Don’t Let the Sun Go Down on Me: The Future of Net Energy Metering Policies in North America, Part 1

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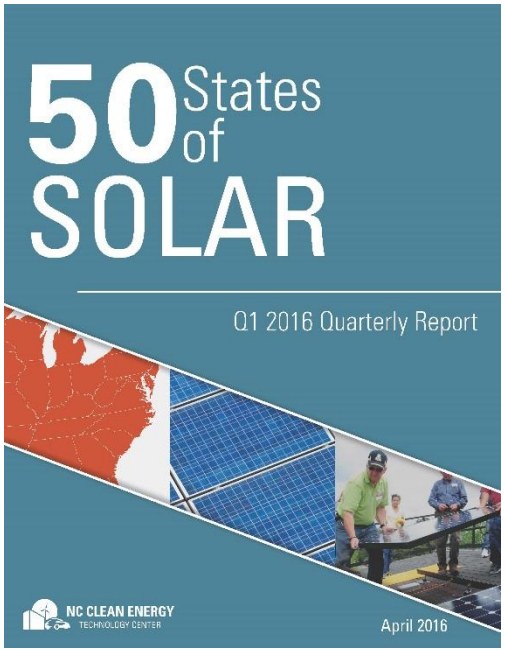
NC CLEAN ENERGY TECHNOLOGY CENTER

About the NC Clean Energy Technology Center

- UNC System-chartered Public Service Center administered by the College of Engineering at North Carolina State University
- Mission is to advance a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies practices, and policies.
- Objective research, analysis, & technical assistance – no advocacy
- Manage the Database of State Incentives for Renewables and Efficiency (DSIRE – www.dsireusa.org)

About the 50 States of Solar

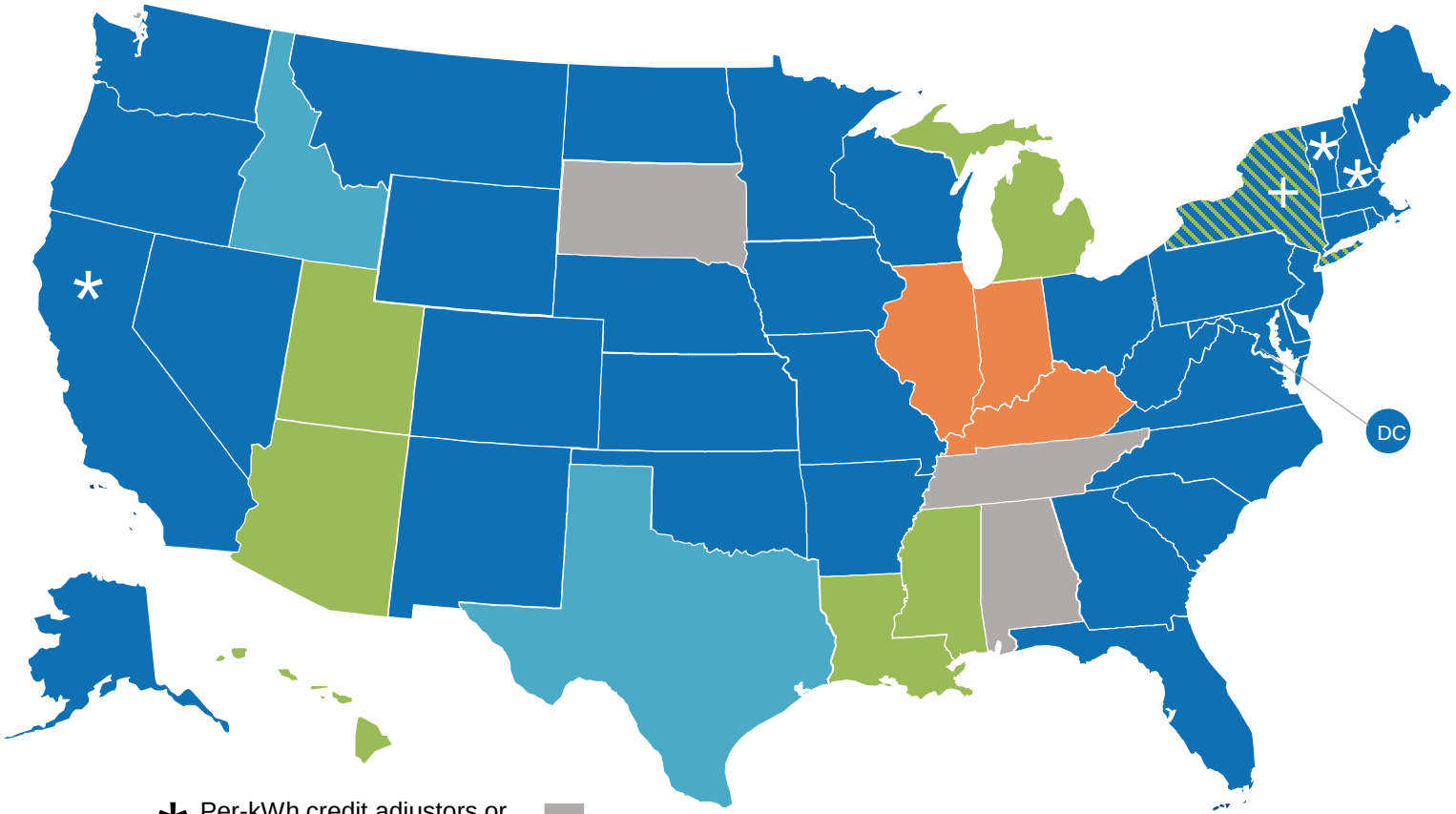
- Quarterly publication detailing state and utility distributed solar policy & rate design changes
  - Net Metering
  - DG Valuation/NEM Cost-Benefit Studies
  - Residential Fixed Charges & Minimum Bills
  - Residential Demand Charges & Solar Charges
  - Community Solar
  - Third-Party Ownership
  - Utility-Led Rooftop Solar
- Regulatory actions, bills passing at least one chamber
- States, IOUs, public power utilities with >100,000 customers



https://www.dsireinsight.com/publications

Net Metering and Distributed Generation Compensation Policies

www.dsireusa.org / February 2021



* Per-kWh credit adjustors or non-bypassable charges

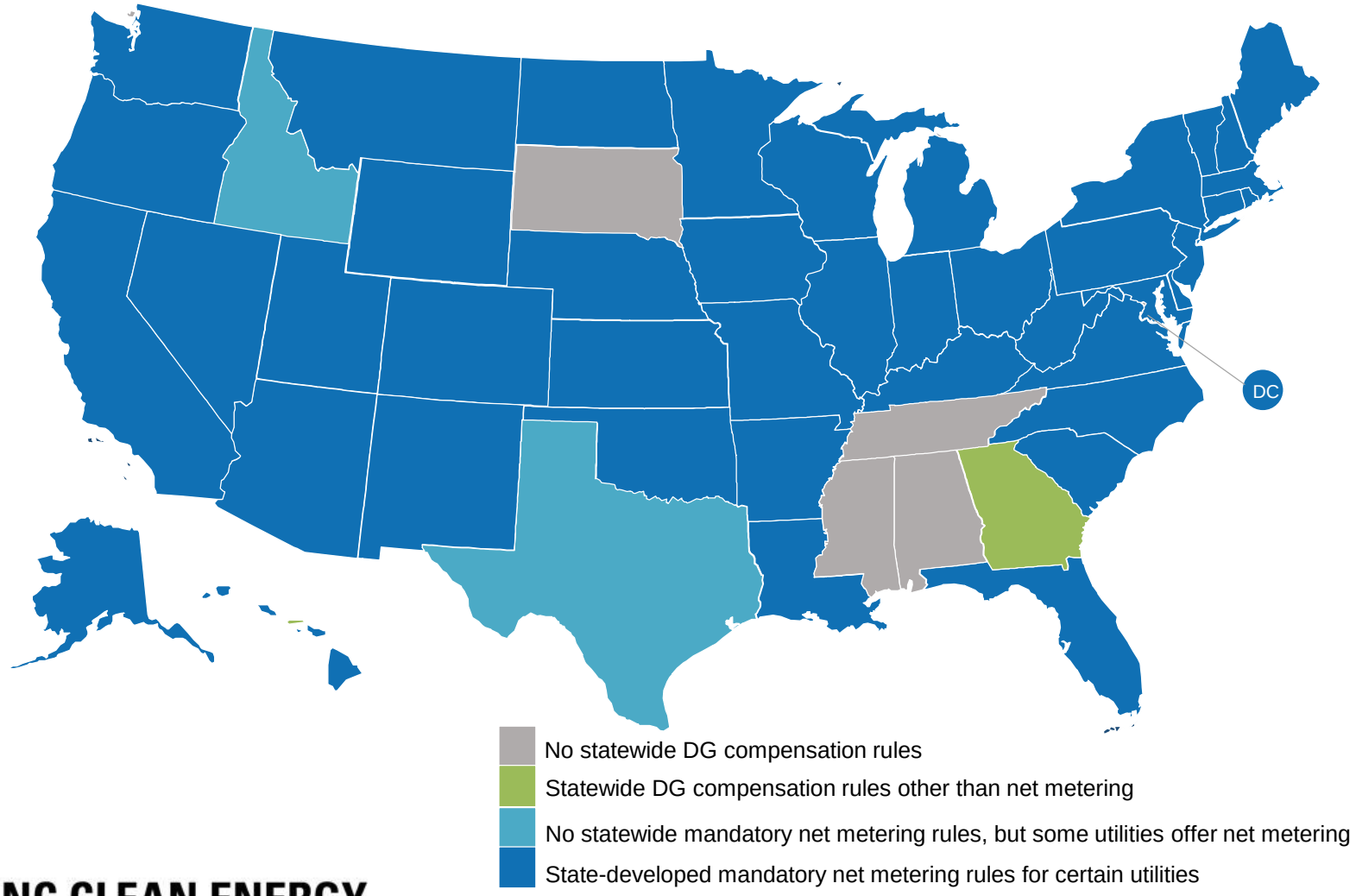
\+ Other DG compensation rules are for large customer-generators

- No statewide DG compensation rules
- Statewide DG compensation rules other than net metering
- In transition from net metering to other statewide DG compensation rules
- No statewide mandatory net metering rules, but some utilities offer net metering
- State-developed mandatory net metering rules for certain utilities

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Net Metering and Distributed Generation Compensation Policies

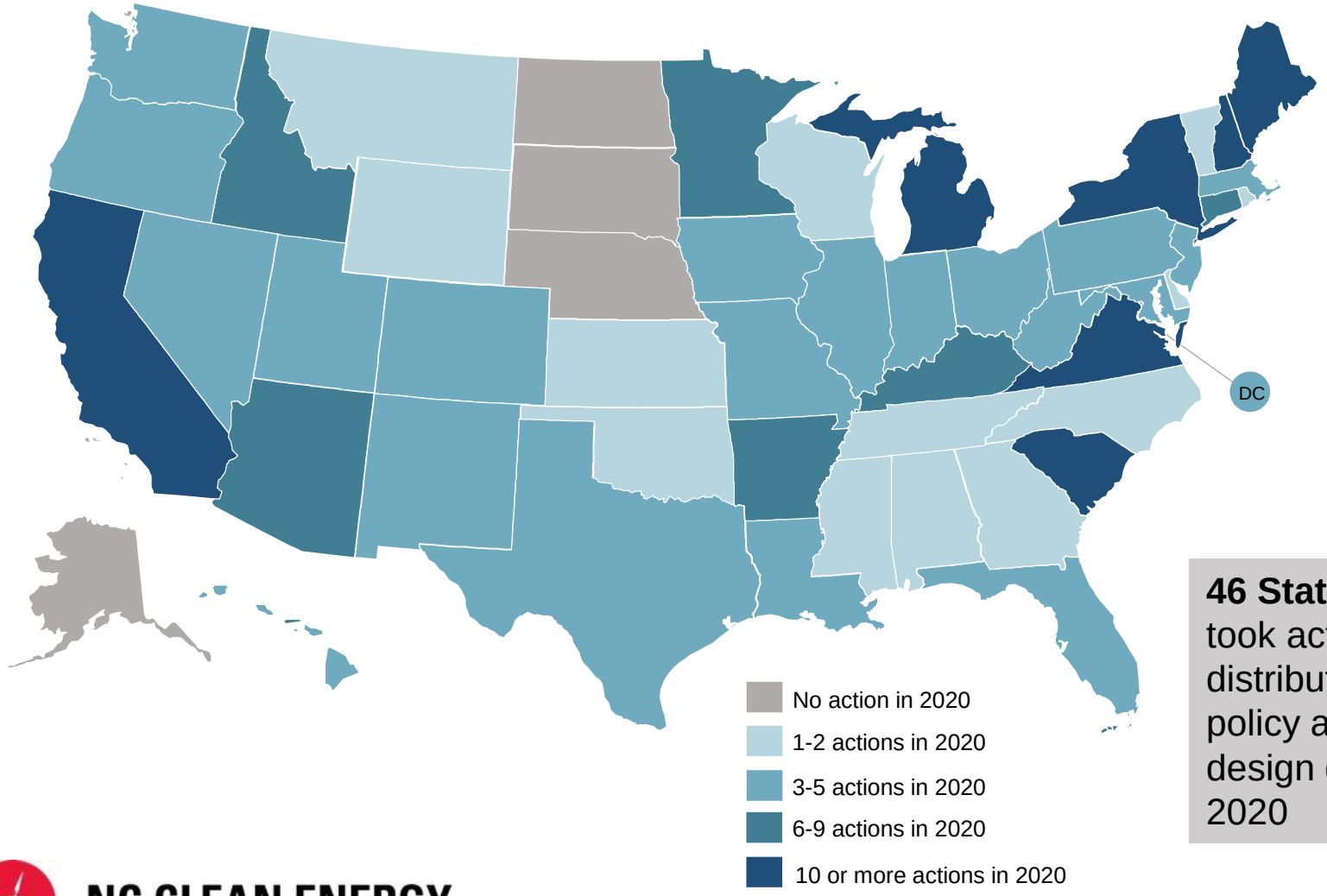
www.dsireusa.org / 2014



Why are NEM Reforms Being Considered?

- ***Concerns about cost-shifting***
  - Majority of fixed & demand-based costs for residential customers generally recovered through variable rates; bill reduced through NEM
  - Others suggest benefits of DG negate or reverse cost shift
- ***Increasing solar capacity on the grid***
  - Increases the impact of any potential cost shift
  - Potential system impacts
- ***Efforts to become more granular in solar valuation and compensation***
  - NEM is easy to understand, but a rough mechanism
- ***Utilities reaching net metering aggregate caps***
  - Sometimes an impetus for considering changes

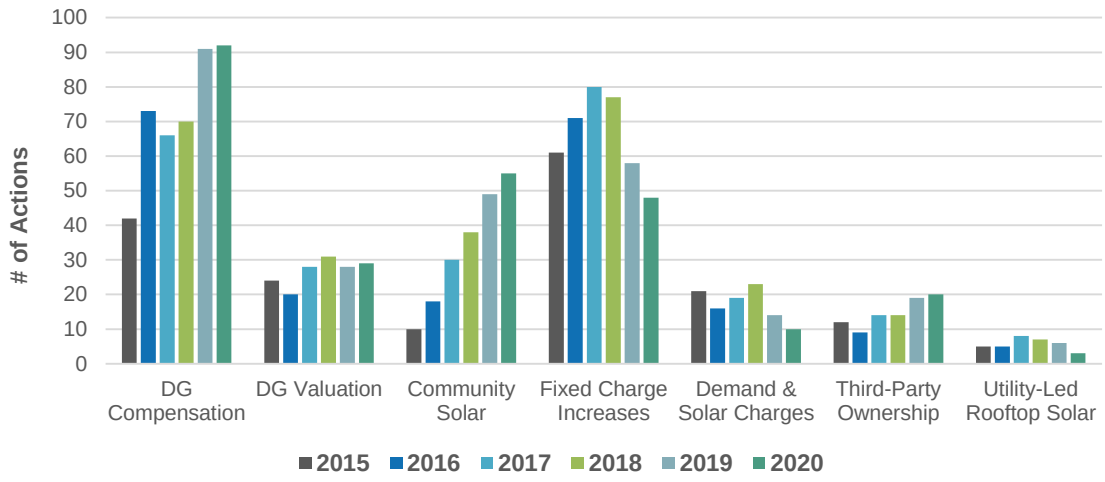
2020 Distributed Solar Policy & Rate Design Action



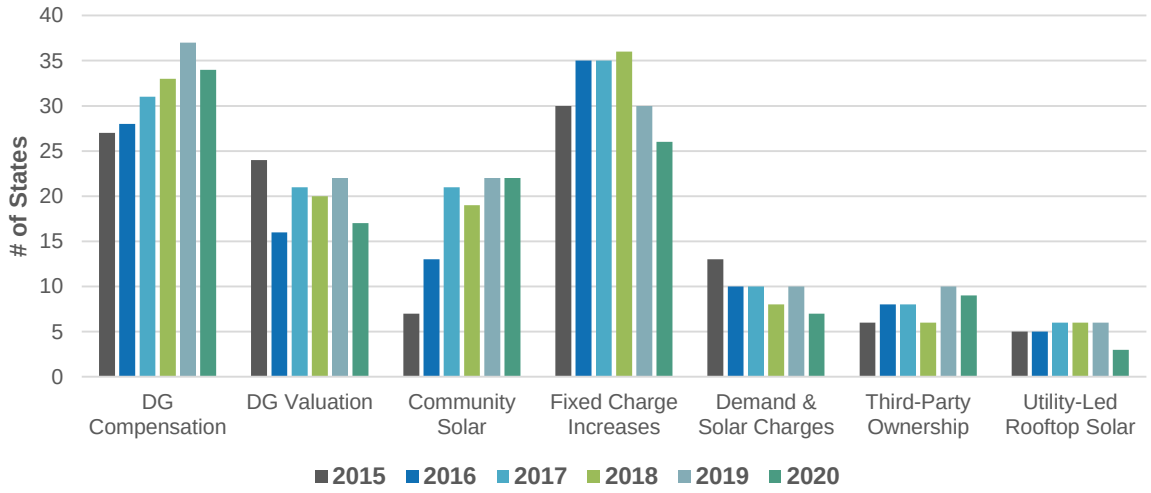
46 States + DC took action on distributed solar policy and rate design during 2020

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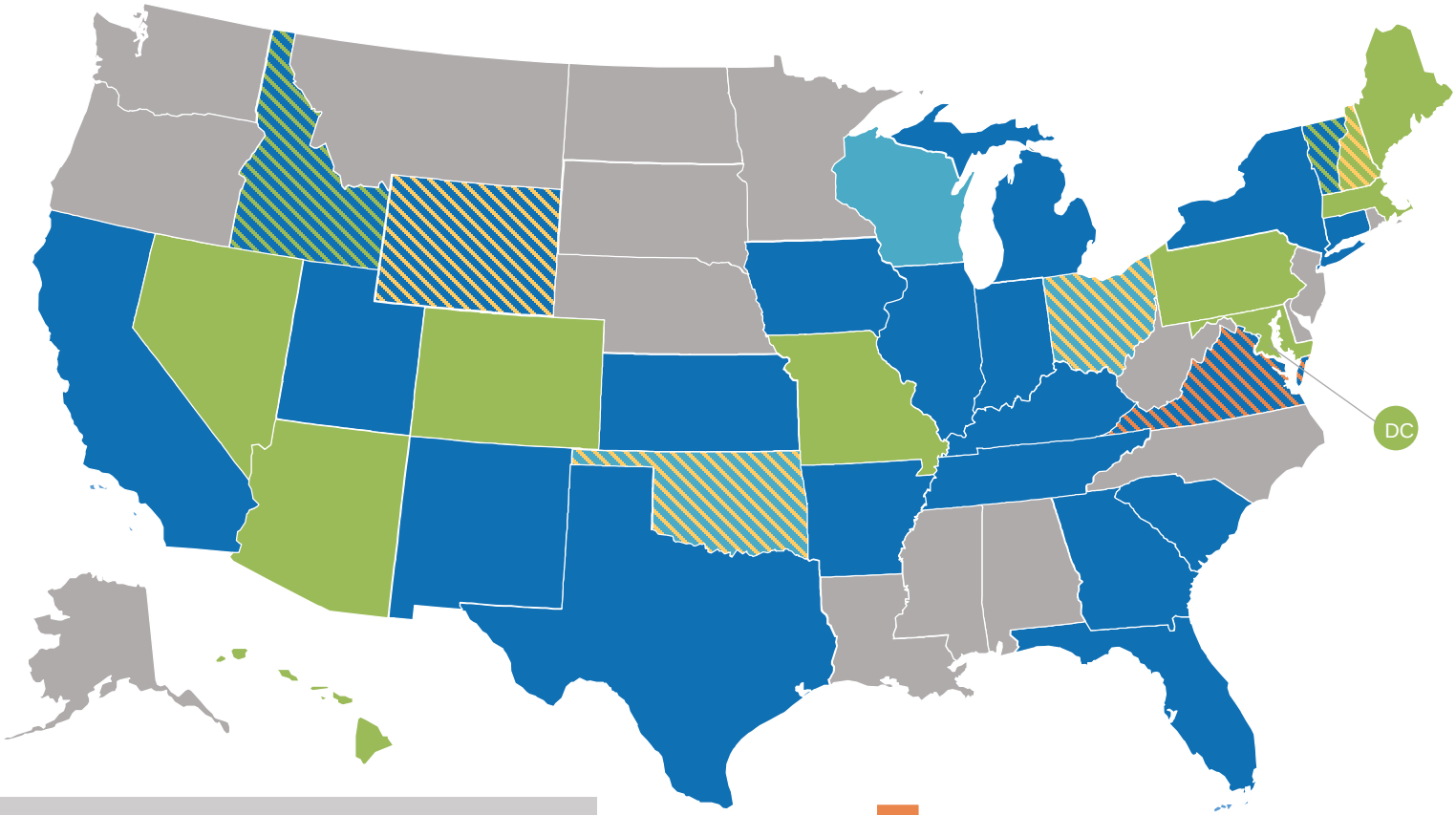
Number of Solar Policy Actions 2015 - 2020



Number of States Taking Solar Policy Actions 2015 - 2020



2020 Proposed or Enacted Changes to Net Metering Policies by Type



34 States + DC took action on net metering during 2020

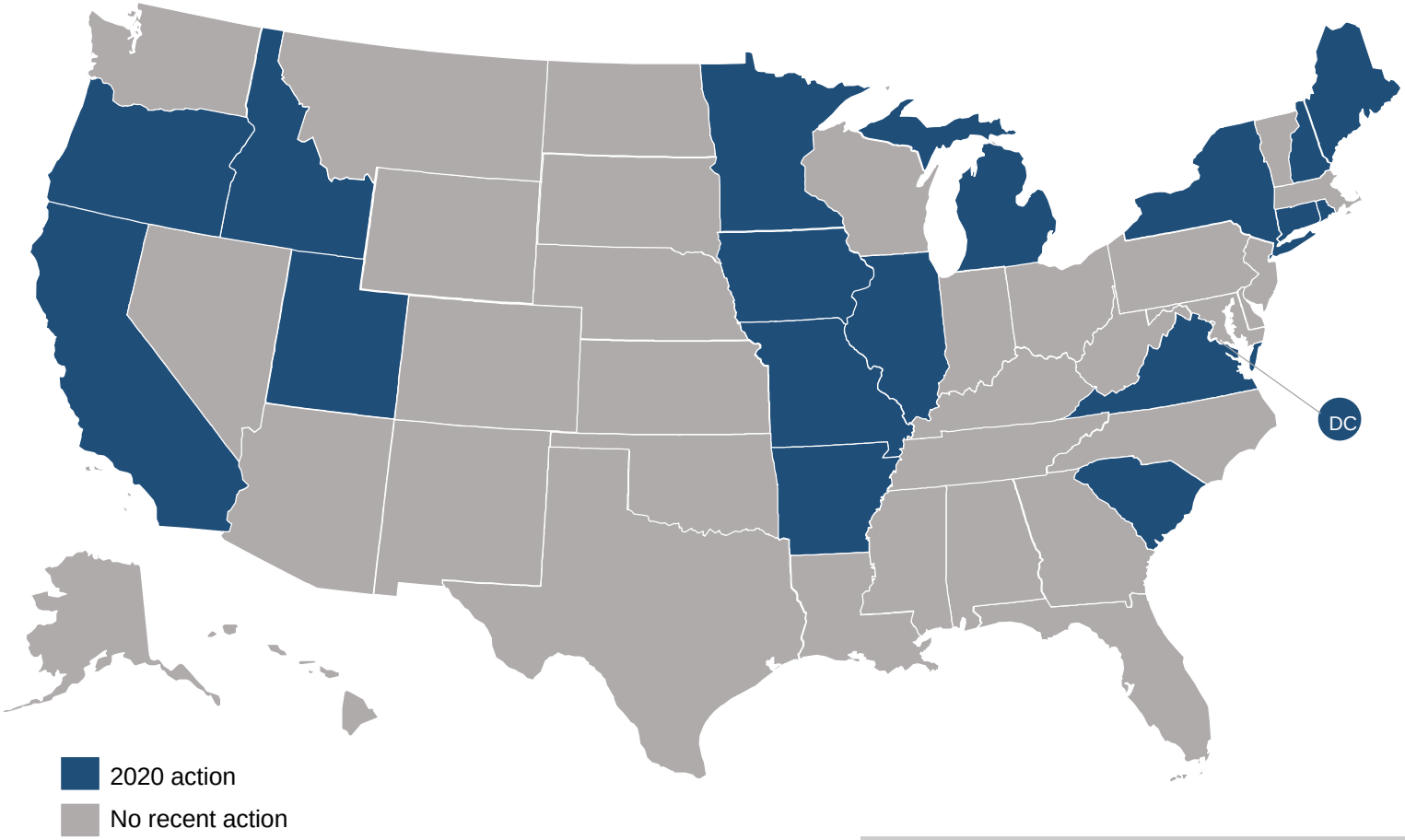
- Aggregate Cap
- Credit Rates, Customer Class, or Successor Tariff
- Compensation for Net Excess Generation
- System Size Limits
- Other Changes to NEM Rules

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Net Metering Policy Trends

- States considering changes to **export credit rates** & **netting period**
  - Many different variations possible
  - Credit rates: retail rate, TOU rates, value of solar or DER, avoided cost, adders, locational rates, etc.
  - Netting intervals: monthly, instantaneous, 15 / 30 / 60 minute intervals, time-of-day netting, etc.
- Undertaking **studies** to inform net metering credit rate changes

2020 Action on Distributed Solar Valuation and Net Metering Studies

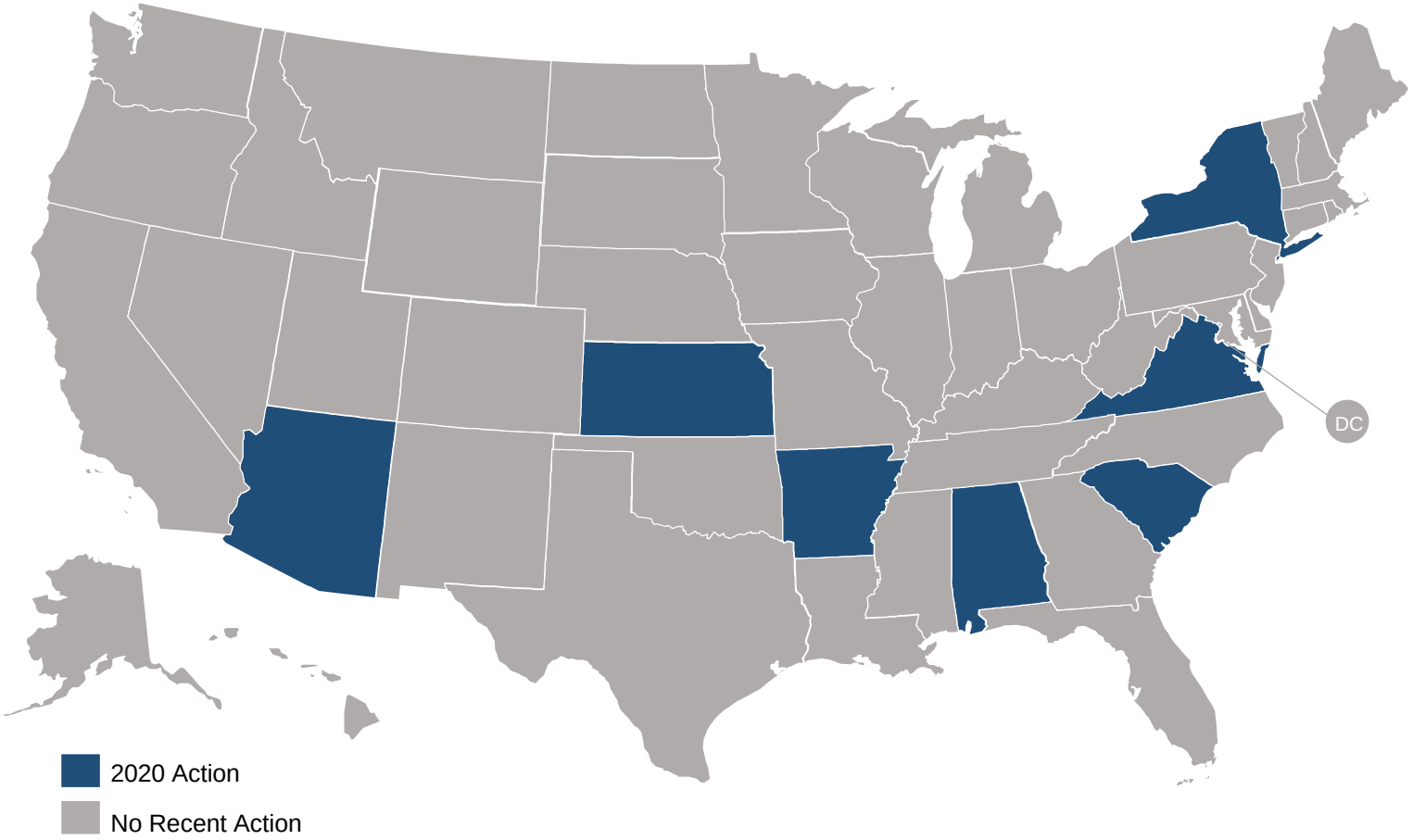


17 States + DC took action on distributed solar valuation during 2020

Net Metering Policy Trends

- States **grandfathering** existing net metering customers under current rules
  - Time period varies, typically 15-20 years
- States establishing **timelines to transition** to net metering successor tariffs
  - Examples – AR, IA, IL, IN, SC, VA, WA
- **Engaging stakeholders** and efforts to reach compromise, with varying degrees of success
- Utilities proposing **additional fees** for DG customers

2020 Action on Residential Demand or Solar Customer Charges



10 Actions in 7 States related to demand or solar charges were under consideration during 2020

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Net Metering Policy Trends

- Strong movement away from mandatory **residential demand charges**
  - None proposed by IOUs in 2019 or 2020
  - Evergy demand charge overturned by KS Supreme Court
- Utilities proposing additional **fees based on DG system capacity**
  - Alabama Power, New York, Dominion Energy (SC), Evergy (KS)
- Interest growing in **minimum bills** as a DG rate design element
  - Duke Energy (SC), Evergy (KS), Virginia (shared solar)

Net Metering Policy Trends

- **States are taking very different approaches!**
  - Credit rates
  - Netting interval
  - Grandfathering
  - Storage treatment
  - REC ownership
  - Credit rate changes or lock-in
  - Cost recovery
  - Additional fees or minimum charges
  - Carryover
  - System size
  - Aggregate cap
  - Incentives
  - Customer type
  - Metering

Thank You!

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