Welcome!

LGSEC.org

CONCENTRIC™ power

WINE CAPITAL
CITY OF GONZALES
GONZALES, CALIFORNIA
MONTEREY COUNTY

OUR ENERGY

City of Gonzales: Local Governments Empowering Energy Solutions

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

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

Project Manager:
Sarina Soor (SSoor@lgc.org)
Send in your questions!

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
Our Speakers

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.

Source(s): NREL, EPRI
All Microgrids Are Not Alike

Source: DOE
Why / When a Microgrid
What Type of Microgrid
Community Energy

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

IOU

CCA

Muni / Utility Enterprise

Private Generation + Energy Services

Wholesale Grid Services*

Wholesale $$$

Retail $$$

kWh

Other Wholesale Procurement

Other Wholesale Procurement

Additive Community Programs / Investments

Wholesale Grid Services*

Retail $$$

kWh

Taxes $$

LOCAL JOBS!! $$

New Community Infra and Services

Existing Grid (Distribution Owned by IOU)

Microgrid (Distribution Owned by Muni)

CUSTOMERS

* Energy and Grid Services may include capacity, RA, voltage/freq response, other ancillary services.

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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

Source: SPBMI
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
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")
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

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

City of Gonzales, CA

14.5 MW-AC Solar

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

CONCENTRIC PROPERTY
OFFICE/SHOP/REGIONAL SERVICE YARD
REGIONAL NETWORK OPERATIONS CENTER

CAISO INTERCONNECTION, ADDITIONAL CUSTOMERS

AG INDUSTRIAL PARK EXPANSION (ANNEXATION)
Microgrid Serving Gonzales Agricultural Industrial Business Park

City of Gonzales, CA

Ag Industrial Park

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

LGSEC.org

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