



# Utility-Scale Solar Introduction

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# Why Solar?

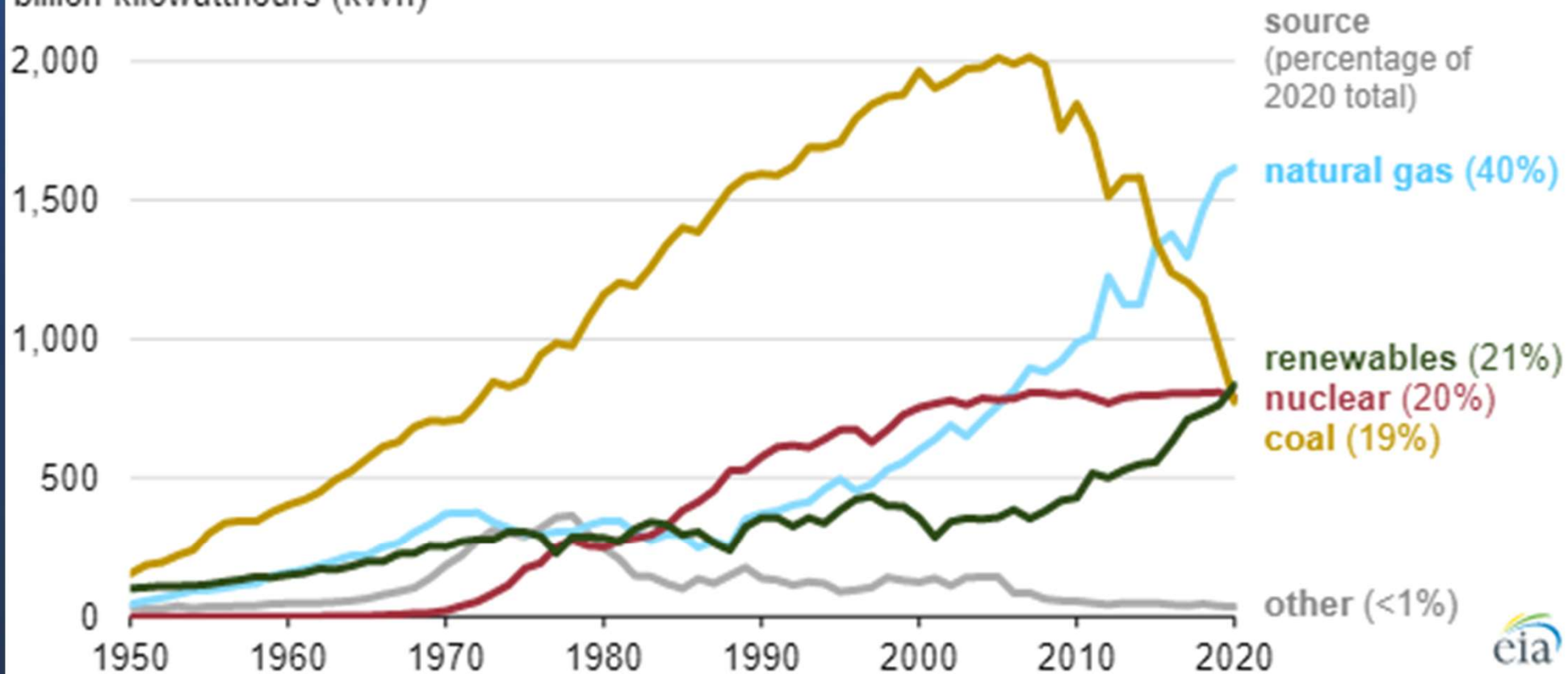
## Why Now?

- Government policy of going carbon free in electrical energy generation
- Iowa's generation of electricity is 57% wind-powered (as of 2020)
- Solar can produce energy sometimes when wind doesn't – helps to meet Iowa's demand for electricity
- Federal income tax credit under the Energy Policy Act (current)
  - ❖ 30% of gross solar system cost - 2019
  - ❖ 26% in 2020-21
  - ❖ 22% in 2023
  - ❖ 10% in 2024 +

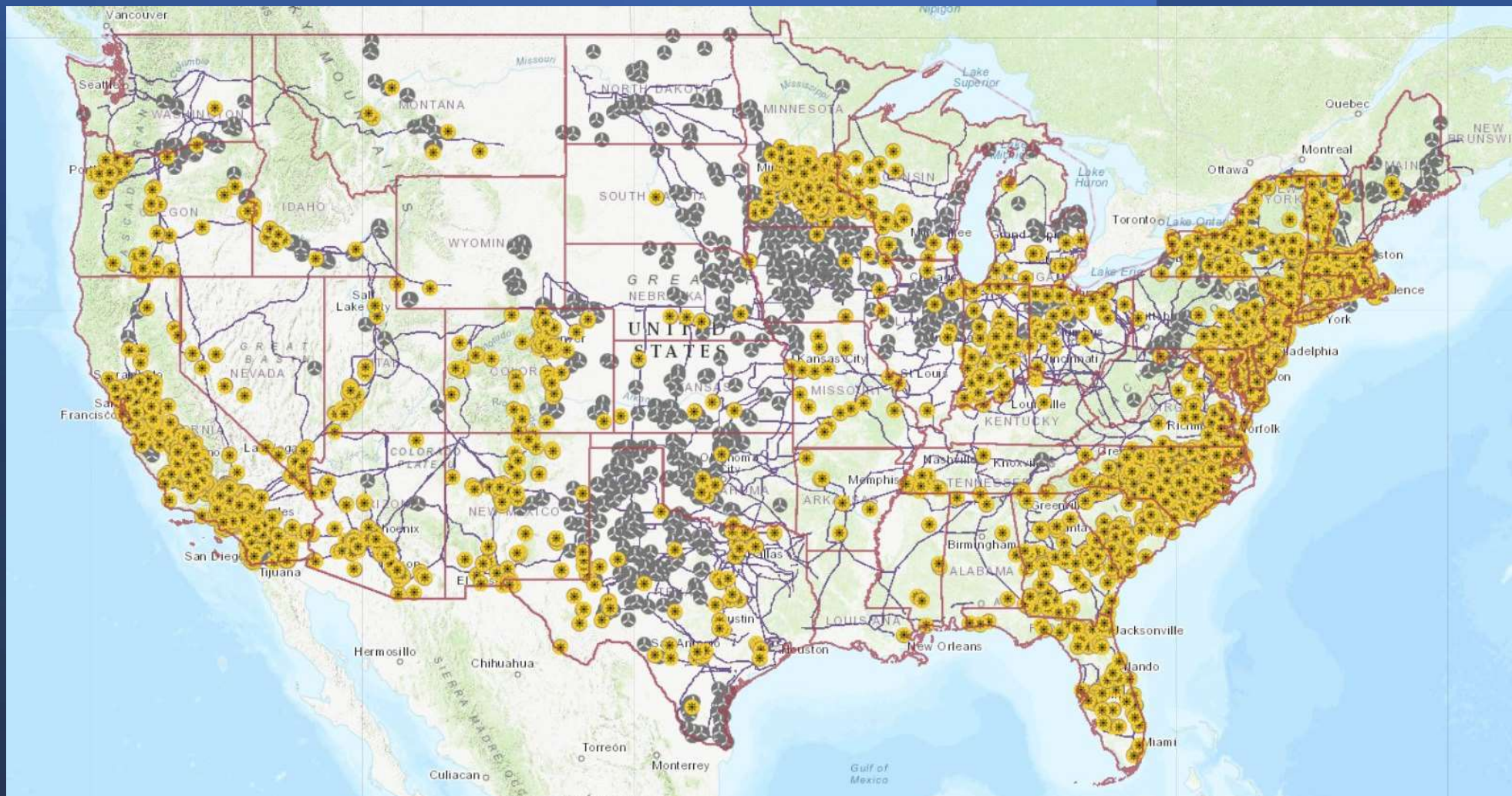


## Annual U.S. electricity generation from all sectors (1950–2020)

billion kilowatthours (kWh)

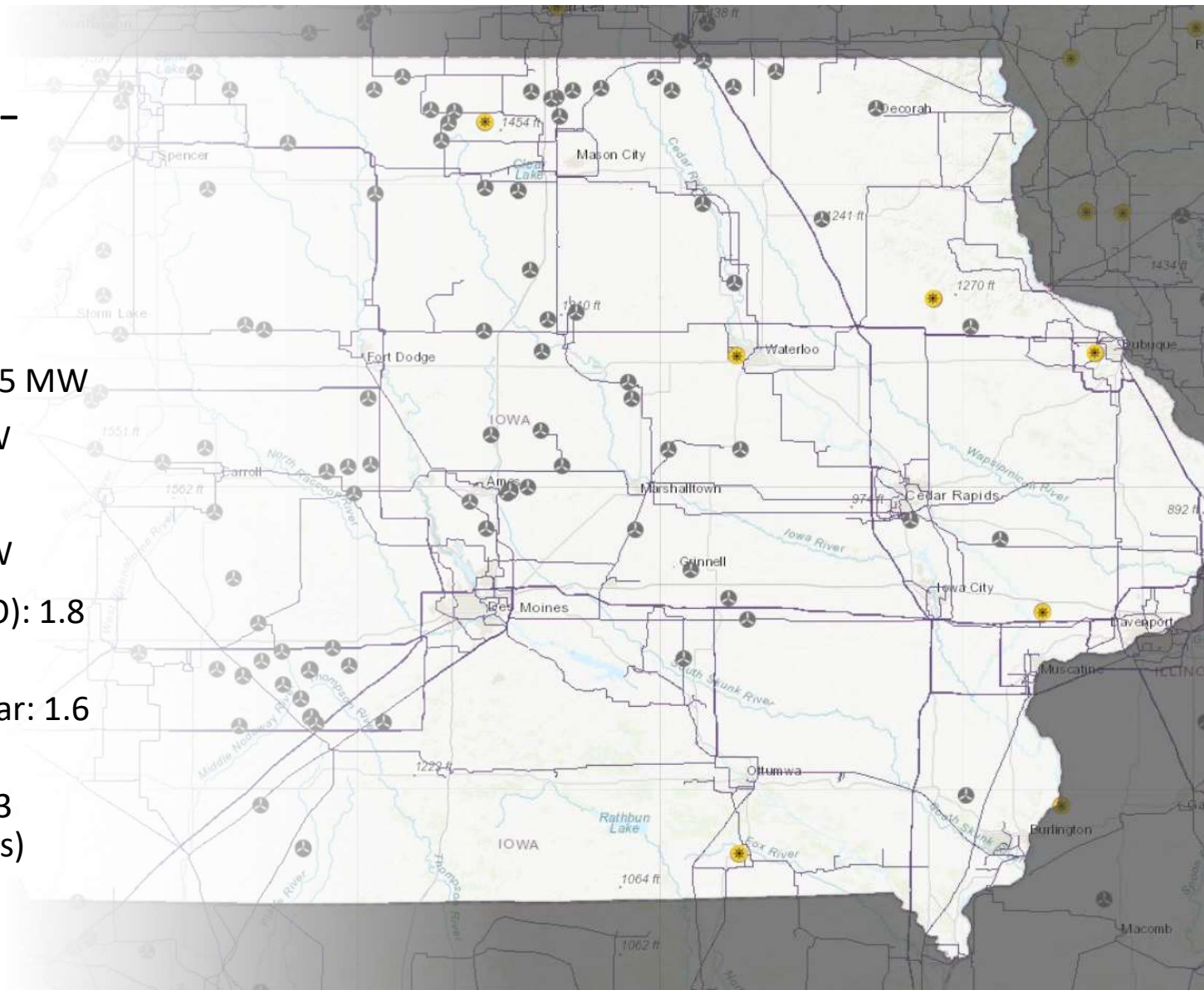






# Existing Utility-Scale Solar in Iowa

- Cedar Falls Solar Farm: 1.5 MW
- Strawberry Point: 1.3 MW
- Forest City Solar: 3 MW
- W Dubuque (IPL): 3.8 MW
- Eastern Iowa Solar (CIPCO): 1.8 MW
- Bloomfield Municipal Solar: 1.6 MW
- Wapello Solar (CIPCO – 13 RECs): 100 MW (850 acres)



# Electrical Energy Sector Deregulated in 1992



**ELECTRIC GENERATION  
COMPANIES**



**TRANSMISSION COMPANIES**



**UTILITIES DISTRIBUTE  
ELECTRICITY TO CUSTOMERS**



# Multi-layer Regulatory Framework

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**FERC:** Federal Energy Regulatory Commission – regulates the wholesale electricity market & prices.

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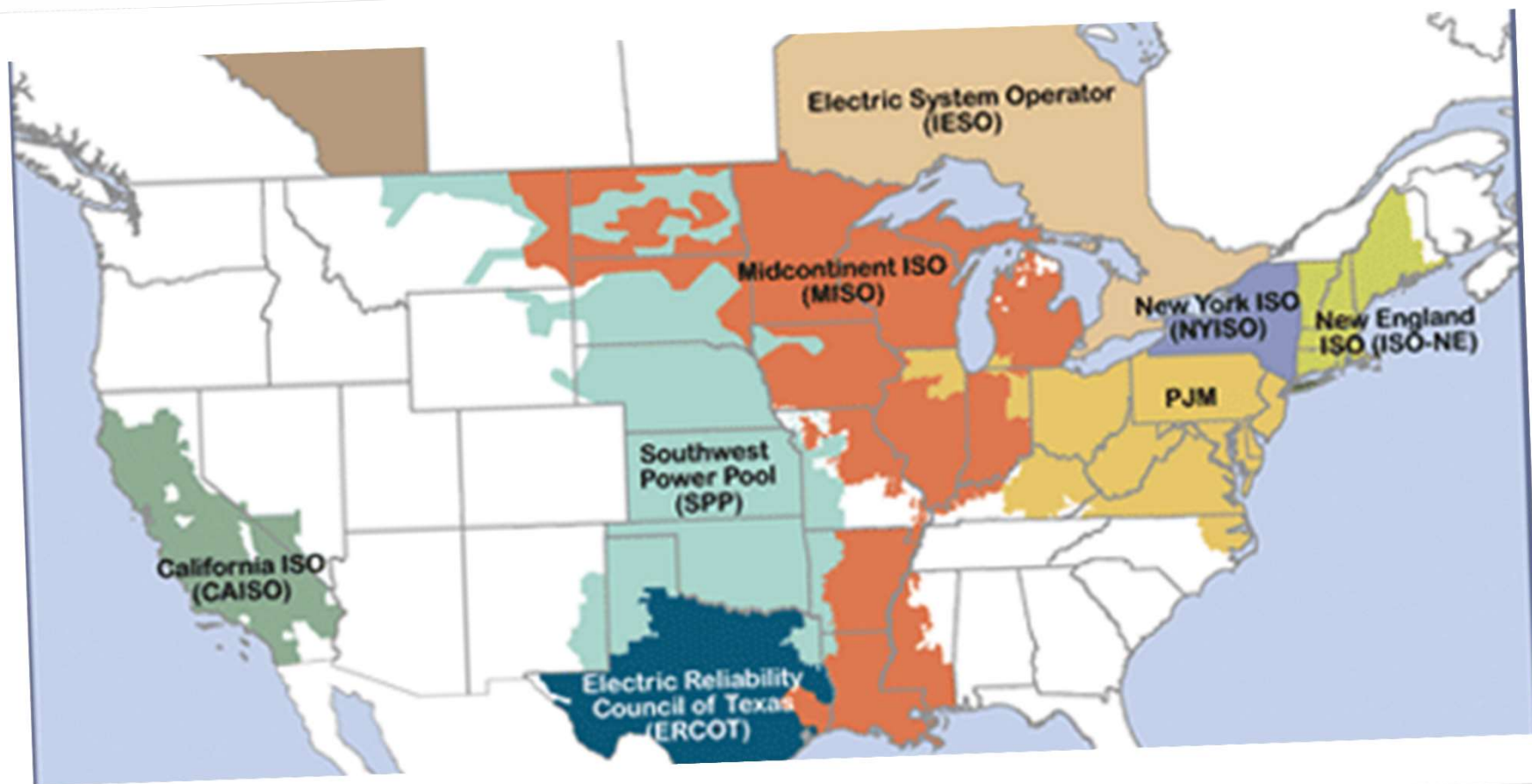
**MISO:** Midcontinent Independent System Operator – nonprofit organization since 2001 that operates the electric transmission system & runs the wholesale energy market for 15 states & Manitoba, Canada. It also reviews transmission line connections to the grid.

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**IUB:** Iowa Utilities Board – Regulates power generation (utility-scale solar) and electric transmission lines within the state.

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**Counties** - Zoning or stand-alone ordinances regulate siting of power generation facilities.





# Iowa Utilities Board Process

- Informational meeting for interested persons to ask questions (IUB might waive upon request of the developer)
- Negotiation with landowners
- File Petition for Certificate of Public Convenience, Use & Necessity
- Public comments & objections are allowed through the IUB's website.



# Iowa Utilities Board Process

- Notice of hearing to landowners within 1,000 feet of the site
- Intervention with approval to participate in the hearing
- IUB Hearing & Decision
- Certificate is transferable with IUB approval
- The electric transmission line to connect the project to the grid also requires IUB approval in a similar, but separate, process.







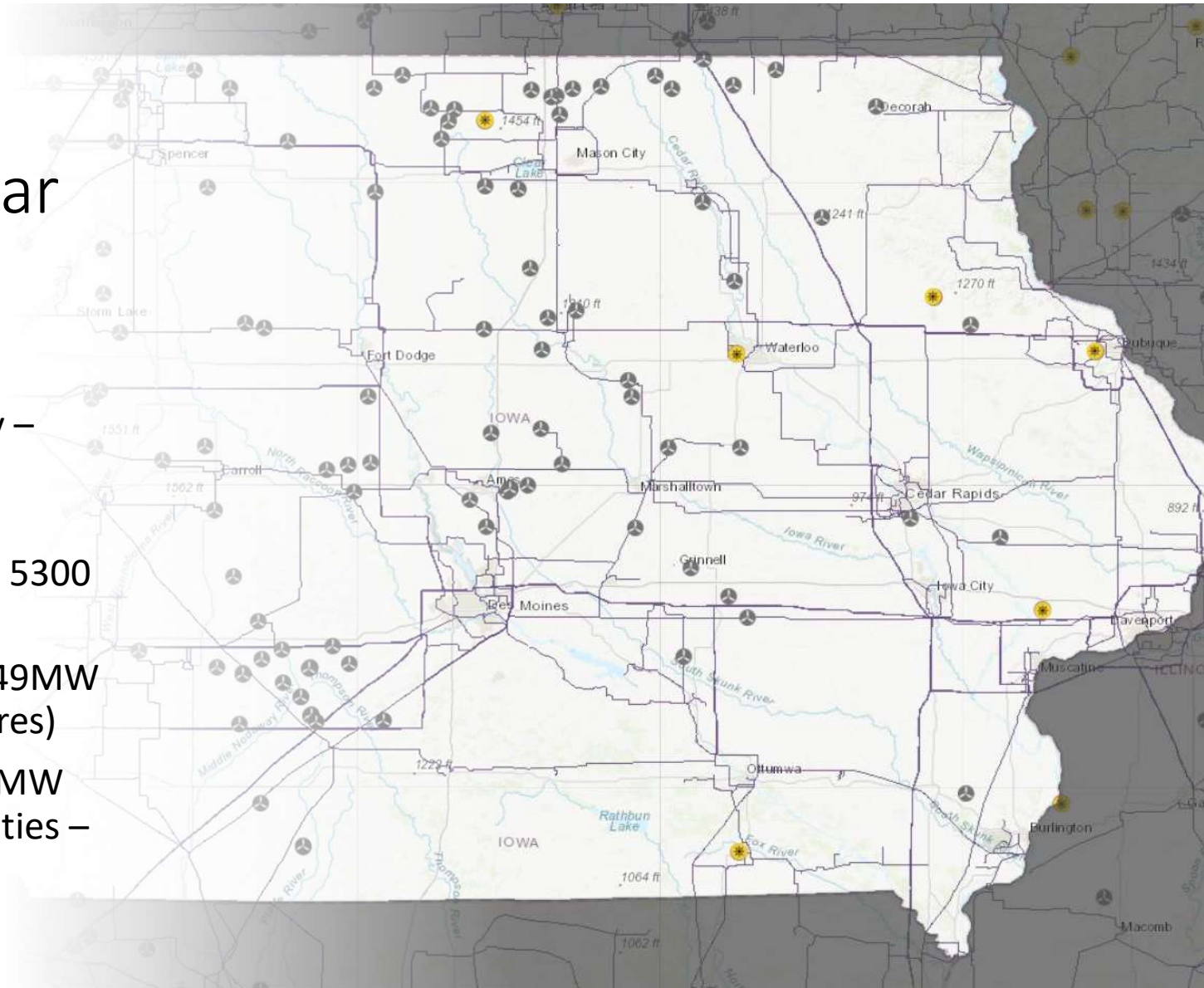
# County Approvals

- Zoning or Stand-alone Ordinance Process
- County usually holds a public hearing
- Final decision by the Board of Supervisors
- Local considerations such as setbacks, fencing, signage, road use agreements and driveway approvals



# IUB Approved Utility-Scale Solar in Process

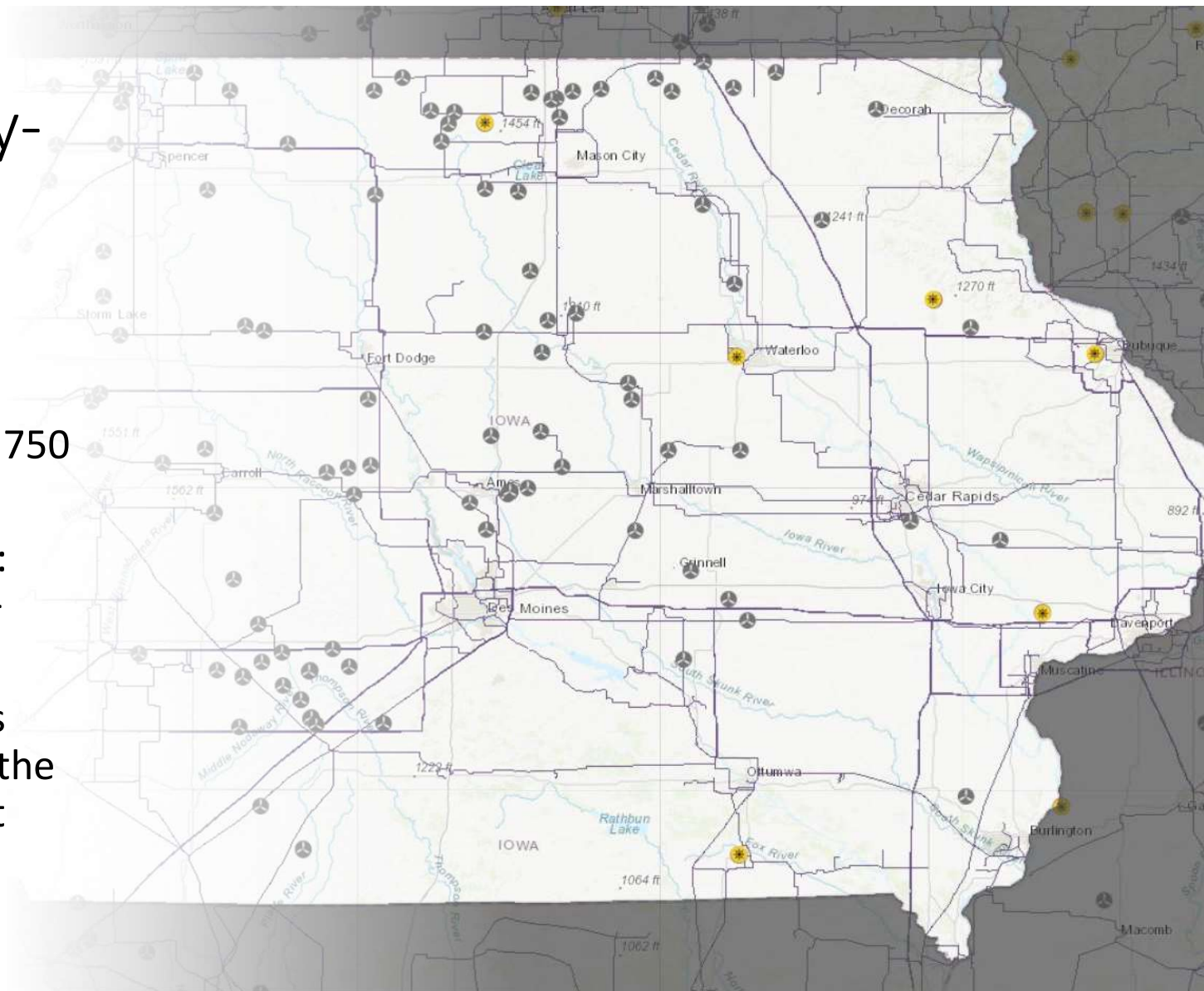
- Holliday Creek (MidAm):  
100MW (Webster County –  
1,000 acres)
- Worthwhile Solar West:  
300MW (Worth County – 5300  
acres)
- Worthwhile Solar East: 149MW  
(Worth County – 2600 acres)
- Big Dave Solar Farm: 300MW  
(Howard & Mitchell Counties –  
14,000 acres)





# Proposed Utility-Scale Solar in Process

- Coggon solar (CIPCO): 100MW (Linn County - 750 acres)
- Duane Arnold I, II, & III: 690MW (Linn County – 3500 acres)
- Many others in process that haven't filed with the Iowa Utilities Board yet



# Iowa Farm Bureau Member Website

- Current information about pending solar and electric transmission line projects that have been filed with the Iowa Utilities Board.
- [www.iowaFarmBureau.com](http://www.iowaFarmBureau.com) (login first)
  - Farmer Resources Tab
    - Scroll down to County Action
      - Select Solar Farms
- [Solar Farms \(iowafarmbureau.com\)](http://iowafarmbureau.com)

# Farm Bureau Member Information

[News](#)[Events](#)[About](#)[Contact](#)[Member Benefits](#)[Farmer Resources](#)[Member Input](#)

## Solar Farms

As these projects develop across the state, they are likely to impact a large amount of agricultural land. It is important that as a landowner you are informed on the proposed projects in your area, how they may affect your land, and understand your rights. In the resources provided below you will find a summary of the process, from the initial proposal to the ultimate construction of the lines, as well as information on current projects within the state, and answers to some of the most common landowner concerns.

## Resources



[Landowner's Guide](#)



[Status of Iowa Projects](#)



[Frequently Asked Questions](#)

For Additional Information contact the Iowa Utilities Board, or your county Farm Bureau Office.

# Farm Bureau Member information

## Electric Transmission Lines

Iowa is not only a leader in agricultural production but also is in the forefront of the nation's renewable energy sector. Because of the unique geographic position it is also a prime avenue for the distribution of these energy resources. Due to the increasing demand and interest in renewable energy, a number of high voltage transmission line projects have been proposed to help connect areas of high energy production and generation to the high consumption city centers across the Midwest.

As these projects develop across the state, they are likely to impact a large amount of agricultural land. It is important that as a landowner you are informed on the proposed projects in your area, how they may affect your land, and understand your rights. In the resources provided below you will find a summary of the process, from the initial proposal to the ultimate construction of the lines, as well as information on current projects within the state, and answers to some of the most common landowner concerns.

## Resources:



[How it Works](#)



[Status of Iowa Projects](#)



[Frequently Asked Questions](#)