

# Drawdown Michigan

## Community Solar: A Unique Carbon Solution

# PIVOT ENERGY: COMPANY OVERVIEW

## Company Data

- Founded in 2009
- Headquarters: Denver, CO
- 300+ Solar & Battery projects  
20+ States  
300+ Megawatts developed  
180+ Financed transactions
- Nationwide Operations  
Offices – Denver, St. Louis, Chicago, NYC

## Clients:

- Commercial & Industrial, MUSH
- Utilities
- Solar Developers

## Areas of Focus:

- Onsite Solar & Energy Storage
- Community Solar / Small Utility
- Project Finance - PPA, Lease, C-PACE

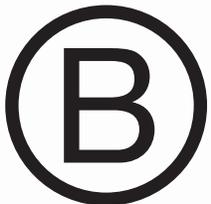
## Service Types:

- Project Developer
- EPCM (Design & Construction)
- Owner - Operator
- SunCentral Customer Management Platform

# PIVOT ENERGY IS A TRIPLE BOTTOM LINE COMPANY

- A better approach to doing business – use metrics to measure progress on more than just a financial basis.
- Goal is to achieve balance between the three, sometimes opposing, ends of People, Planet, and Profit.
- We utilize the B Corporation framework and certification process for formalizing and verifying our triple bottom line approach.

**Certified**



**Corporation™**

- B is for Benefit. B Corps are redefining success in business to include benefits to workers, society, and the environment
- Certified by B Lab to meet rigorous standards of social and environmental performance, accountability, & ethics
- Offers 3<sup>rd</sup> party validation and a standardized framework for tracking metrics
- The B Corp movement includes over a thousand companies, including the likes of Patagonia and Ben & Jerry's



***3BL is a key component of our company culture; and we believe it to be one of the secrets to our success.***

# PROJECT EXPERIENCE SUMMARY

- Team combined experience of 800 MW+ of solar projects.
- Solar Project experience in a wide range of project types:
  - ✓ Roof mount
  - ✓ Ground mount, including single axis tracker
  - ✓ Solar parking canopies
  - ✓ BIPV
- Projects over 14 states, with ability to complete projects anywhere in the continental U.S.
- Extensive experience in distributed solar, over 300 projects completed under 2 MW



# IMPACTS OF COMMUNITY SOLAR

- Opens accessibility of solar energy to homes, LMI, businesses, etc. that could not install solar
- Example: One of Pivot Energy's community solar gardens in Illinois will offset electrical usage of 400 homes

## Carbon Offsets of a 2 MW Solar Farm

### Year 1: (3,940,000 kWh)

- Carbon Emissions: 2,786 Metric Tons
- Trees planted: 46,070 tree seedlings growing for 10 years (carbon sequestered)
- Vehicle Miles: 6,812,164 Miles (28.5 trips to the moon)

### 20-Years: (75,166,942 kWh)

- Carbon Emissions: 53,154 Metric Tons
- Trees planted: 878,919 tree seedlings growing for 10 years (carbon sequestered)
- Vehicle Miles: 129,961,805 Miles (1.4 trips to the sun)

# HOW DOES COMMUNITY SOLAR WORK?

- Local solar facilities shared by subscribers, often called a “solar garden” or “solar farm” that is centrally located to subscribers
- Subscribers contract for an allocated percentage of energy produced, and receive bill credits on their electricity account for their share of the garden
- Community Solar facilities are typically ground mount systems, but can also be rooftop systems



# LANSING BOARD OF WATER & LIGHT

Production equivalent to powering 60 homes. Subscribers are a mix of local residents, the City of East Lansing and CATA.



East Lansing, MI



330 kWdc / 266 kWac



Ground Mount on brownfield



Operational; December 2018

**MI COMMUNITY SOLAR**

- Dashboard
- Portfolios
- Projects**
- Subscribers
- Utilities

**Burcham Park Community Solar**

Project Name	Burcham Park Community Solar
Portfolio	Community Energy Options
Address	Burcham Dr, East Lansing, MI 48823
Latitude	42.739873
Longitude	-84.451176
Capacity	315.000 kWdc
Utility	BWL - Lansing Board of Water & Light
Meter Provider	MeteoControl
Meter ID	
Status	Active
Comm Op Date	12/28/2018

# COMMUNITY SOLAR SERVICES

## End-to-end service provider in community solar

### Comprehensive Services

- Development
- Utility Interconnection
- Financing
- Customer Management
- Customer Acquisition
- SunCentral Platform
- Policy Consulting



# Project Experience

# PROJECT DEVELOPMENT SERVICES

## General Project Feasibility

- Policy analysis
- Market & incentives analysis
- Risk analysis
- Alignment with client goals

## Site Feasibility

- Assess portfolios across multiple states and jurisdictions
- Assess feasibility around cost for interconnection, site costs, etc.
- Utility Bill / Rate analysis

## Site Development

- Permitting & AHJ Approvals
- Interconnection
- Site control
- Preliminary design

## Financing

- Assess Options, Proforma scenarios
- Low cost of capital
- Preliminary underwriting
- Industry-standard PPA Form

# PROJECT TYPES

## C&I – Onsite Renewables

- Solar PV Projects
- Solar+Storage / Microgrids
- Project Financing



## C&I – Offsite Renewables

- Community Solar Subscriptions
- VPPA – Wind & Solar (with partner)
- Project Financing



## Utility

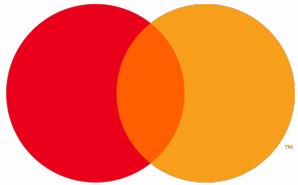
- Community Solar Development
- Utility PPAs & Storage
- Target 1-20 MW (distribution level)



# SELECT CLIENT LIST



# LARGE CORPORATE



mastercard.

Constructed custom carports for Mastercard International.



Location: Missouri & New York campuses



Capacity: 1.4 MW



Type of System: Carport



Installation Time to Complete: 6 months



# BUILDING PORTFOLIOS – MIXED



Richmond, VA



Pictured: 883.32 kW



Ballasted roof mount



4 months

## Richmond Distribution Center

- 23 sites completed
- Overcame numerous permitting delays to bring project to completion



# BUILDING PORTFOLIOS - RETAIL



Portfolio of 12 retail locations



Single monitoring platform for viewing energy production data across the portfolio

# K-12 SCHOOLS



**Clayton School District: 12 school buildings received solar arrays, along with an interactive solar display in each building.**



Location: St. Louis, MO



Capacity: 250 kW



Type of System: Rooftop



# INDUSTRIAL



ADRIANO GOLDSCHMIED

Koos Manuf. / Adrian Goldschmied Jeans



920 kW



Ballasted roof mount  
Solar carport

# HIGHER EDUCATION



Colby College: Ground mount system powering university buildings.



Location: Waterville, ME



Capacity: 1.8 MW



Type of System: Ground Mount



# MILITARY



U.S. Army Corp  
of Engineers



Kansas City, MO



510 kW  
5 vertical axis turbines



Roof mount  
Solar carport

# NONPROFIT / INSTITUTIONAL



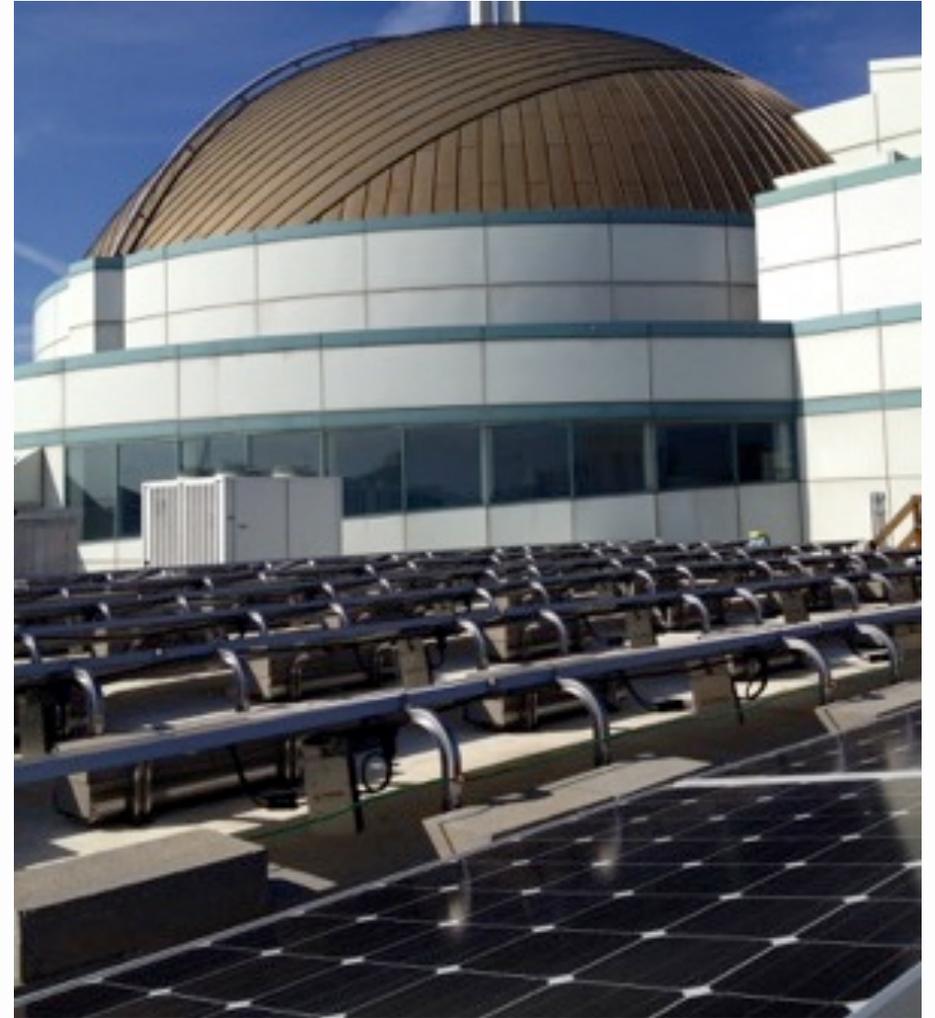
St. Louis Science Center



St. Louis, MO



Two rooftop arrays, with viewing area and educational displays indoors. Solar powered electric truck with travelling educational displays. Solar sunflowers project.



# LARGE SCALE DISTRIBUTED PV PROJECTS



## Solar for Nonprofits Program



Over 70 installations in a 12 month period  
Offered in Partnership with US Bank

# HIGH PROFILE PROJECTS



St. Louis Cardinals  
Busch Stadium



St. Louis, MO



Roof mount flush & concession  
canopy

Public display with solar awning



# SMALL UTILITY PROJECTS

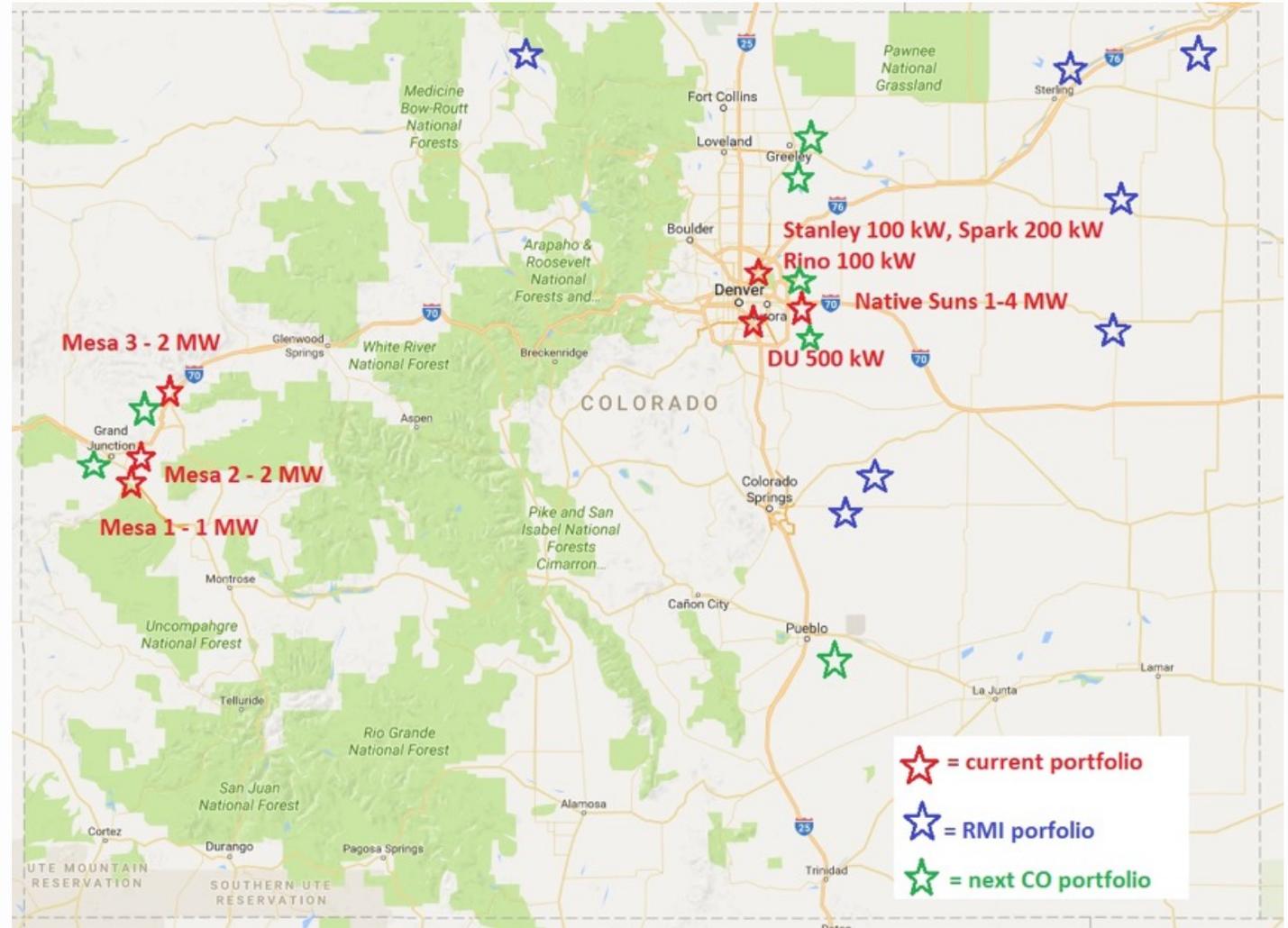
## Colorado Portfolios

24.5 MW with Xcel CS Program

2.5 MW Black Hills CS

8.0 MW Co-op PPAs

143 MW in development in other states





**LIZ REDDING**  
**Director of Project Development, IL**

Email: [lreddington@pivotenergy.net](mailto:lreddington@pivotenergy.net)  
Phone: 248.892.4247