

The PSC review process for utility scale solar projects in Wisconsin

Prepared For:
Jefferson County Board
October 23, 2018

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PSC review of large solar projects

- Presentation will cover:
 - PSC process
 - PSC review standards
 - Local pre-emption and practical considerations

Certificate of Public Convenience and Necessity

- “CPCN” required for large electric generating facility of 100 megawatts or more
- Application must provide comprehensive information about the project
- Extensive review by PSC staff
- PSC Commissioners make decision through a “contested case hearing”, with input from multiple agencies and the public

CPCN Application

- Applicant notification to PSC and DNR
- Pre-filing consultation
- Engineering plans filed with DNR 60 days before application filing
- Within 30 days of filing of engineering plans, the DNR provides list of necessary DNR permits and approvals

CPCN Application

- Filing of Application with PSC
 - Within 10 days of filing, PSC sends application to clerks of municipalities and towns in which the facility is proposed to be built; and to the main public library for the County
 - PSC makes “completeness” determination within 30 days
 - If application not complete, PSC notifies applicant of deficiencies; no limit on refileing the application

Contested Case Hearing

- Docket opened after completeness determination
- Pre-hearing conference:
 - Administrative Law Judge assigned
 - ruling on requests to intervene as a party
 - identify issues and prehearing schedule including discovery deadlines

Contested Case Hearing

- Technical Hearing: motions, submission of pre-filed testimony and exhibits, cross-examination, arguments and briefing)
- Decision matrix prepared by PSC staff
- Decision and order by PSC Commissioners
- Right of appeal, chapter 227 review in circuit court

CPCN Timeline

- PSC required to take final action on application within 180 days after completeness determination
- PSC can extend review period an additional 180 days for “good cause”
- In general, process completed in 12 to 18 months

PSC review standards *

- The design and location of the facility is in the public interest considering:
 - alternative locations or routes
 - individual hardships
 - safety, reliability and environmental factors

* review applicable to merchant
power plants

PSC review standards

- The proposed facility will “not have undue adverse impacts on other environmental values such as, but not limited to-
 - ecological balance
 - public health and welfare
 - historic sites
 - geologic formations
 - aesthetics of land and water
 - recreational use
- The proposed facility “will not unreasonably interfere with the orderly land use and development plans for the area involved.”

PSC review standards

- If an application does not meet these standards, the PSC must reject it, or
- Approve the application “with such modifications as are necessary for an affirmative finding...”

State Energy Policy

- “It is the goal of the state that, to the extent that it is cost-effective and technically feasible, all new installed capacity for electric generation in the state be based on renewable energy resources, including hydroelectric, wood, wind, solar, refuse, agricultural and biomass energy resources.”
 - section 1.12(3)(b) Wisconsin Statutes

PSC Environmental review

- Wisconsin Environmental Policy Act (WEPA)
 - section 1.11, Wisconsin Statutes
- Applies to “major actions significantly affecting the quality of the human environment”
- Requires detailed statement on the environmental impact of the proposed action(s)
- PSC administrative rules categorize actions as Type I, II or III

PSC Environmental Review

- WEPA (continued)
 - PSC rules categorize construction of a solar-powered electric generation facility as a Type III action
 - PSC rules provide that Type III actions do not necessarily require an environmental assessment (EA) or environmental impact statement (EIS)
 - But PSC can still require EA or EIS for Type III actions
 - e.g., Two Creeks and Badger Hollow solar projects

CPCN and pre-emption of local laws

- “If installation or utilization of a facility for which a certificate of convenience and necessity has been granted is precluded or inhibited by a local ordinance, the installation and utilization of the facility may nevertheless proceed.”

sec. 196.491(3)(i), Wisconsin Statutes

- see also ATC v. Dane County, 321 Wisconsin 2d 138 2009 (Court of Appeals)

Practical Considerations

- Legal pre-emption does not prohibit discussions between local government and the developer
 - Identify “reasonable” concerns based upon local ordinances
 - Engage developer early, preferably before the filing of the CPCN application
 - Developer may have an interest in minimizing or eliminating objections in PSC review process, or, better yet, indicating local support
 - Developer may have an interest in establishing good relationships at local level (developer’s reputational interest)

Practical Considerations

- Nothing lost by engaging in discussions and negotiations
- Potential for issues to be resolved so that formal intervention as party in PSC review process is not necessary
- Options for participation short of full party status include written comments, public testimony, and submission of local resolutions

Thank You

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SINNISSIPPI
S O L A R Invenergy

Jefferson County Board Meeting

October 23, 2018



500 construction jobs

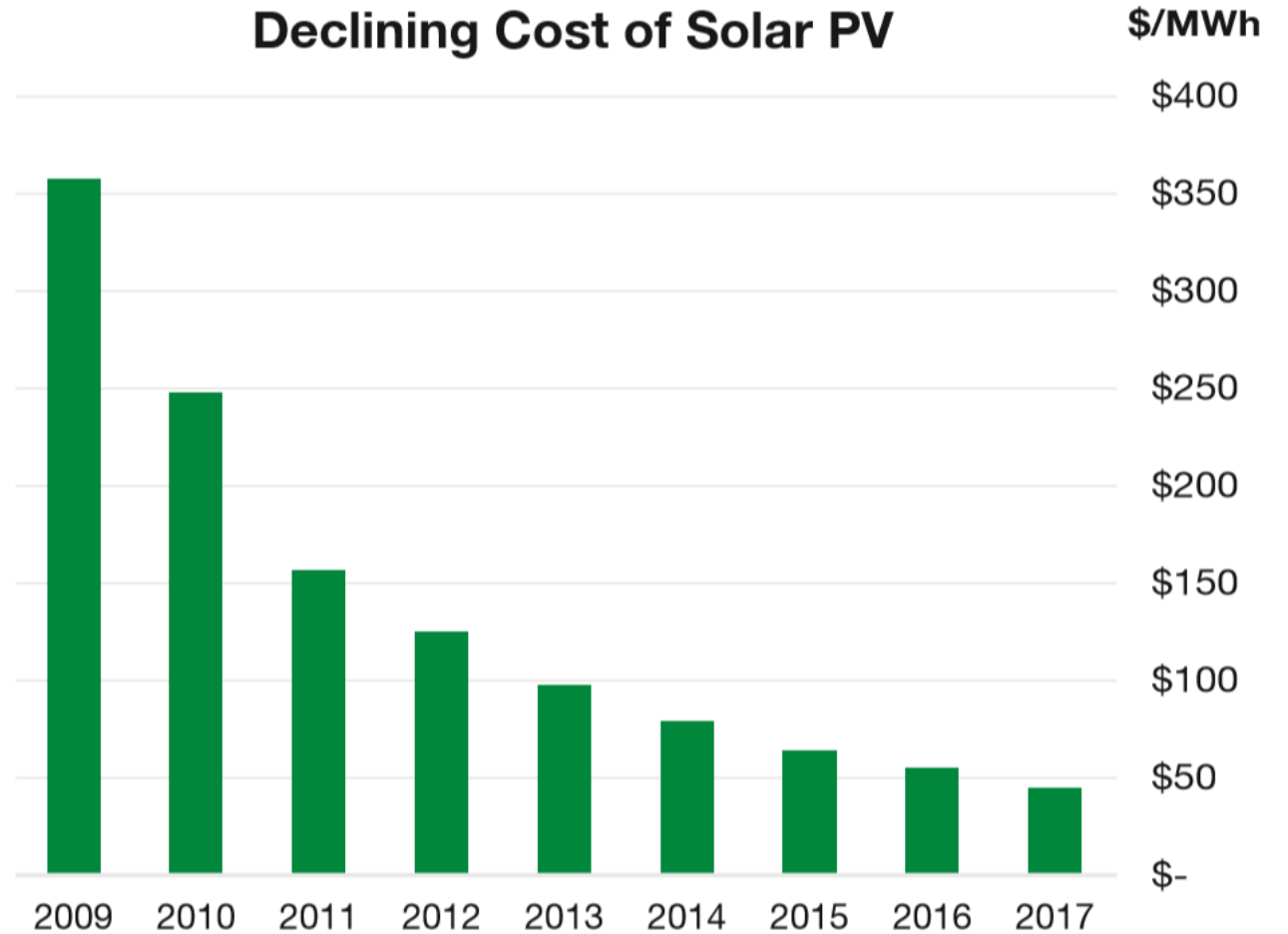
\$35M in local taxes

\$65M in landowner payments

Why Wisconsin?

- Solar costs are way down
- Large decarbonization plans by utilities
- We can offer value
- WI is 38th, but similar sun as NJ (5th), MA (6th) and NY (11th)

Declining Cost of Solar PV

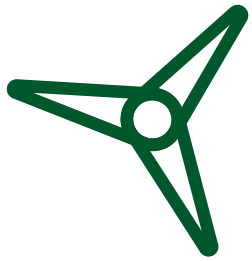


Source: Lazard Report, 2017

“Utility-scale solar produces energy at the time of year and day when our customers need it most, making it a reliable renewable-generation option in the marketplace.”

- Gale Klappa, CEO of WEC, December 2017

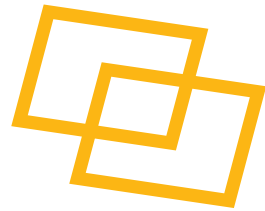
Deep Experience **Across Technologies**



Wind

90 Projects

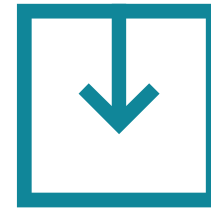
12,772 Megawatts



Solar

21 Projects

1,249 Megawatts



Storage

4 Projects

68 Megawatts



Natural Gas

12 Projects

6,126 Megawatts

Strong Partnerships

Investor-Owned Utilities



Commercial & Industrial



Public Utilities & Co-Ops

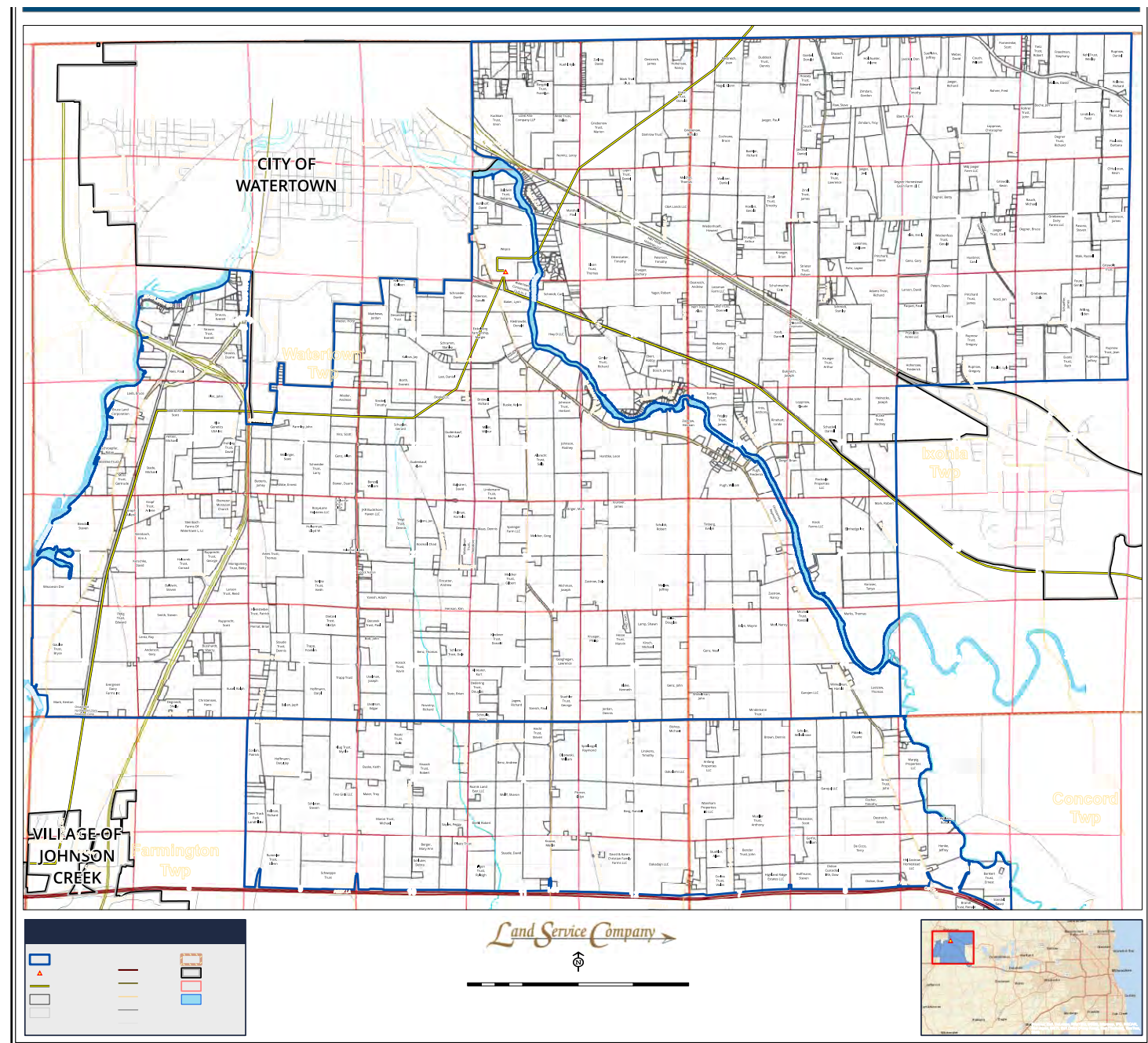


Financial & Other



Sinnissippi Solar Farm

- 300MW
- Approximately 2,100 acres
- Existing Transmission provides access to markets
- Permitting in 2019 or 2020, construction after, online by 2023
- 25-50 years of operations – temporary use of land



Clean Energy

- Enough for approximately 75,000 homes
- No air emissions or water use
- Operations are quiet and emit no odors
- Low profile
- Native site vegetation
- Fit with farming

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Ground Cover

- Builds soil
- Reduces stormwater runoff
- Improves downstream water quality
- Pollinator habitat
- Grazing?



Single-axis Tracking System

Invenergy



Storage

- State of the art
- Smoothing the output
- Shifting supply



Key Question: Decommissioning

- Need? Stable business model with no cost of fuel
 - See 18 yr old Montfort Wind Farm
- Badger Hollow proposal is to do approved site-specific cost estimate prior to construction, implement form of security in year 15 [or 18 years after signing in the lease, whichever is sooner]
 - Proposal is to remove everything aboveground and belowground to a depth of 4 ft
 - See section 1.7.3 for more info
- Multiple possible forms of security that will be in place prior to likely end of operating life of the project

Key Question: Recycling

- Panels have no moving parts, only minor annual degradation
- After 25 year warranty, should still generate 80% of capacity – could be re-used
- Many modules installed in the 1970s are still operating
- However, could experience technological obsolescence by 2050+
- Disposal is federally regulated by the Federal Resource Conservation and Recovery Act
- Many module manufacturers offer a take-back program
- more than 80% of module weight is glass and aluminum, which have cost effective recycling programs already

Key Question: Materials

- Primarily glass, steel, aluminum and silicon
- Also copper or aluminum conductors in cables wrapped in plastic or rubber
- Will not leach harmful chemicals into soils
- Ground cover means significant reduction in herbicide use, likely no pesticide or fertilizers
- Power generated without air or water emissions, no solid fuel stockpiles, ash landfills, or high pressure pipelines
- This is safe.

Key Question: Fit with Farming

- Ground cover plan will build soil, not gradually diminish it
- Better economic option than recent, current and foreseeable future commodity markets
- An alternative to residential sprawl
- Long term temporary use – can remove and return land to ag
- Increased pollinator activity benefits adjacent farm production
- Improved storm water runoff
- Improved water quality due to avoided phosphorous
- We CAN integrate agriculture – native seed production, honey, grazing and more

We're Available

- Meetings with state, county and town elected officials
- Meetings with federal, state, and local agencies
- Local office at 136 Union Street, Johnson Creek, WI 53038
- Tammi Vetrano as a local rep
- Office hours Tuesdays 8a-1p and Wednesdays 12p-5p.
- www.sinnissippisolar.com
- Facebook.com/SinnissippiSolar



Team

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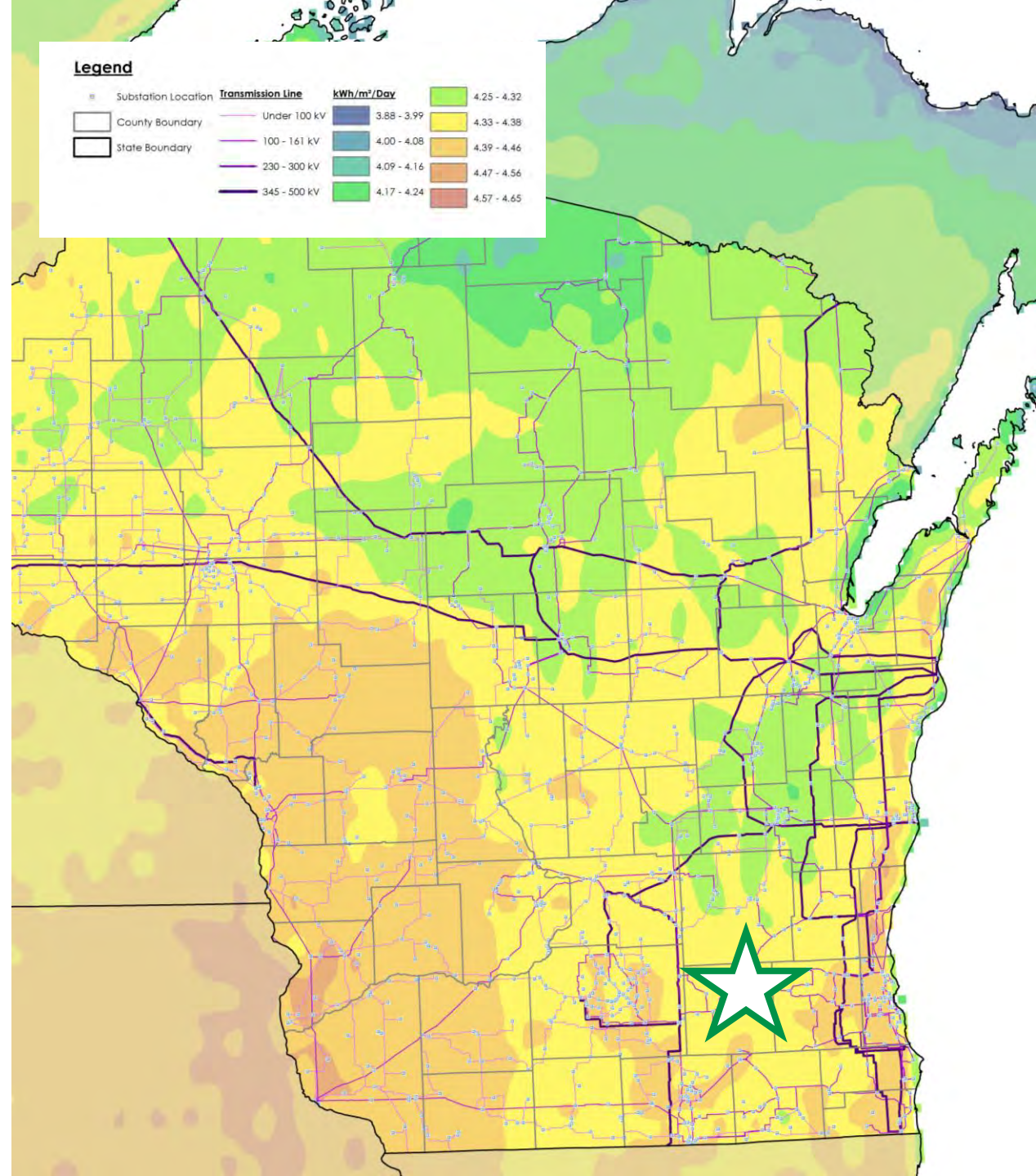
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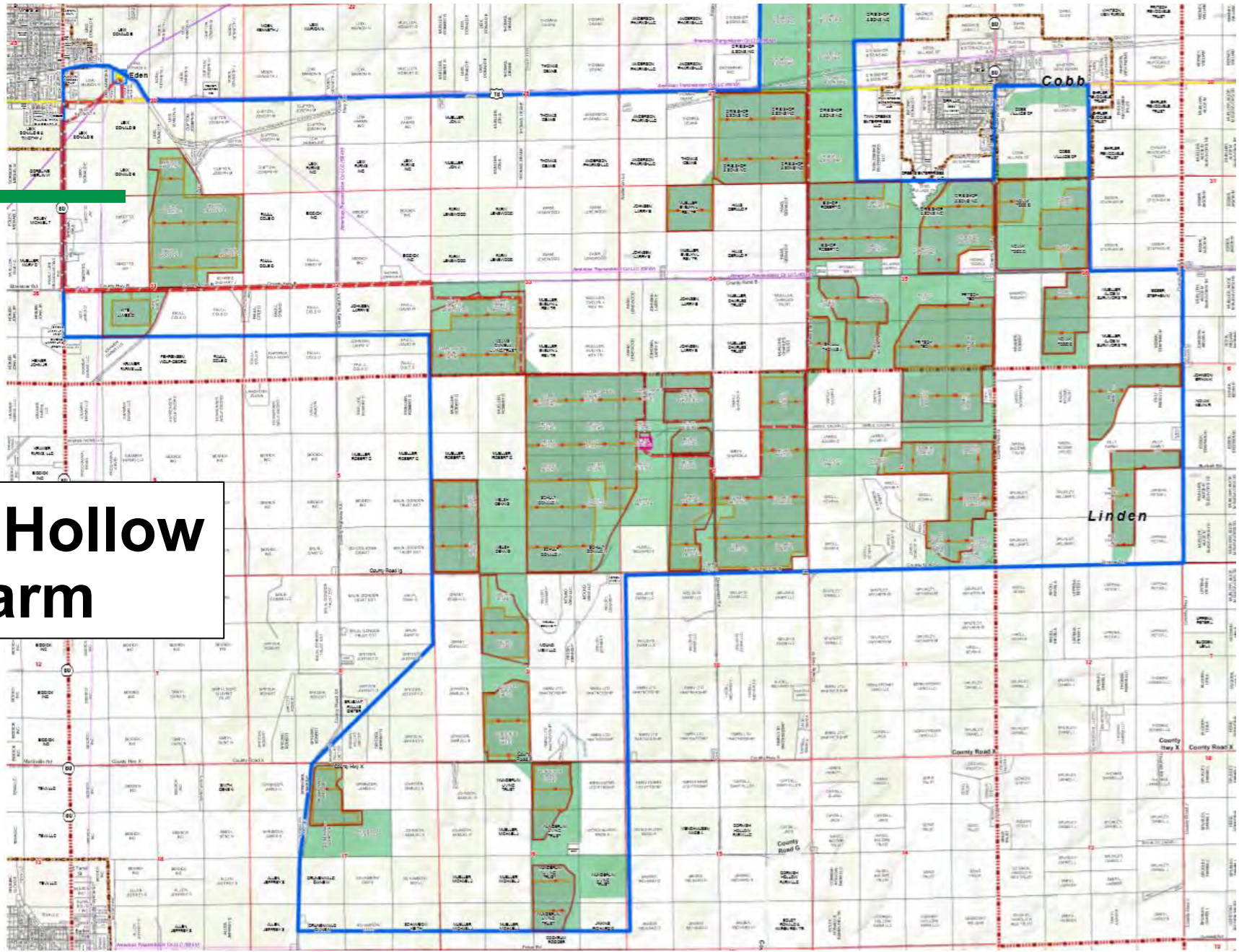


Solar Resource

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Badger Hollow Solar Farm





JOB CREATION

The project will create 500 new local jobs while in construction, and 5 operations and maintenance jobs once project is operational.



TAX PAYMENTS

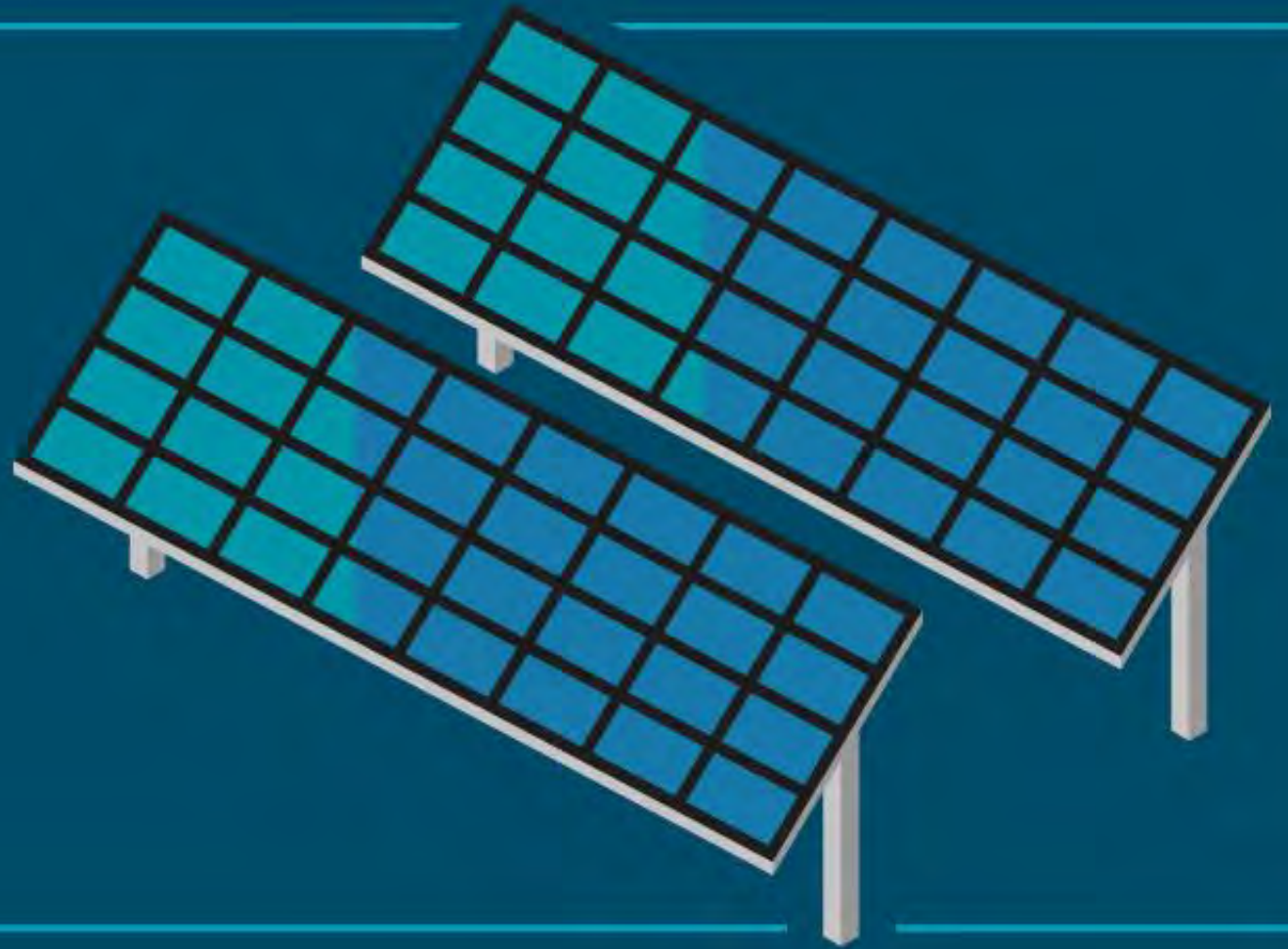
Iowa County and the host Townships will receive \$1.2 million annually from the Shared Revenue Utility Aid Formula.



WISCONSIN BENEFITS

Over \$27.6 million in new local earnings during construction and almost \$1.1 million in new local long-term earnings annually.

300
megawatts
generated



77,000
homes powered
annually



370,000
tons of carbon
production avoided

