



LOCAL GOVERNMENT  
**SUSTAINABLE**  
ENERGY COALITION

# Welcome!

LGSEC.org



## City of Gonzales: Local Governments Empowering Energy Solutions

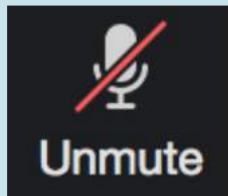
Thursday, May 20 | 1:30 - 2:30 PM

LGSEC Board Member:  
Marc Costa ([MCosta@energycoalition.org](mailto:MCosta@energycoalition.org))

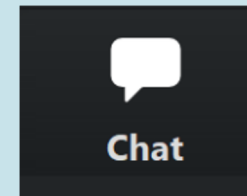
Project Manager:  
Sarina Soor ([SSoor@lgc.org](mailto:SSoor@lgc.org))



Keep yourself **muted**  
so that we can hear  
our speakers clearly



Use the **chat** function  
to send questions  
throughout webinar



## LGSEC has built the blueprint for:

- Local Government Partnerships (LGPs)
- Regional Energy Networks (RENs)
- Community Choice Aggregations (CCAs)

## Priority Proceedings:

- Clean Energy Financing
- Microgrids
- Energy Efficiency

## Member Benefits

- Represent your jurisdiction at the CPUC, CEC, and CARB
  - One of the only organizations representing Local Government interests to state agencies
- Monthly Regulatory Calls
- Working Groups and Networking
- Members-only newsletter and Portal

Contact Us!  
[lgsec@lgc.org](mailto:lgsec@lgc.org)

Learn more at  
[lgsec.org/about/join-us](https://lgsec.org/about/join-us)



LOCAL GOVERNMENT  
**SUSTAINABLE**  
ENERGY COALITION

# Our Speakers

LGSEC.org



**Dustin Jolley**  
Founder, Our Energy



**René Mendez**  
City Manager, City of Gonzales



**Brian Curtis**  
Founder & CEO, Concentric Power Inc.

# Local Government Empowering Energy Solutions

Modern, Resilient, Future-proofed Infrastructure

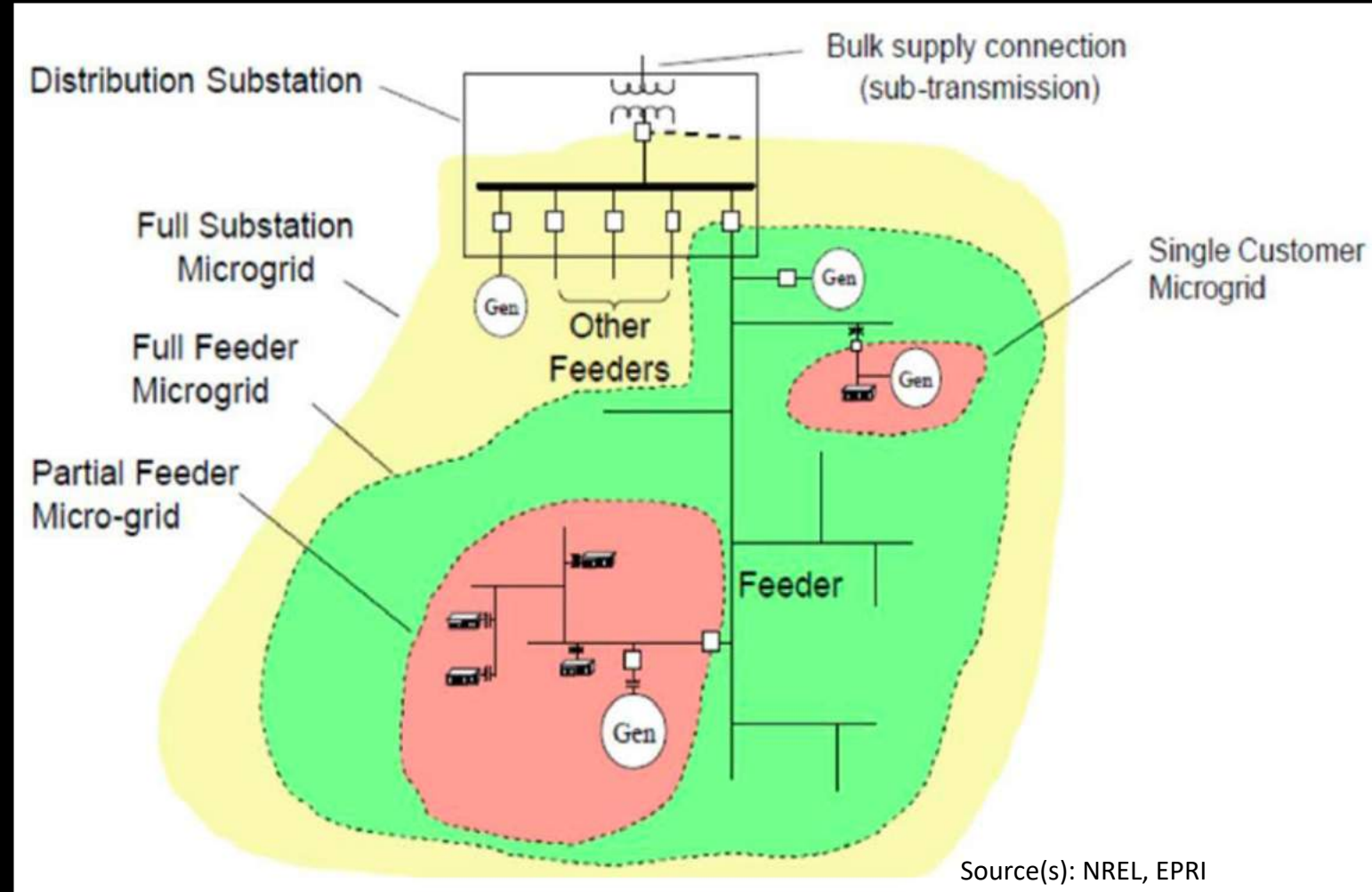
Community Microgrids



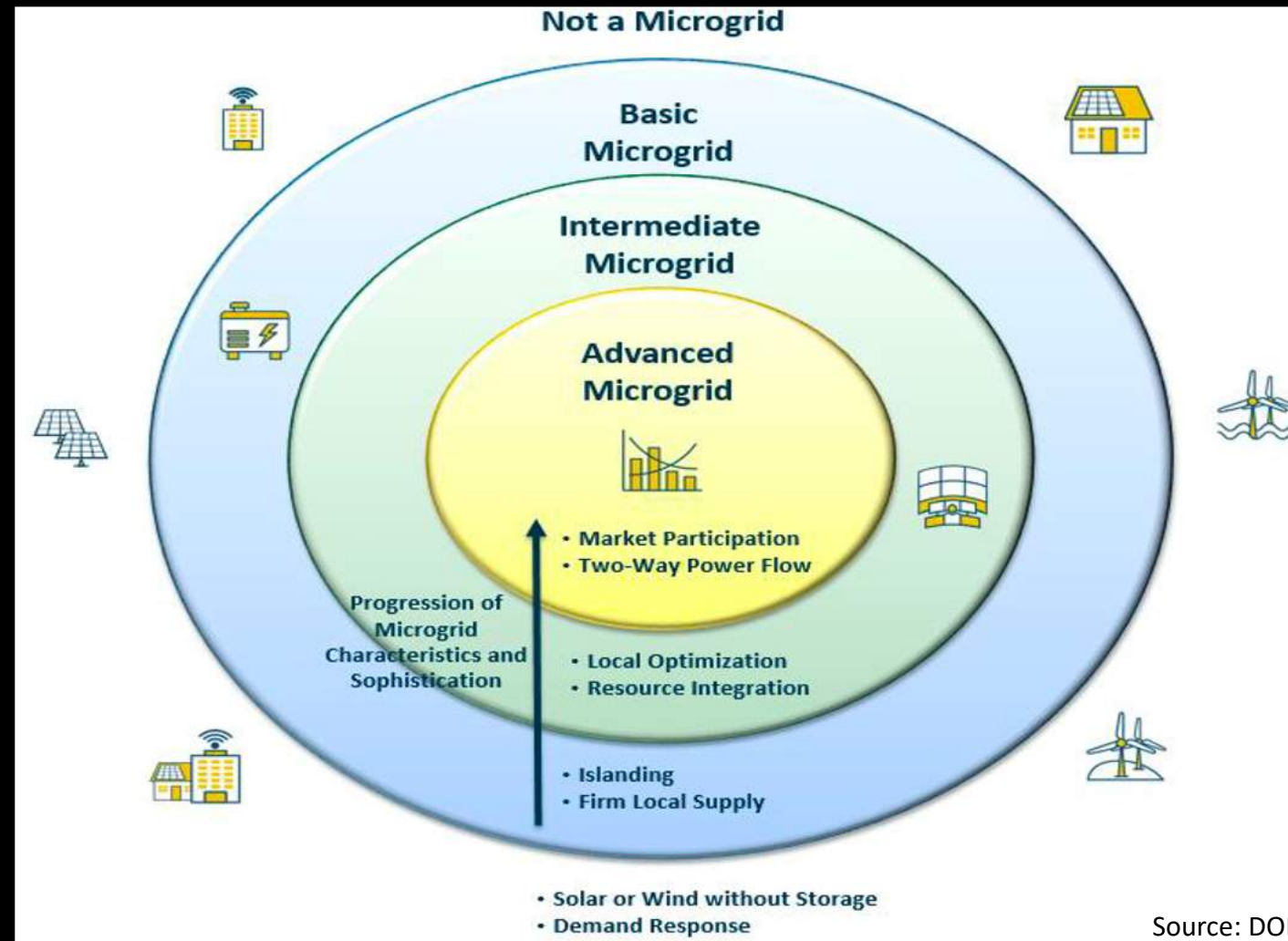
# What is a Microgrid

According to DOE:

Microgrid - a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connected or island mode.



# All Microgrids Are Not Alike



# Why / When a Microgrid

## What Type of Microgrid



# Community Energy



Participation

Awareness

Access

Opportunity

How can we use the decentralization and democratization of energy to enhance participation in Society?

# Community Energy - Models

---

## **Community Solar – Projects**

- A powerful model to bring ownership participation to those who do not own their homes/real estate

## **Community Choice Aggregation (CCA) – regional**

- A powerful model to decarbonize bulk energy supply at the regional (and municipal) level
- + a cooperative platform for regional governmental bodies to redirect revenues, make collective decisions and invest in programs

## **Municipal – Publicly Owned Utility – Purpose built and operated to serve the local City/Community**

- Broad powers to provide essential services and utilities
- Not regulated by the CPUC – governed by a local board of elected officials

**IOUs** – rolling out programs on direction from CPUC – PG&E's pilot CMEP

# Community Microgrid - Overview

Public Domain – Muni

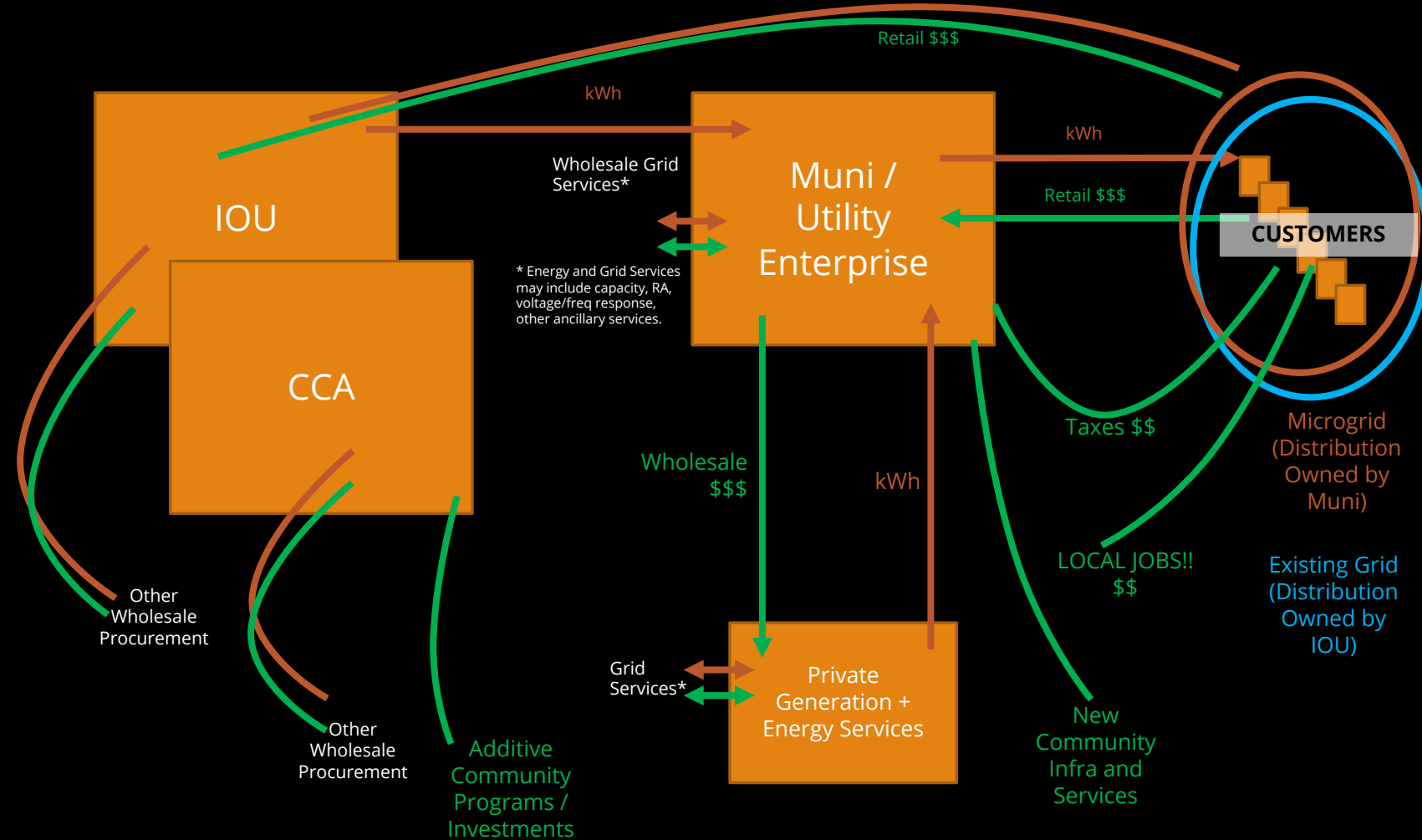
Essential Services and Utilities

Economies of Scale

- >> Utility Rates

Social/Economic Multiplier Effect

- Local Jobs
- Community Reinvestments
- Economic Development



# Community Microgrid Example

## San Pasqual Band of Mission Indians, CA

Tribal Government Owned

Private Partnerships

Interagency / Utility partnerships

Overview:

- Solar PV ~200kW
- Energy Storage ~400kWh
- Firm Gas-fired Generation ~200kW
- New Smart Infra - BTM

Serves:

- Tribal Admin + Community Center
- Police
- Fire
- WWTP
- Daycare + Preschool



# Advanced Community Microgrid Gonzales, CA

Publicly Owned Utility

Private Partnerships

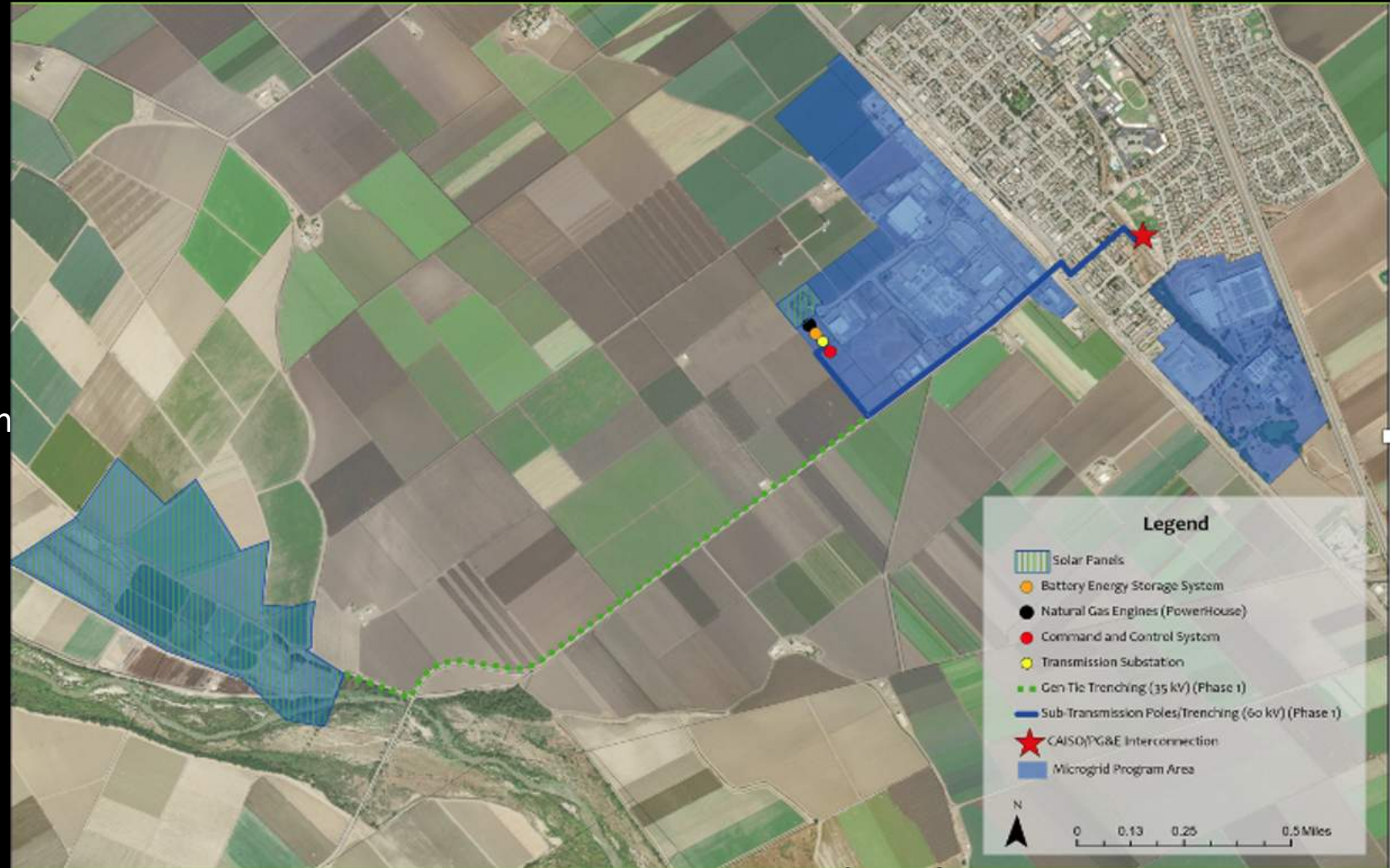
Interagency / Utility partnerships

Phase 1 Overview:

- Solar PV ~15MW
- Energy Storage ~10MW/40MWh
- Firm Gas-fired Generation ~20MW
- New Smart Distribution/Subtransmission Infra
- Coordinated w/ WWTP

Future Phases

- LFG/Biogas Partnerships → 0 Carbon
- Coordinated Growth
- Advanced Interagency, Utility and Private-sector Partnerships
- Net Exporter



# TIMELINE Overview

## Timeline

2017 – Project Initiation

2018-2019 Feasibility Study Completion & Approval

August 2018 – City forms GEA and GMEU

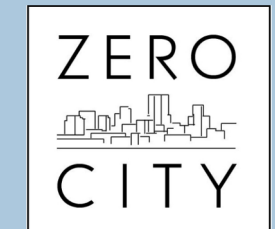
Q3 2019 – RFI sent to prospective partners

Q4 2019 – MOU with Concentric Power

2020 – Energy Services Agreement (“ESA”) negotiations/execution + detailed project definition

2021 – Customer onboarding, design, permitting

2022 – Commercial Operation



DAY ■ CARTER ■ MURPHY LLP



# COMMERCIAL CONTRACT STRUCTURE

## Wholesale/Retail Arrangement

Bodega Microgrid Generation LLC provides electric power and energy services to Gonzales Electric Authority (“GEA”) on wholesale basis via an Energy Services Agreement (“ESA”)

GEA and Gonzales Municipal Electric Utility sell electric power and energy services to Business Park customers on retail basis via a Retail Service Agreement (“RSA”)



# COMMERCIAL CONTRACT STRUCTURE

## Wholesale Rate

\$0.1175 per kWh

Allows for rate to be adjusted annually based on market conditions and a 1% escalation to the base rate.

## System Size

35 GWH/YR estimated Phase 1 minimum throughput

## Ownership

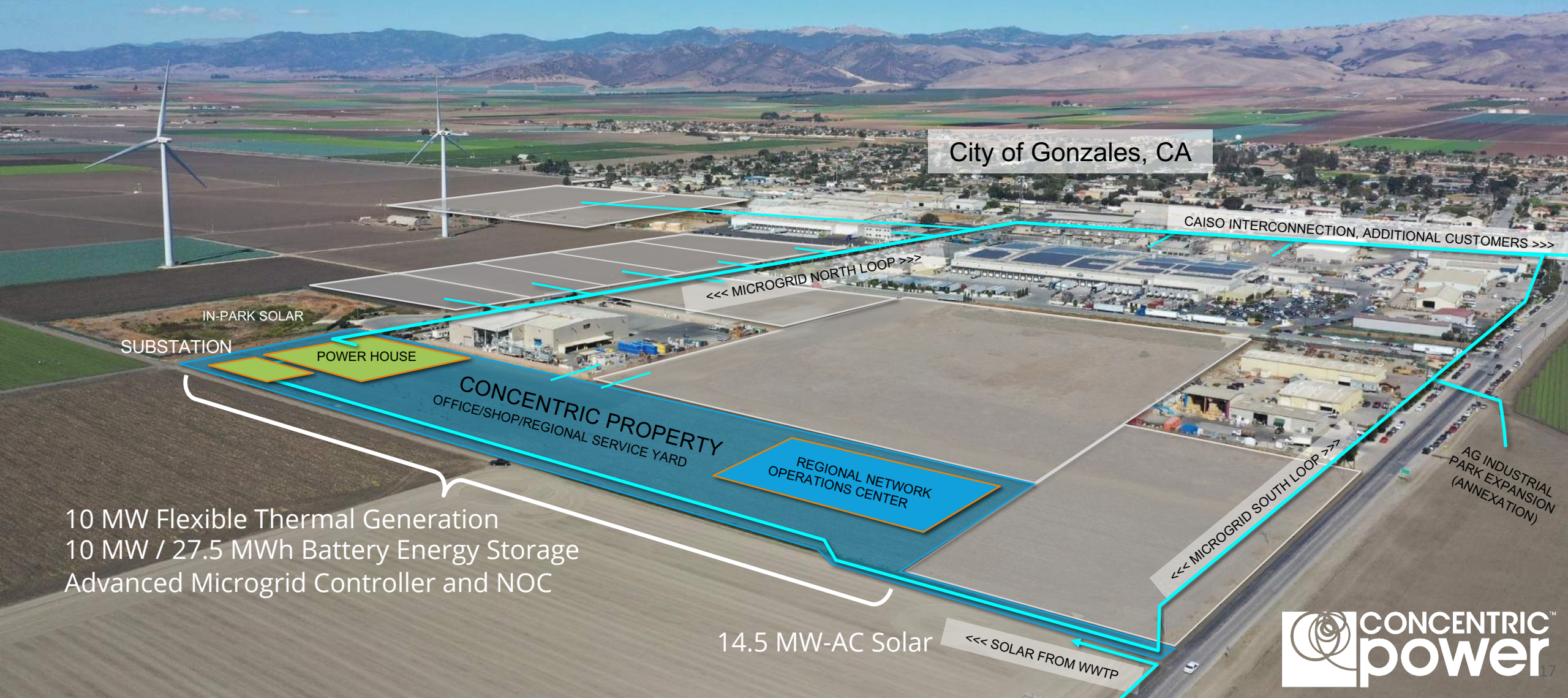
Bodega owns power generation assets

GMEU owns power distribution assets

Bodega operates and maintains all assets via contract(s)



# Microgrid Serving Gonzales Agricultural Industrial Business Park



City of Gonzales, CA

CAISO INTERCONNECTION, ADDITIONAL CUSTOMERS >>>

<<< MICROGRID NORTH LOOP >>>

IN-PARK SOLAR  
SUBSTATION

POWER HOUSE

CONCENTRIC PROPERTY  
OFFICE/SHOP/REGIONAL SERVICE YARD

REGIONAL NETWORK  
OPERATIONS CENTER

AG INDUSTRIAL  
PARK EXPANSION  
(ANNEXATION)

<<< MICROGRID SOUTH LOOP >>>

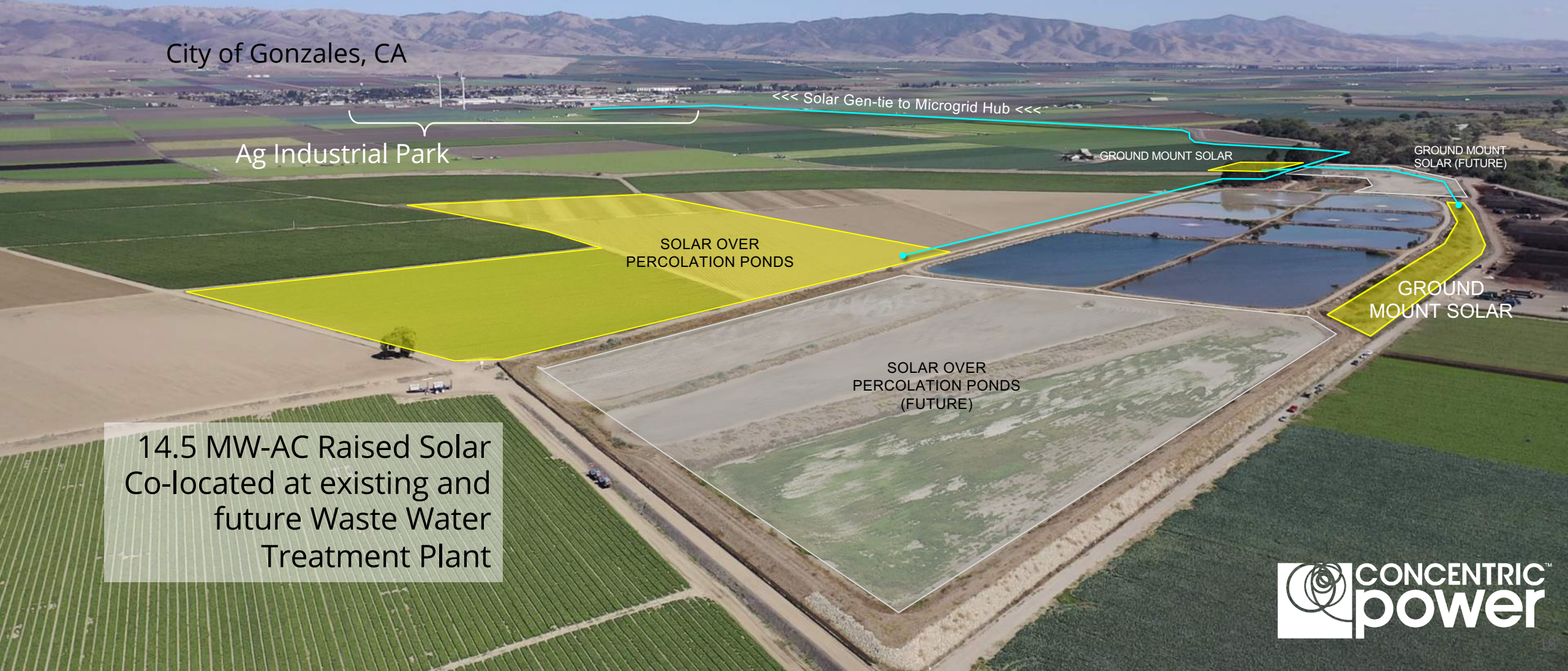
10 MW Flexible Thermal Generation  
10 MW / 27.5 MWh Battery Energy Storage  
Advanced Microgrid Controller and NOC

14.5 MW-AC Solar

<<< SOLAR FROM WWTP



# Microgrid Serving Gonzales Agricultural Industrial Business Park



City of Gonzales, CA

Ag Industrial Park

<<< Solar Gen-tie to Microgrid Hub <<<

GROUND MOUNT SOLAR

GROUND MOUNT SOLAR (FUTURE)

SOLAR OVER  
PERCOLATION PONDS

GROUND  
MOUNT SOLAR

SOLAR OVER  
PERCOLATION PONDS  
(FUTURE)

14.5 MW-AC Raised Solar  
Co-located at existing and  
future Waste Water  
Treatment Plant



# PROJECT RISKS; CONSIDERATIONS; MITIGATION

## City's Largest Capital Project

\$70 million Investment

85% funded by Bodega Microgrid (~\$60 million)

15% funded by GEA/GMEU (~\$10 million)

Underwritten solely by project revenues

Relatively small number of initial customers

Potential State Regulatory Changes

Market Development moving toward more streamlined and standardized solutions



# PROJECT BENEFITS

---

Local, clean, low-cost electric power

Support for expanded tax base and new jobs

Reliable electric power 24/7, 365 days a year

Local Control + No PG&E “Public Safety Power Shutoffs”

Value Add to macro-grid

Value Add to Business Community

Fast hook-ups w/ no wait for PG&E grid improvements

Funding for future infrastructure improvements

Reinvestment in the Gonzales community



LGSEC Board Member:  
Marc Costa ([MCosta@energycoalition.org](mailto:MCosta@energycoalition.org))

Project Manager:  
Sarina Soor ([SSoor@lgc.org](mailto:SSoor@lgc.org))