Indiana Solar in 2021/2022: A Big Picture Assessment

Jesse Kharbanda

Executive Director

Hoosier Environmental Council

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The Energy Landscape is Really Changing in Indiana

Coal (2011): 77.7%

Coal (2020): 47.3%

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Drivers of that Change

- Aging nature of the coal plants
- Environmental advocacy campaigns
- Federal policy
- Changing economics

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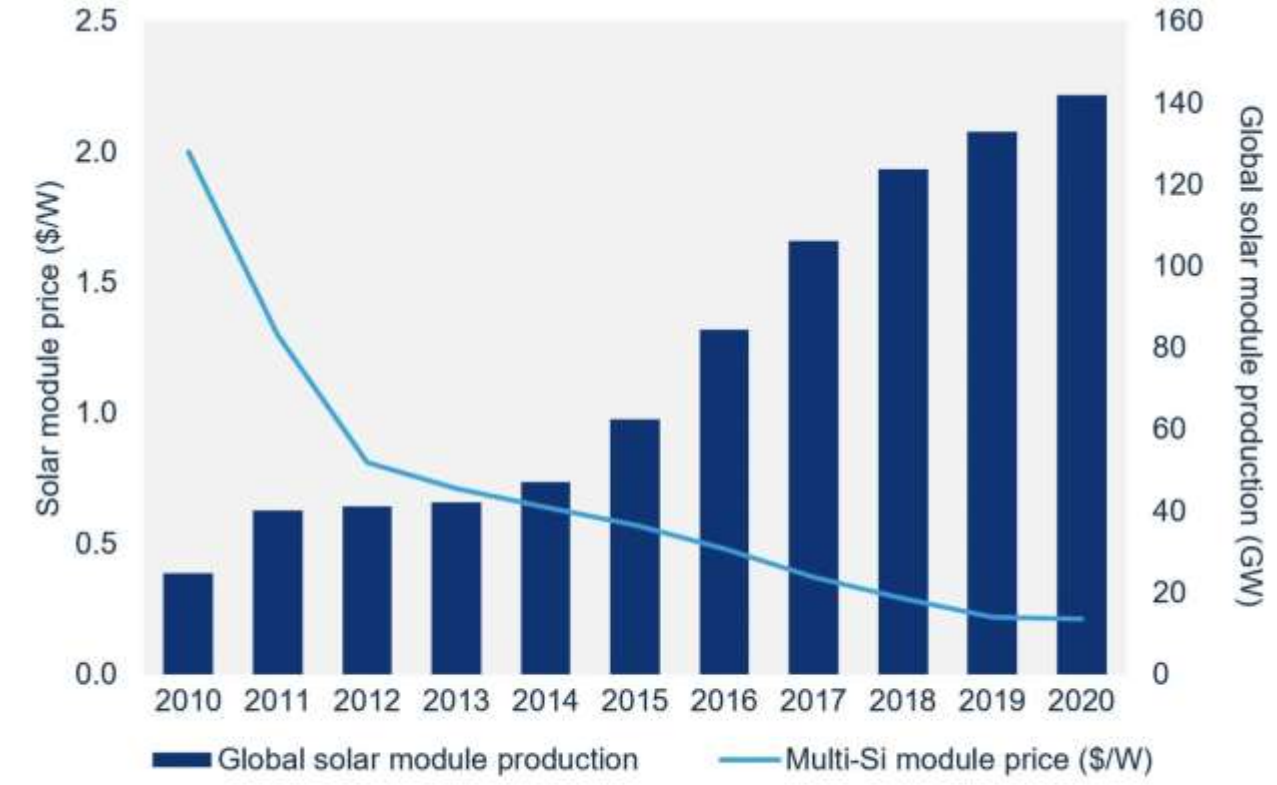

(Source: https://www.greentechmedia.com/articles/read/solar-pv-has-become-cheaper-and-better-in-the-2010s-now-what)

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Levelized Cost of Energy Comparison—Unsubsidized Analysis

Selected renewable energy generation technologies are cost-competitive with conventional generation technologies under certain circumstances

Source: *Lazard estimates.*

Note: Here and throughout this presentation, unless otherwise indicated, the analysis assumes 60% debt at 8% interest rate and 40% equity at 12% cost. Please see page titled "Levelized Cost of Energy Comparison—Sensitivity to Cost of Capital" for cost of capital sensitivities. These results are not intended to represent any particular geography. Please see page titled "Solar PV versus Gas Peaking and Wind versus CCGT—Global Markets" for regional sensitivities to selected technologies.

(1) Unless otherwise indicated herein, the low case represents a single-axis tracking system and the high case represents a fixed-tilt system.

(2) Represents the estimated implied midpoint of the LCOE of offshore wind, assuming a capital cost range of approximately $2,600 – $3,675/kW.

(3) The fuel cost assumption for Lazard's global, unsubsidized analysis for gas-fired generation resources is $3.45/MMBTU.

(4) Unless otherwise indicated, the analysis herein does not reflect decommissioning costs, ongoing maintenance-related capital expenditures or the potential economic impacts of federal loan guarantees or other subsidies.

(5) Represents the midpoint of the marginal cost of operating fully depreciated gas combined cycle, coal and nuclear facilities, inclusive of decommissioning costs for nuclear facilities. Analysis assumes that the salvage value for a decommissioned gas combined cycle or coal asset is equivalent to its decommissioning and site restoration costs. Inputs are derived from a benchmark of operating gas combined cycle, coal and nuclear assets across the U.S. Capacity factors, fuel, variable and fixed operating expenses are based on upper- and lower-quartile estimates derived from Lazard's research. Please see page titled "Levelized Cost of Energy Comparison—Renewable Energy versus Marginal Cost of Selected Existing Conventional Generation" for additional details.

(6) High end incorporates 90% carbon capture and storage. Does not include cost of transportation and storage.

(7) Represents the LCOE of the observed high case gas combined cycle inputs using a 20% blend of "Blue" hydrogen, (i.e., hydrogen produced from a steam-methane reformer, using natural gas as a feedstock, and sequestering the resulting CO_2 in a nearby saline aquifer). No plant modifications are assumed beyond a 2% adjustment to the plant's heat rate. The corresponding fuel cost is $5.20/MMBTU.

(8) Represents the LCOE of the observed high case gas combined cycle inputs using a 20% blend of "Green" hydrogen, (i.e., hydrogen produced from an electrolyzer powered by a mix of wind and solar generation and stored in a nearby salt cavern). No plant modifications are assumed beyond a 2% adjustment to the plant's heat rate. The corresponding fuel cost is $10.05/MMBTU.

CULTURE

The $1.5 Billion Mammoth Solar Farm Will Be the Largest in the US

Spanning two entire counties.

By Chris Young
Nov 16, 2021 (Updated: Nov 17, 2021 08:54 EST)

Solar Farms in Indiana

- 8,500 MW by end of decade
- 33 projects underway
- 22 counties
- 229 MW in size (average)
- 2,400 acres (average)

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Rooftop solar is not growing at nearly the clip as utility-scale solar, but we see inspiring projects…

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Headwinds for Solar in 2022 in Indiana

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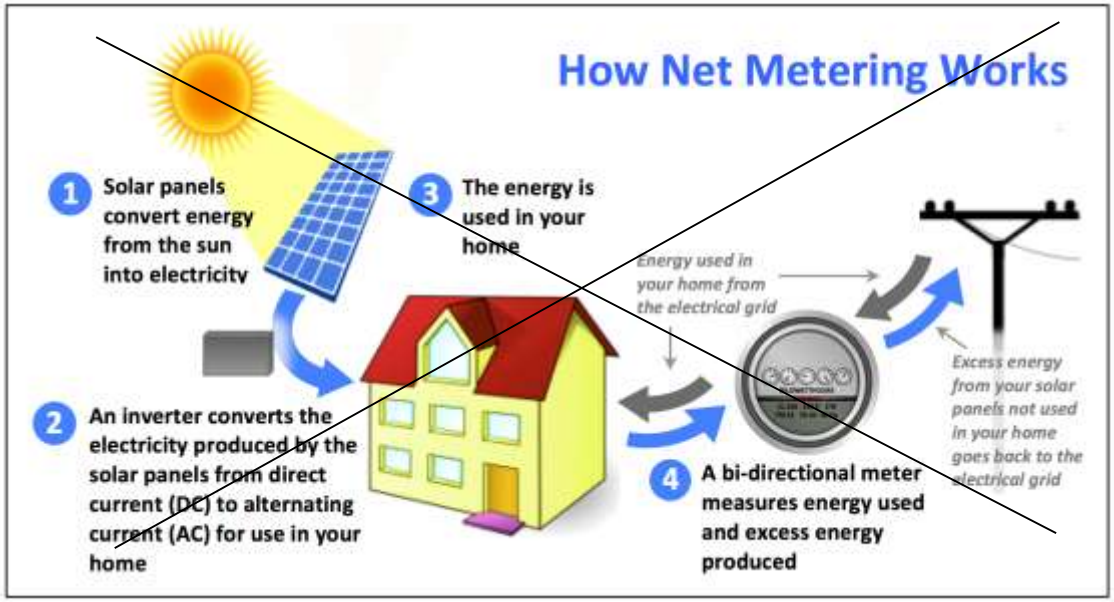
Q: Will rooftop solar policy be undermined (or strengthened)?



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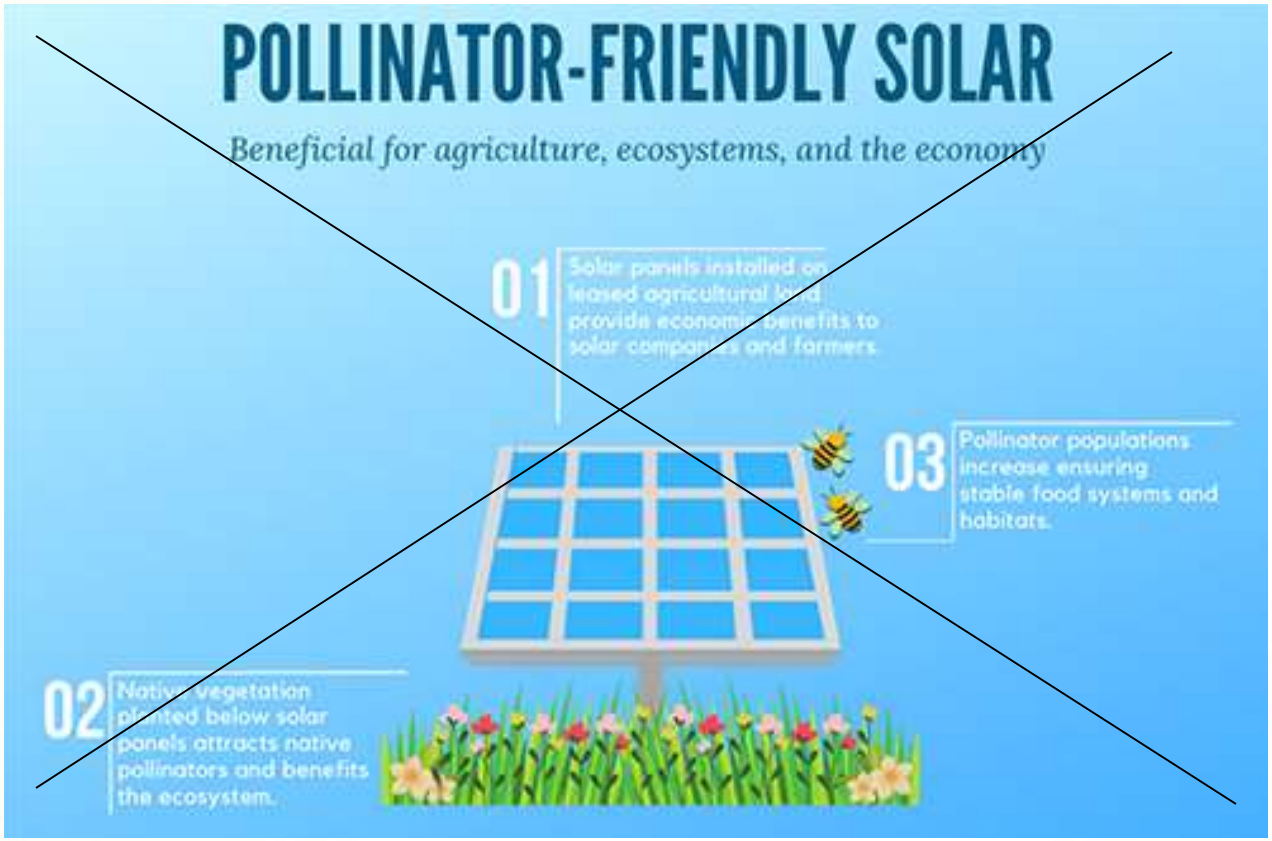
Q: Will environmentally-friendly solar farm policy be undermined (or preserved)?



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A Point of Personal Privilege

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Thank you to several partners

Carmel Green Initiative

Citizens Action Coalition

Earth Charter Indiana

Energy Matters Community Coalition

Evangelical Environmental Network

Hoosier Interfaith Power & Light

Hoosiers for Renewables

Indiana Conservation Alliance for Energy

Indiana Beyond Coal

Indiana DG

NAACP - Indiana

Sierra Club Hoosier Chapter

Solar United Neighbors of Indiana

Solarize Indiana

Solar Indiana Renewable Energy Network

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Recognize Some Long-Time, Resilient Colleagues

Our Panelists

- Ben Inskeep of EQ Research
- John Delurey of Vote Solar
- Jessi Wyatt of the Great Plains Institute

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We hope you are moved to act to contact your lawmakers (bitly.com/INLegis)

- Empowered with knowledge about the rooftop solar policy climate in Indiana
- Motivated to know that big tent, pro-rooftop solar coalitions can succeed
- Informed about why environmental-sensitive solar design matters

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