Advancing Clean Energy in the Inland Region

Partnering with the Private Sector to Fund, Expedite, and Implement Local Clean Energy Projects

OPTERRA
ENERGY SERVICES

About OPTERRA Energy Services

We partner with public institutions to build safer, healthier, and more resilient communities through efficient facilities and infrastructure.

50+ Years
of Experience

9,000+
Energy Projects

300 Employees
Across the U.S.

OPTERRA is part of the LS Power family.

50,000 MW
of Power Generation

$65 Billion Invested
In N.A. Infrastructure

Our Long History of Operations in Illinois

Full-service team operating out of our Central Regional Offices during the past 50+ years to service our Illinois customers

IL PUBLIC INSTITUTIONAL PARTNERS

Drive for a Diversified Clean Energy Approach

HYDRO & NUCLEAR	MICROGRIDS & COGENERATION	OPTIMIZED& EFFICIENT
Centralized power, cost effective but often involves long lead times, major upfront investment, limited local control. Small modular reactors (SMR) are coming but will face regulatory hurdles in populated areas.	On site energy creation and storage dispatched to meet local needs and resilience (protecting critical infrastructure and addressing high energy consumption operations like wastewater, water treatment, airports, prisons and hospitals)	Enhancement of energy efficiencies at existing facilities lower costs, enhance the environment & improve quality of life (HVAC, Windows, Building Envelope, Lighting)
WHAT'S AVAILABLE TO US NOW?	**WHAT'S COST EFFECTIVE FOR US?**	**WHAT ENABLES OUR OBJECTIVES?**
Every community should explore its ability to generate and store their own power such as solar, geothermal, and biogas (waste to energy).	Your utility regulations and energy costs - along with federal, state and local grants/incentives will often determine if a local project will cash flow.	Choose your community's KPIs: reducing costs, enhancing the environment, or driving economic development and creating jobs.

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Advancing Clean Energy in the Inland Region

01 How to Develop a Winning **LOCAL** Strategy to Advance Clean Energy

02 **OPTIMIZE** (Local Facility Efficiency)

03 **SYNCHRONIZE** (Local Microgrids Reduce Costs & Increase Resilience)

04 **MODERNIZE** (Local Cogeneration Leverages the Circular Energy Economy)

05 **MONETIZE** (Local Energy Harnessed to Enhance Revenue)

06 **ACTUALIZE** (Streamline Procurement & Project Management for Impact)

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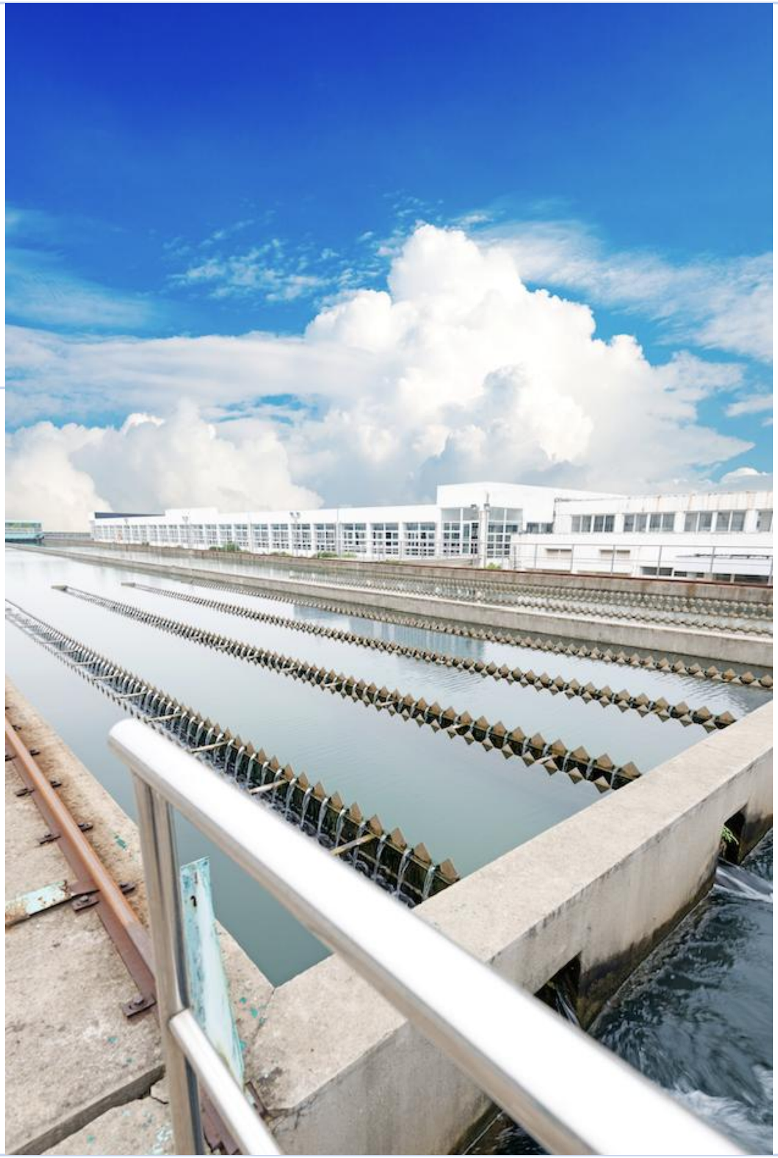
01

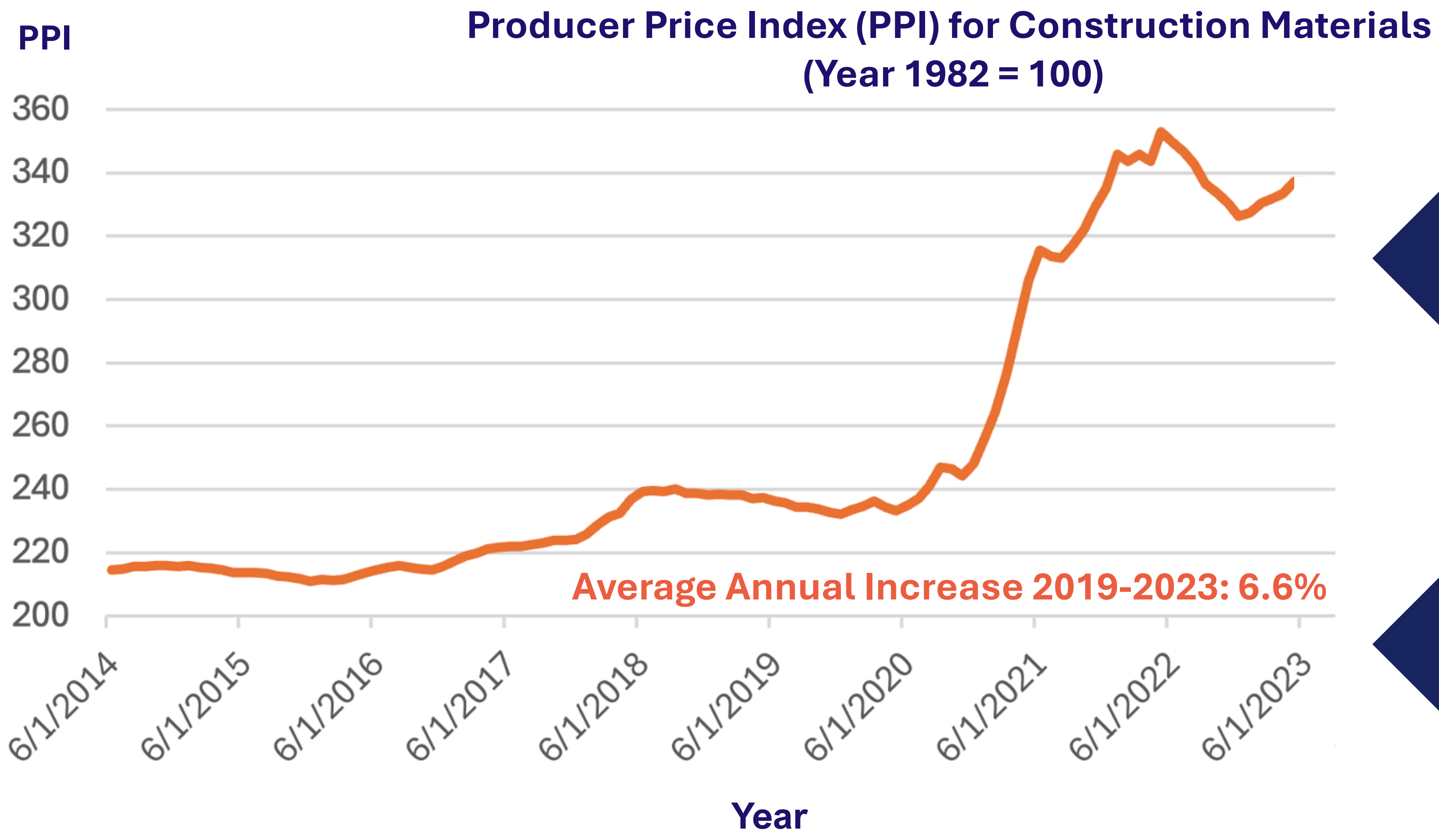
How to Develop a Winning Local Strategy for Advancing Clean Energy in Your Community



But How Do We Pay for It?

PROTECTING AGAINST INFLATION

6.6% average over the last 5 years versus 2.6% CPI



CONSTRUCTION INFLATION AVERAGED **6.6% OVER THE PAST 5 YEARS**

PIECEMEAL PROJECTS COST THE OWNER **MORE OVER TIME**

Illinois State Law

50 ILCS 515 Energy savings performance contracting

Local Government Energy Conservation Act, 50 ILCS 515; where as a local government may enter into such an agreement with a qualified provider if it finds that the amount it would spend on the project does not exceed the amount to be saved in either energy or operational costs, or both, within a 20-year period from the date of installation.

"Energy performance contract" or "**energy services agreement**" **means a contract between the governmental unit and a qualified energy service provider for evaluation, recommendation, and implementation of one or more cost-savings measures.** A performance contract may be structured as a guaranteed energy savings performance contract, which shall include, at a minimum, the design and installation of equipment, and, if applicable, operation and maintenance of any of the measures implemented, and guaranteed annual savings which must meet or exceed the total annual contract payments made by the governmental unit for that contract, including financing charges to be incurred by the governmental unit over the life of the contract;

Energy Performance Contracts

Local Government Energy Conservation Act, 50 ILCS 515

What is it?

Infrastructure funded through guaranteed energy cost savings and operational savings over time

- ☑ No/low upfront capital requirement
- ☑ Guaranteed performance metrics
- ☑ Ideal for established facilities with inefficient systems

Energy Savings Performance Contract Results

Risk Comparison of Delivery Methods

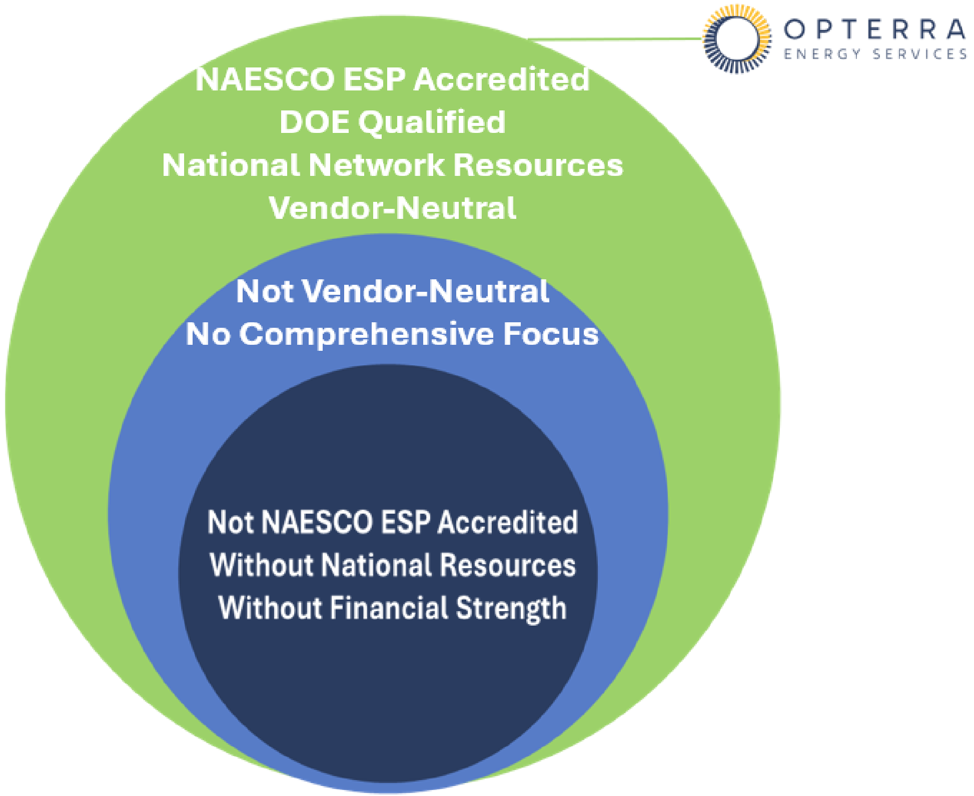
Metric	Design-Build vs. Traditional	Design-Build vs. Construction Manager at Risk (CMAR)
Delivery Speed	33.5% faster	23.5% faster
Construction Speed	12% faster	7% faster
Schedule Growth (Missed Deadline)	11.4% less	2.2% less
Unit Cost	6.1% less	4.5% less
Cost Growth (Overrun)	5.2% less	12.6% less
Conclusion:	**We deliver superior results vs. traditional low-bid as shown above**	**We deliver superior results vs. CMAR as shown above**

Color Key

Scheduling Risk	Financial Risk

Source: Construction Industry Institute (CI)/Penn State Research comprising 351 projects from 5000 to 2.5mm square feet

Top-Rated Independently Accredited ESCO



NAESCO-accredited companies are **industry experts in Energy Savings Performance Contracts** (ESPCs): a critical aspect of **financing energy upgrades with no upfront capital**.

Why it matters: It gives you confidence the firm you selected has **sound business practices**, **ethical standards**, and can **structure, implement, and measure savings in complex, multi-year energy** projects.

Award-Winning Energy Saving Performance Contracts

CUSTOMER AWARDS

2024
NAESCO Project of the Year Award – City of Menlo Park

2024
DC Smart Street Lighting

2022
Climate Protection Award –
City of Suisun City

2020
City of Pismo Beach

2022
City of Milpitas
City of Suisun City

2019
Best of Green Schools Award – South San Francisco Unified School District

2018
Honowai Elementary School

2019
Kapalama Elementary School

2017
Huntington Beach City School District

2018
South San Francisco Unified School District

2016
Forbes Impact Award – Hartnell College

2012
Princeton Review's Top Green Colleges in the US – Eastern Michigan University

2012
Energy Services Coalition – Energy Efficiency Project

"With this project, we're doing so much more than just replacing lights – we're making our streets safer, our communities more connected, and our city more resilient."

– Muriel Bowser, Mayor, Washington, D.C.

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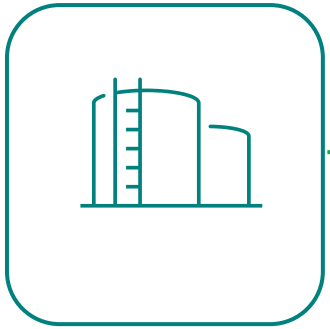
ELIMINATING BURDEN FOR THE CITY

Throughout the 8-step project process

1. **Planning** — Permitting + ADA Compliance + Community Engagement
2. **Financial** — Funding Opportunities + Finance Consultation
3. **Design + Engineering** — Preferred + Local Subcontracting + Community Engagement
4. **Construction Management** — Vendor-Neutral Equipment Selection + Community Engagement
5. **Commissioning** — Health, Safety, Comfort, Security, + Compliance
6. **Operations + Maintenance** — Operational Excellence Mandates + Standards
7. **Training** — Staff + Selected Contractors
8. **Final Completion** — Community Engagement

SINGLE SOURCE ACCOUNTABILITY

PROVIDING ACCOUNTABILITY WITH LOCAL WORKFORCE ACTIVATION



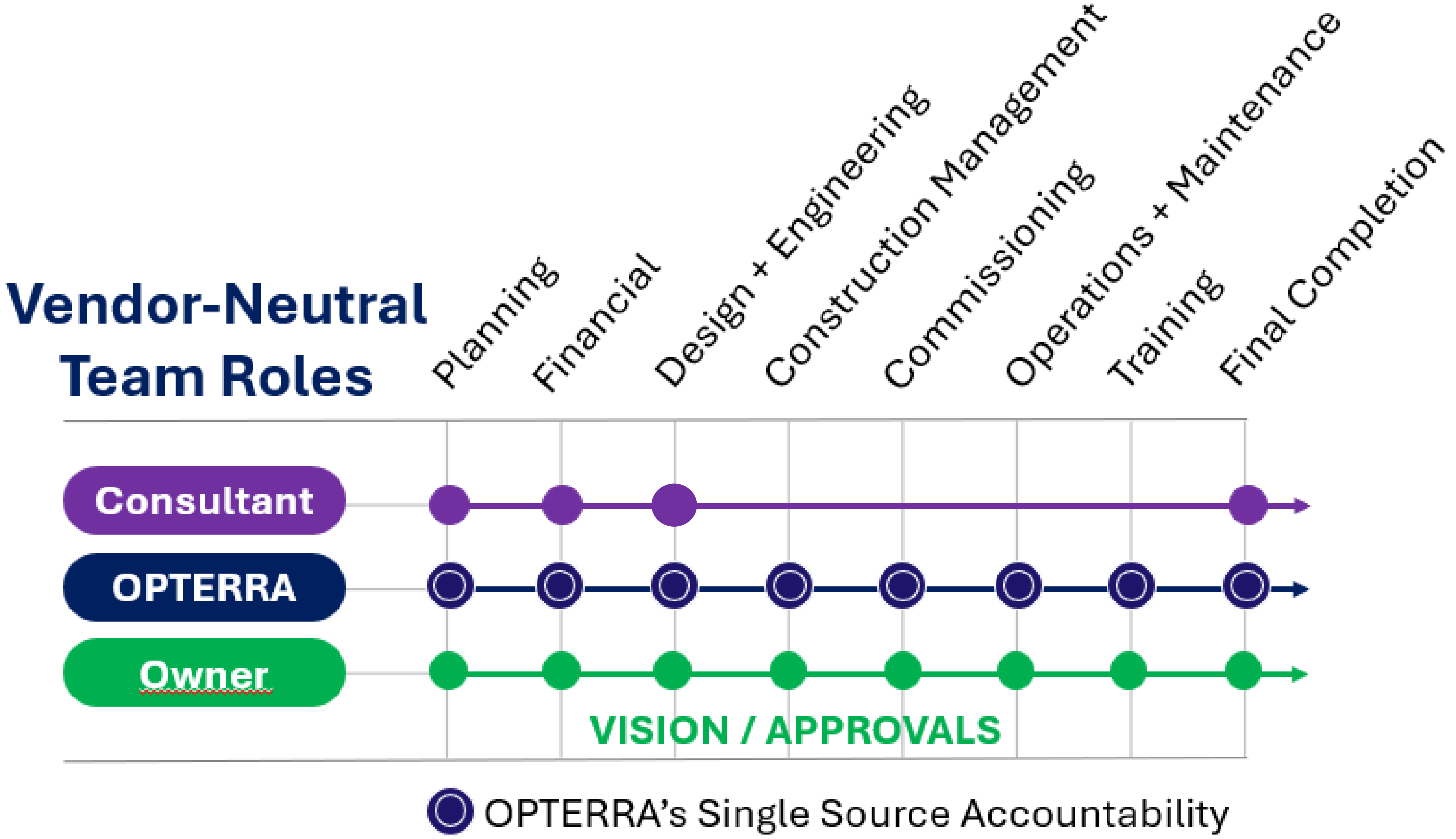
You articulate your vision for the desired outcome

OPTERRA provides a vendor-neutral single point of accountability

Architects + Engineers	**Other Design Consultants**
General Contractors	**Other Trade Contractors**
Specialist Contractors	**Equipment Suppliers**

- Value
- Quality
- Speed
- Holistic + All-Inclusive
- Durability + Life-Cycle
- Resiliency + Sustainability
- Decreased Risk + Liability
- Reduced Burden
- Decreased Operating Cost
- Optimized Performance
- Safety + Security
- Control + Flexibility
- State-of-the-Art
- Memorability + Aesthetics

TEAMING WITH LOCAL-PREFERRED PROVIDERS



GENERATING FUNDING FOR THE CITY

NATIONAL

Inflation Reduction Act (IRA) Investment Tax Credit (ITC) Direct Pay, Department of Energy (DOE), + More

STATE

Board of Education, Environmental Protection Agency (EPA), Renewable Energy Credits (RECs), + More

LOCAL

Local Utility Rebates, Incentives, Grants, + More

National, State, + Local Team Funding Experts

Developing Small Business Capacity

✓ **Beyond Just Job Creation — Empowering Small Businesses for Lasting Success:**

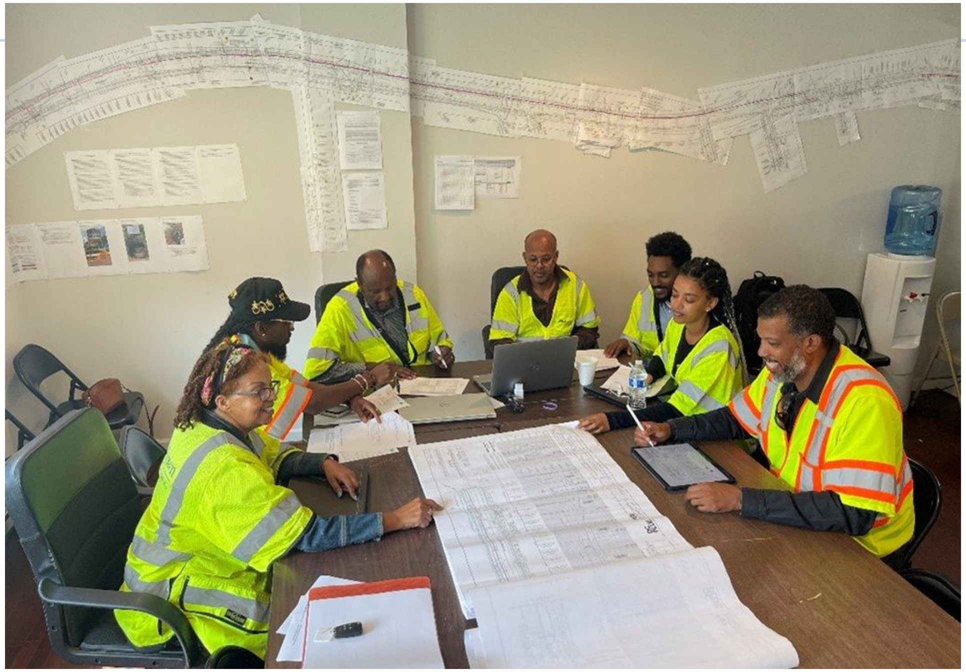
We don't just create jobs; we strengthen the skills, resources, and resilience of small businesses so they can thrive for years to come.

✓ **Excellence Through OPTERRA Project Management:**

With rigorous oversight and hands-on support, we ensure every contractor not only meets but exceeds industry standards for quality and performance.

✓ **Delivering on What Matters Most:**

Our focus is on achieving results that matter — measurable, meaningful outcomes



Kick-off

Washington, D.C.

Smart Street Lighting Project

The OPTERRA team engaged local small businesses including those certified as Disadvantaged Business Enterprise (DBE) to help deliver this transformation project. This included a commitment to hiring and training a local workforce, with local subcontractors helping OPTERRA deliver on the conversion and operations work..

Benefits

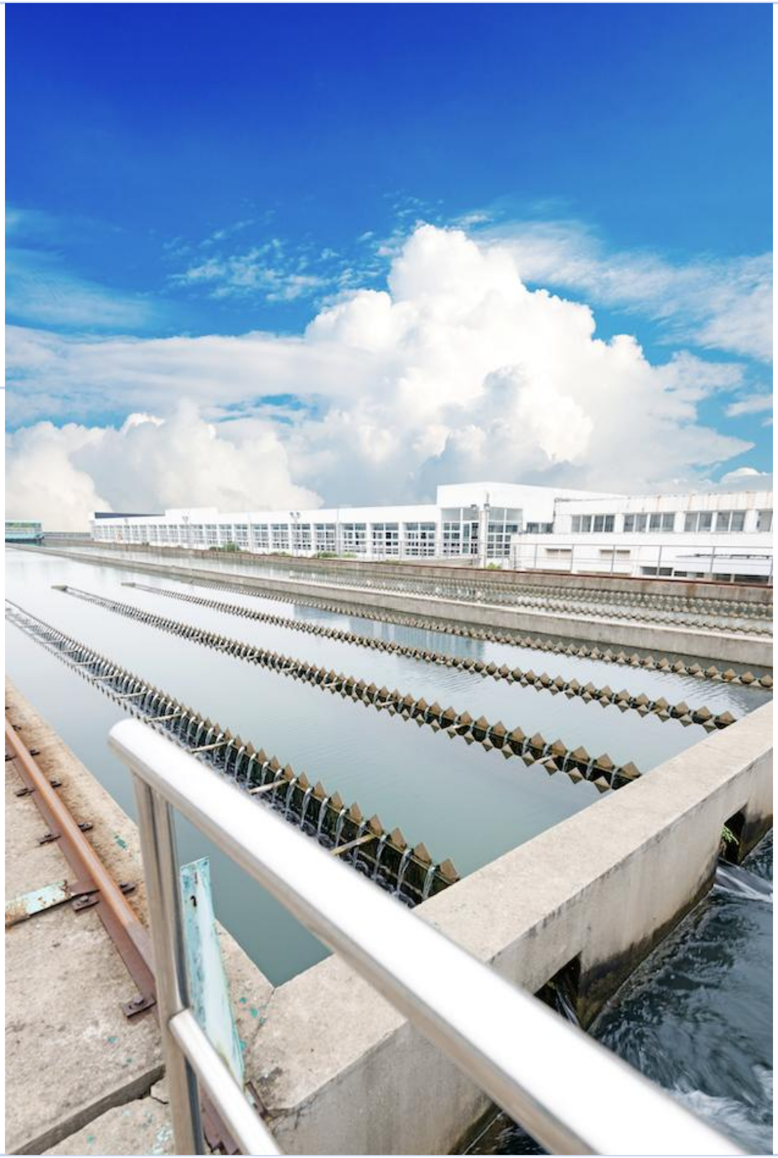
- **50% reduction** in streetlight energy consumption
- **38,000 metric tons** of greenhouse gas emissions eliminated annually
- **Improved safety** for pedestrians and bicyclists in all neighborhoods
- **Local job creation,** including minority- and women-owned businesses
- **OPTERRA-sponsored internships**
- City-wide completion within **2 years** (May 2024)

$55M in contracts directed to local businesses

02

Optimize

Local Facility Efficiency



Facility & Infrastructure Modernization Measures

Energy Management & Controls

Controls
- Building automation controls
- Energy management systems
- HVAC set-point optimization
- Smart sensors & devices
- Variable frequency drives

Commissioning
- Continuous commissioning
- HVAC tuning / retro-commissioning
- Operations & Maintenance
- Rooftop retro-commissioning
- Steam system retro-commissioning
- Remote Energy Monitoring

Safety and Security Measures
- Electronic access locks
- Motion sensors
- Networked video-surveillance system

Lighting

Lighting Systems
- Human Centric Lighting
- LED lighting retrofits of fluorescent lights
- Natural lighting systems
- Replacing exit sign lamps with LED
- Replacing exterior / parking structure lighting with energy efficient lighting systems such as T8, induction or LED
- Replacing incandescent and halogen lamps with LED

Lighting Controls
- Advanced controls with programmable ballast, integration with HVAC controls
- Bi-level switching
- Daylight harvesting
- Dimming
- Lighting schedule through programmable controllers
- Motion sensors
- Occupancy sensors

Heating and Cooling Systems

Air Side
- Demand ventilation
- Efficient fume exhaust hoods
- Heat reclamation
- Heat recovery units
- (enthalpy wheels)
- Outside air economizers
- Radiant heating

Central Plant & Mechanical Room
- Electric motor replacement
- Energy recovery
- Heat exchanger systems
- High efficiency boilers
- High efficiency chillers
- Tower free cooling
- Waste heat recovery
- Water treatment systems

Influences / Other
- Building envelope improvements
- Efficient monitor conversion & network upgrades
- Facility maintenance (re-training)
- Operating practices
- Power factor correction
- Water conservation & efficiency

Renewables & Energy Storage

Renewable Energy
- Cogeneration / CHP
- Geothermal
- Ground source heat pump
- Solar photovoltaic (PV)
- Solar thermal
- Waste-to-Energy / Biogas
- Wind

Storage
- Energy storage / batteries
- Microgrids
- Thermal energy storage

Water Conservation
- Toilet and urinal recalibration for optimal flow
- Low-flow toilet and urinal fixture replacements
- Low-flow sink and showerhead flow controls
- Smart irrigation controls
- Landscape run-off reduction

Mobility
- Fleet transition plans (phased implementation strategies)
- Energy & smart charging infrastructure
- Resilient microgrids
- Other technology deployments (Wi-Fi, security cameras, etc.)

Services
- Building Information Modeling (BIM)
- Education & engagement
- Engineering
- Facilities Management
- Measurement & Verification
- Operations & Maintenance
- Preventative and predictive maintenance
- Project & construction management
- Utility monitoring

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Palm Springs International Airport

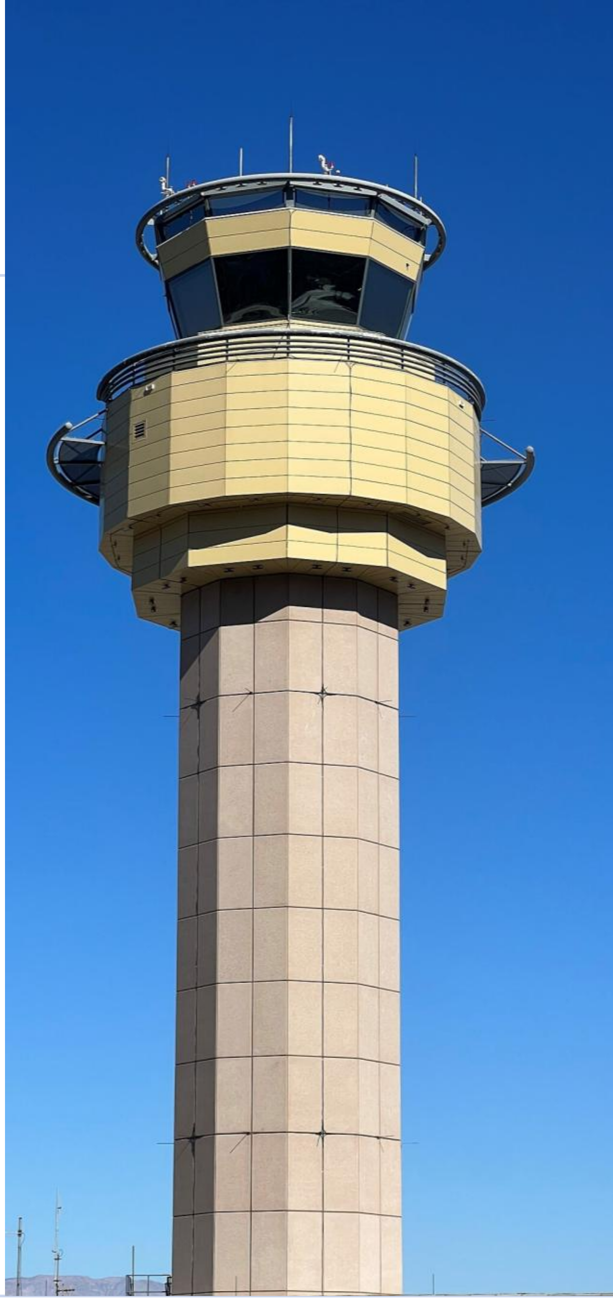
MODERN CONTROLS & EFFICIENT OPERATIONS

Solution

- A thorough **no-cost facilities assessment** to identify inefficiencies
- **Upgraded the central plant** that provides chilled water, hot water, and supplemental power generation
- **Installed energy efficient lighting** inside and outside airport buildings
- Deployed **new control systems** for HVAC and irrigation

Benefits

- **More precise control** over HVAC and irrigation systems
- **Reduced energy costs** with more efficient lighting
- **More comfortable and well-lit public spaces**
- **Minimal disruptions** to airport staff and visitors during equipment installations



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Charter Township of Canton, MI

Capital Improvements: $5,171,934

Goals Achieved:

- Avoid costs + generate funds to save taxpayer money
- Replace aging equipment at 18 sites
- Reduce growing energy + operational costs
- Energy + water savings
- Improve comfort + reliability
- Upgrade community water park + playground
- Control indoor climate/air quality

Our Comprehensive Scope:

- Lighting retrofits
- BAS upgrades
- Heating plant modifications
- HVAC + building envelope improvements
- Water retrofits
- LED promotional message board
- Irrigation system controls

"The results from the OPTERRA project are incredible. Every community in Michigan should follow this example."

Brad Sharp,
Former Facilities Manager

Portsmouth Housing Authority - OH

Capital Improvements: $3,011,955

Board Goals Achieved:

- Upgrades across 856,047 Square Feet
- $203,247 Annual Savings Guarantee

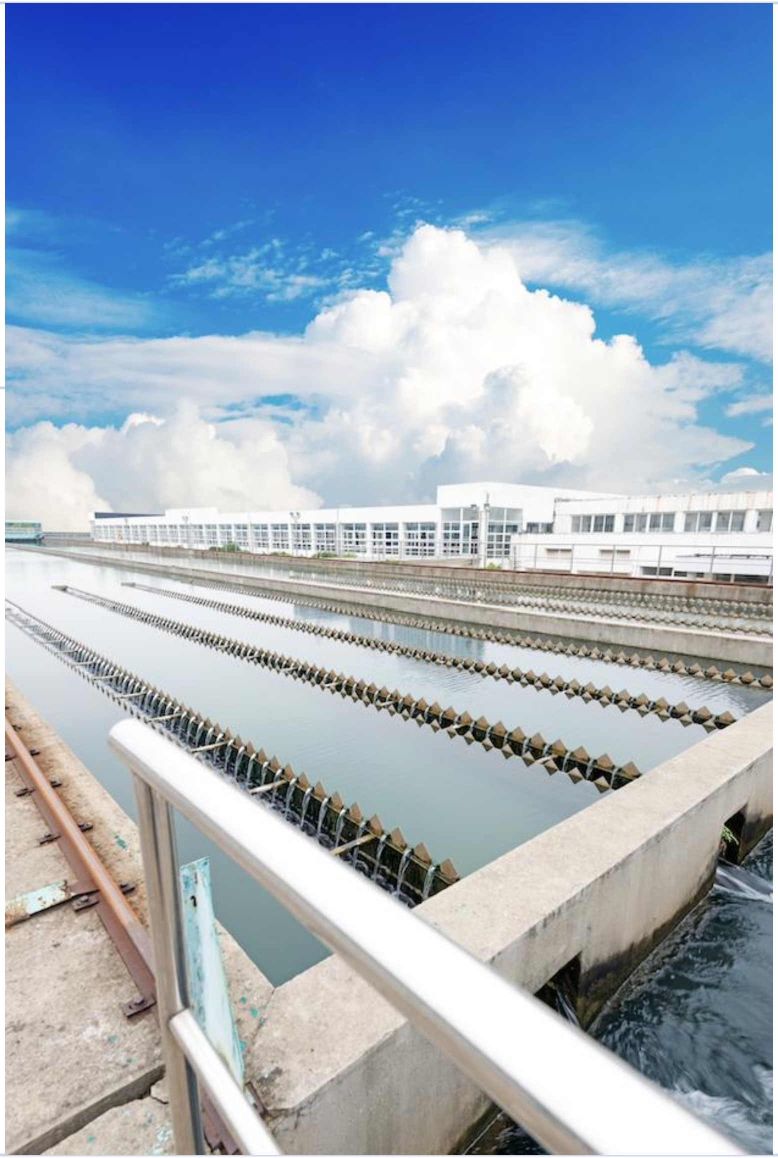
Our Comprehensive Scope:

- Water Meters
- BAS
- Electrical
- HVAC
- Plumbing

03

Synchronize

Local Microgrids Reduce Costs & Increase Resilience



What is Driving Demand for More Resilient and Sustainable Power Systems?

Natural Disasters

Power System Reliability

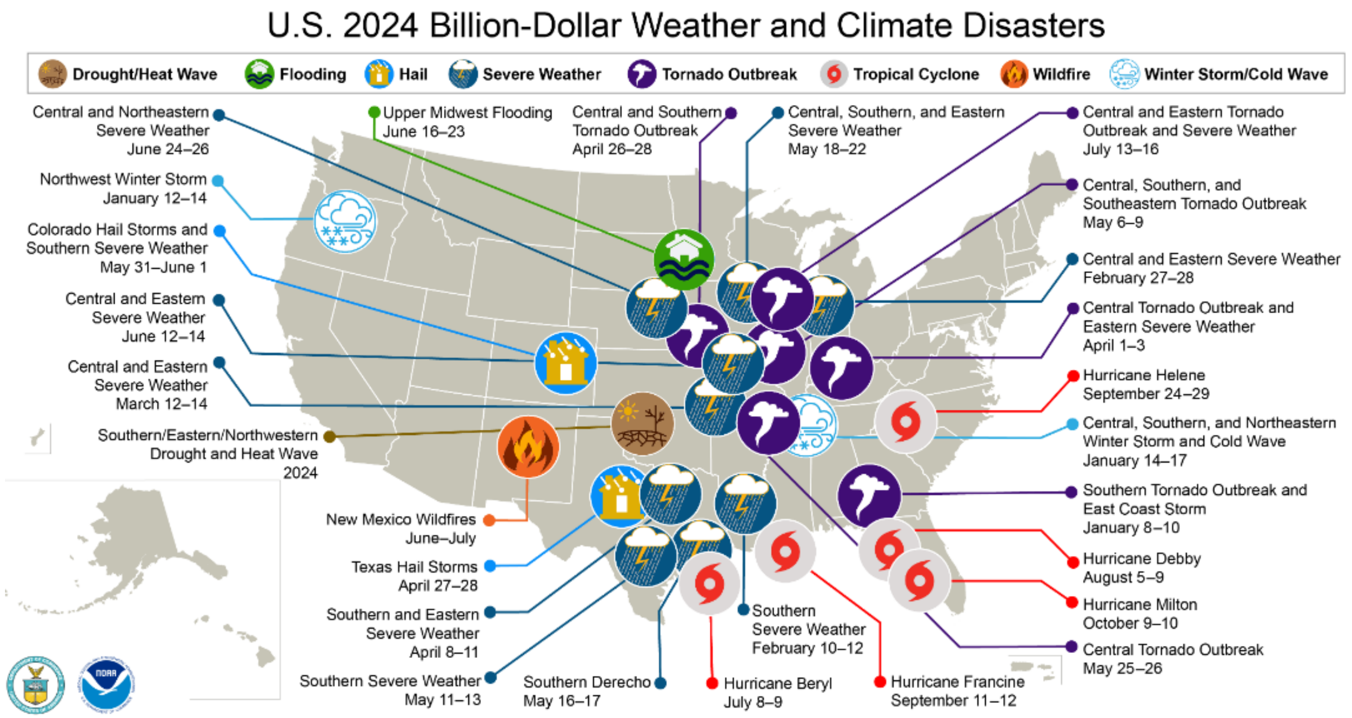
- Deferred maintenance and lack of investment in aging infrastructure
- Electrification and increasing energy demand
- Integration of intermittent resources
- Cybersecurity concerns

Safety & Sustainability Goals

- Drive to decarbonize U.S. energy infrastructure (Inflation Reduction Act)
- Community resiliency programs

Technology Advancements

- Renewable, distributed generation
- Battery energy storage
- Advanced controls and predictive analytics



*This map denotes the approximate location for each of the **27 separate billion-dollar weather and climate disasters that impacted the United States in 2024.***

Source: https://www.ncei.noaa.gov/access/billions/

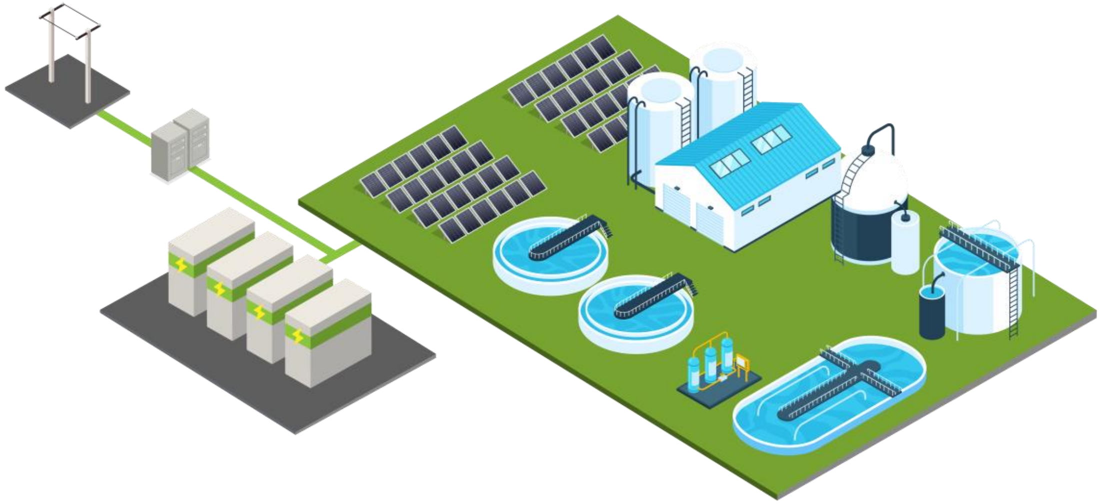
What is Energy Resilience?

The ability to withstand and rapidly recover from power outages and continue operating energy-dependent services. A resilient power system reduces the likelihood of long-duration outages, limits the scope and impact of outages when they do occur, and rapidly restores power after an outage.

Energy Resilience Solution: Sustainable Microgrids

A sustainable microgrid is a permanent, next-generation **emergency power** solution that also works to **control energy costs and carbon emissions** every day.

- For critical infrastructure, equipment typically consists of:
  - Onsite solar PV and/or cogeneration system (biogas)
  - Battery energy storage
  - A source of backup generation
  - Microgrid controller
- When the utility grid is operating normally, solar PV and cogeneration provide power while battery storage reserves that energy for both possible outages and ongoing operations.
- When power is interrupted, the microgrid can "island" and maintain critical loads by drawing from the solar PV system, battery storage, and backup generation as needed.



Yucaipa Valley Water District (YVWD)

ENABLING CLEAN ENERGY RESILIENCY

More Wildfires Triggering More Power Outages

YVWD needed to meet long-term resiliency goals and ensure safe, clean, and reliable power to key water and wastewater facilities during ongoing public safety power shutoff (PSPS) events.

Solution

YVWD contracted with ENGIE for a comprehensive solar, storage, and microgrid solution:

- Up to **14 MW** of stand-alone power across 3 new microgrids during outages
- Includes **7.45 MW solar PV, 3.3 MW/13 MWh** energy storage system, **3.2 MW** natural gas gensets, and microgrid controllers
- OPTERRA builds, owns and operates the systems on behalf of the district
- 28-year fixed Power Purchase Agreement (PPA)

Benefits

- Expected to save **$82 million** in cost efficiencies over the lifetime of the program
- YVWD will receive nearly **$7 million** in incentives under California's SGIP alone
- District's 22,000 ratepayers will benefit from clean energy resiliency for their vital water and wastewater services
- Will greatly improve YVWD's capacity to serve residents and keep rates stable while hedging against rising energy costs

City of Milpitas

SMART CITY INFRASTRUCTURE PROGRAM

Solution

- **200 kW solar PV system**; resilient microgrid solution for the city's senior and community centers; electric vehicle charging stations
- **15,600 advanced metering infrastructure (AMI) water meters** with leak detection; water, wastewater, and stormwater management automation; touchless efficient water fixtures
- **2,185 LED streetlight retrofits;** 4,453 streetlight controls upgrades with outage detection; City wide LED lighting upgrades in parks, sports fields, City buildings, and community facilities
- Integrated **community impact program**; O&M and performance guarantees

Benefits

- **$30M in net savings** over the life of the program
- **Improves city services and infrastructure** for residents and businesses
- **Energy resiliency** (back up power) for community centers
- Addresses **safety, efficiency and climate action goals**
- Provides **workforce and education opportunities**

STUDIOS Architecture

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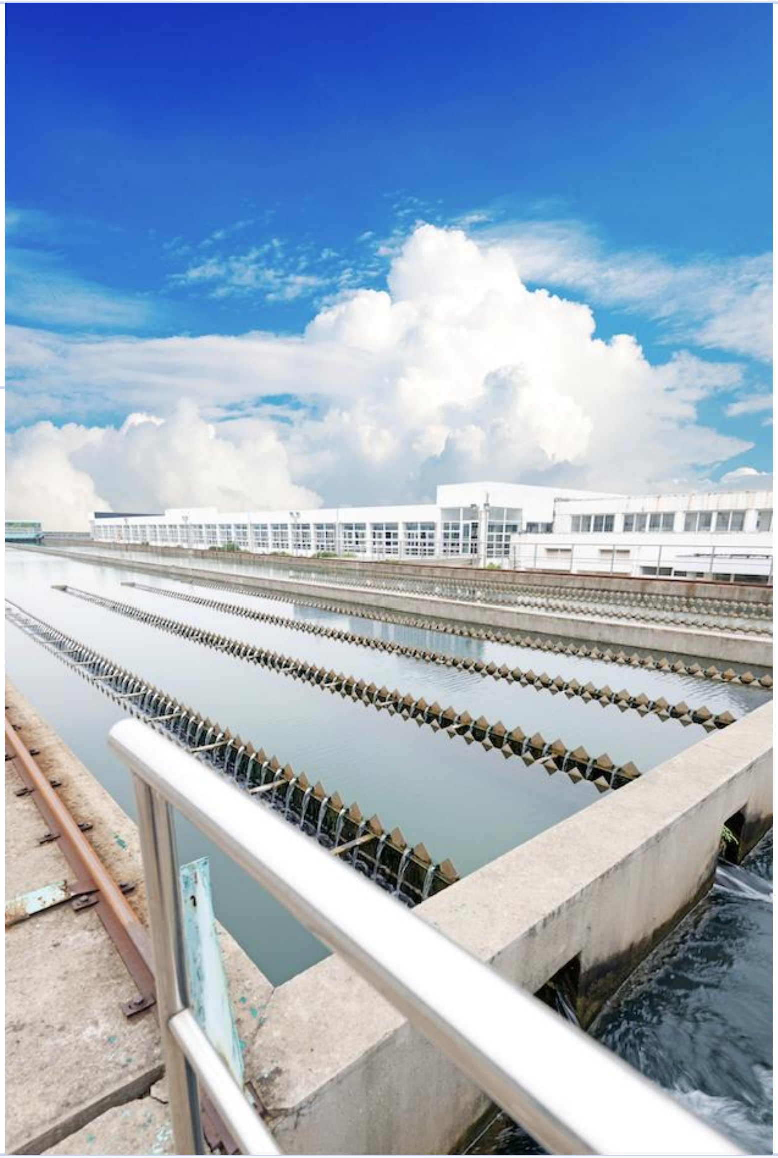
04

Modernize

Local Cogeneration Leverages the Circular Energy Economy



Broward County Wastewater Plant

COST-EFFECTIVE WASTEWATER TREATMENT UPGRADES

An Opportunity to Maximize Treatment Capabilities & Reduce Costs

In 2011, with the goal of lowering its overall operating costs, Broward County began investigating ways to better process fats, oils, and grease (FOG) and leverage cogeneration technologies at its wastewater plant.

Solution

ENGIE designed and implemented a turnkey, process improvement solution:

- New system collects FOG for more efficient treatment in anaerobic digesters
- Biogas cleaning system for the conditioning and transfer of gas to a cogeneration engine
- Cogeneration system capable of producing up to **1.99 MW of power**
- Electrical and control integration for operation of the new systems

Benefits

- Cogeneration system **offsets 25% of the electricity** the plant would otherwise purchase from the grid
- Reduces greenhouse gas emissions by **8,893 metric tons** annually, equivalent to removing 1,879 cars from the road
- **$26 million in guaranteed savings** over 17 years
- County received both **regional and statewide recognition** for sustainability leadership

West County Wastewater District

COMPREHENSIVE INFRASTRUCTURE PROJECT

Need for New Energy Infrastructure and Process Improvements

West County Wastewater District in Richmond, California was facing looming state regulations on short-lived climate pollutants (SLCP) and a need to reduce ongoing disposal costs. A comprehensive plan was developed with our team to include improvements to energy infrastructure and processes.

Solutions

Our team will implement all plant improvements and maintain the equipment for 20 years under an energy savings performance contract.

- 1.1 MW solar PV system
- 450 kW cogeneration system powered by biogas
- Process improvement upgrades to generate Class A biosolids for agricultural and reclamation uses
- Energy efficient LED lighting and EV charging stations

Benefits

- **Generates $83 million** in net savings
- **Lowers greenhouse gases by 93%** over the program life
- **Improves process control** over wastewater treatment and digestion
- **Reduces disposal costs** of organic material destined for landfills
- **Robust community impact program** with internship opportunities and career paths for students

05

Monetize

Harness Local Clean Energy to Enhance Revenue

Sylmar, Riverside, Pomona and Carson _ CA

Anheuser-Busch eMobility Transformation

Low Carbon, High Performance Charging

An eMobility Transformation

In support of its sustainability goals, brewing giant Anheuser-Busch embarked on an eMobility transformation project, rolling out 21 battery electric trucks—the largest Class 8 electric truck deployment in North America. The company turned to the OPTERRA team to provide a first-class charging solution to support its new fleet.

Solution

OPTERRA was selected to deliver:

- Planning and construction of four charging station in four cities.
- Construction of a solar array at Anheuser-Busch's Beach Cities distribution center in Carson to generate zero-emissions power to offset the use of conventional energy.

Benefits

- **A sustainable fleet,** with 910 MT of CO_2 avoided each year the equivalent of taking almost 200 passenger vehicles off the road.
- **A simplified approach** to charging infrastructure design and procurement, with OPTERRA taking on the challenge of integrating diverse components.
- Renewable power generation at its Carson facility enables Anheuser-Busch to **reduce energy costs** over the long-term when powering its fleet.

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Conrac Solutions at PDX

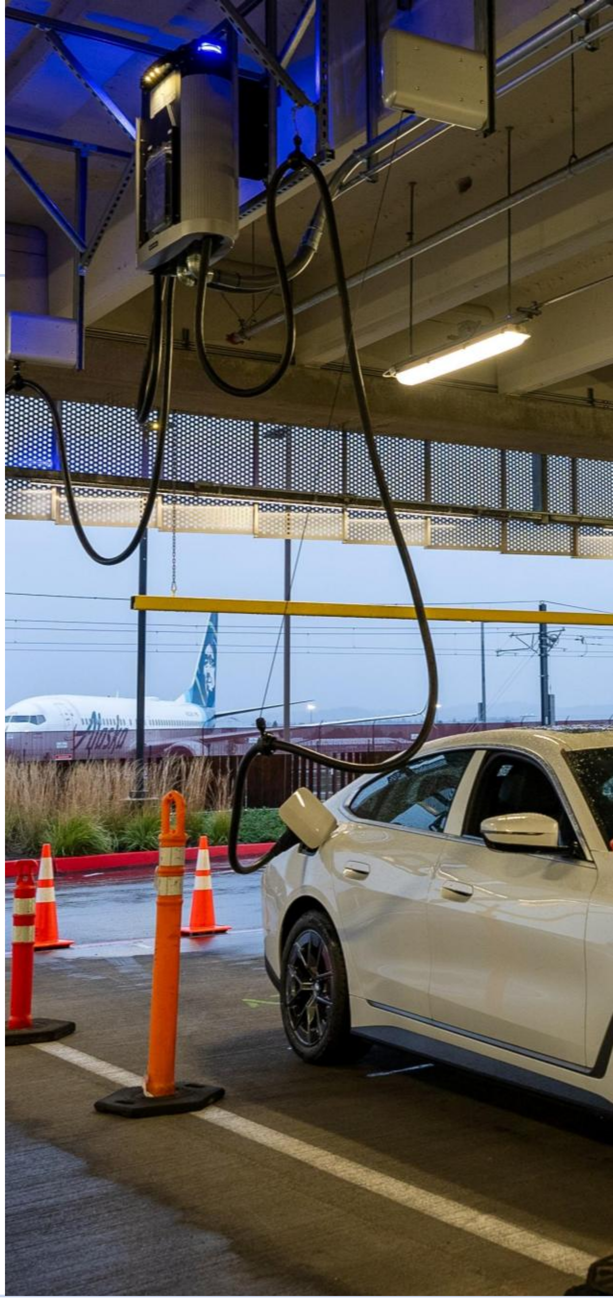
FAST CHARGING EXPEDITES EV TURNAROUND

Solution

- A thorough needs assessment and design process
- Installation of **ten 200 kW Level 3 fast chargers**, with dual sequential dispensers
- **Overhead mounting, with extra conduit** and design that facilitates future expansion
- Management of all **permitting, building, and testing** processes for the project

Benefits

- **Increased revenue** for rental agencies due to faster EV turnaround
- **Increased EV bay capacity** and safety due to overhead charger mounting
- **Improved productivity** at QTA facility, as staff can inspect and clean while car is charging
- More cost-effective EV charging, encouraging increased EV rentals and boosting PDX's sustainability and passenger wellbeing goals



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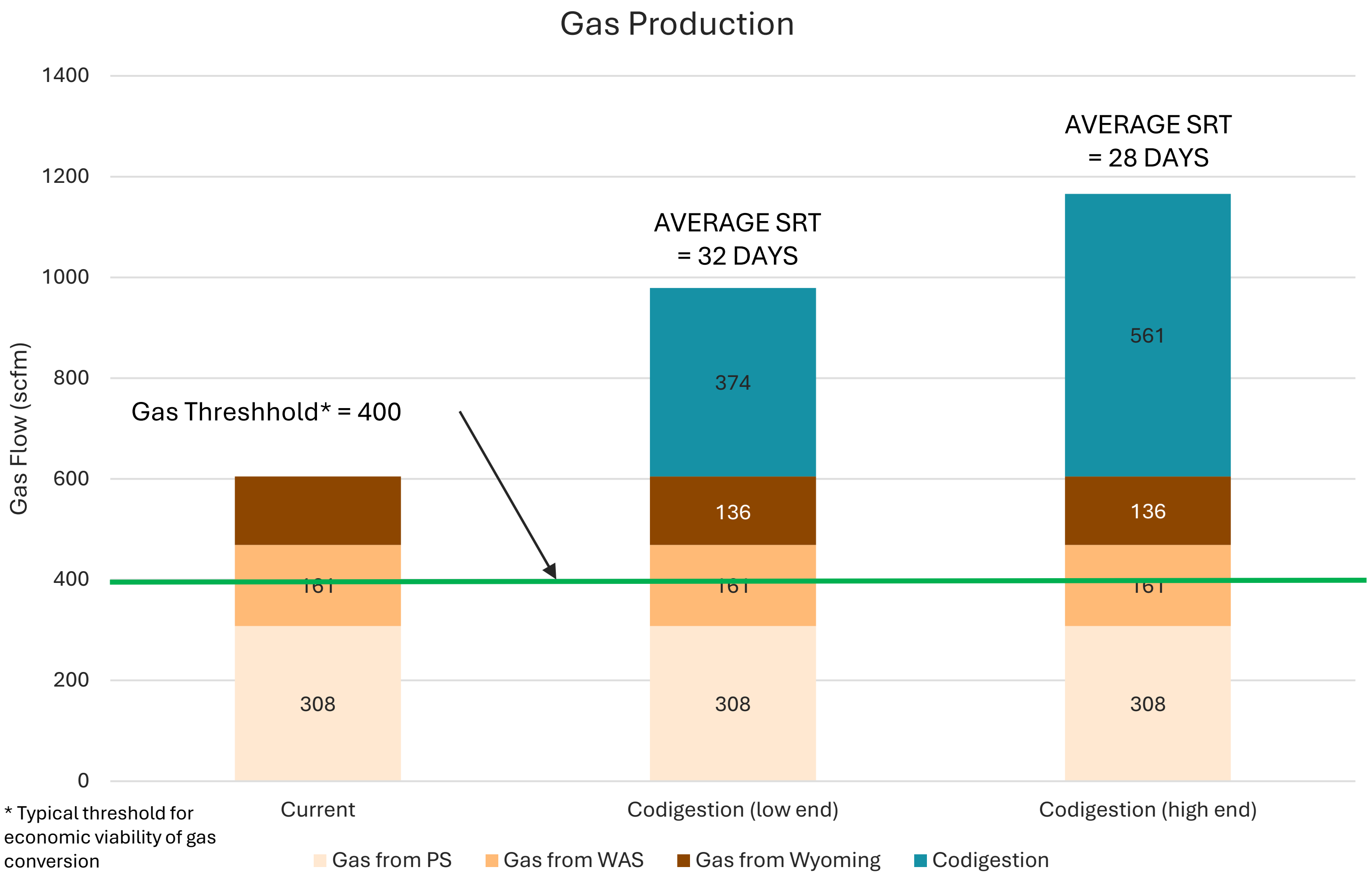
Producing Additional Revenue

- Low End Co-digestion = additional $2.5 Million in RIN revenue and $1 Million in Tipping Fee Revenue
- High End Co-digestion = additional $5 Million in RIN revenue and $2 Million in Tipping Fee Revenue



06

ACTUALIZE

Streamline Procurement & Project Management

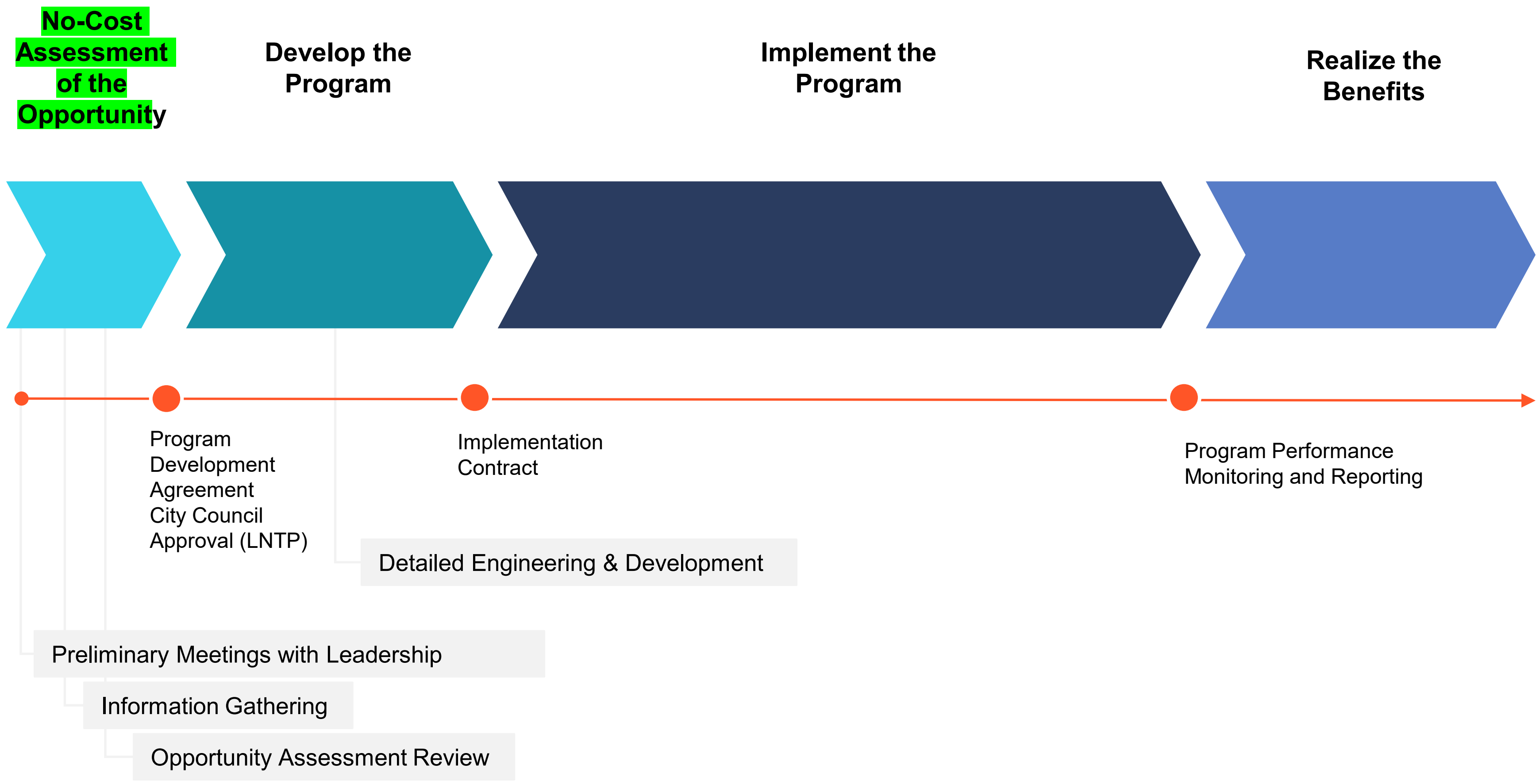
EXCEEDING ALL EXPECTATIONS

Qualified Provider Selection Checklist					
NAESCO Accredited at Highest ESP Level	OMNIA, PCA, TIPS, GSA, + DOE Qualified	Vendor-neutral (not a self-performer)	Comprehensive Focus (vs HVAC)	Team Long-Term Commitment + Consistency	Team Reputation for High Quality
✓	✓	✓	✓	✓	✓
Over 7 Dozen Similar Partnerships	Financial Strength	Professional Student + Community Engagement	Regional Offices for 50+ Years	National Incentive Funding Network	Without Legal Issues
✓	✓	✓	✓	✓	✓
Open Transparency Throughout	Most Reliable Guarantees	Master Planning	CPTED Professionals	DBIA Professionals	Full-Service Project + Construction Management
✓	✓	✓	✓	✓	✓

STREAMLINING WHILE AVOIDING SUPPLY CHAIN ISSUES

OMNIA	PCA	TIPS-USA	GSA
OMNIA® PARTNERS	PCA Purchasing Cooperative of America Awarded Contract www.pcamerica.org 844-722-6374	TIPS THE INTERLOCAL PURCHASING SYSTEM	GSA® Advantage! www.gsaadvantage.gov
Contract Number R221501	Contract Number 3-184-18	Contract Numbers 220104 24020101 24020102	Contract Number 47QSWA19D004H

Project Management Process



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