Distributed Solar in Indiana

Greening the Statehouse

Ben Inskeep
Principal Analyst | EQ Research
binskeep@eq-research.com

November 19, 2021

EQ Research

EQ Research: Clean Energy Policy Experts

LOCATIONS

- Headquarters is Cary, NC
- I'm based in Indianapolis

EXPERTISE

- Distributed & Renewable Resources
- U.S. Regulatory & Legislative Policy
- Utility Rates, Tariffs and Incentives
- Research, Analysis & Expert Witness Testimony

SERVICES

POLICY VISTA
POLICY TRACKING

CUSTOM RESEARCH

What is Distributed Solar?

Residential Rooftop Solar

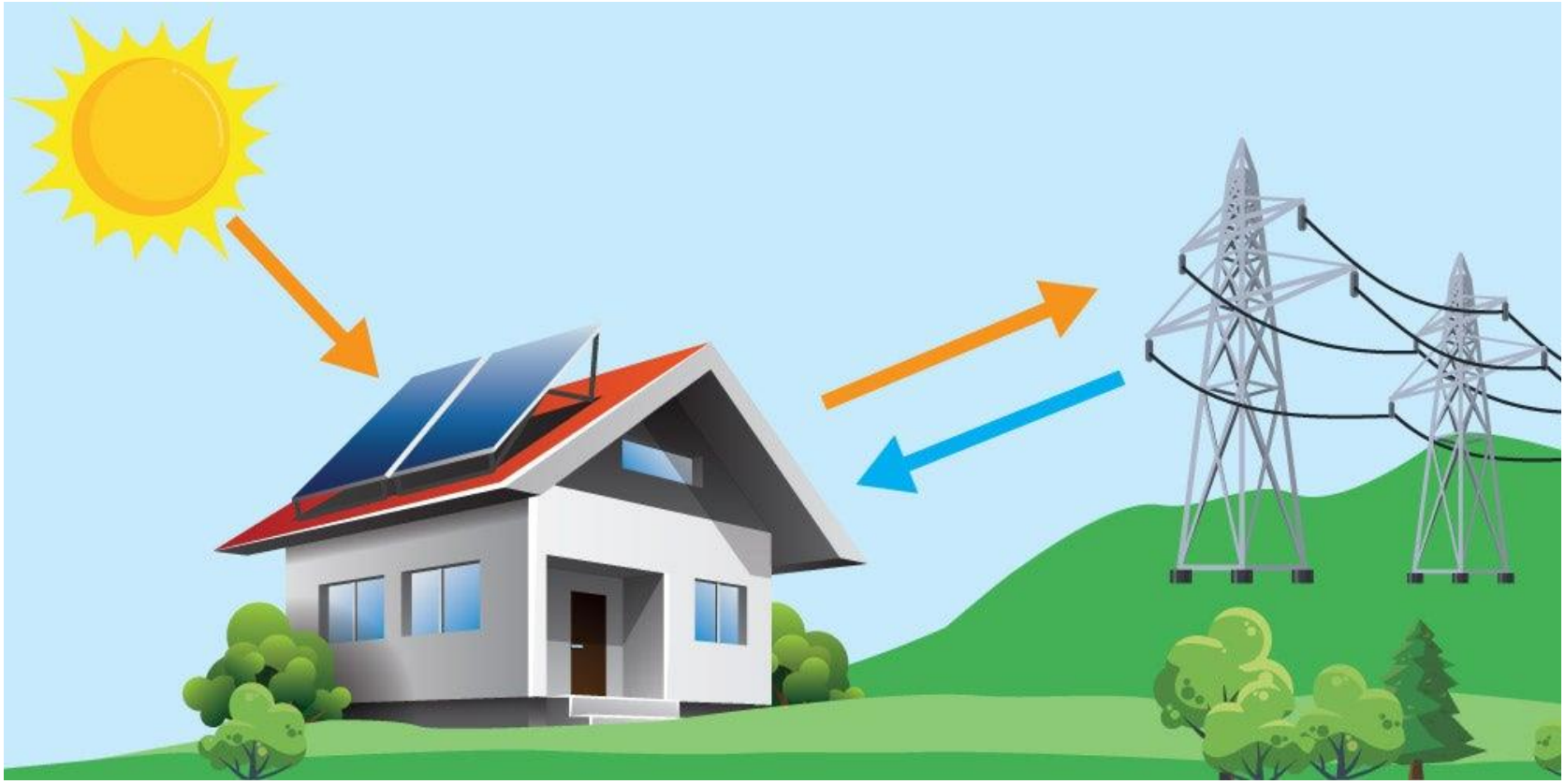
Commercial & Industrial Solar

Solar at Nonprofits, Governments, Schools, & Houses of Worship

Community Solar

Photo Credits: UMSL/Mundelein Seminary; Walt Disney World; Clean Energy Collective

Key Issue: How Should We Compensate Energy Shared with the Grid by Distributed Solar?



Graphic Credit: SolarReviews, https://www.solarreviews.com/blog/california-net-metering-nem-2

Senate Enrolled Act 309 (2017)

- Replaces **net metering** with an **Excess Distributed Generation (EDG) rate** for solar installed on or after July 1, 2022.
- The EDG rate would reduce the credit (i.e., the financial benefit) for solar energy that is shared with solar customers' neighbors.
- Advocates are asking the IURC to continue **MONTHLY NETTING** under EDG tariffs, meaning the EDG rate would be applied at the end of the billing month to solar shared with the grid *net of* the amount of energy used from the grid.
- **Utilities want "no netting": crediting you only 2.7 cents for all solar energy that they then turn around turn around and sell to your neighbor for up to 15 cents.**
    - Discourages solar adoption by Hoosiers
    - Unfair to customers investing in solar
- CenterPoint (Vectren) has already implemented "no netting." The other 4 IOUs have pending cases at the IURC proposing to do the same.

Net Metering, Monthly Netting, and Utility "No Netting" Proposals

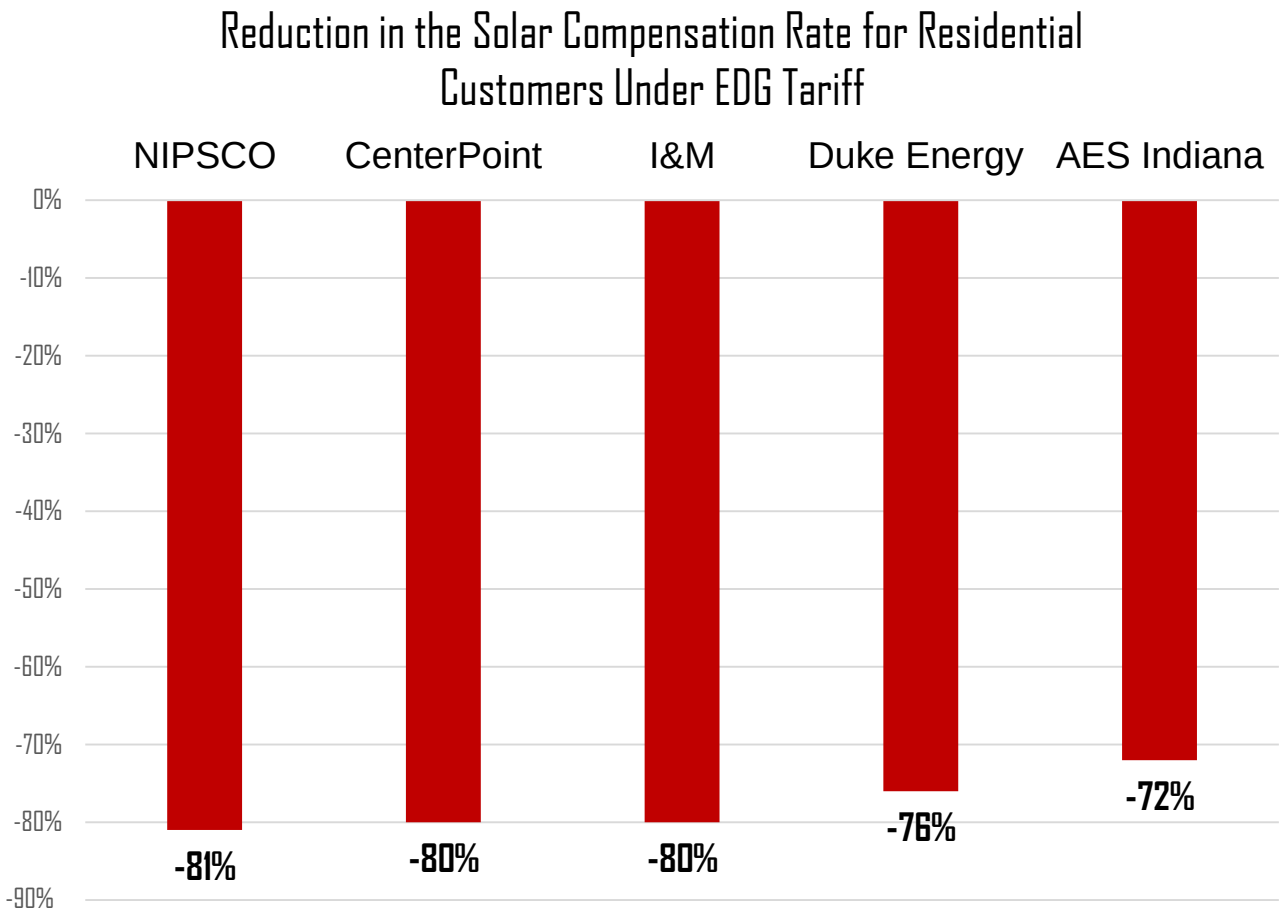
- Monthly netting preserves most of the financial benefits of solar DG that exist today under net metering.

Policy	Credits for Solar Energy Shared with the Grid on a Day-to-Day Basis	Credits for Net Total Solar Energy, Applied at the End of Billing Month	Timeline
Net Metering	1:1 Offset	kWh credit "rolls over" to next month's bill	Installed before July 1, 2022
Monthly Netting *Advocates' EDG Tariff Proposal*	1:1 Offset *1 kWh of energy exported to the grid offsets 1 kWh of energy imported from the grid at a different time in the same billing month*	Converted to 2.5 to 3 cents per kWh	Installed on or after July 1, 2022
No Netting *Utilities' EDG Tariff Proposal*	2.5 to 3 cents per kWh for all energy sent to the grid at any time		Installed on or after July 1, 2022

"No Netting" EDG Rates Would Significantly Reduce the Customer Benefit of Installing Solar

- Utilities have proposed replacing monthly netting with the low EDG credit for all electricity not *immediately* consumed by the DG customer.

- EDG credits are worth 72% to 81% less than net metering credits for residential customers.



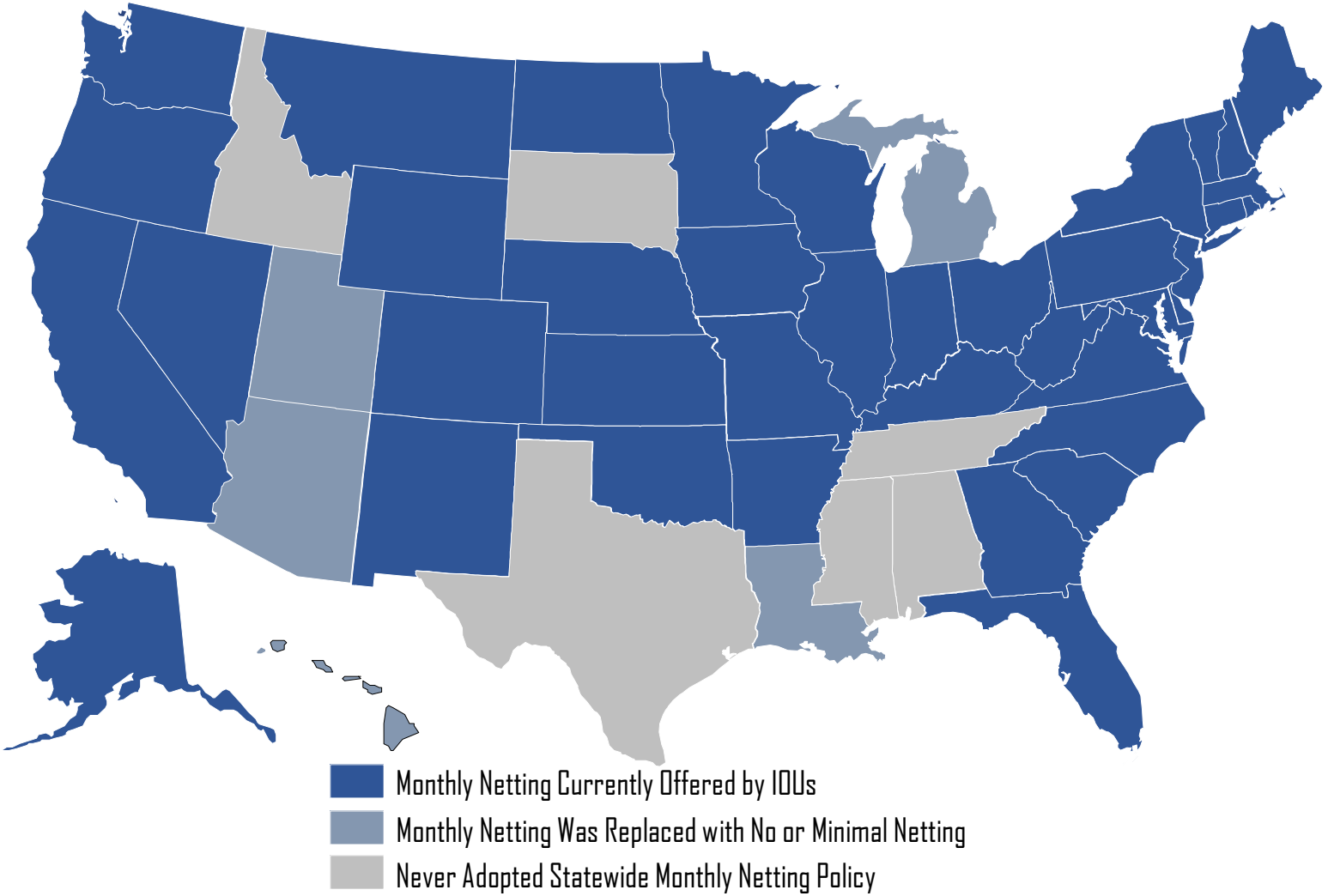
Payback Period of Rooftop Solar in Indiana

	Net Metering + Retail Credit	No Netting + EDG Credit
CenterPoint	11 years	**25 years**
I&M	12 years	**26 years**
NIPSCO	11 years	**27 years**
AES Indiana	16 years	**30 years**
Duke	13 years	**26 years**

- **The biggest factor in the reduced financial benefit is the utilities' proposal to implement of a "no netting" policy under EDG tariffs.**
- Solar installed after July 1, 2022 would no longer provide a net financial benefit to customers over an assumed 25-year life of a solar facility.
- Strong solar DG markets have a payback period of **10 years or less**

Sources: All calculations are my own, as included in my testimony in the respective utility EDG cases, except for the CenterPoint estimates, which are from Will Kenworthy's testimony from that EDG case.

39 states currently offer monthly netting to residential & small commercial DG customers



Source: Based on my research of current state policies in effect for most investor-owned utilities in a state as of September 7, 2021.

Recent Examples of States Approving or Maintaining Monthly Netting for Solar Customers

- **Iowa, South Carolina, Georgia, Arkansas, Kentucky**
- **Kentucky PSC's May 2021 Order for Kentucky Power (AEP):**
  - ✓ Maintained monthly netting
  - ✓ Calculated value of EDG to apply to remaining credits at the end of monthly billing period:

Kentucky Power (AEP) Residential EDG Credit

Benefit Category of EDG	Credit Rate
Energy	$0.03893
Ancillary Services	$0.00063
Generation Capacity	$0.02816
Transmission Capacity	$0.01245
Distribution Capacity	$0.01046
Carbon Cost	$0.00578
Environmental Compliance Cost	$0.00105
Jobs Benefits	*TBD*
Total	**$0.09746**

3x to 4x higher than EDG Credit in Indiana

“No Netting” EDG Rates Put Indiana at a Competitive Disadvantage

- The benefit per kWh of solar shared with the grid during the month for a residential solar customer would be **4x higher in neighboring states**
- Solar installers will leave or dramatically reduce business in Indiana if “no netting” EDG rates are adopted.
- **Monthly netting** would result in a ~10-15 cent/kWh benefit for residential customers in Indiana, keeping us competitive with our neighbors

Note: Values are approximate, vary by utility, and are in units of “per kWh”. Sources: (1) https://bit.ly/3jQi2oJ; (2) https://bit.ly/2VI04kL; (3) https://bit.ly/2X08M8D; (4) https://bit.ly/3yZo7Ud.

Other Policy Issues Holding Back Distributed Solar in Indiana

- **Community Solar**
  - Community solar allows a group of customers to collectively invest in a solar facility and get bill credits for their share of the solar energy.
  - Solar developers are prohibited from offering these programs to customers in Indiana.

- **Financing Tools for Investing in Solar**
  - Solar customers are now allowed to buy solar energy from a solar company through a power purchase agreement.
  - Power purchase agreements are a solar financing tool that let's the solar company buy the solar panels and only charge you for the energy it generates (i.e., no big upfront cost to customers).

- **Homeowners Associations (HOAs)**
  - Many HOAs have outdated bans on rooftop solar, preventing thousands of Hoosiers from installing solar.

Monopoly Utilities Are Trying to Block Distributed Solar. You Can Stop Them.

- Contact your state senator and representative and tell them you support:
  1. **Net metering** and the fair crediting of distributed solar energy through **monthly netting**.
  2. Expanding Hoosier access to distributed solar through:
     - Legalizing independent **community solar programs**
     - Legalizing solar financing arrangements like **power purchase agreements**
     - Stopping bans on solar pushed by **homeowners associations**

- **NOW is the critical time to act** – lawmakers need to know these are priority issues to address in the "short" 2022 legislative session.

Questions?

Ben Inskeep
Principal Analyst | EQ Research
binskeep@eq-research.com

November 19, 2021

EQ Research