An aerial photograph of San Jose, California, showing a mix of residential and commercial buildings. In the foreground, there are several multi-story residential buildings with red-tiled roofs and a large flat-roofed building. In the background, a tall, modern office building stands out against a blue sky with scattered clouds. A semi-transparent blue box is overlaid on the left side of the image, containing white text.

# TITLE 28: ELECTRIC TRANSMISSION AND DISTRIBUTION IN SAN JOSE

October 3, 2023

Kip Harkness, Deputy City Manager  
Nanci Klein, Director of Economic Development  
and Cultural Affairs

Lori Mitchell, Director of Community Energy  
Jim Caldwell, Deputy Director of Energy Resiliency

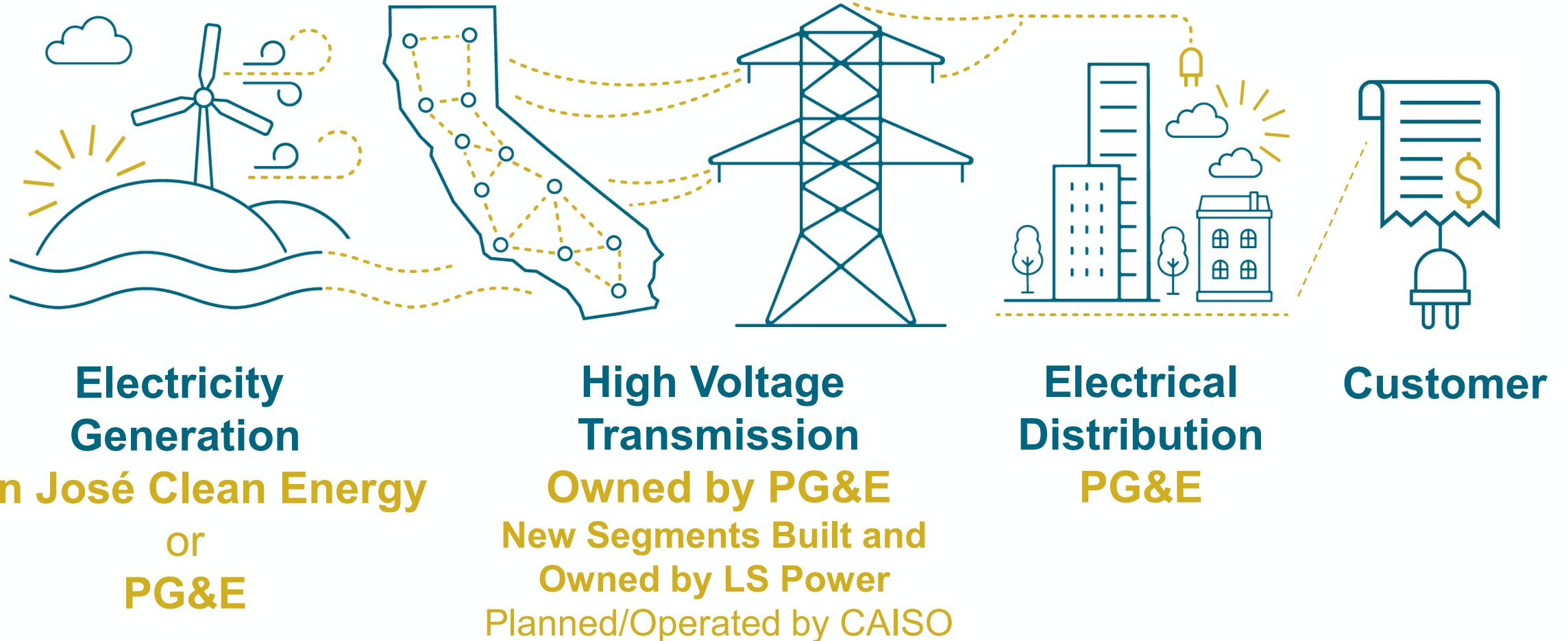
# EXPLORATORY PHASE – KEY QUESTIONS

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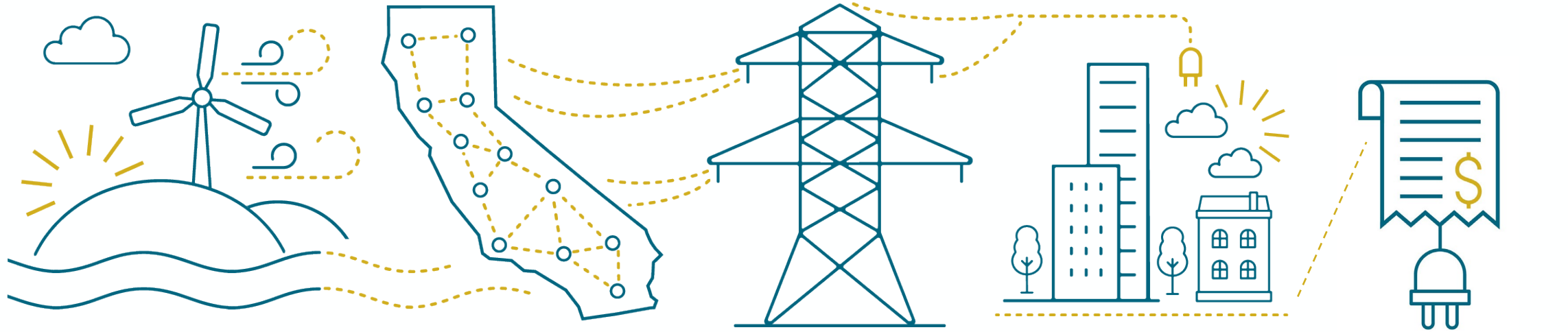
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1. Reduce electricity energy costs for the consumer?
2. Allow the development of more innovative and energy efficient buildings such as that envisioned in the planned Downtown West development.
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4. Enable us to attract and retain the Skilled and Trained talent required to perform this work effectively and reliably?

# EXISTING SYSTEM



# POTENTIAL CITY ROLE



**Electricity  
Generation**

**San José Clean Energy**

or

**PG&E**

or

**San José Power**

**High Voltage  
Transmission**

**Owned by PG&E**

**New Segments Built and**

**Owned by LS Power**

**Planned/Operated by CAISO**

**Electrical  
Distribution**

**PG&E**

and

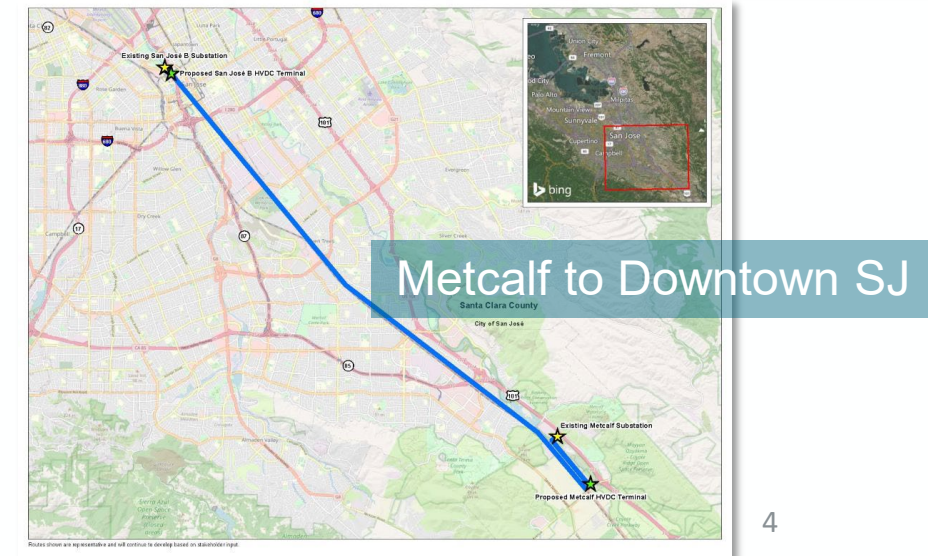
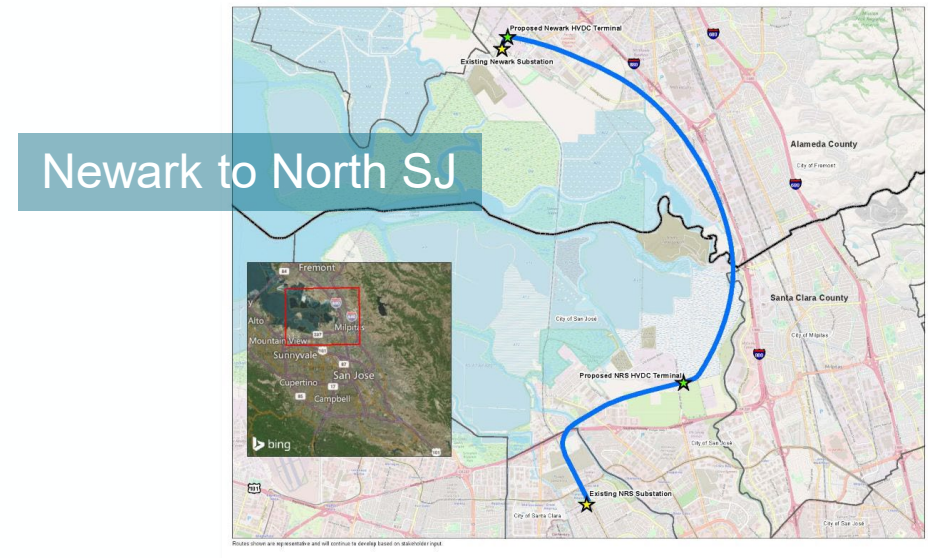
**San José Power**

For limited new  
development &  
key City Facilities

**Customer**

# NEW TRANSMISSION IN SAN JOSE

- California Independent System Operator (CAISO) approved two new lines
  - LS Power selected as the developer/owner
- Multi-department coordination team lead by the City Manager's Office
- Benefits
  - Supports new development
  - Improves reliability
  - Paid for by all ratepayers
  - Significant construction begins Q1 2026; expected to come online in June 2028
- Opportunity for the City to have direct access to the transmission grid
  - **Low cost and minimal land use only if designed/constructed in parallel with LS Power**



# INTERCONNECTION DELAYS

100s of projects are months/years behind on processing applications for connecting new development to the grid

- Affordable housing
- Hospitals
- Transit
- EV charging
- Solar (utility scale and rooftop)

35+ cities and organizations are advocating for solutions

- SB410 (Becker) Passed Legislature
- PG&E established Task Force to reduce interconnection delays
- No quick fix, PG&E expects 80% on time compliance by end of 2024<sup>1</sup>



<sup>1</sup> Assembly Oversight Committee May 24, 2023

# CHALLENGES

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## Funding

- **PG&E requested a \$7 Billion loan** from the Department of Energy to finance **currently approved projects** <sup>1</sup>
- Received CPUC authority to max out short-term financing (\$1 Billion) <sup>2</sup>
- Asset sales to raise equity (legacy hydro and headquarters building) <sup>3</sup>
- Requesting CPUC authority to borrow from future budgets to fill short term need<sup>4</sup>
- **Above measures designed to last through 2026**



<sup>1</sup> San Francisco Chronicle, Wall Street Journal, June 29/2023

<sup>2</sup> CPUC Decision 23-08-006, August 10, 2023, Decision Approving the Application of Pacific Gas and Electric Company for Increased Authority to Finance Short-Term Borrowing

<sup>3</sup> CPUC, A-22-09-018 S851 Transfer of Non-Nuclear Generation Portfolio and Sale of Minority Interest, Prepared Testimony, p.1-2, September 28, 2022

<sup>4</sup> Application 21-06-021, Establish a New Balancing Account for Electric Distribution Capacity Additions and New Electric Distribution Extension Work Activities, Opening Testimony, PG&E, September 15, 2023

# CHALLENGES (CONT.)

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## Wildfire mitigation

- Priority given to safety related wildfire mitigation at the expense of new distribution interconnections<sup>5</sup>
  - >60% of capital budget is spent on wildfire mitigation

## Future planning

- 2023 General Rate Case distribution capacity proposal represents only ~50% of known projects<sup>6</sup>
- Next planning cycle is expected to approve several billion dollars of new projects



<sup>5</sup> High Distributed Resources Future proceeding, April 2023 PG&E filing

<sup>6</sup> CAISO, 2023-2024 Transmission Plan ([caiso.com/InitiativeDocuments/CAISOPresentation-2023-2024TransmissionPlanningProcess-Sept27-2023](https://caiso.com/InitiativeDocuments/CAISOPresentation-2023-2024TransmissionPlanningProcess-Sept27-2023)), Need Assessment posted September 27, 2023; Proposed Projects to be posted November 16, 2023



# EXPLORATORY TEAM QUALIFICATIONS

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**Lori Mitchell, P.E.**

25+ years of electric utility experience concentrated in renewables, hydropower, transmission, and operations.

10 years at SFPUC (municipal utility)  
10 years at SunPower – focused on engineering  
Licensed engineer



**Jim Caldwell**

43+ years electric utility experience concentrated in transmission policy and renewable generation.

Former Asst. General Manager LADWP  
Deputy Asst. Secretary for Electricity Policy, US DOE



CA based Consultant for many Municipal and Public Utilities specializing in transmission planning, regulatory policy and market intelligence & analysis.

Principal Investigator: Doug Boccignone 37 years utility experience. Former Mgr. Supply Resources, City of Palo Alto Utilities



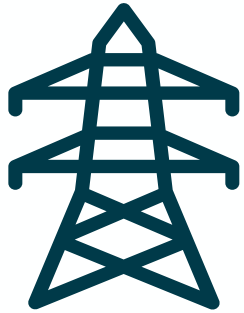
Consulting arm of Worley Group, one of world's largest Engineering/Construction companies.

Principal Investigator: Kenneth Barrentine 30 years CA utility experience. Former Lead Resource Mgmt. Engineer, CAISO; Project Mgr. PG&E

# TITLE 28 OPPORTUNITIES

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**Cost-effective opportunity** to provide electricity distribution to limited areas of San José



Connect directly to new \$1.4B transmission lines in San José



Improve reliability and resiliency of critical infrastructure (Airport, Diridon, North SJ)



Support economic development, electrification, and climate goals

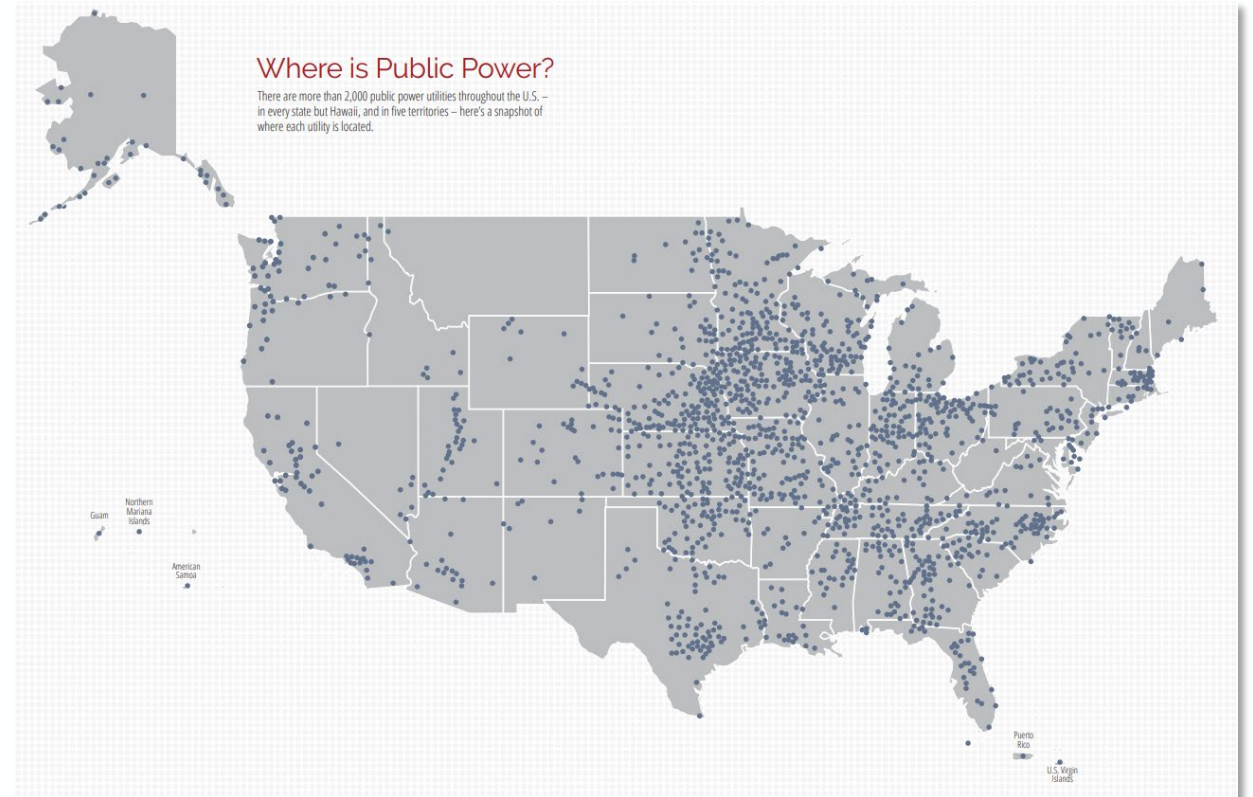


Reduce costs for ratepayers (15-25% less)

# PUBLIC UTILITIES IN THE UNITED STATES

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- Over 2000 US Publicly Owned Utilities
- 1 in 7 Americans served by public utilities
- Proven model provides higher reliability
- Reinvest revenues back into their communities



Source: [www.publicpower.org/public-power/stats-and-facts](http://www.publicpower.org/public-power/stats-and-facts)

# PUBLIC UTILITIES IN CALIFORNIA

- 46 publicly owned utilities in California
- Serve 25% of Californians
- Largest: SMUD (Sacramento region) & LADWP
- Medium: Santa Clara, Palo Alto, SF, Pasadena, Anaheim, Roseville
- Small: Healdsburg, Shasta Lake, Lompoc



Source: California Energy Commission

# PUBLIC UTILITIES ARE MORE RELIABLE

- Public utility **outages are 67% shorter** than private utility outages<sup>1</sup>
- PG&E ranks in the **bottom 25% of the nation** for frequency and duration of distribution outages<sup>2</sup>
  - **350,000+ San José customers**, including 3 hospitals, suffered from heat-related power outages in 2020 and 2022



Public Utilities



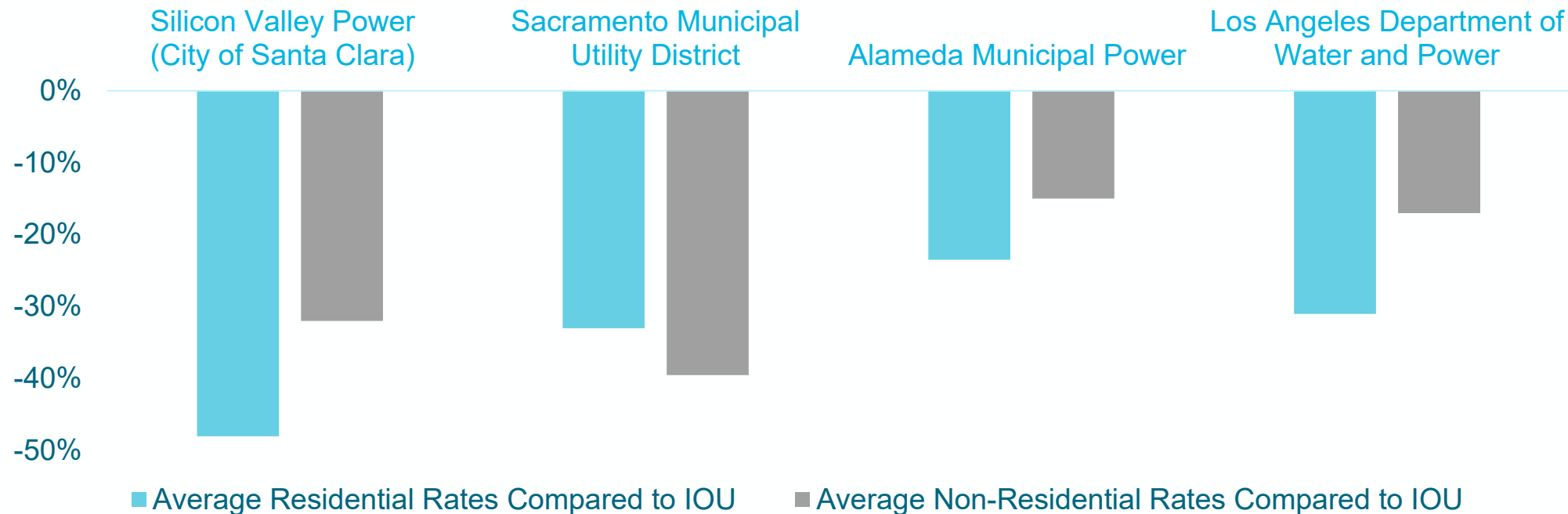
Private Utilities

<sup>1</sup> California Municipal Utilities Association

<sup>2</sup> PG&E Independent Safety Monitor Status Update Report Q1 2023

# PUBLIC UTILITIES COST LESS

- Public utility rates are **15% lower** on average than private utilities in CA<sup>1</sup>
- Northern CA public utility rates are **32-67% lower** than PG&E (online rate comparisons)



# AIRPORTS OPERATED BY MUNICIPAL UTILITIES

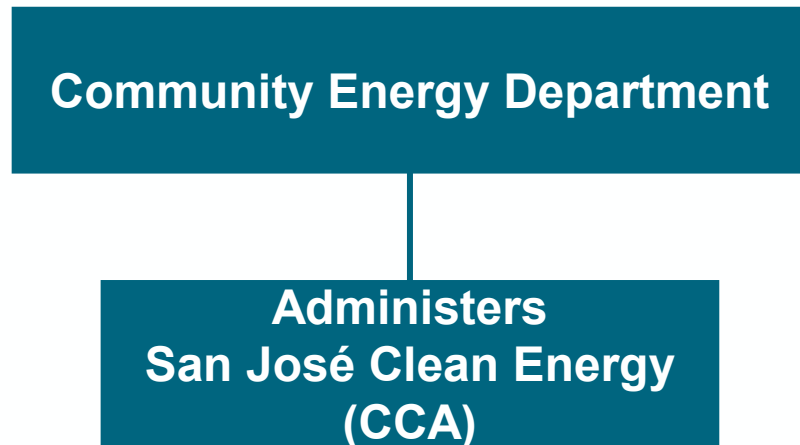
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- San Francisco International Airport (SF Public Utilities Commission)
- Los Angeles International Airport (LA Department of Water & Power)
- Oakland International Airport (Port of Oakland Port Public Power)

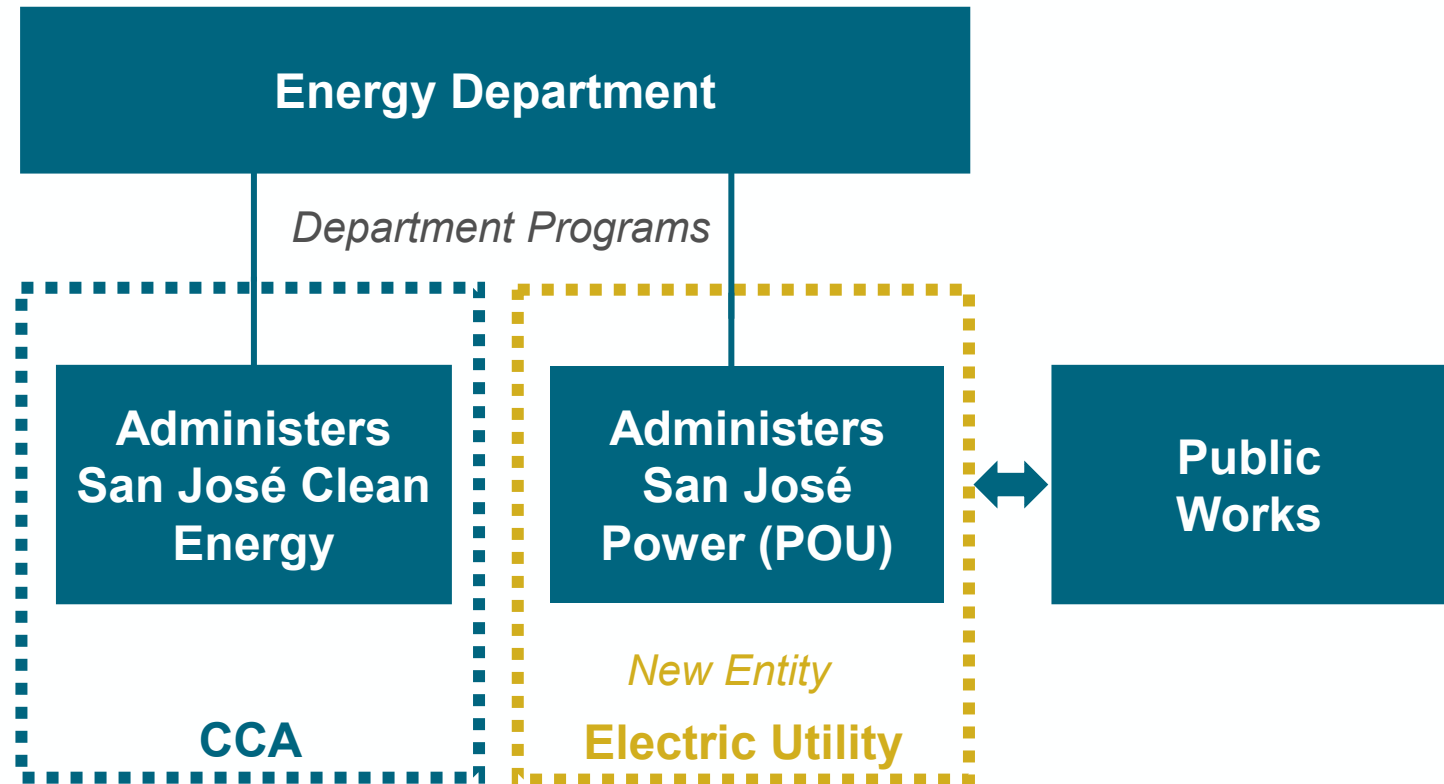


# PROPOSED STRUCTURE

## Current Structure



## Proposed Structure



Allows for resource sharing (i.e., power supply staff, regulatory staff, customer service staff, etc.), while establishing the necessary separated financials accounts.



# SUMMARY OF MUNI CODE CHANGES

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- **New Title 28:** Authorize the formation of a City owned utility called San José Power to provide electric service for selected new load in the City
- **Revisions to Title 2:** Defines duties of Director of Public Works to provide design and construction oversight to San José Power as the City Engineer
- **Revisions to Title 4:** Establishes San José Power Operating Fund to segregate utility funds
- **Revisions to Title 26:** Renames Community Energy Department to Energy Department

# THE GRID OF THE FUTURE

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**Electrification will increase electricity consumption by 50-70% over the next 20 years<sup>1</sup>**

- Impact already being felt in San José:
  - Heavy Duty Fleet Electrification
  - Data Centers

Title 28 is required for staff to gather the data needed to continue our exploratory phase

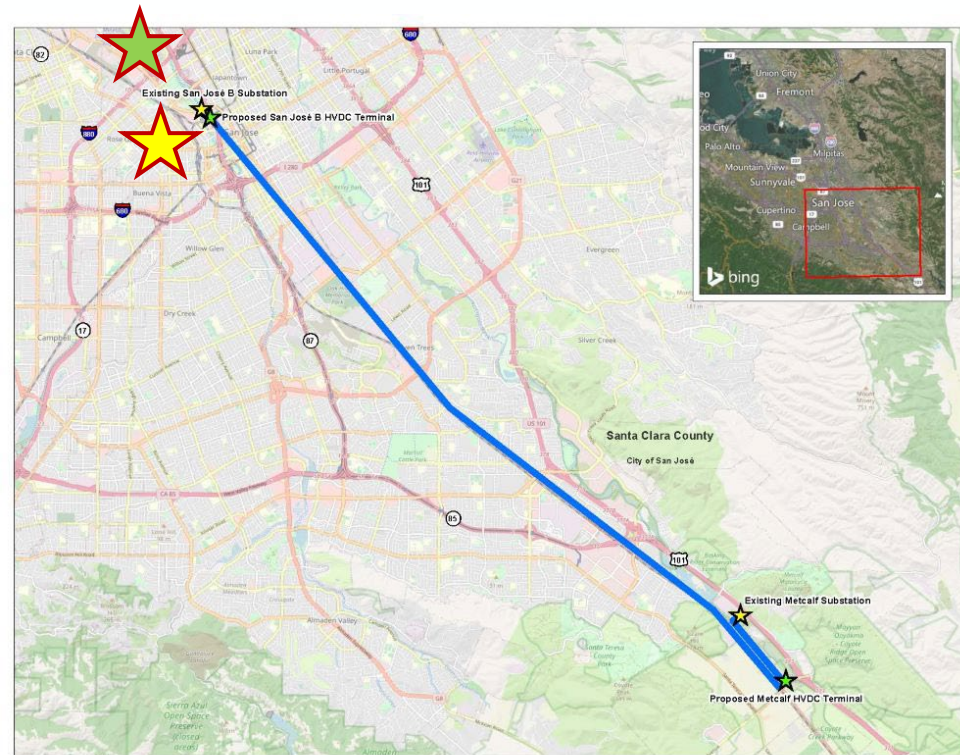
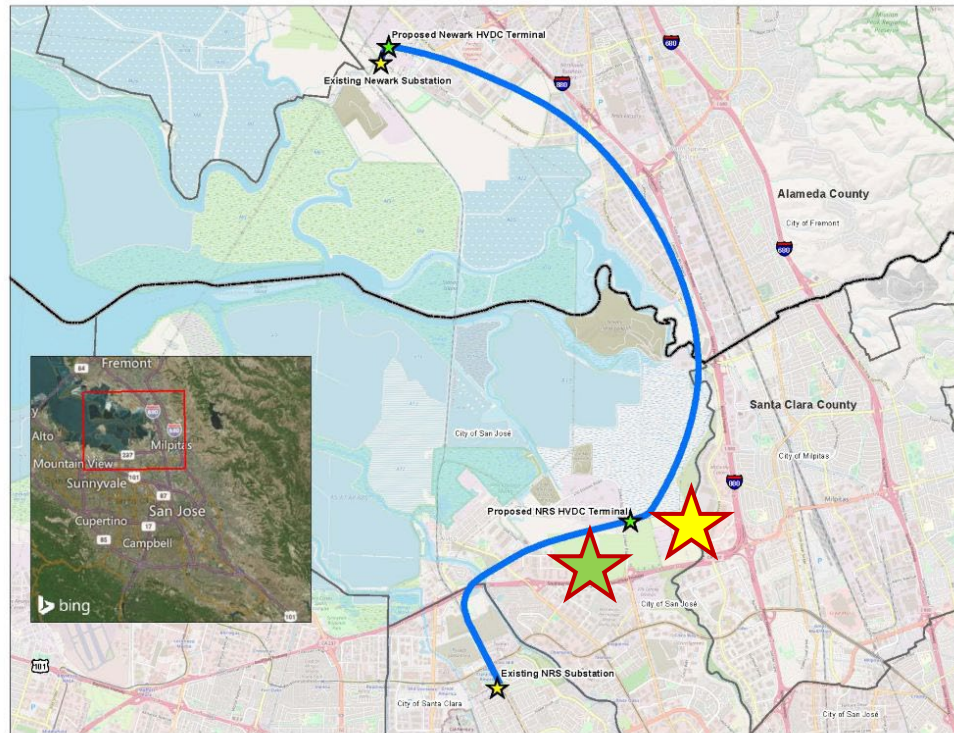
- Mitigate PG&E Resource Issues
- More Local Control
- Faster/Less Expensive Interconnections



<sup>1</sup> California Energy Commission

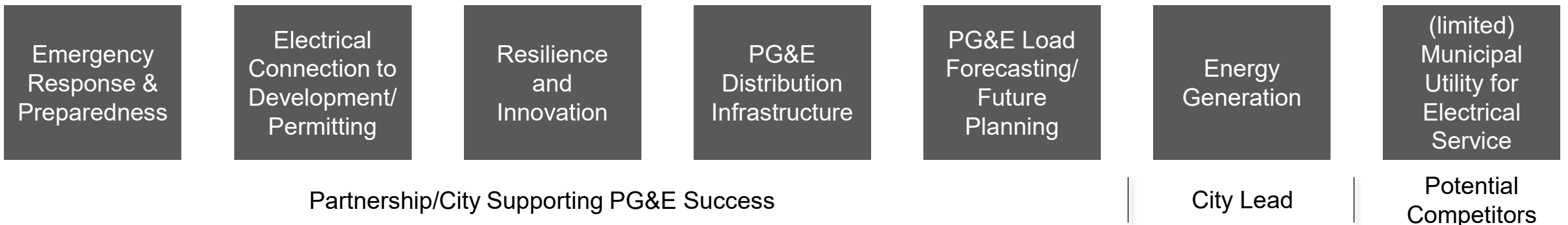
# SERVICE AREAS UNDER CONSIDERATION

- ★ New development (RWF Area, Diridon Station)
- ★ City facilities near the new transmission lines (SJC Airport, RWF Area)



# PG&E - STAKEHOLDER ENGAGEMENT

- Staff has engaged in extensive constructive cooperation with a particular **emphasis on Emergency Preparedness and Response with PG&E.**
- In the last few weeks, the City met with PG&E twice to work to broaden this collaboration and better understand their concerns and perspective.
- The City will **continue to strengthen our regular collaboration with PG&E** even though there will inevitably be areas of conflict and disagreement.



# IBEW – STAKEHOLDER ENGAGEMENT

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- Staff met with IBEW twice over the last month to understand issues and **ensure the City is better prepared to work collaboratively with our labor partners** to guarantee the success of this potential new line of service.
- Staff discussed three key areas of potential partnership with IBEW:
  - Improved permitting
  - Workforce development
  - Small business development to enable the creation of electrical small businesses



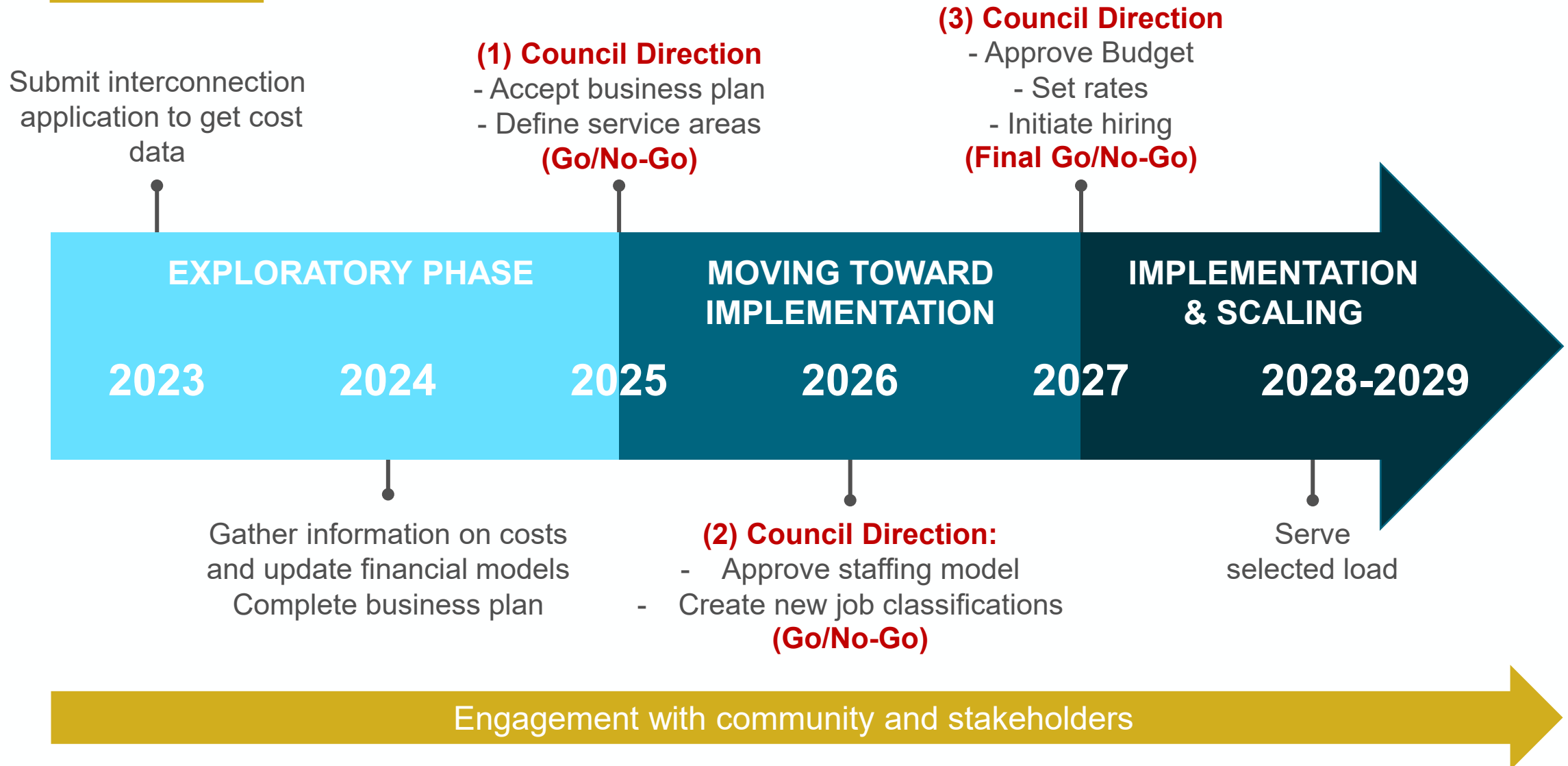
# FOUR KEY QUESTIONS

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# POTENTIAL NEXT STEPS



# QUESTIONS?

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## **Recommendations:**

(a) Approve an ordinance amending Titles 2, 4, and 26 of, and adding Title 28 to the San José Municipal Code to establish a municipal utility called “San José Power” with the ability to provide retail electric service in selected areas of the city.

(b) Authorize the City Manager to submit an Interconnection Application(s) to LS Power as a Participating Transmission Owner of the California Independent System Operator for wholesale access to the California Independent System Operator Transmission grid at new LS Power-owned facilities to potentially allow retail service at Substation B at Guadalupe Parkway and Coleman Avenue to serve new load in a swath of territory along the rail right of way between Diridon Station and the San José Mineta International Airport; and in North San José Alviso region to serve load for planned development and future City or Valley Water facilities.

## **Staff:**

Kip Harkness, Deputy City Manager

Nanci Klein, Director Economic Development &  
Cultural Affairs

Lori Mitchell, Director of Community Energy

Jim Caldwell, Deputy Director of Energy  
Resiliency