



# Fountain Point Solar Energy Center

## Public Information Meeting

January 12, 2022

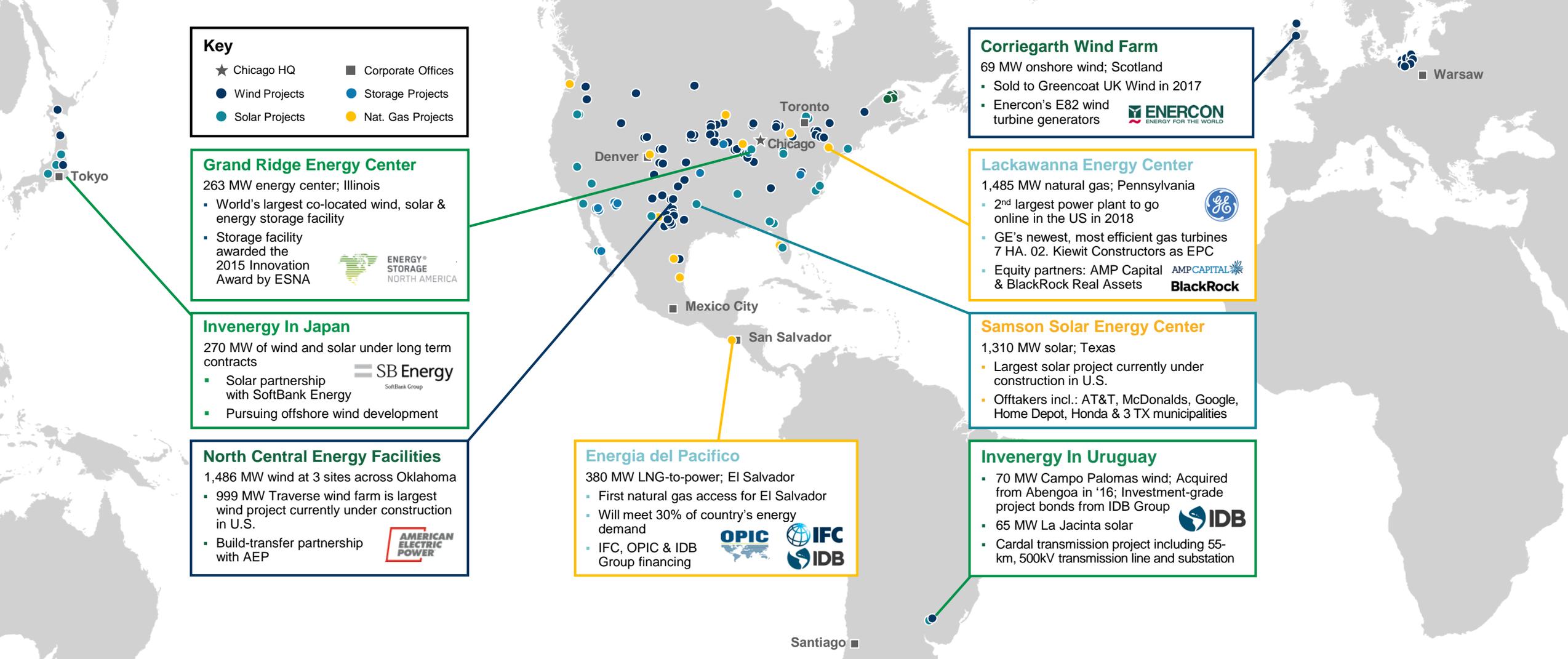


# Agenda

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- **Invenergy Introduction**
- **Description of Project**
- **Project Schedule**
- **Project Components and Facilities**
- **Current Project Conceptual Map**
- **Project Studies**
- **Community Engagement & Impacts**
- **Ohio Power Siting Board Process**
- **Contact Information**

# Invenergy Introduction



Invenergy

**190**  
Projects  
Developed

**29GW**  
Capacity  
Developed

**\$45Bil+**  
Completed  
Transactions

**8.6Mil**  
Homes  
Powered

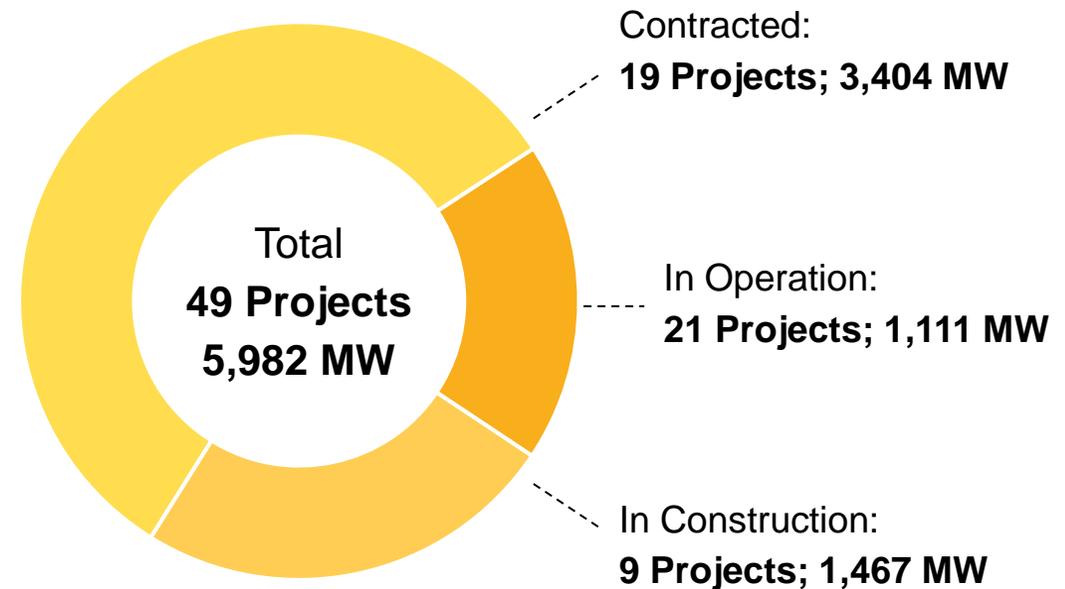
**9.2Mil**  
Cars off the  
Road Equivalent

# Invenergy Solar Experience



- **Harnessing the sun since 2012 to deliver low-cost renewable energy**
- **Experience including**
  - Serving utility, public power, and corporate customers
  - Structures including PPAs and build/development-transfer
- **Meeting growing demand for solar with:**
  - Technology innovation
  - Relationships with Tier 1 suppliers
  - Unparallel project execution
  - Safe & reliable operations

## Invenergy Solar Portfolio



# Invenergy's Experience In Ohio

11+ Years of Experience Developing Renewable Energy Projects in the Buckeye State

## Hardin Solar I

- 150 MW Project located in Hardin County, OH
- [Approved OPSB Certificate](#) - February 2018
- Commercial Operations achieved

## Hardin Solar II

- Proposed 170 MW Project located in Hardin County, OH
- [Approved OPSB Certificate](#) - May 2019

## Hardin Solar III

- Proposed 300 MW Project located in Hardin County, OH
- [Approved OPSB Certificate](#) - November 2021

## Vinton Solar

- Proposed 125 MW Project located in Vinton County, OH
- [Approved OPSB Certificate](#) - September 2018

## Cadence Solar

- Proposed 275 MW Project located in Union County, OH

## Pleasant Prairie Solar

- Proposed 250 MW Project located in Franklin County, OH

## Yellow Wood Solar

- Proposed 300 MW Project located in Clinton County, OH

Invenergy

COLUMBUS BUSINESS FIRST  
Local, state & federal resources to help deal with the coronavirus

INDUSTRIES & TOPICS NEWS LISTS & LEADS PEOPLE & COMPANIES EVENTS LEADERSHIP TRUST MORE...

Energy

### State approves projects that will create Ohio's two largest solar farms

RECOMMENDED

Most Admired CEOs: Sunrun's Lynn Jurich is changing the climate for solar energy (Video)

Bonanza Creek Energy buying Colorado oil competitor in deal valued at \$376M

Parent of Avangrid Renewables pledges \$500 investment in green energy

By Tristan Navera - Staff reporter, Columbus Business First  
Feb 15, 2018, 3:50pm EST

The Columbus Dispatch

Don't sit this one out. Your voice matters. Now make it heard. Register to vote

Theodore Decker: Plan next summer's fun list now

Work progresses on new Franklin County jail

Going home: A reporter's journey home to Connecticut

Why Columbus Crew believes it can continue to win...

Return of Ohio State football gives other fall athletes a lift

"State approves projects that will create Ohio's two largest solar farms" - Columbus Business First, February 15, 2018

"Vinton County optimistic about proposed solar-energy project" - Columbus Dispatch, September 11, 2017

CORONAVIRUS IN OHIO 5:59 AM Central Ohio already preparing COVID-19 vaccine plans

## Vinton County optimistic about proposed solar-energy project

### MOST POPULAR

- 1 Before mostly mask-less Ohio crowds, Trump asserts COVID-19 'affects virtually nobody'  
Sep 22 at 8:21 AM
- 2 Downtown Columbus bar cited for COVID violations  
Sep 21 at 1:44 PM
- 3 Ohio's positive COVID-19 test rate drops to lowest level of pandemic  
Sep 21 at 2:40 PM
- 4 Unlike 2016, Ohio's Rob Portman now backs Senate vote on Supreme Court nominee  
Sep 21 at 4:55 AM



BUY PHOTO HIDE CAPTION  
Chicago-based Invenergy proposes to build a solar energy farm in Vinton County on 2,200 leased acres of reclaimed strip-mined land currently used as a cattle pasture. (Dispatch photo)



Sponsorship at the Vinton County Fair, July 2017

# Beginnings – Fountain Point Solar Energy LLC

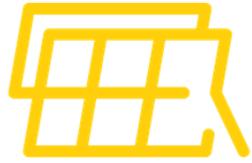
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- **Fountain Point Solar Energy LLC is a wholly-owned subsidiary of Invenergy Solar Development North America LLC (Invenergy).**
- **Began preliminary due diligence: August 2018**
  - Available Transmission Capacity and robustness of certain components of the transmission grid
  - Targeted large agricultural tracts of land with minimal topography
- **Entered into PJM Queue: September 2018**
- **Actively began negotiating land agreements: February 2019**



# Description of Project

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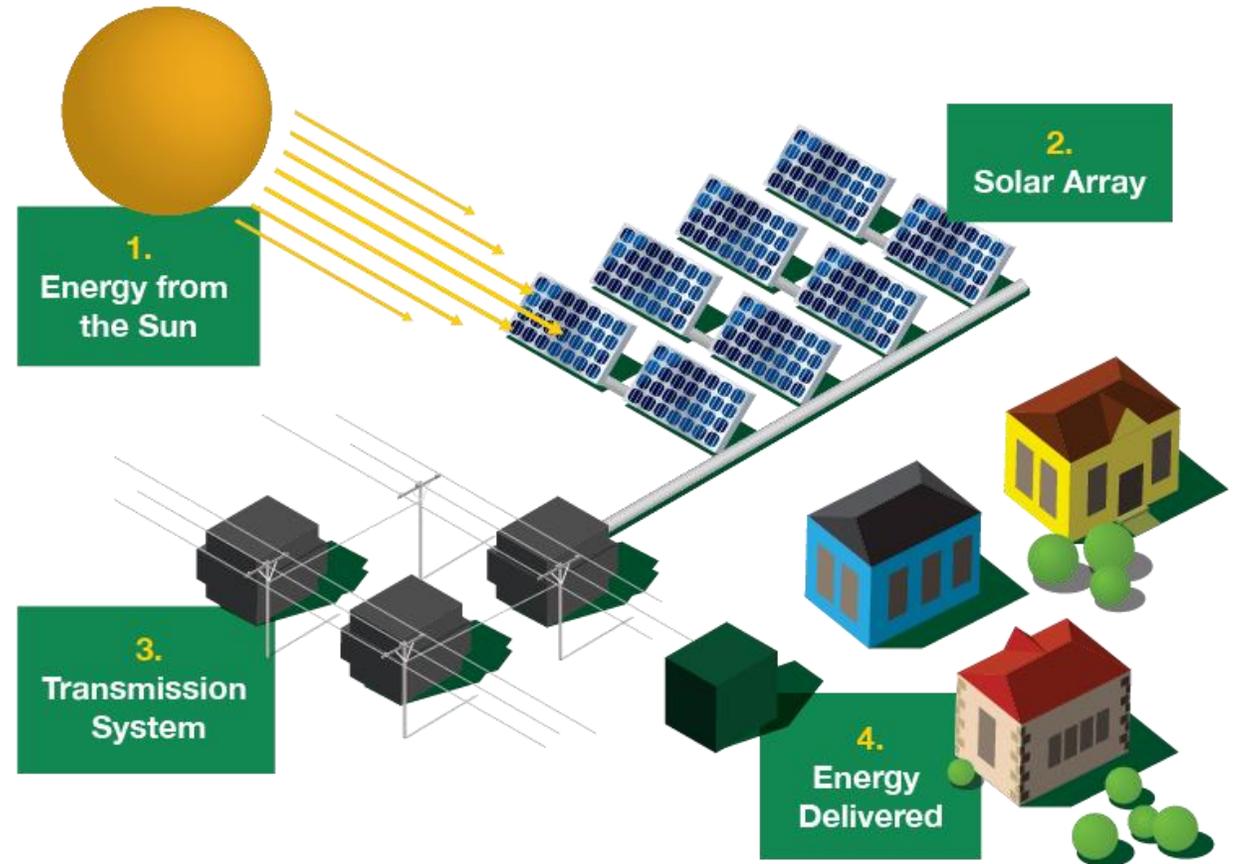


# Fountain Point Solar

Proven  
Technology

Innovative  
Design

Year-Round  
Sunlight

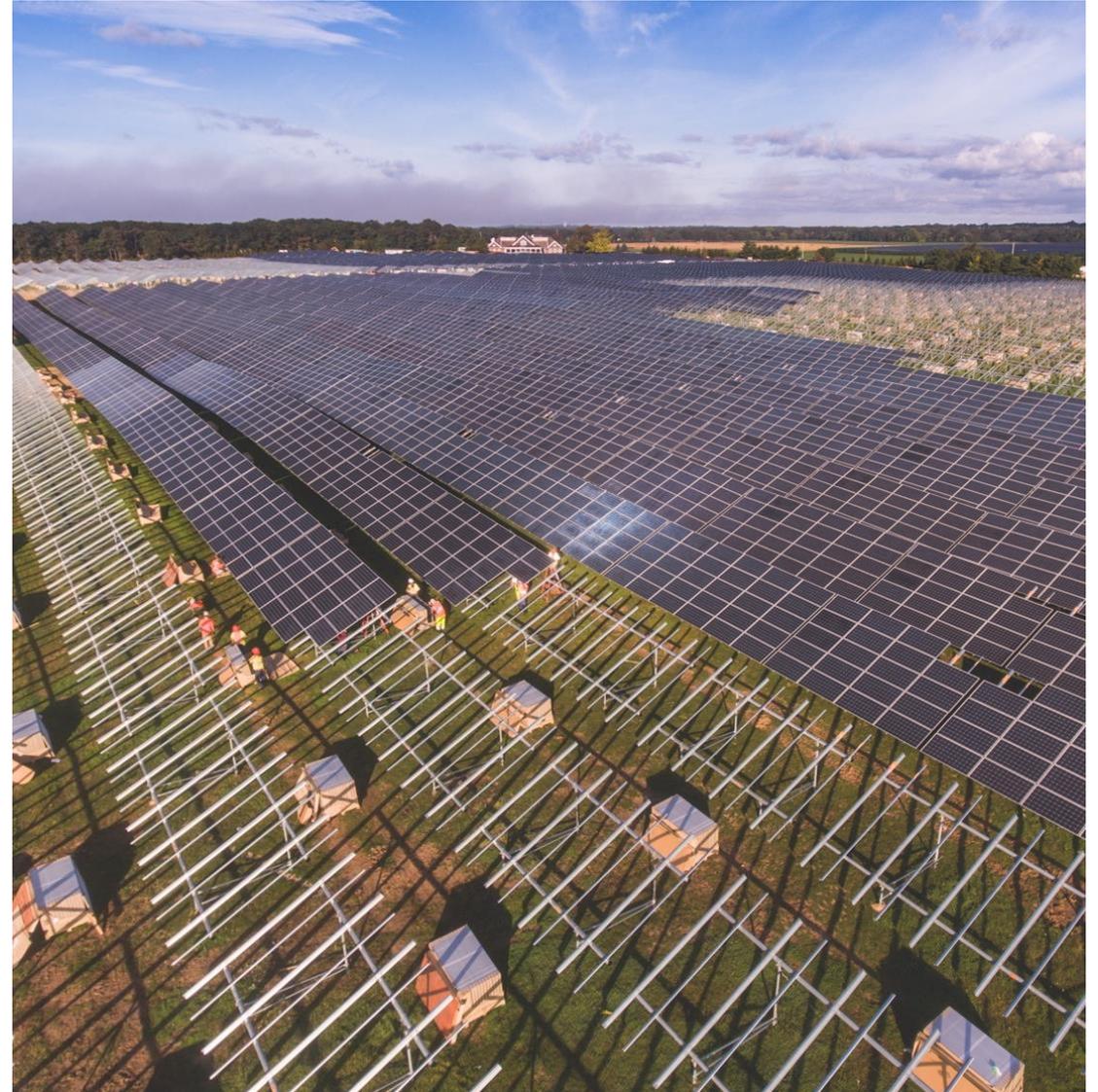


Invenergy uses **state-of-the-art photovoltaic (PV) panels** to harness the sun's energy. Nearby transmission infrastructure will deliver energy to the grid.

# Description of Project

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- **The Fountain Point Solar Energy Center (Project) is a 280 MW solar-powered electric generation facility located primarily in Bokescreek Township, Logan County, OH.**
  - The Project is sited about 9 miles northeast of Bellefontaine, near West Mansfield.
- **The Project will be connecting into the Kirby-Blue Jacket 138kV transmission line via the AE1-092 PJM queue position.**
- **The Project represents Invenergy's commitment to continued investment in Ohio utility scale solar generation projects.**



**Smart Columbus Introduces Renewable Energy Procurement for Large Columbus Region Energy Buyers**  
*Cardinal Health, Huntington and AEP sign on as first customers to buy Ohio-based clean energy from Smart Columbus Energy, powered by AEP Energy*

# Why Ohio?

- Cost Competitive Technology**

- Solar technology is simple and scalable; its flexible and reliable. With costs that have decreased by nearly 90% in less than a decade, solar is now one of the least expensive and fastest growing sources of new energy generation in the world.

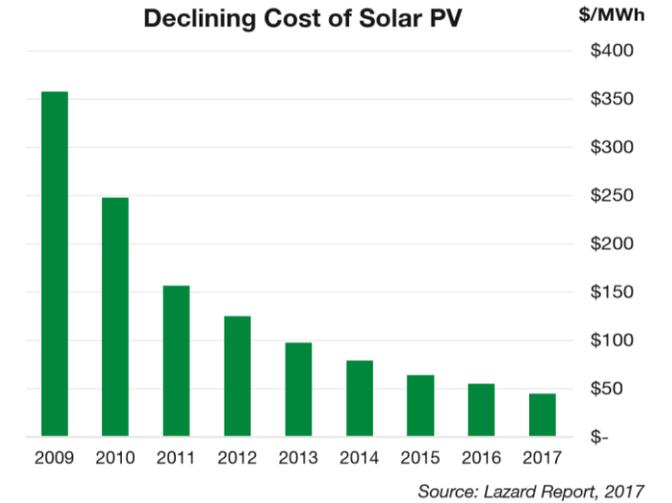
- Commercial and Municipal Demand**

- Nearly 70% of Ohio's regional planning commissions have publicly noted an interest in renewable energy or environmental sustainability plans\*
- City of Columbus – Proposed Electric Service Aggregation Program (Ballot Issue 1)
- Smart Columbus Energy- Aggregation for local large corporate and industrial organizations that consume approximately 5,000MWh or more per year.
- Nationwide Commercial & Industrial Users
  - Ohio's 60 largest employers have an average target of utilizing 80% renewable energy sources by 2025 to 2030\*

- Decarbonization goals from utilities like American Electric Power (AEP)**

- Renewable projects and relationship to carbon emission free energy generation. Cleaner air/water.

Invenergy



**GOVERNMENT**

## Columbus voters approve green-energy aggregation plan

Bill Bush

Published 10:48 p.m. ET Nov. 3, 2020 | Updated 11:28 a.m. ET Nov. 4, 2020

### The Columbus Dispatch

**AEP's Carbon Emission Reduction Goals**

**70% by 2030**

**80% by 2050**

(both from a 2000 baseline)

\*Ohio Renewable Energy Low-Conflict Zone Research Study; led by The Great Plains Institute and conducted by Gilbert Michaud, Ph.D., assistant professor at Loyola University

# Project Schedule

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# Tentative Schedule



## Development Timeline

2019 - 2023

### Development

Activities include permitting, environmental and interconnection studies, and public feedback

2023 / 2024

### Construction

Groundbreaking, construction, inspections and QAQC, Final commissioning and certification

Q4 2024

### Operations

Operations and continuous Maintenance of equipment and the land.

# Operations / Decommissioning

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- **From current land agreements, the project can operate for approximately 45 years.**
  - Landscape and vegetative management, equipment monitoring and inspections, project area security.
- **The owner of the facility will be responsible for removing the facility at the end of its useful life, as required by the operational conditions put forth by the Ohio Power Siting Board.**
  - This decommissioning process is secured and protected via bonds or other financial security obligations as required by Ohio Power and Siting Board prior to commencement of construction.
  - Project components will be removed and recycled from the project area and the land will be returned to its current use and functionality.



# Project Components and Facilities

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# Bi-facial Solar Modules

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- Innovative design of proven technology
- Solar panels are made of glass, aluminum, copper and other common materials.
- Solar panels are safe to touch, attach to your home or install in your neighborhood. Solar panels have been attached to houses, hospitals and airports for decades.
- While there are different kinds of solar panels, the most common are made of silica – the second most abundant element on earth after oxygen. The faces of silica panels are similar in substance to standard household glass.
- Committed to utilizing panels that will pass the EPA's Toxicity Characteristic Leaching Procedure (TCLP) testing



# Single-axis Tracking Systems

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- Follows the sun throughout the day to harness energy at the optimal angle
- The Project will likely utilize a '2 in portrait' configuration
- Accommodates variation in ground cover planting species and allows for additional agricultural features
- Up to approximately 15' total height profile at times of most extreme tracking positions.



# Other Components & Design

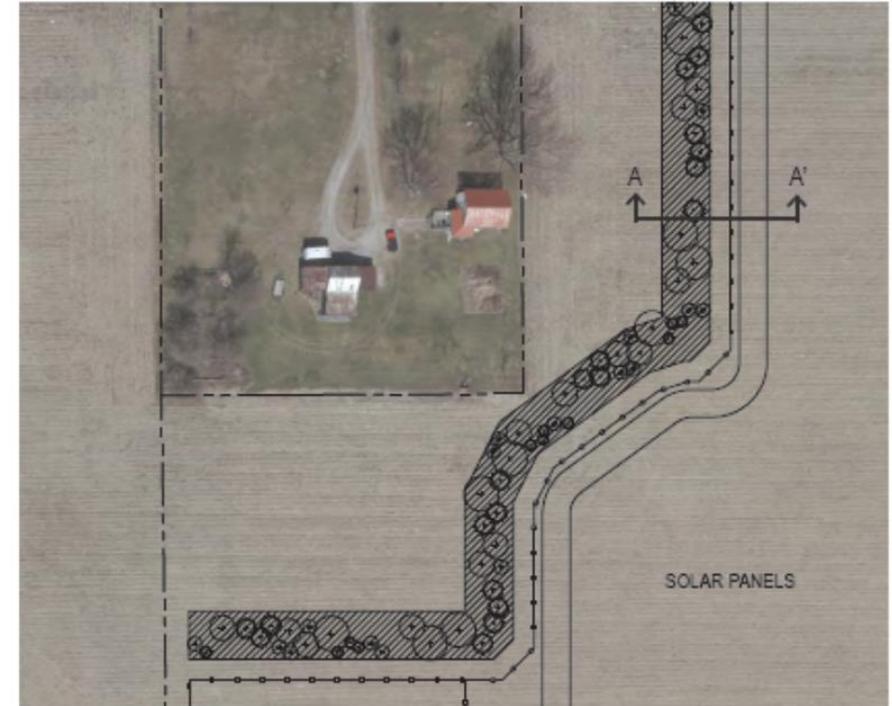
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- **The Project will also include associated support facilities such as access roads, meteorological stations, buried electrical collection lines, inverters, and a collection substation.**
  - These support facilities serve the project through monitoring and maintenance means as well as allowing for the collection of electricity, the conversion of the electricity to a useful form, and transportation of that electricity to the grid to be put to work at a load.
- **Conceptual engineering designs are underway and more detailed designs will be developed by professional engineers prior to construction.**



# Project Components and Facilities

- **The project is undergoing local analysis, review, and design of both a landscape plan along with a vegetative management plan.**
  - The landscape plan dictates how/where/what aesthetic plantings will be placed near and around the project area. There are typically multiple configurations of planting 'treatments' that can be utilized to achieve appropriate viewsheds of the project and project area.
  - The Project vegetative management plan will dictate how/where/what plantings will be placed under the solar panels, as well as how those plantings are to be monitored and maintained to ensure there are no project issues with drainage, invasive species, and mowings or clearings.

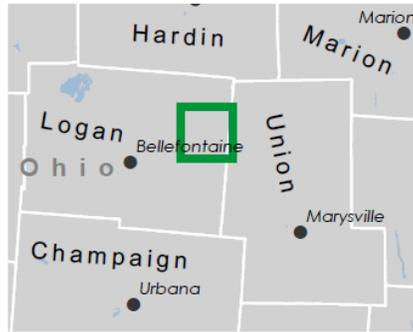


# Current Project Conceptual Map

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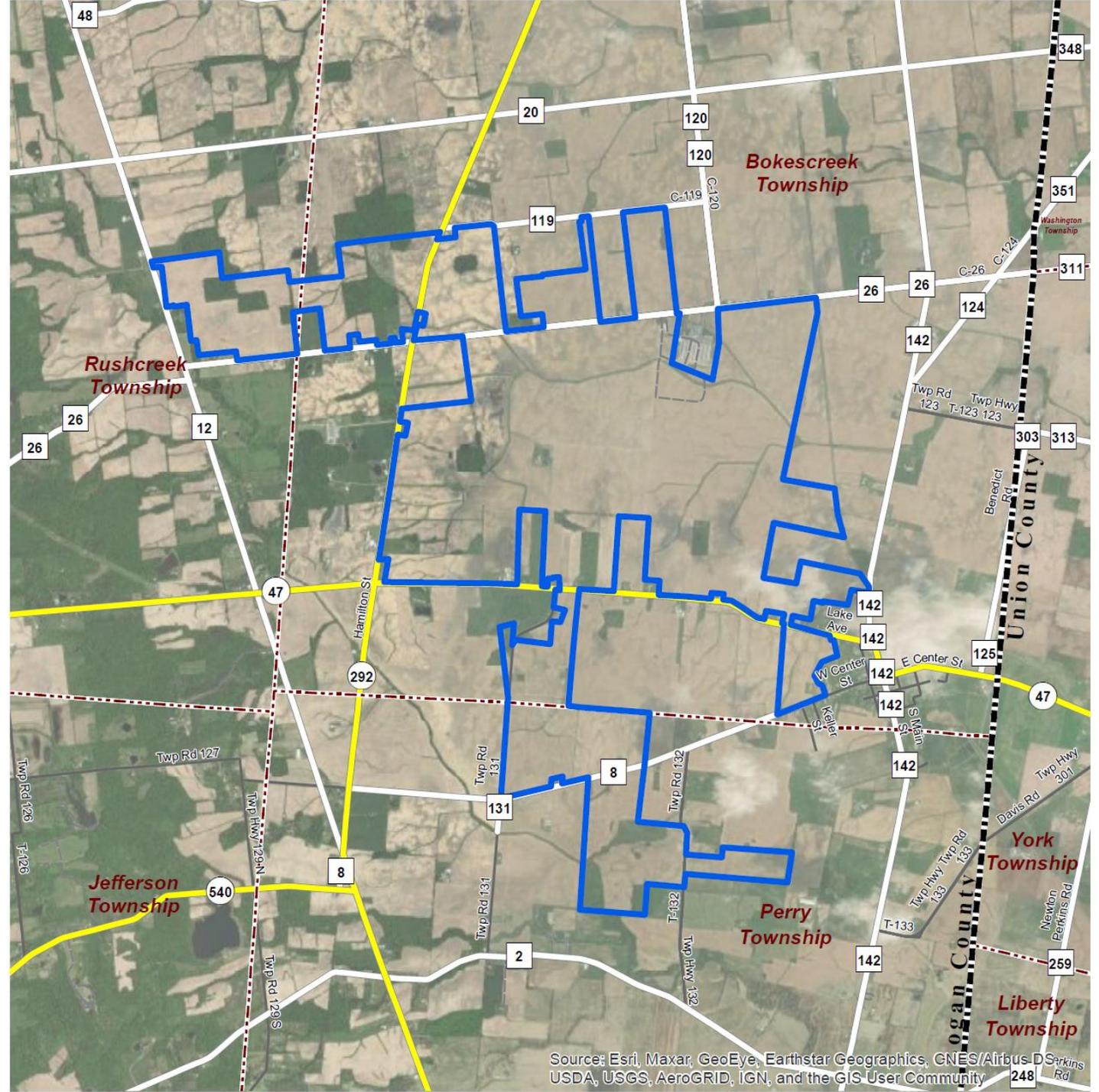
# Project Overview

Fountain Point Solar Energy Center | Logan County, Ohio



## Legend

- Project Area
- County Boundary
- Township
- Road Classification**
- US/State Route
- County Road
- Local Road



# Project Studies

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# Project Studies

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**The below listed studies help inform and advance Project design, incorporate avoidance of sensitive environmental resources, and ensure a high degree of environmental stewardship for the Project area.**

- Ecological Site Characterization Study
- Wetlands and Waterbodies Delineation
- Landscape Plan
- Vegetative Management Plan
- Applicable wildlife surveys based on consultations from ODNR and USFW
- Phase I Environmental Site Assessment

# Project Studies- Continued

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**The following studies inform on the design of the project from a Land Use and Socioeconomic perspective. These studies can help create value for the project area community.**

- Phase I Cultural Resources Investigation
- Viewshed Analysis and Aesthetic Resources Inventory
- Road Survey and Conceptual Traffic Plan
- Decommissioning Plan
- Economic Impact Analysis
- Drain Tile Mapping Investigation and findings
- Noise Impact Study
- Property Value Study

# Project Studies – Continued

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The below listed studies mostly help inform and advance the project design from an Engineering perspective.

- Full Geotechnical Testing (pile load tests and cone penetration tests)
- Hydrology Study
- Drain Tile Mapping Investigation and findings
- Topography and aerial imaging

# Community Engagement & Impacts

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# Our Invenergy Impact



**\$258 million**

Total 2020 local economic investment in wages & benefits, lease payments, and state & local taxes



**\$1.4 million**

Given to different cause-based organizations in 2020, focusing on veterans, education, emergency services & environmental stewardship



**10% veterans**

Percent of Invenergy's U.S.-based workforce who are military veterans or reservists



### Sustainability Innovation Award

*Awarded by Oracle to Invenergy in 2017 for sustainability leadership*



### Four Star Sponsor

*First sustainable power developer & operator to sponsor National FFA (Future Farmers of America formerly)*



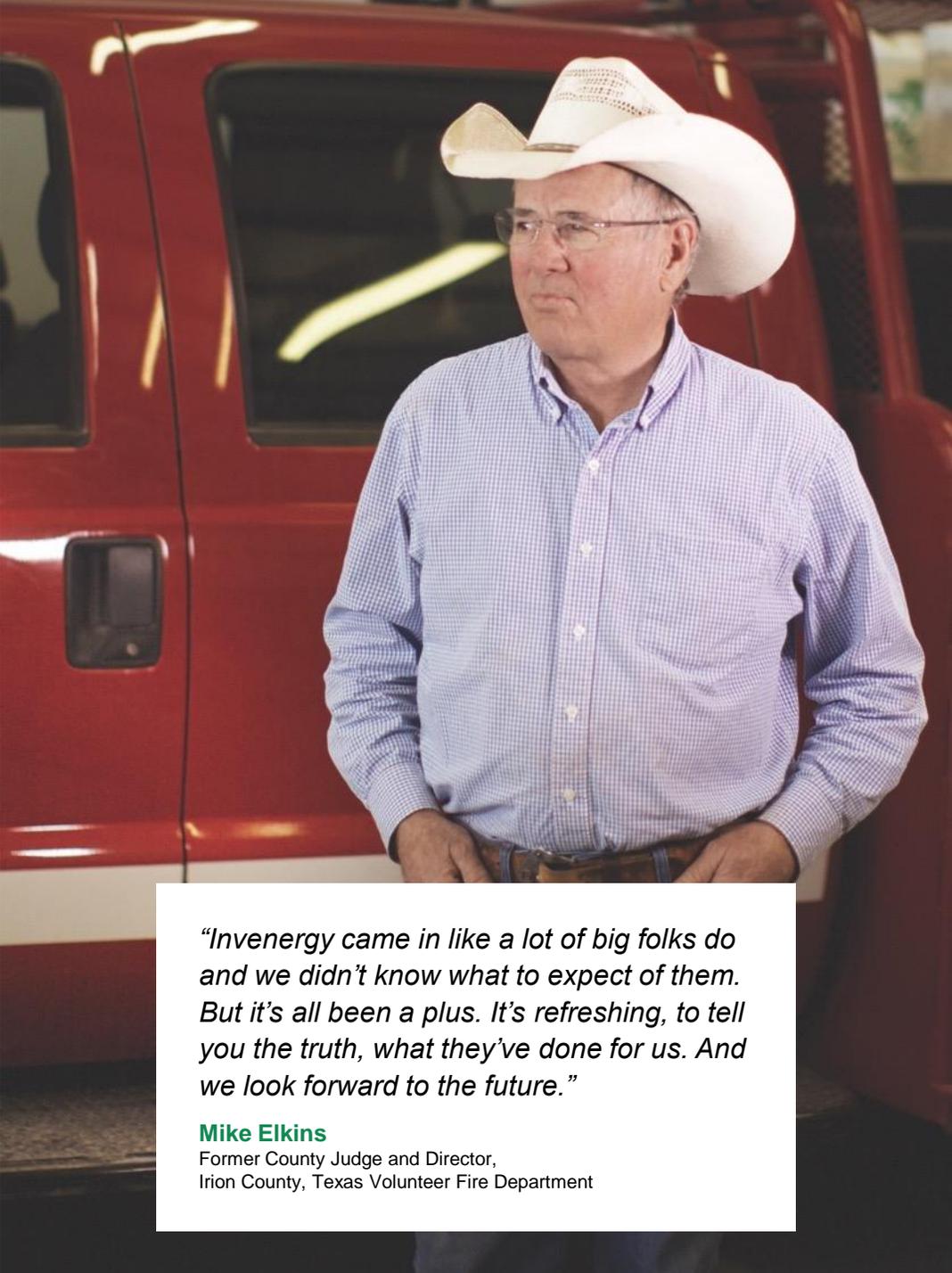
### #1 Renewables Reputation

*Top brand reputation among 1,500 companies active in the North American renewables market*



### HIRE Vets Gold Medallion

*Recognized in 2019 by the US Department of Labor for commitment to hiring veterans*



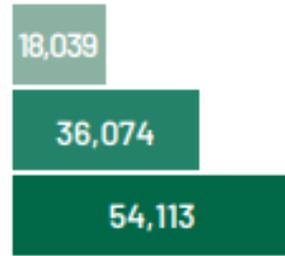
*"Invenergy came in like a lot of big folks do and we didn't know what to expect of them. But it's all been a plus. It's refreshing, to tell you the truth, what they've done for us. And we look forward to the future."*

**Mike Elkins**  
Former County Judge and Director,  
Irion County, Texas Volunteer Fire Department

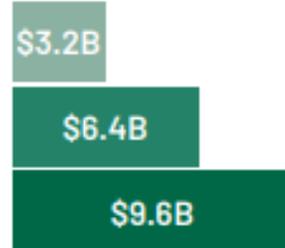
# Measuring the Economic Impacts of Utility Scale Solar in Ohio

## One-Time Construction Phase Impacts

### Total Jobs



### Total Economic Impacts

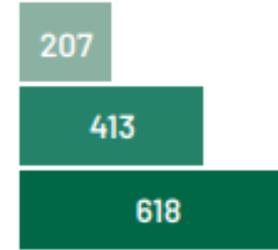


### Deployment Scenarios

- Low (2.5 GW)
- Moderate (5 GW)
- Aggressive (7.5 GW)

## Annual Operations Phase Impacts

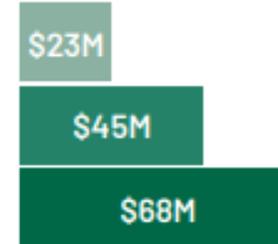
### Total Jobs



### Total Economic Impacts



### Tax Revenues (PILOT)



### Total Homes Powered



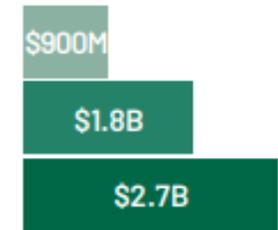
## Aggregate Lifespan Operations Phase Impacts



### Total Economic Impacts



### Tax Revenues (PILOT)



In the aggressive (7.5 GW) deployment scenario, the energy produced could power all of the households in Columbus, Ohio roughly **four** times over.

\* All calculations assume 80% of labor and 30% of materials originate in Ohio.

Conducted by the George V. Voinovich School of Leadership and Public Affairs at Ohio University

## Development Project Profile

# Fountain Point Solar Energy Center



Enough electricity to power more than **55,544 American homes**



An estimated **\$4.4 million** invested in Logan County **per year** through new taxes and landowners' payments over the life of the project



Will support an estimated **800 jobs** during peak construction



Up to **4 full-time** operations and maintenance jobs once operational



Emissions reductions equivalent to taking **60,880** cars off the road



Invenergy supports local education, emergency & veteran services and environmental stewardship

## Development Timeline

2019–2023

### Development

Activities include wind assessment, environmental studies, interconnection studies, etc.

2023-2024

### Construction

Q4 2024

### Operation



Uses the most up-to-date, innovative technology



Up to **280 megawatts** of sustainable energy

# Municipal / County Conceptual Annual Payment Distributions

- Based on current conceptual design and county tax levy rates, this table shows a baseline approximation/minimum of the annual municipal and county payments that could be made with regards to the project.
- Other and/or additional payments are possible as this is just an initial baseline approximation.
- Physically, at this conceptual design level, about 85% of the project is located in Bokescreek Township, with 5%-10% each in Rushcreek and Perry Townships
  - Township payments would thus be split accordingly

Conceptual Minimum Project Payments		
	Annual	Total
Logan County	\$366,333	\$16,484,985
Townships	\$180,993	\$8,144,685
Fire & EMS	\$176,507	\$7,942,815
Benjamin Logan Schools	\$1,121,142	\$50,451,390
Ohio Hi-Point JVS	\$115,025	\$5,176,125
<b>Total</b>	<b>\$1,960,000</b>	<b>\$88,200,000</b>

# Benefits of Vegetation Management Approach

- **Soil/planting diversity and health**
- **Can improve area stormwater drainage properties through diversified plantings and long rooted systems that can reduce soil erosion issues**
- **Project area will likely see a reduction or elimination of annual soil tilling**
- **Should improve downstream stormwater quality through the area reduction or elimination of fertilizer use**
- **Can help increase area pollinator habitats**

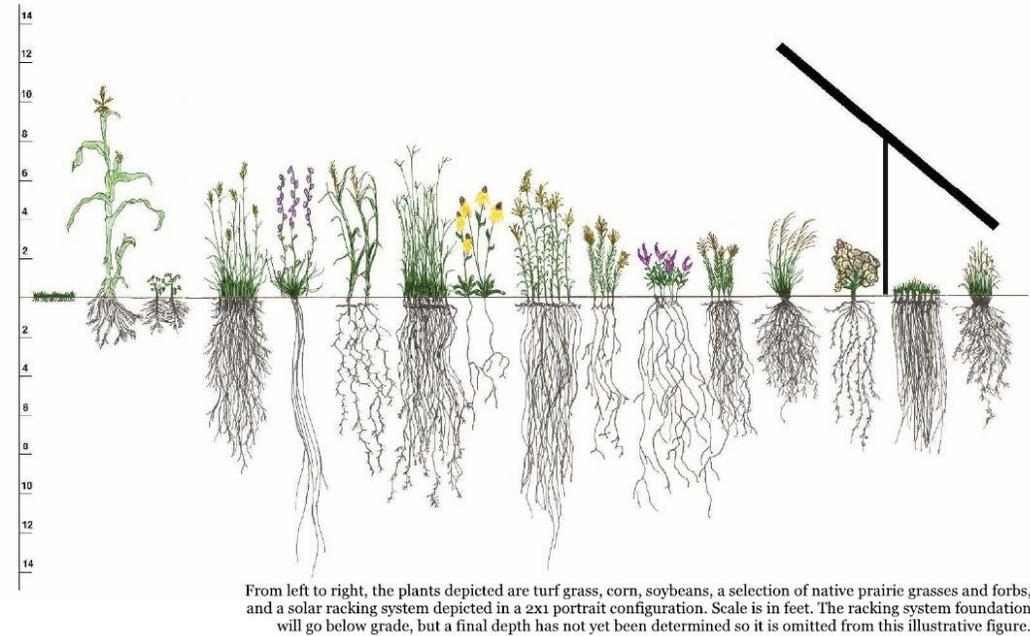


Figure 2: Selected Native Plant Rooting Depths and Growth Heights

“Through the conversion of approximately 2,000 acres of intensively managed active agricultural fields to permanently stabilized, perennially vegetated grasslands, the proposed Project [Pleasant Prairie] is anticipated to improve a number of key ecosystem services and exhibit an improved ecological condition.”

-Resource Environmental Solutions, LLC

# Involvement in Logan County

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## Local Outreach

- Mailings with project information to 140+ landowners
- Door-to-Door Efforts (w/social distancing protocol) to see specific concerns in and around the project area (50+ doors knocked)
- Phone outreach and follow up (~100+ calls completed)
- Online Engagement for information about solar and specific project details

## Community Engagement

- Logan County Commissioners
- Bokescreek, Perry, and Rushcreek Township Trustees
- Benjamin Logan School District
- Bokescreek Fire Department
- Hi-Point Career Center
- Logan County Chamber of Commerce
- Kiwanis Club of Bellefontaine

**Community engagement is an ongoing process, and we look forward to strengthening our relationships in Logan County**

# OPSB Process

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# OPSB Process

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- **Under Ohio law, electric generating facilities capable of generating more than 50 megawatts must apply for a Certificate of Environmental Compatibility and Public Need (Certificate) from the Ohio Power Siting Board (OPSB).**
- **Per the Ohio Revised Code, the OPSB is entity that reviews and approves projects from a siting, land use, and entitlement perspective.**
- **Fountain Point Solar Energy LLC anticipates filing with the OPSB in Q1 2022.**
- **Further information from the OPSB follows this slide.**



Power Siting Board



Power Siting Board



- Before any company can build a “major utility facility,” the OPSB assures that it benefits Ohio’s citizens, promotes the state’s economic interests, and protects the environment and land use.
- Public and local government participation are strongly encouraged, but decision-making authority rests with the OPSB.
- If approved, the OPSB issues a certificate for the construction, operation, and maintenance of the facility.



## Electric Generation

Solar farms  
50 MW and greater

Wind farms  
5 MW and greater

Fossil fuel plants  
50 MW and greater

## Electric Transmission

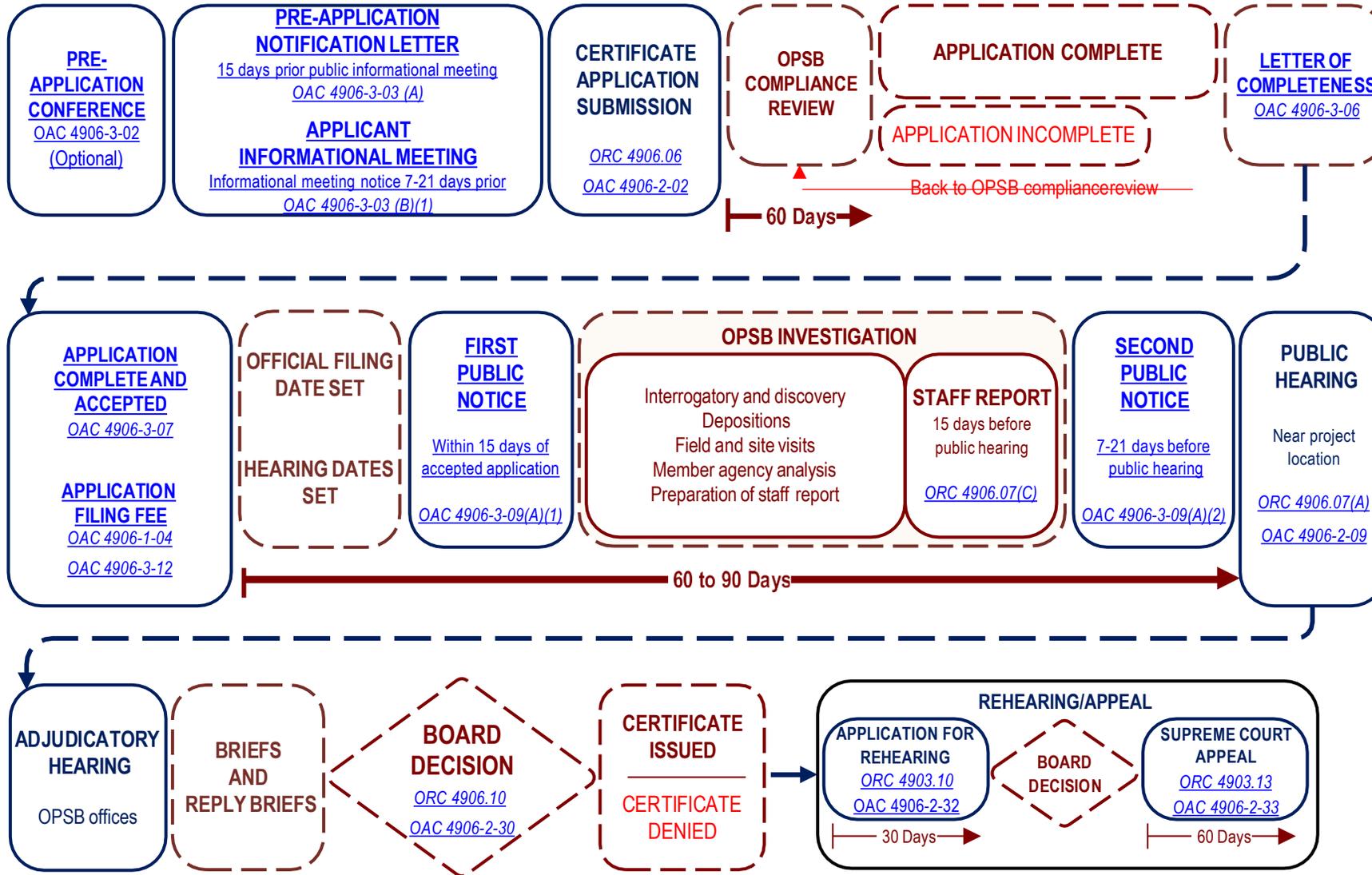
Lines and associated  
facilities 100 kV and  
greater

## Natural Gas Transmission

Pipelines greater  
than 500 feet in  
length and 9 inches  
in diameter

Maximum operating  
pressure greater  
than 125 psi





### LEGEND



Construction and operation are monitored by the OPSB



## Public informational meeting

Developer educates community about project and gathers input to consider in developing its application. OPSB representatives provide info about siting process and public participation.

## Public comments

Written comments are filed in the case where they inform the Board members and staff. Comments are accepted at any time after a case number is established.

**Online:** [OPSB.ohio.gov](https://opsb.ohio.gov)

**Email:** [contactopsb@puco.ohio.gov](mailto:contactopsb@puco.ohio.gov)

**Mail:**

Ohio Power Siting Board

180 E. Broad Street

Columbus, Ohio 43215

## Local public hearing

Board obtains sworn statements from the public which are transcribed and become part of the official record that the Board considers before making its decision.

Held at least 15 days after staff publishes its report of investigation. Notification letters sent to property owners and local officials. Newspaper notice 7-21 before the hearing.

## Adjudicatory hearing

The developer, OPSB staff, and parties to the case present testimony and evidence regarding the facility and cross examine each other. Intervention grants individuals and local governments the right to participate as a party in the adjudicatory hearing, file for rehearing, or appeal to the Supreme Court of Ohio.

Held approximately 2 weeks after the local public hearing. Property owners and local officials receive letters advising them of right to intervene.



- If a project is approved, the OPSB monitors construction and operation to ensure compliance with the certificate and any conditions.
- The developer must notify landowners prior to start of construction.
- The developer must establish a complaint resolution process to address concerns resulting from project construction and operation.
- OPSB can assist individuals who feel they are not obtaining a resolution from the developer.



## OPSB Website

[OPSB.ohio.gov](http://OPSB.ohio.gov)

- Case summary page
- Process information
- Calendar of events

## Docketing information system

[dis.puc.state.oh.us](http://dis.puc.state.oh.us)

- View case documents and public comments
- Subscribe for case notifications

[contactOPSB@puco.ohio.gov](mailto:contactOPSB@puco.ohio.gov)

866-270-6772

The Ohio Power Siting Board

180 East Broad Street

Columbus, Ohio 43215



# Applicant Contact Information

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# Applicant Contact Information

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For further information about the Fountain Point Solar Energy Center, please contact us at:

Web:

<https://fountainpointsolar.com>

Email:

[Info@fountainpointsolar.com](mailto:Info@fountainpointsolar.com)

Mailing Address:

**Fountain Point Solar Energy LLC**

**c/o Invenergy LLC**

**One South Wacker Drive, Suite 1800**

**Chicago, IL 60606**

Invenergy

**We're building a  
sustainable world.**

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