How to Grow Your Energy Projects

September 2022

Kirk Whittington

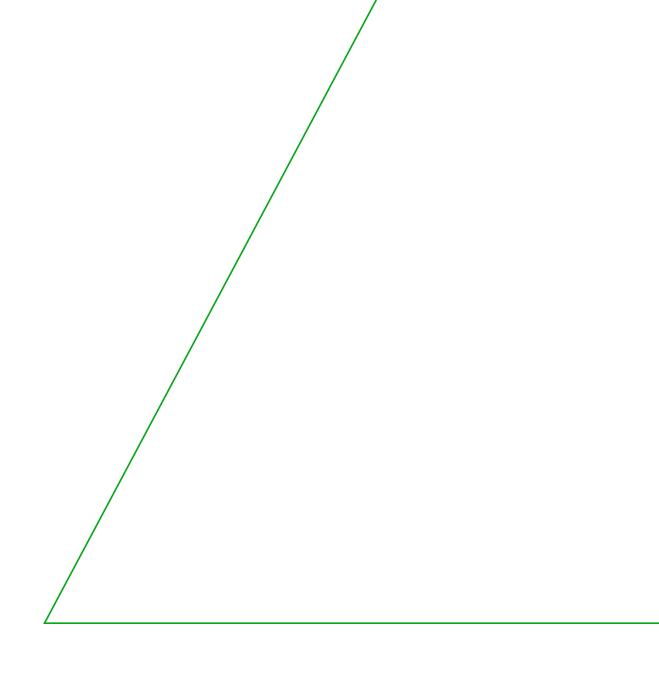**Director, Smart City & Infrastructure Solutions**

Wesco Distribution

- 31 years of Sales Management and Business Development

    - 23 years in the ESCO Industry with Siemens and Honeywell

    - 8 years in Manufacturing (Smart City Solutions)

- Involved with over $300 million projects including:

    - City & State Government
    - Schools
    - Healthcare Centers
    - Industrial & Commercial
    - Military Bases
    - Public Housing

Indoor & Outdoor LED Lighting, Major Mechanical Systems, Building Controls, AMI Systems, Water & Wastewater projects, Smart Controllers & Sensors

History

A Bit of History . . .

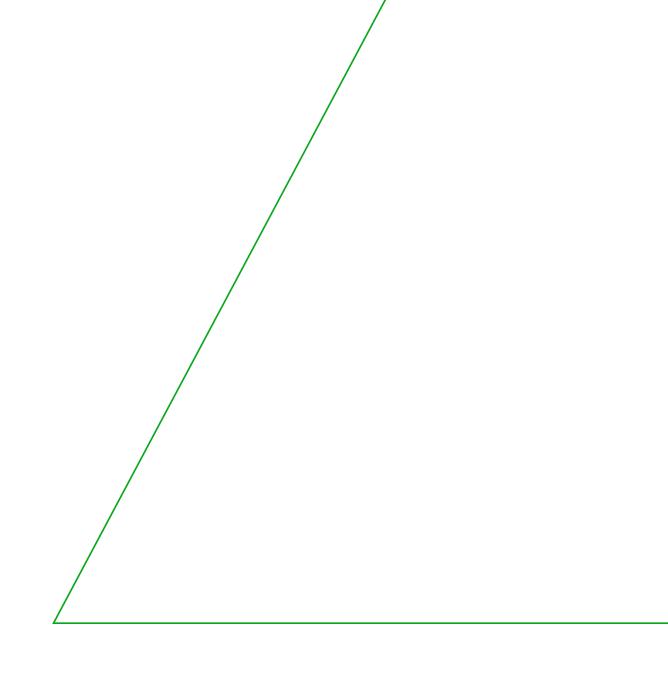**40 - Forty years of the same improvement measures:**

- Lighting
- Major Mechanical Systems
- Water conservation projects
- Building controls
- AMI metering
  - Water
  - Electric
  - Gas
- Water & Wastewater Plant Improvements

What has changed?

Communities Are Increasingly Connected

In step with global policies and demand, a city that integrates digital technologies into networks, services, and infrastructure can increase operational efficiency and better serve the community.

- Uses multiple methods and sensors to collect and share data

- Data is used to monitor and manage assets, resources, and services

- Improves operations in every department or its community

... and This Will Only Grow. Why?

ARPA Funds - $1.9 Trillion

Infrastructure improvements and Security / Cyber Security
projects for Police, Public Works, Water & Wastewater Plants

- ESG projects – Environmental, Social and Governance
  - Investors & city leaders are using ESG
    as a baseline to judge the sustainable viability of projects
- Fiber, Broadband, Cabling, Communications, etc.
- Small Cell projects, Towers, etc.
- Consulting, Service & Support for all of these projects

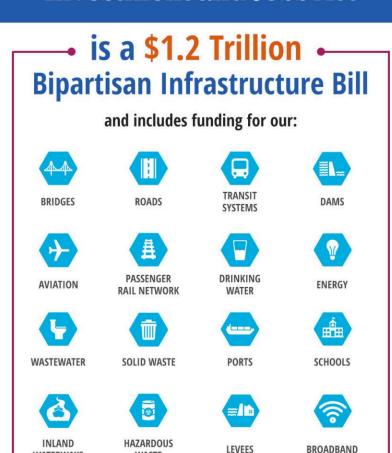Paid for by ARPA Money and ESCO financed projects.

Covid-Relief
American Rescue Plan Act of 2021

The Infrastructure Investment and Jobs Act - $1.2 Trillion

- Roads, Bridges and major projects - $110B

- Passenger and Freight Rail - $66B

- Safety & Research - $11B (highway and pedestrian safety projects)

- Broadband - $65B

- Airports - $25B

- Water Infrastructure - $54B

- Power & Grid - $65B

- Cyber Security Resiliency - $46B

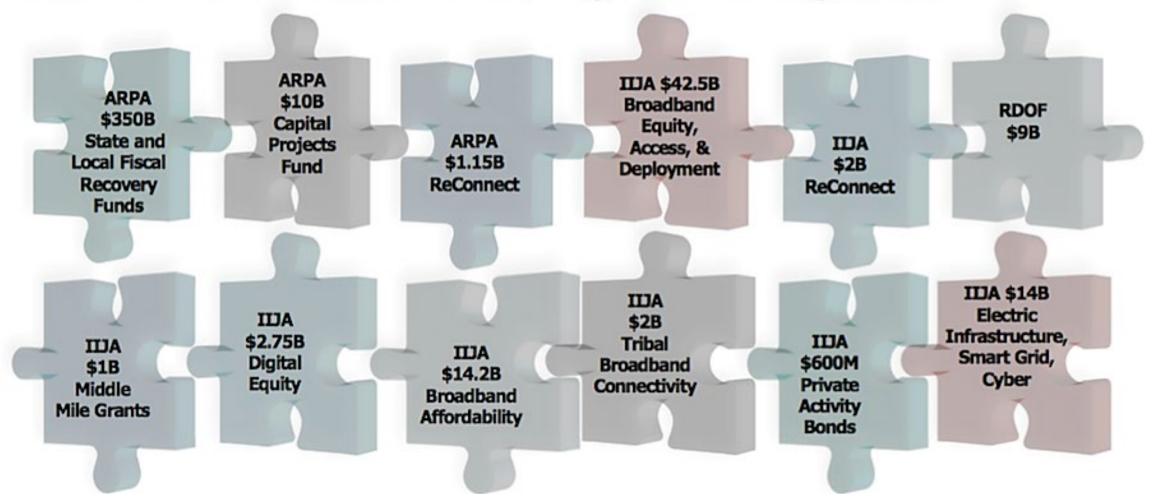- EV Charging - $7.5B

ARPA Funds, IIJA and IRA Funds = $3.8 Trillion

How do the infrastructure programs fit together?

ARPA $350B State and Local Fiscal Recovery Funds

ARPA $10B Capital Projects Fund

ARPA $1.15B ReConnect

IIJA $42.5B Broadband Equity, Access, & Deployment

IIJA $2B ReConnect

RDOF $9B

IIJA $1B Middle Mile Grants

IIJA $2.75B Digital Equity

IIJA $14.2B Broadband Affordability

IIJA $2B Tribal Broadband Connectivity

IIJA $600M Private Activity Bonds

IIJA $14B Electric Infrastructure, Smart Grid, Cyber

How to Grow Your ESPC Projects?

Five Primary Areas:

1. Broadband
2. EV Charging
3. Distributed Renewable Generation Projects
4. Wireless (5G, Small Cells)
5. IOT Platforms

Broadband
Middle Mile, Fiber to the xxxx

- Deploying **smart grid** technology or AMI

- Improving Connectivity to Support **SCADA Expansion** to Substations

- Expanding internal **communication networks**

- Offering **communication services** (voice, internet, video)

- Expanding building or **data centers**

- Adding **substation security**

- Upgrading **infrastructure**

- Contractors doing outside plant **fiber installation and maintenance**

EV Charging

- Many RFP's across the U.S.

Distributed Renewable Generation Projects

* Solar Arrays

* MicroGrid Solutions

    - Help to Balance the Load as a result of EV Charging Spikes

    - Peak Shaving - Demand

    - Great ROI

    - A MicroGrid in every BackYard?

* Battery Storage

Wireless (5G, Small Cells, etc.)

Why?

- Up to 10Gbps data rate - > 10 to 100x speed improvement over 4G and 4.5G networks
- 1-millisecond latency
- 1000x bandwidth per unit area
- Up to 100x number of connected devices per unit area (compared with 4G LTE)
- 99.999% availability
- 100% coverage
- 90% reduction in network energy usage
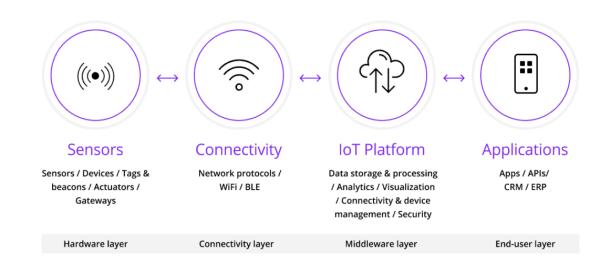- Up to 10-year battery life for low power IoT device

Internet of Things (IOT) Platforms

Sensors
Connectivity
 * Wifi
Analytics
Security
Cameras

Many Applications

IoT System Architecture

Sensors	Connectivity	IoT Platform	Applications
Sensors / Devices / Tags & beacons / Actuators / Gateways	Network protocols / WiFi / BLE	Data storage & processing / Analytics / Visualization / Connectivity & device management / Security	Apps / APIs/ CRM / ERP
Hardware layer	Connectivity layer	Middleware layer	End-user layer

A Smart Connected World

USE CASES

SMART PARKING · AIR QUALITY · SOLAR INVERTERS · DIGITAL SIGNAGE · WATER & GAS METERING · ITS SYSTEMS · EV CHARGING · IP CAMERAS · WASTE COLLECTION · ACOUSTIC SENSORS

Where the Growth Is . . .

Technical Support Services

Public Safety

Security Solutions
Cameras
Consulting
Real-Time Crime Centers

Broadband

Connected Communities
Fiber Networks/Switches
Wireless/Wifi
Data Communications

Utility

Smart Grids
Grid Hardening Solutions
Distributed Generation
Usage Management Tools

Energy

Lighting
AMI
Energy Audits
Solar/EV Charging/Micro Grids
Battery Storage/Backups
Renewables

Wireless

DAS
5G Small Cells & Towers
Edge Point of Presence
Wireless Backhaul (micro wave)

IOT Solutions

Traffic Management
Parking
Environmental Sensors
Smart Poles

Supply Chain Solutions

NO MORE LIMITATIONS

You NO longer have to be searching for enough Savings to Cover your Projects

1. Funding is here
2. Timelines for all is in the next 5-10 years maximum
3. The End Users know that there is Funding, Grants and Investment Tax Credits and they know the timelines
4. Technology is here to do all of these massive projects

Why Should You Care?

Why Should You Care?

| More revenue for your company | More commissions for sales | More savings for the end user |

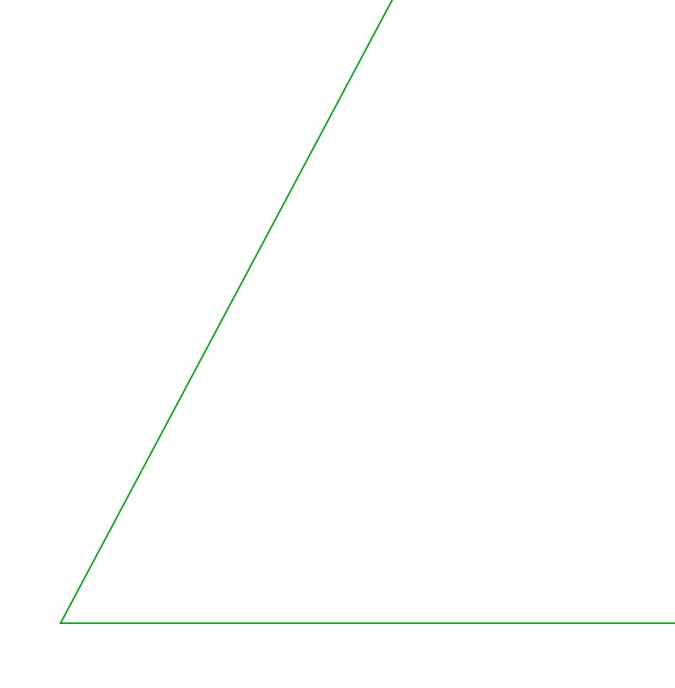## You help the end user accomplish their goals:

| FISCAL | SUSTAINABILITY | GOVERNANCE |
| SECURITY | SAFETY | TECHNOLOGY |

Who Can Help You?

There is only One Company that can do all of this...

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Security Solutions
Cameras
Consulting
Real-Time Crime Centers

Broadband

Connected Communities
Fiber Networks/Switches
Wireless/Wifi
Data Communications

Utility

Smart Grids
Grid Hardening Solutions
Distributed Generation
Usage Management Tools

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Energy Audits
Solar/EV Charging/Micro Grids
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Renewables

Wireless

DAS
5G Small Cells & Towers
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IOT Solutions

Traffic Management
Parking
Environmental Sensors
Smart Poles

Supply Chain Solutions

ENERGY SERVICES COALITION
A Public Private Partnership

2022 MARKET TRANSFORMATION CONFERENCE

SEPTEMBER 13-15 | West Palm Beach, FL

Contact

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