Challenges and Opportunities for Utility Scale Solar
NextEra Project (Duane Arnold)
Clenera Project
Opportunity: Decreasing Cost

The price of electricity per megawatt (mw) from new power plants:

- Solar: $359/mw in 2009 to $40/mw in 2019
- Onshore wind: $135/mw in 2009 to $41/mw in 2019
- Coal: $111/mw in 2009 to $119/mw in 2019

Opportunity: Available Land and Income Stability

• Siting one MW of solar takes between 5 and 10 acres of land. Iowa could meet 10% of state electricity requirements using 0.02% to 0.04% of Iowa farmland.

• Income for farmers is higher and more stable with utility-scale solar installations. Rents per acre for solar are $700, while the typical ag land rent is $245 per acre resulting in a net gain of $455 per acre.

Iowa Environmental Council (2021). *Iowa Solar Energy Fact Sheet.* Data on solar rent provided by Clenera, data on average ag rent provided by Dave Swenson.
Challenges: Public Opposition

No Solar In Our Backyards!
Private group · 1.3K members
General Concerns

- Property value.
- Aesthetics.
- Storm water runoff.
- Drainage (including subsurface).
- Environmental and cultural impacts.
- Tax implications/local benefit of project.
- Farm land conversion.
- End of life responsibility.
- Growth boundary.
Opportunity: Identify “Least Conflict” Land in Advance
Questions?