

# Mammoth Solar



**Pulaski County Board of Zoning Appeals Hearing**

July 27, 2020



# Mammoth Solar

500MW – 1GW PV Solar Farm

Estimated investment - over \$500 Million

A Photovoltaic (PV) Solar Farm in Pulaski County, Indiana

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# I. THE DEVELOPER - HISTORY & BACKGROUND

Joint venture to develop utility scale renewables in the U.S. – Global Energy Generation LLC

## CLEAN AIR GENERATION LLC

- Developer of utility scale energy projects in the U.S
- Key principal, Nick Cohen, having 15 years of experience in the market

## DORAL GROUP LTD.

- Leading developer and owner-operator of over 400 energy facilities globally
- First company to commercialize a solar facility in Israel, 13 years ago
- Publicly traded company
- 3 GW project portfolio pipeline





# GLOBAL ENERGY GENERATION LLC

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## THE COMPANY

- 1.5 GW of renewables in PJM/MISO
- \$2 billion construction portfolio
- 21,000 acres of land control
- Over 50-years combined energy development experience of management team
- Projects will serve over 1 million households



## II. PROJECT SUMMARY - MAMMOTH SOLAR

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### GENERAL OVERVIEW

- Optimal location where two grid systems converge
- Strong market demand from Indiana utilities
- Helps County realize their investment in a solar ordinance by attracting the project and its investment
- Unlike many neighboring states, Indiana does not provide a policy framework to subsidize solar projects and as a result, projects must have economies of scale

# Typical Rural Solar Facilities

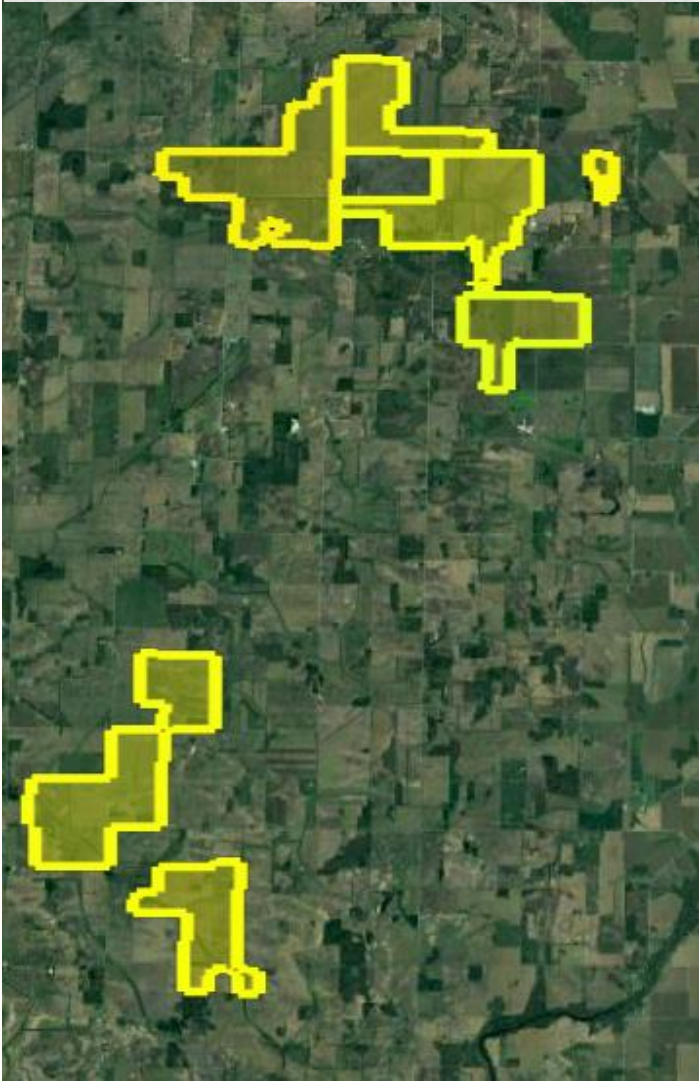


# II. PROJECT SUMMARY – SOLAR LAYOUT PLAN



## Mammoth Solar Layout Plan

Theoretical Maximum Coverage. Actual panel coverage will take into consideration development requirements.





## II. PROJECT SUMMARY - MAMMOTH SOLAR

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### COMMUNITY BENEFITS

- 1) Most valuable use of agriculture land resulting in:
  - a) >\$200 million construction workforce investment
  - b) >\$50 million local vendor contracts during construction
  - c) Increased revenue to Pulaski
  - d) Host community benefit opportunity to fund revitalization, historical attributes and other community and municipal needs
  - e) >40 local jobs after construction
  - f) >\$10 million annually in local service/vendor contracts for the operating life of the project
- 2) Provides clean power to the grid, meeting state and federal regulations
- 3) Quiet neighbor with very low traffic and no impact on property values
- 4) Preserves farmland for future agricultural use (like an extended CRP program)





### III. NEXT STEPS

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#### Once Special Exception is granted:

- We must initiate several studies and analyses of the site including, without limitation, extensive surveying, topography, sediment, erosion and drainage, wildlife and migration studies, delineation of flood plains and wetlands, and interconnection to the grid
- Detailed depiction of project site, internal access drives, fencing, landscaping, and construction prior to grant of building permit
- Project still has to go through rigorous state and federal permitting
- Requires economic development agreement, a decommissioning plan and a road agreement with the county.



### III. NEXT STEPS - PERMITTING

#### Highly Regulated

Before construction, projects must provide engineering and feasibility, including wildlife studies with mitigation plans, erosion and sediment plans, and more that get approved by government oversight authorities as may be applicable based on site conditions, including, but not limited to:

- Indiana Department of Environmental Management (IDEM)
- Indiana Department of Natural Resources (IDNR)
- Army Corps of Engineers (ACE)
- Federal Emergency Management Agency (FEMA)
- U.S. Fish and Wildlife Service (USFWS)
- PJM Interconnection (RTO/the grid)
- Indiana Utility Regulatory Commission (IURC)
- Pulaski County Drainage Board
- Federal Aviation Administration (FAA)
- Pulaski County Highway Department
- Building Commissioner



## IV. Ballot Items

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### Compatibility with Pulaski County's Comprehensive Plan

#### Goals Met:

- Establishes renewables and promotes solar energy
- Diversifies the local economy
- Invests in infrastructure to support economic and residential growth
- Provides additional short and long term job base
- Protects farmland for future use



## IV. Ballot Items

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### Compatibility with the Current Conditions and Character of Vicinity

- UDO development standards are designed to ensure compatibility
- Structures are smaller and less impactful than other Agricultural uses - No Odor, No Off-site Noise, Limited Traffic, Passive, Environmentally Safe
- The modules, similar to the ones installed on residential rooftops, are constructed with inert (chemically inactive) polymers, and must pass the Environmental Protection Agency's Toxic Leaching Characteristic Procedure (TCLP) test which certifies that the panels are nonhazardous
- Developer's commitments exceed ordinance - Setbacks, Landscaping, Screening, and Preservation of Tiles



## IV. Ballot Items

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### A Solar project is the Most Desirable Use for this Land

- Small portion of Agricultural Land
- Strategically located near Transcontinental Power Lines (Ideal Location)
- Increased Investment and Tax Base
- Higher revenue per acre
- Compatible with surrounding area



## IV. Ballot Items

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### No Negative Impact on Property Values

- Majority of surrounding parcels are active farms
- Very few residences adjacent to the project - All residents more than 100' from any potential array
- Studies demonstrate an increase in property value in some cases
- No significant impact, particularly when landscaped, Screened and more than 100' away from panels



## IV. Ballot Items

### No Negative Impact on Property Values

Existing studies have found construction of solar farms to have either no affect or a slight positive affect on nearby home values.

<u>Source</u>	<u>Key Findings</u>
Rai et al. " <a href="#">An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations</a> ", University of Texas, Austin, May 2018.	<ul style="list-style-type: none"><li>● Studied 900+ solar installations and surveyed ~40 assessors about the affects of solar PV plants on home values.</li><li>● Study showed that "Results from our survey of residential home assessors show that the majority of respondents believe that proximity to a solar installation has either no impact or a positive impact on home values."</li></ul>
McGarr, Patricia. " <a href="#">Adjacent Property Value Solar Impact Study: A Study of Nine Existing Farms</a> ", Nexia International, 20 March 2018.	<ul style="list-style-type: none"><li>● Studied home sales nearby 9 constructed solar farms in Illinois and Indiana, comparing them with home sales in the same county but located far away from solar farms.</li><li>● Study showed that "no consistent negative impact has occurred to adjacent property that could be attributed to proximity to the adjacent solar farm."</li></ul>





## IV. Ballot Items

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### This solar project allows for responsible development and growth

- The participating parcels are near transmission lines
- Very few residences adjacent to the project, all setback
- Significant investment approximately \$500,000,000
- Increases availability of renewable energy
- Safe, Clean, and Negligible impact on vicinity
- No additional county resources required
- Decommissioning Plan and Bond ensure preservation and restoration

# Typical Rural Solar Facilities

