

# Bright-fields

*Redevelopment of  
contaminated, blighted, or obsolete properties  
as photovoltaic power generating facilities.*



# What We'll Cover

Fundamentals

Players & Process

Why Land Banks and Brownfields?

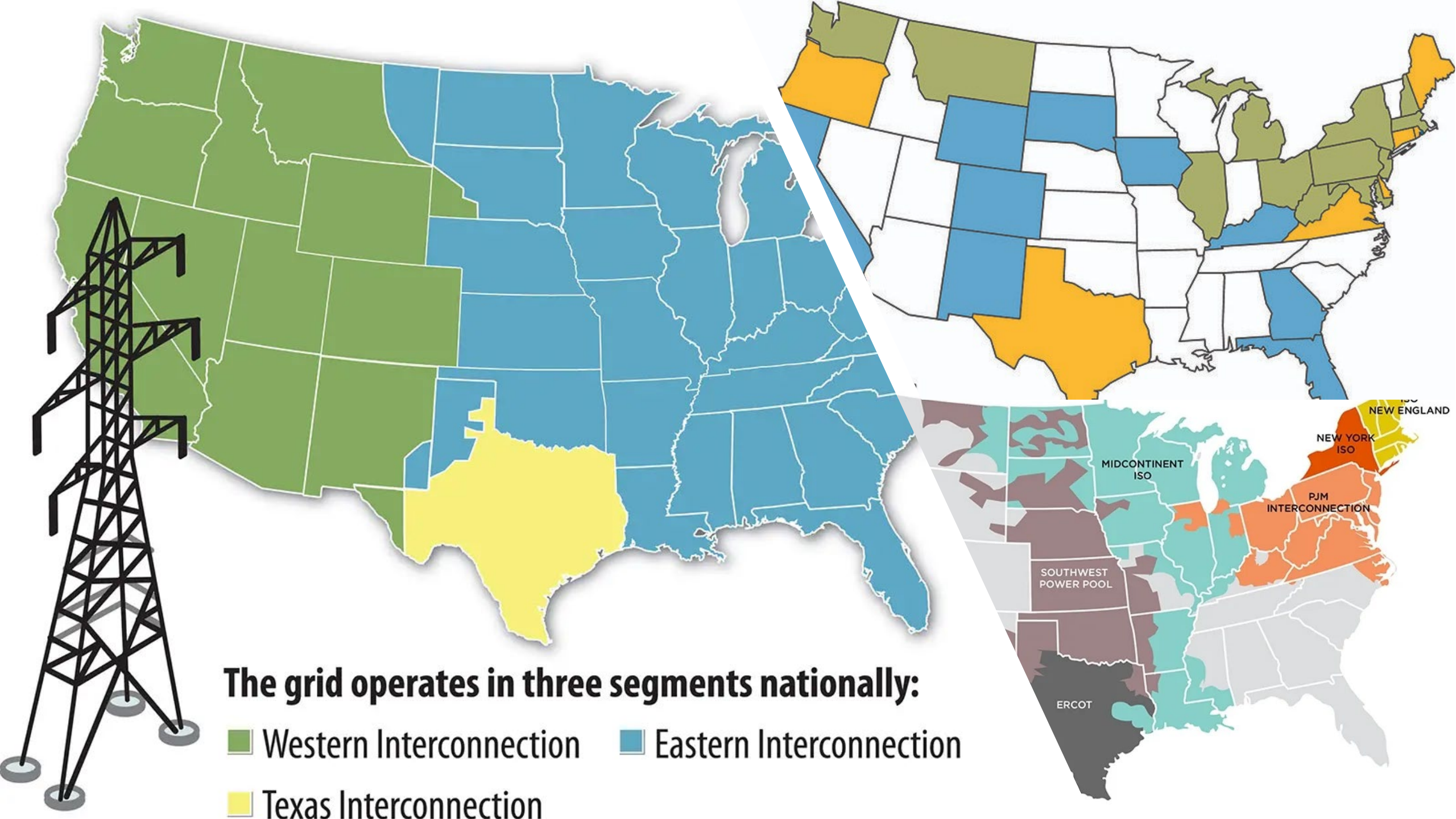
Preparing & Engaging Developers

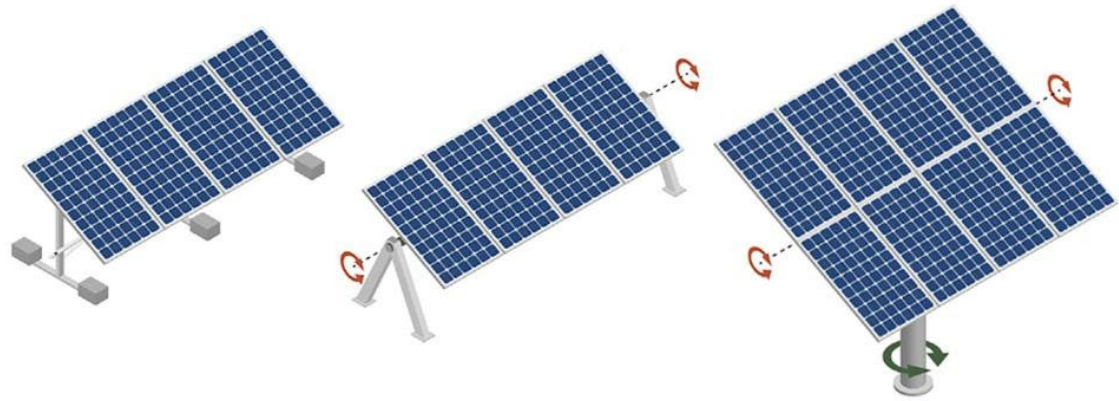
Recommended Terms & Conditions

Q & A



**Fundamentals**

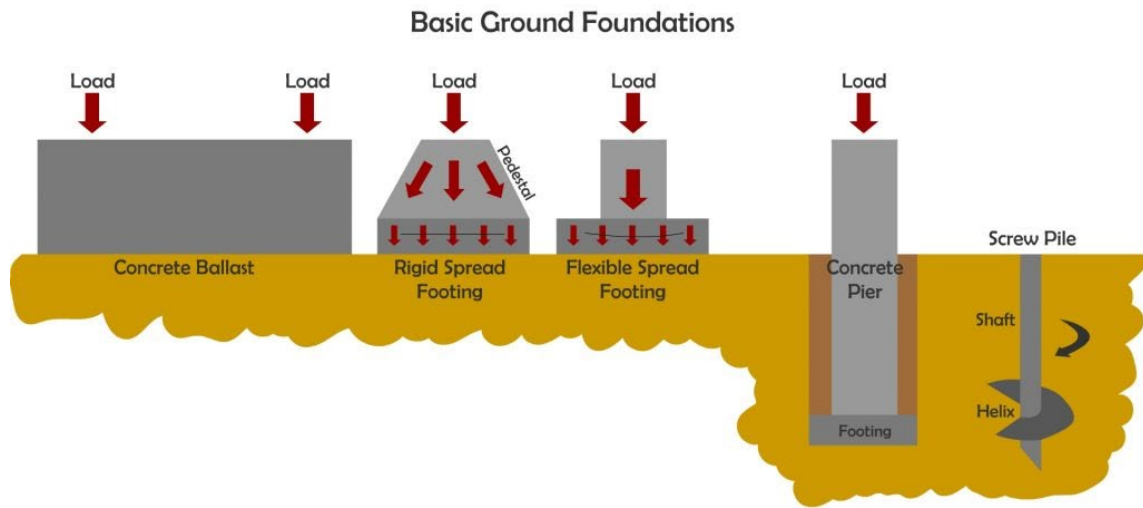




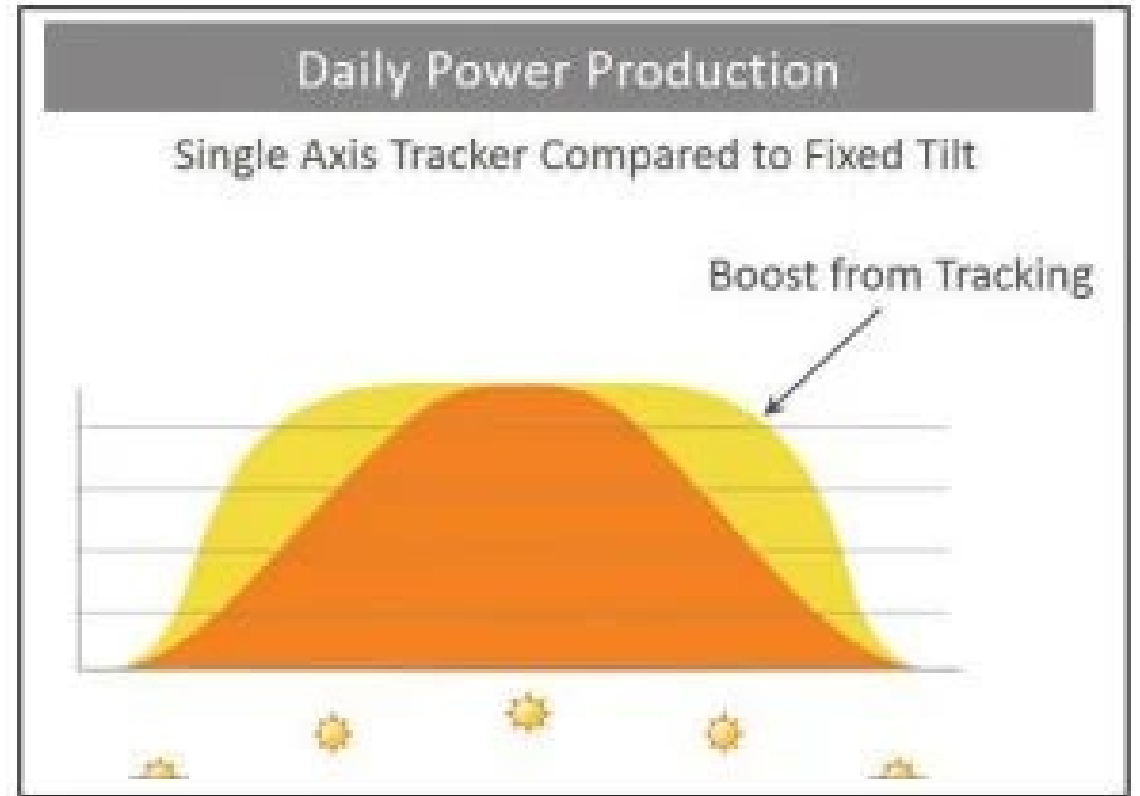
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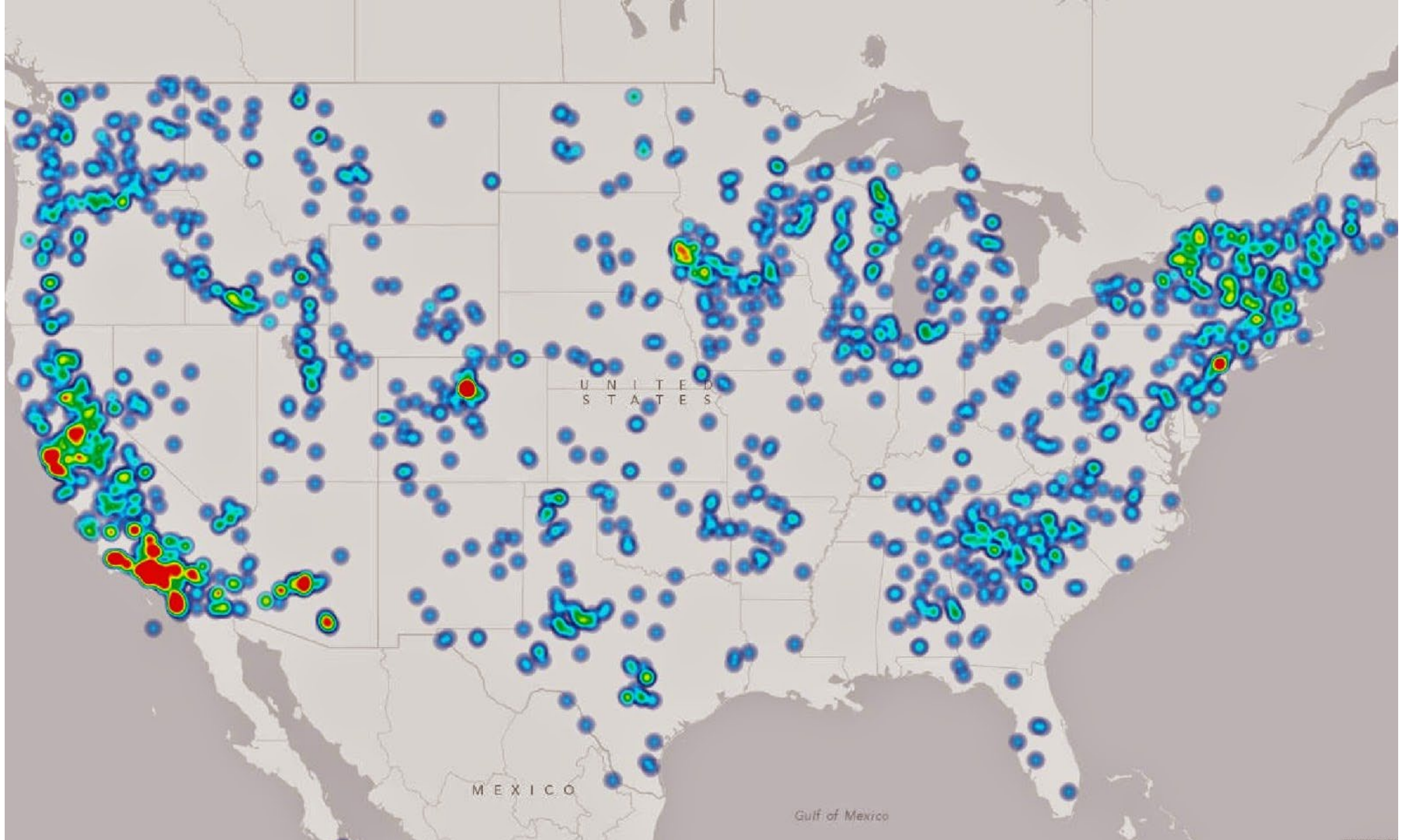
SINGLE AXIS TRACKERS

DUAL AXIS TRACKERS



greensarawak.com





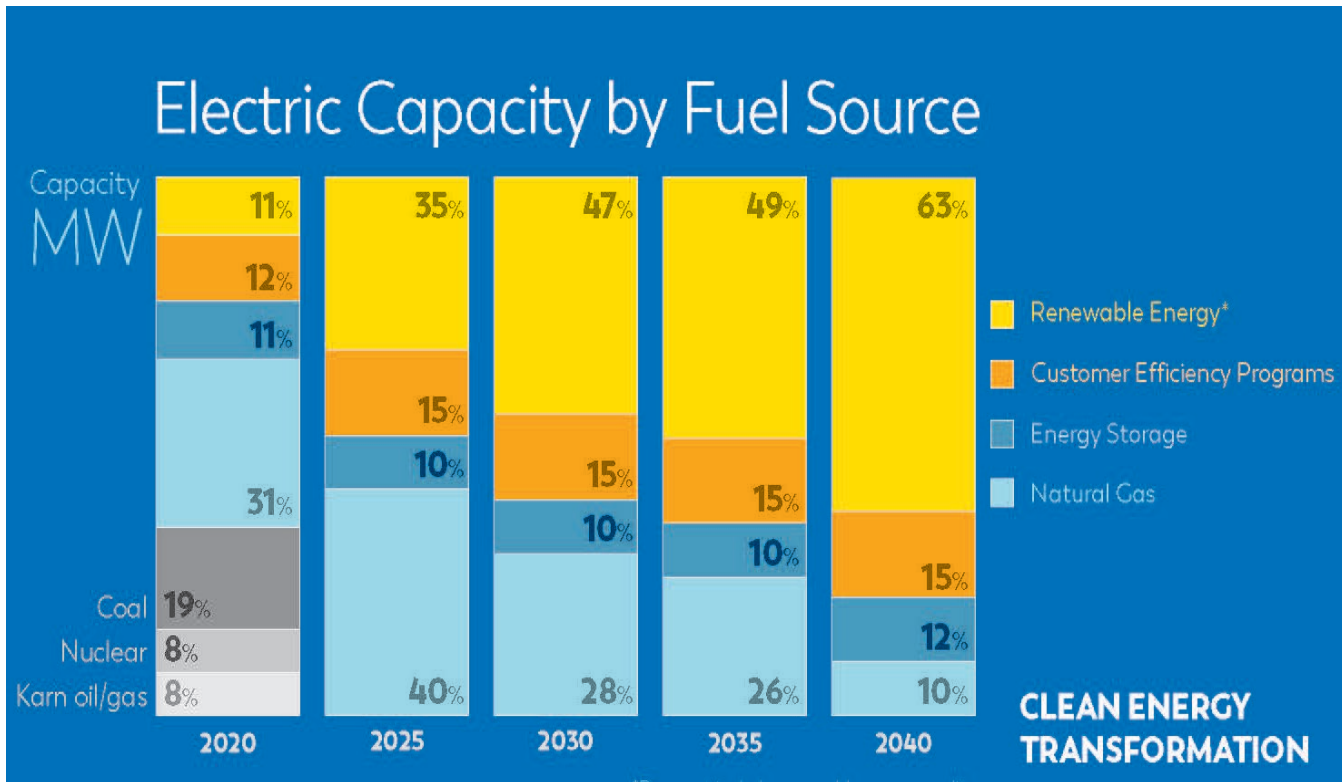
# The Future is **Alternative Sources**

**MPSC approves Consumers Energy integrated resource plan settlement agreement, takes additional steps to boost electric capacity**

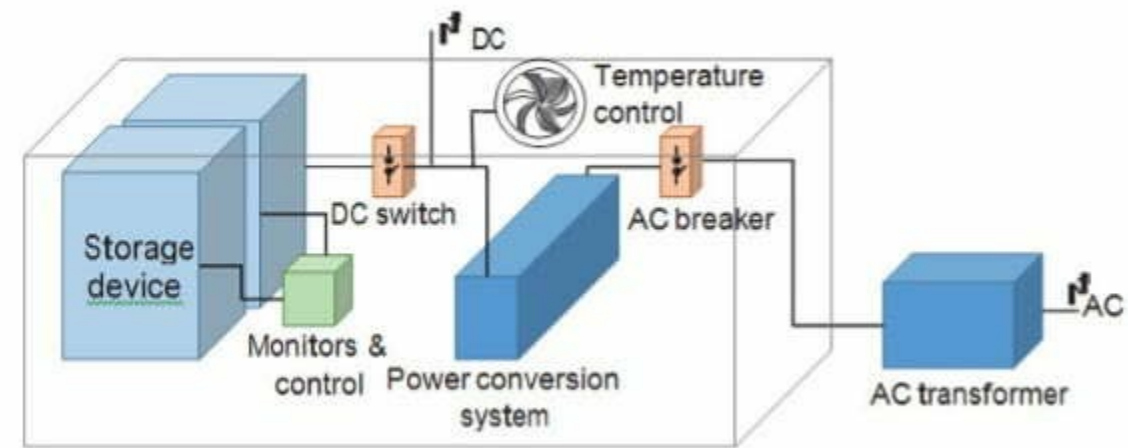
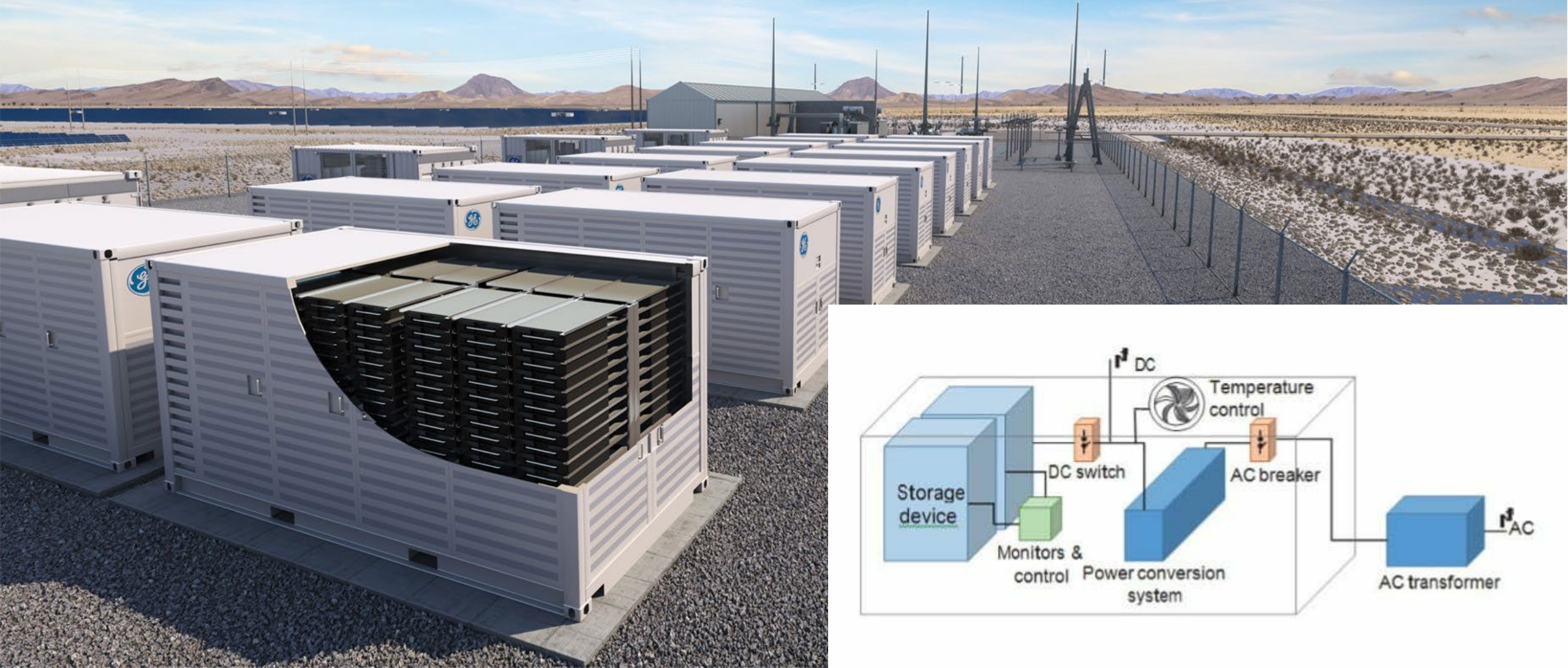
June 23, 2022

**Michigan PSC approves DTE Energy's Integrated Resource Plan, setting path to net zero emissions by 2050**

July 28, 2023



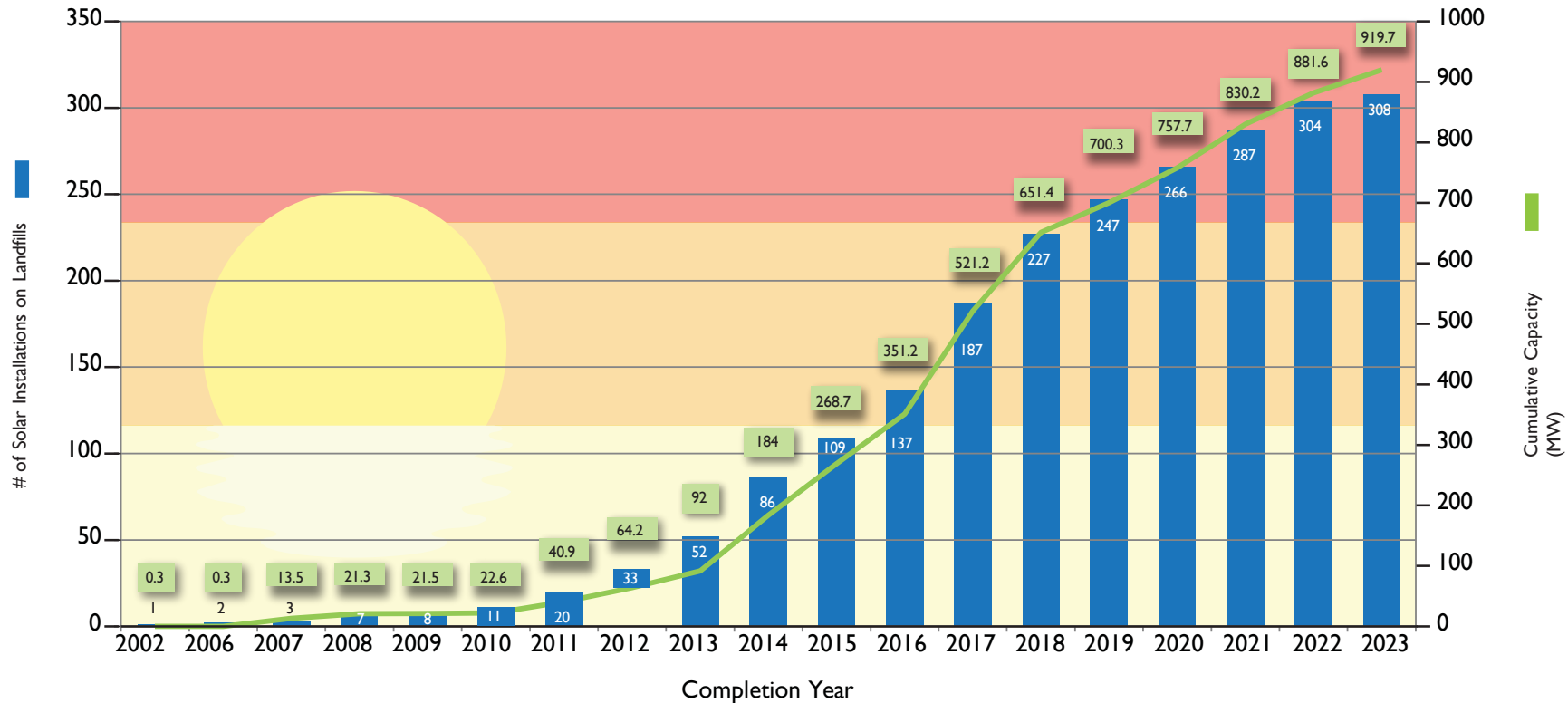
# Battery Energy Storage System (BESS)





# 312 SOLAR PROJECTS ON LANDFILLS

## 923.7 MEGAWATT INSTALLED CAPACITY



# Players & Process



# Who are the Players in this Game?

- Major Utilities (DTE & CE) and their Development Subsidiaries
- Public and Municipal Utilities
- Third Party Developers
- Corporate internal consumption project ('behind the meter')
- Transmission Line Manager(s) – International Transmission Co (ITC)
- Grid Load Manager – MidCon Independent System Operator (MISO)
- Local Governmental Unit (for projects < 50 MW)
- MI Public Service Commission (for projects > 50 MW)
  
- Land-Holding Entities – Private / Nonprofit / **Public (Land Banks!)**

# Solar/Brightfield Developer Profile

Land & Power Purchase Agreement (PPA) are the key pieces to their success.

Land Control provides opportunity to respond when purchase offerings are disseminated.

MISO queue is long and 5-6 YEAR timelines are currently required.

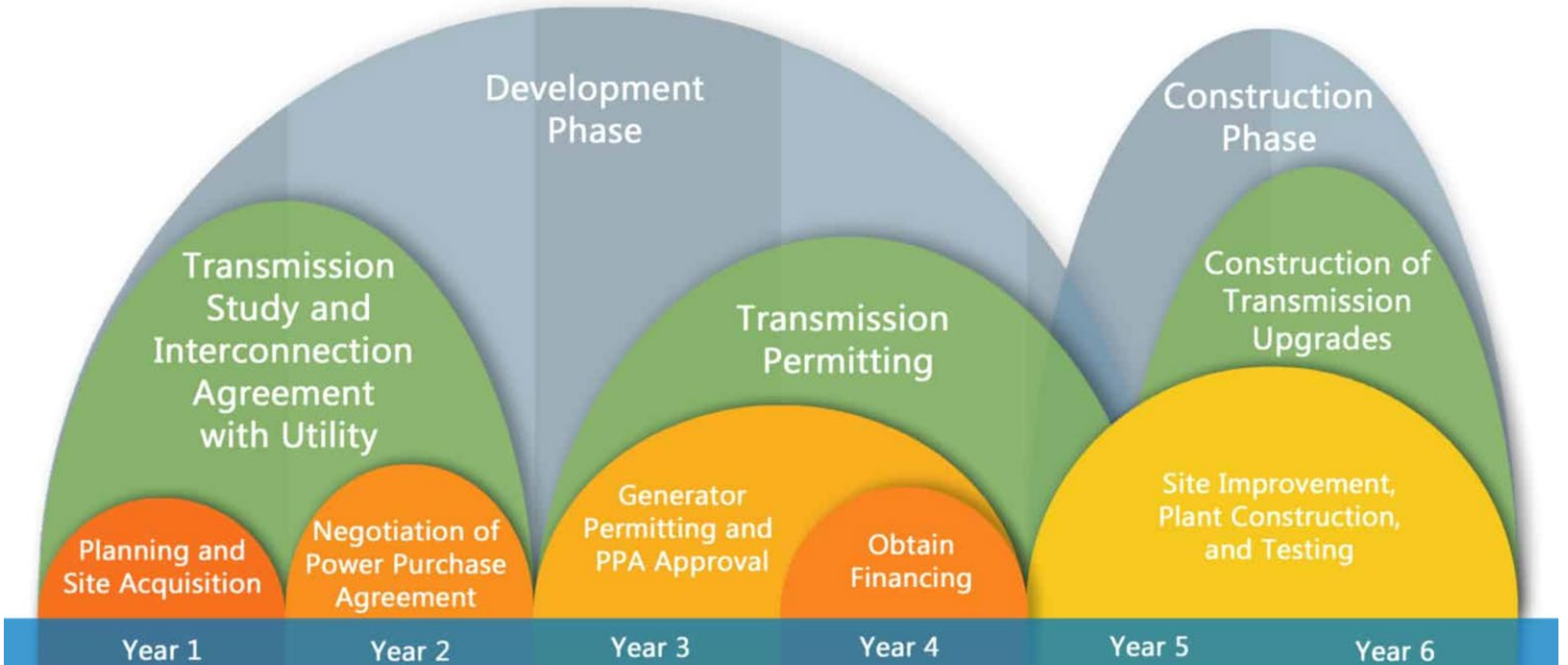
Preference for large, level-grade sites or close assemblies.

Ground lease is preferred over fee-simple title for all but the largest or utility-owned parties.

A small-but-growing industry segment specializes in brownfield sites. These are the **Brightfield** developers.



# Typical Brightfield Development Process

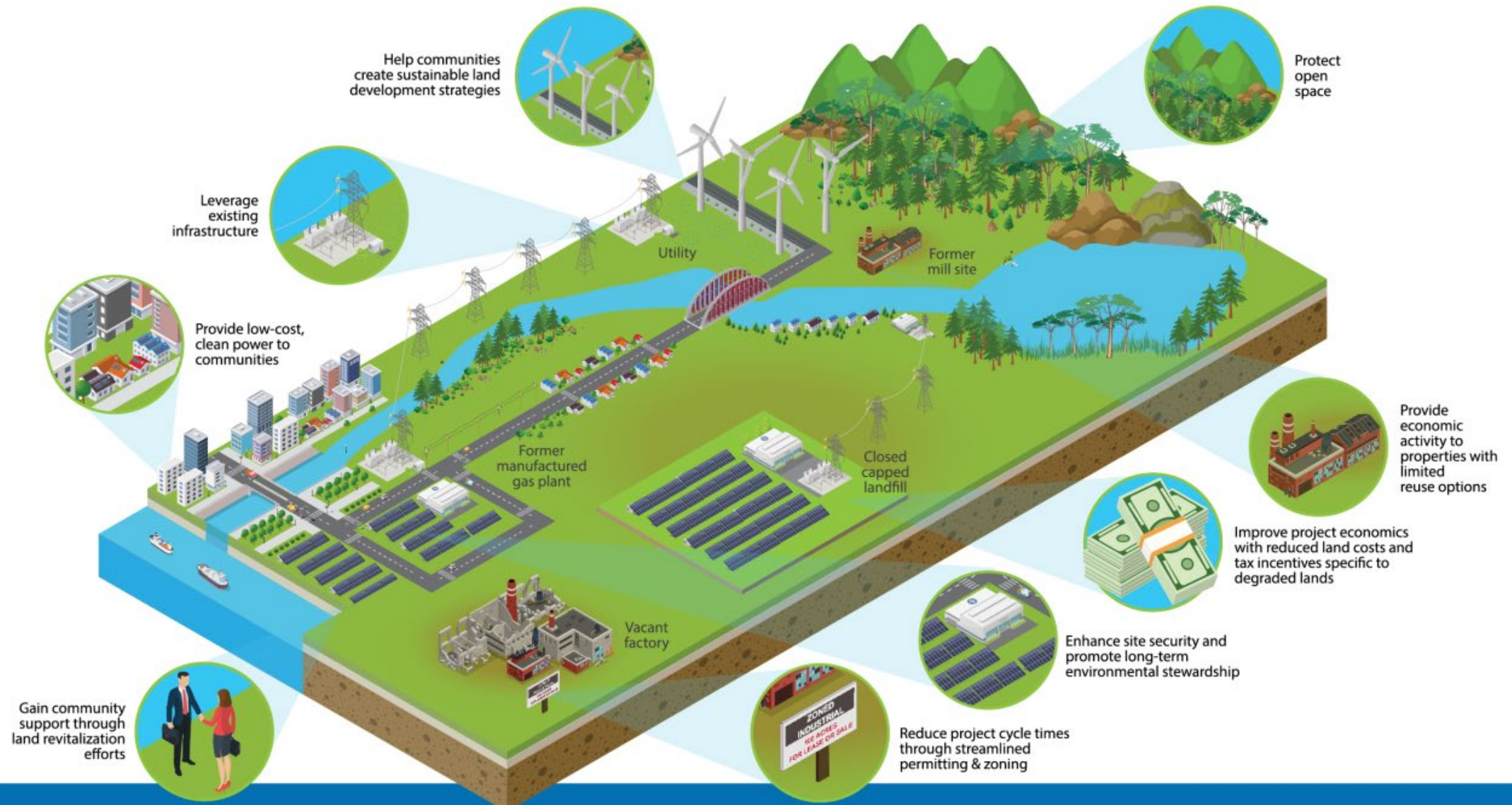




**Why Land Banks & Brownfield Properties?**

# RE-Powering America's Land

## Potential Advantages of Reusing Potentially Contaminated Land for Renewable Energy



# Inflation Reduction Act - 2022

- Federal Tax Credit for Solar Photovoltaics (Solar Investment Tax Credit) base set to **30%**
- Domestic Content Bonus: **10%**
- Brownfield Site Bonus: **10%**
- Low-Mod Community Bonus: **10%**
- $30+10+10+10=$  **60% Tax Credit with Assignability**
- Place-in-service timeframe: 2022 – 2032!!





# The 'Value' Proposition

*2024 Lease Rate:*

~~\$1,000 - \$1,200~~ **\$2,200** / acre

*Solar Array Valuation:*

\$300,000 - \$400,000 / acre

*BESS Valuation:*

\$2,000,000 - \$5,000,000 / acre



# The MI Land Bank/Brownfield Advantage



*Legislative history clearly demonstrates intent to link these statutory powers to broaden and promote economic development.*

## Statutes Collaborating for Redevelopment

### Land Bank Act (PA 258 – 2003)

- Authorizes counties to establish land banks.
- Prescribes LB powers to operate, own, manage/maintain & improve.

### Brownfield Act (PA 381 – 1996; updated in 2003)

- Authorizes counties to establish brownfield authorities.
- Prescribes BRA powers to operate, own & finance.

# Preparing For & Engaging Developers



# Analyze Your Inventory

## Prime Site Qualifiers

- Vacant
- Minimum of 5 acres (=1MW)
- Slope < 5 Percent
- *Constellations* – land parcel assemblies that can be connected
- Brownfields – due diligence is helpful

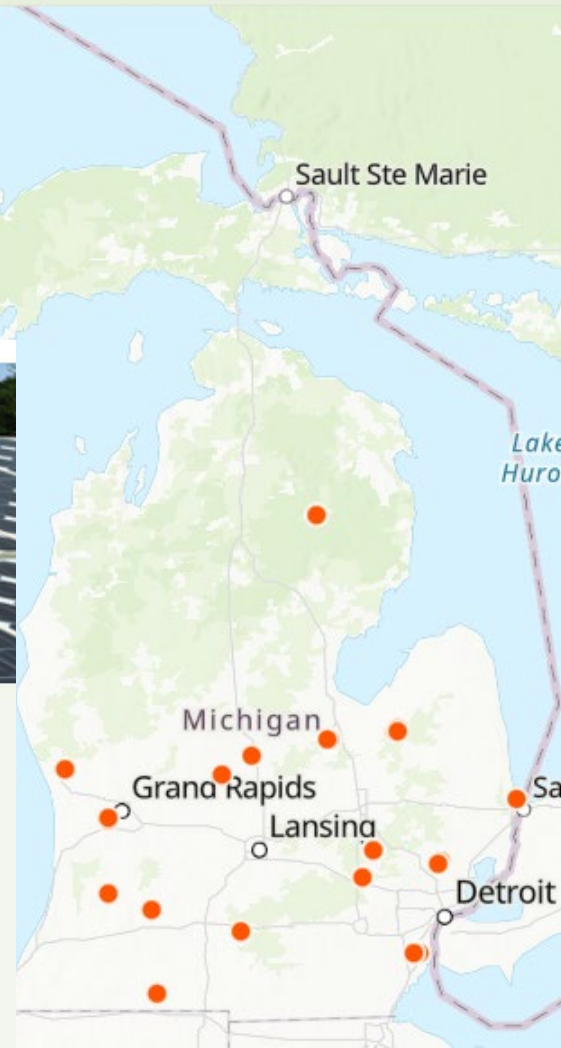
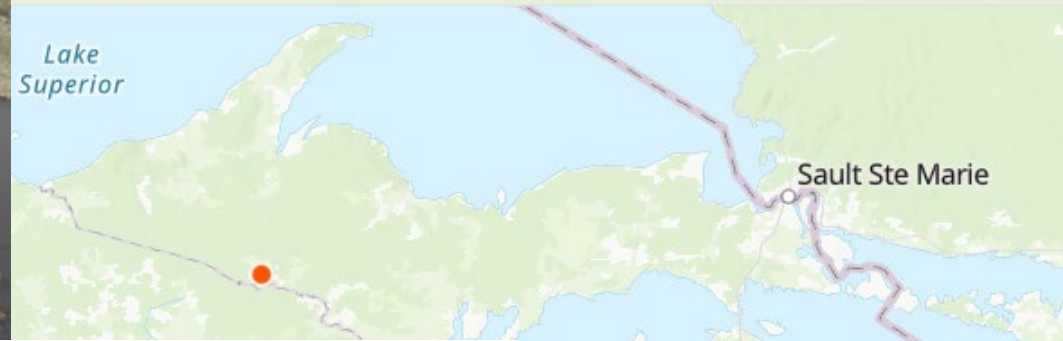
NOTE - EGLE Funding Opportunities!

## Into-Inventory (aka Land 'Banking')





<https://storymaps.arcgis.com/stories/d2c61bed9300444e8aa486e1e065f5ab>



# Potential Solar Sites of the State Land Bank Authority

Non-residential parcels over 5 acres

## Engaging Developers

# RFP or RFQ? Closed or Open?

### Request for **Proposals**

- Rooted in commodity procurement.
- Assumes ALL due diligence & specifications are known.

### Request for **Qualifications**

- Rooted in service procurement.
- Accommodates unknown due diligence/specifications.

### **Closed Solicitation**

- Deadline for submittal.
- Assumes ALL due diligence & specifications are known.

### **Open Solicitation**

- Ongoing with no deadline.

# Submittal Requirements to Consider

1. Background of the business entity, including taxpayer and corporate identification numbers and key contact person.
2. Identification of all partners, staff, or consultants in the proposed project(s).
3. Site(s) proposed for development.
4. Presentation of environmental legal and environmental engineering consultants, with credentials and resume(s).
5. Presentation of the project in a concept plan for development and operation.
6. Demonstration that the entity/team understands and acknowledges existing site environmental status and conditions.
7. Demonstration of financial capacity to undertake the project as proposed.





**Terms & Conditions**



# Brightfield Project Complexity



## Design/Construction

- Site assessment
- Schematic design
- Permitting begins
- Final design plans complete
- Equipment ordered
- Construction
- Operation & Maintenance
- Re-paneling
- Decommissioning
- Site/area infrastructure

## Environmental

- Phase I Environmental Site Assessment
- Phase II Environmental Site Assessment
- Baseline Environmental Assessment
- Due Care / Remedial Action Plan
- Certificate of Completion
- Brownfield TIF Plan

## Permitting

- MISO Interconnection application
- Non-Local permitting
- Interconnection study report
- Local Zoning and Site Plan

## Developer Preferred Terms

***Long-Term Blanket Option with limited involvement and minimal consideration until the go/no-go decision is reached.***

# Recommended Terms and Conditions

- Developer presents ALL key elements of project:
  - Due diligence
  - Pre-development
  - Permitting
  - Construction
  - Operation/Maintenance
  - Repaneling
  - Closedown & Decommissioning
- Incorporate ALL these elements as ‘milestones’
- Balance terms of any agreements to what each parties need
- Performance tasklines for maintaining the option
- Uniform Option Agreements with lease or purchase off-ramps



# Integrated Task/Timeline

MILESTONE	TIMELINE
Sign Option Agreement	Day 1
Transmission Interconnection Filing	14 Days
Commence Permitting Plan (Retain Consultant/Prepare Matrix	120 Days (4 months)
Commence Site Engineering Study Commence Public Engagement (Local Officials) Commence M-EGLE Engagement	180 Days (6 months)
Complete Project Feasibility Study EGLE review of Engineering/Design Study	240 Days (8 months)
Power Marketing Underway	270 Days (9 months)
Commence Distribution Study (if required)	365 Days (12 months)
System Impact Study Complete	480 Days (16 months)
EGLE Superfund PRP Due Diligence Complete	540 Days (18 months)
Facilities Study Complete	780 Days (26 months)
Complete Interconnection Agreement Complete EGLE review of final plans	870 Days (29 months)
Complete Approval and Receipt of all Permits	900 Days (30 months)
Final Engineering Design & Construction Plan	1,110 days (37 months)
Construction Underway	1,140 Days (38 months)
Commercial Operation Date	1,320 Days (44 months)





**Q & A**

