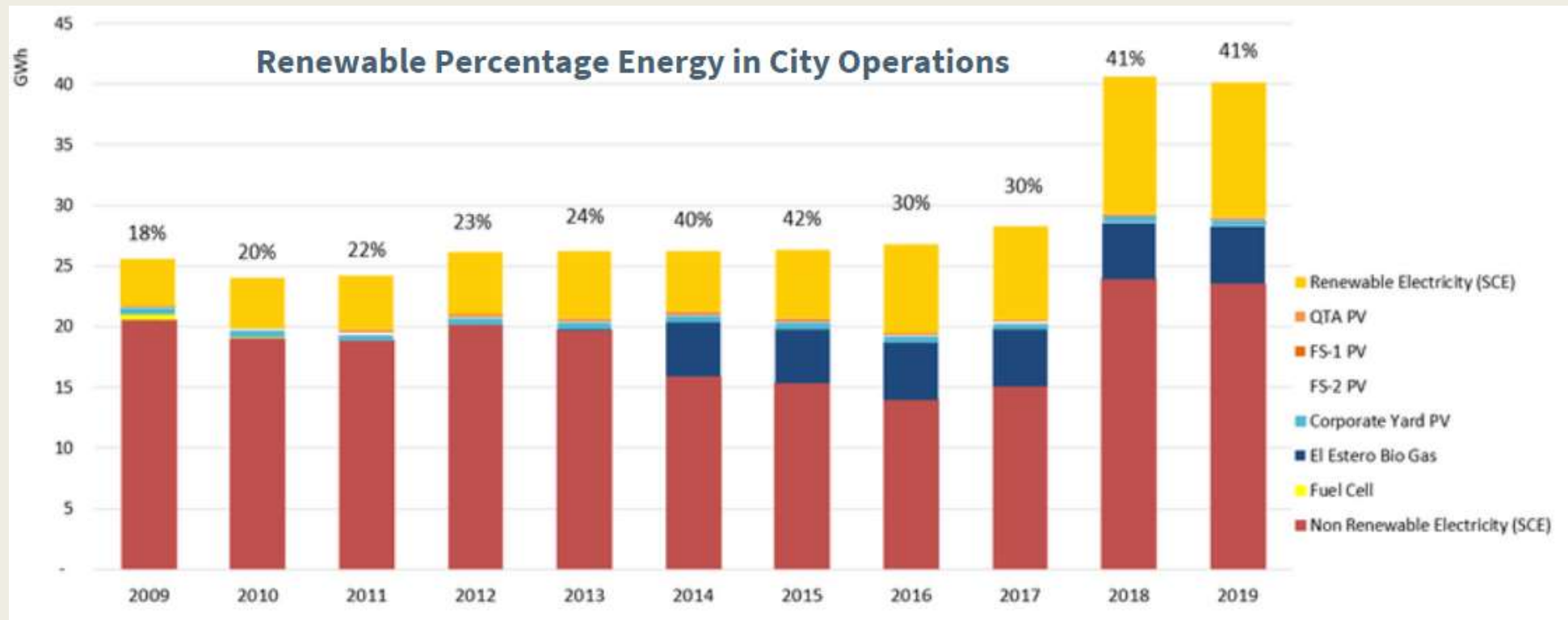
# Introduction -Resilience is an Issue

- Vulnerable position at the end of SCE's transmission system
- Recent wildfires and natural disasters have intensified the vulnerability



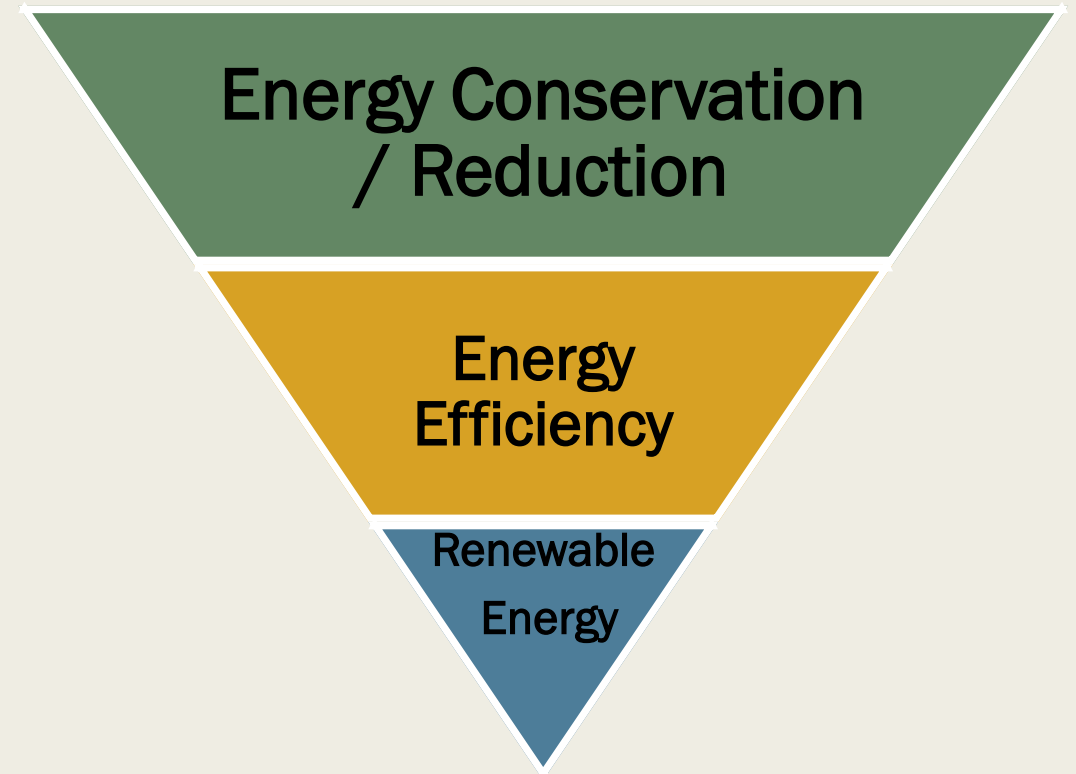
# Renewable Electricity Goal

- Council passed 100% renewable electricity goal for the ENTIRE community by 2030
  - *Interim goal of 50% for municipal load by 2020*
  - *At 41% today – Utility a significant portion of that*



# Council Priorities for 100% Renewable Strategy

- Keep generation as local as possible
  - *No use of Renewable Energy Credits*
- Focus on reliability, resiliency and equity
- Follow the energy hierarchy
  - *Energy Conservation, Efficiency then Renewables*
- Improve economic development



# Gap Analysis

(i.e. opportunities for working with the utilities)

- Education
  - *people will do what is easy and they understand*
- Infrastructure
  - *Need to build capacity locally*
- Technology
  - *New technologies are emerging and people need to learn about them and have them “tested”*
- Renters – split incentive
  - *How to motivate action*
- MONEY!
  - *Everybody loves it*





# Working with the Utility (SCE)

## A decade of Success

# Energy Efficiency

- City has had a lot of success working with SCE on EE projects
- Examples include:
  - *Streetlighting*
  - *Indoor lighting*
  - *HVAC upgrades*
  - *Controls*
  - *Motor and Pump upgrades*
- Utility incentive programs crucial to this success

**\$650,000 ANNUAL SAVINGS**

Cumulative Savings To City Operations



Saved Enough  
Electricity to Power

**580  
HOMES**



Equivalent to Taking

**773  
CARS**

Off of the Road

**\$990,000**

In Incentive Funding Received  
from the Utility

**4,642,000 KWH**

**SAVED**

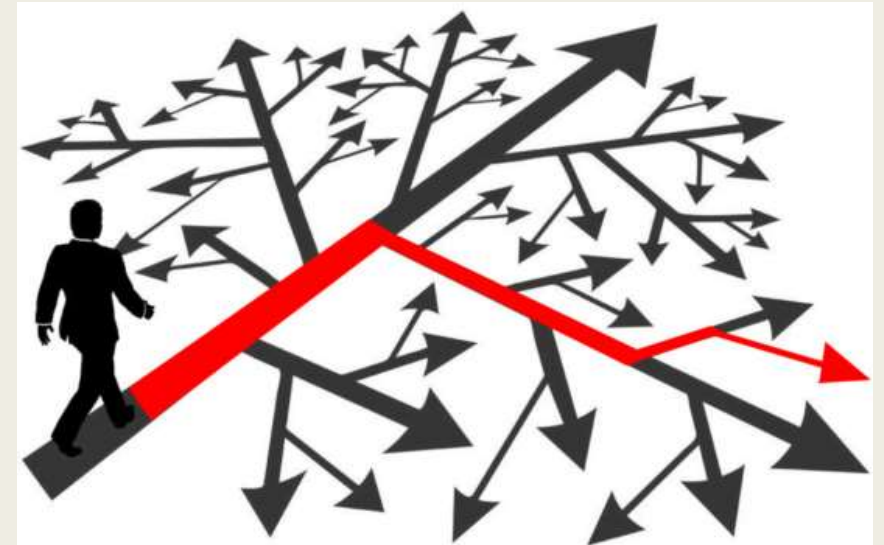
From Energy Efficiency  
Actions Taken



# Strategic Planning and Development

The City has successfully leveraged SCE's strategic planning funds to develop innovative systems

- **Energy Management System**
  - *Monitors real time energy usage, helps identify opportunities*
- **Energy Revolving Fund**
  - *Reinvests energy cost savings into a fund dedicated to energy efficiency and renewable energy projects*
- **Zero Net Energy Roadmap**
  - *Outlines a step-by-step list of actions necessary for transitioning City-owned buildings to ZNE*



# Designing for Local Action

## ■ Green Tariffs

- *Worked with SCE to tailor their Green Tariff Program proposal to better suit our local needs as they relate to the goal.*

## ■ Streetlights

- *Worked with SCE under the AB719 tariff (requiring an LED option) to update all of their utility-owned streetlights to high efficiency LED*

## ■ Reliability RFP

- *Tried to get more local renewable generation as part of reliability project*
- *Emphasized need for renewable as opposed to fossil fuel options*



# Education

In partnership with SCE we've been able to offer trainings, special programs and outreach locally:

- South County Energy Efficiency Partnership
- Direct Install
- Title 24 trainings
- Building Operator Certification
- Christmas Light Exchanges
- Refrigerator Pickups



# Challenges Remain

New goals, New threats, New Rules

# Flexibility is Key

## ■ Partnership

- *Utility almost feels like a regulator, not a partner*
- *Dream: Work toward goals together*

## ■ Programs

- *It is not one size fits all*
- *Need to allow for flexibility in sizing, pricing, location and information provided*

## ■ Tariffs

- *Our load is not in the same place as our land*
- *Feed In Tariff*



# Infrastructure

- As utilities build local capacity and reliability – perfect opportunity to work with local jurisdiction to align goals
  - *We need to build local resources*
  - *City would be interested in helping to realize SCE's reliability needs*
- Significant cost and risk to both utilities and local communities due to Wildfires
  - *Work together to resilience and make all of our jobs easier*





# Administrative Burden

- **Silos** – one hand does not seem to speak to the other
  - *We work in many different utility aspects: rates, generation, use, regulations, energy efficiency, reliability – all these sections don't communicate very well*
- **Transparency** – Decisions often hide behind a regulatory haze
  - *Is it a legitimate interpretation?*
  - *Do we know about it?*
- **Technology** – Web presence is key, often not functional and not user friendly
  - *It's the most accessible place for your customers to get their information*



# Questions?

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