An Overview of Net Metering Reforms Across the U.S.

MI Power Grid DER Rate Design Kick-Off Meeting
March 9, 2021

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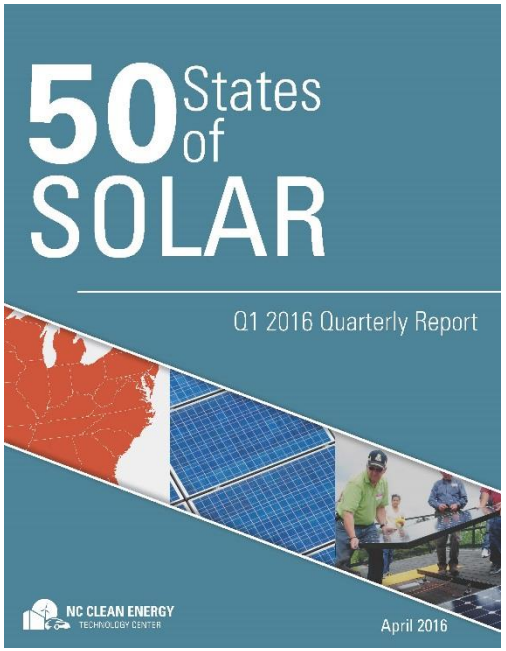
NC CLEAN ENERGY TECHNOLOGY CENTER

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

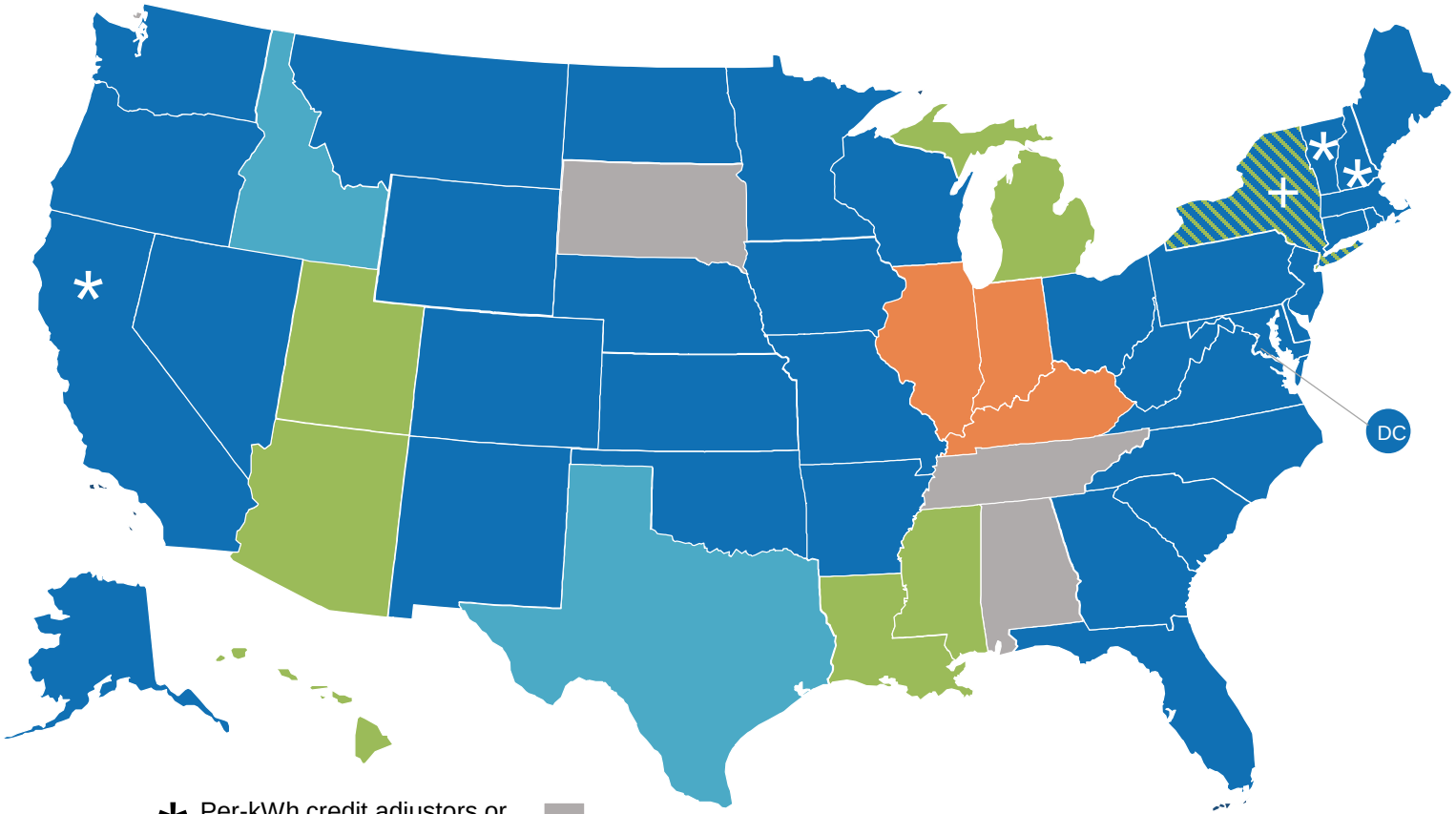
- Quarterly publication detailing state and utility distributed solar policy & rate design changes
  - Net Metering
  - DG Valuation/NEM Cost-Benefit Studies
  - Residential Fixed Charges & Minimum Bills
  - Residential Demand Charges & Solar Charges
  - Community Solar
  - Third-Party Ownership
  - 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 / March 2021



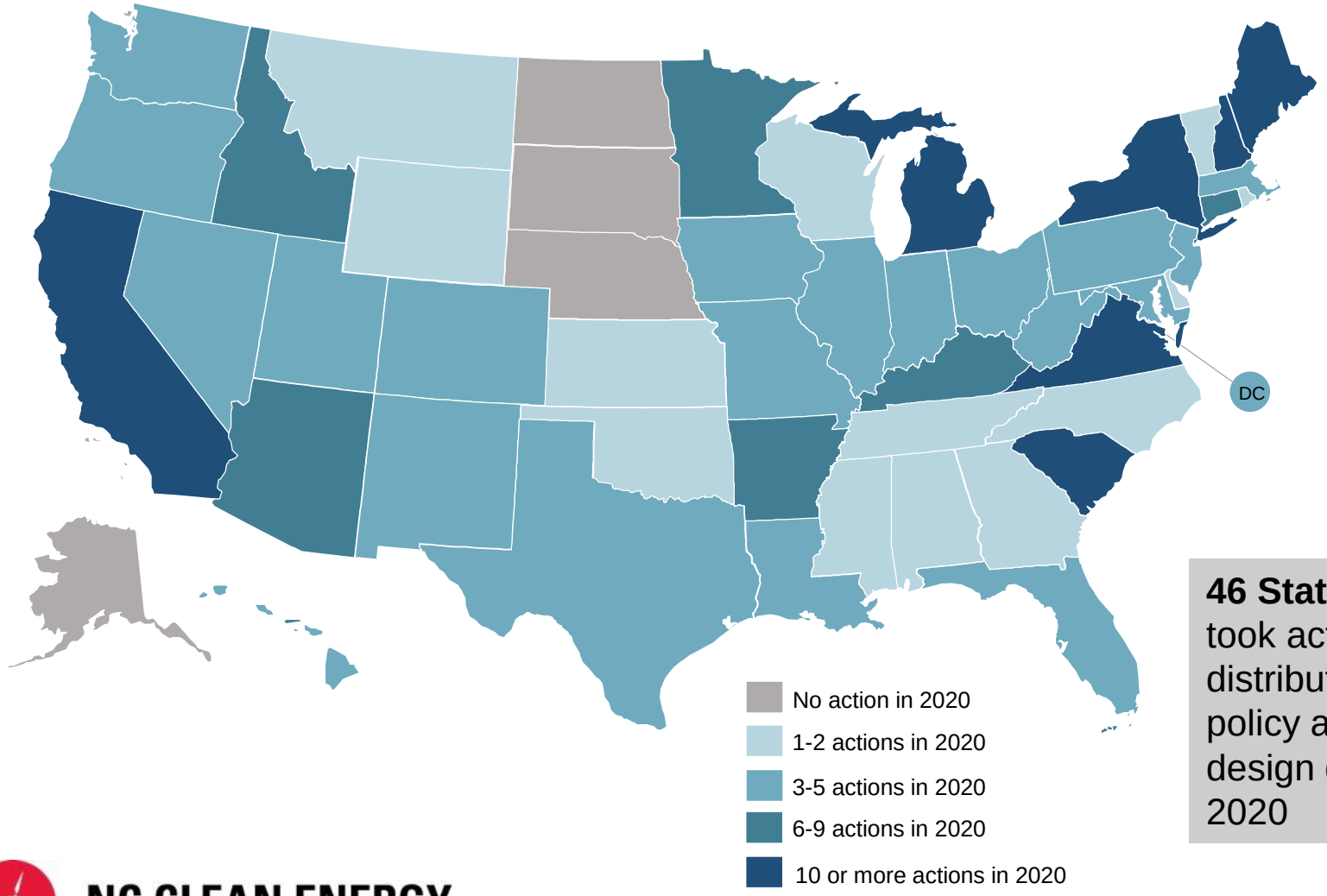
* Per-kWh credit adjustors or non-bypassable charges

\+ 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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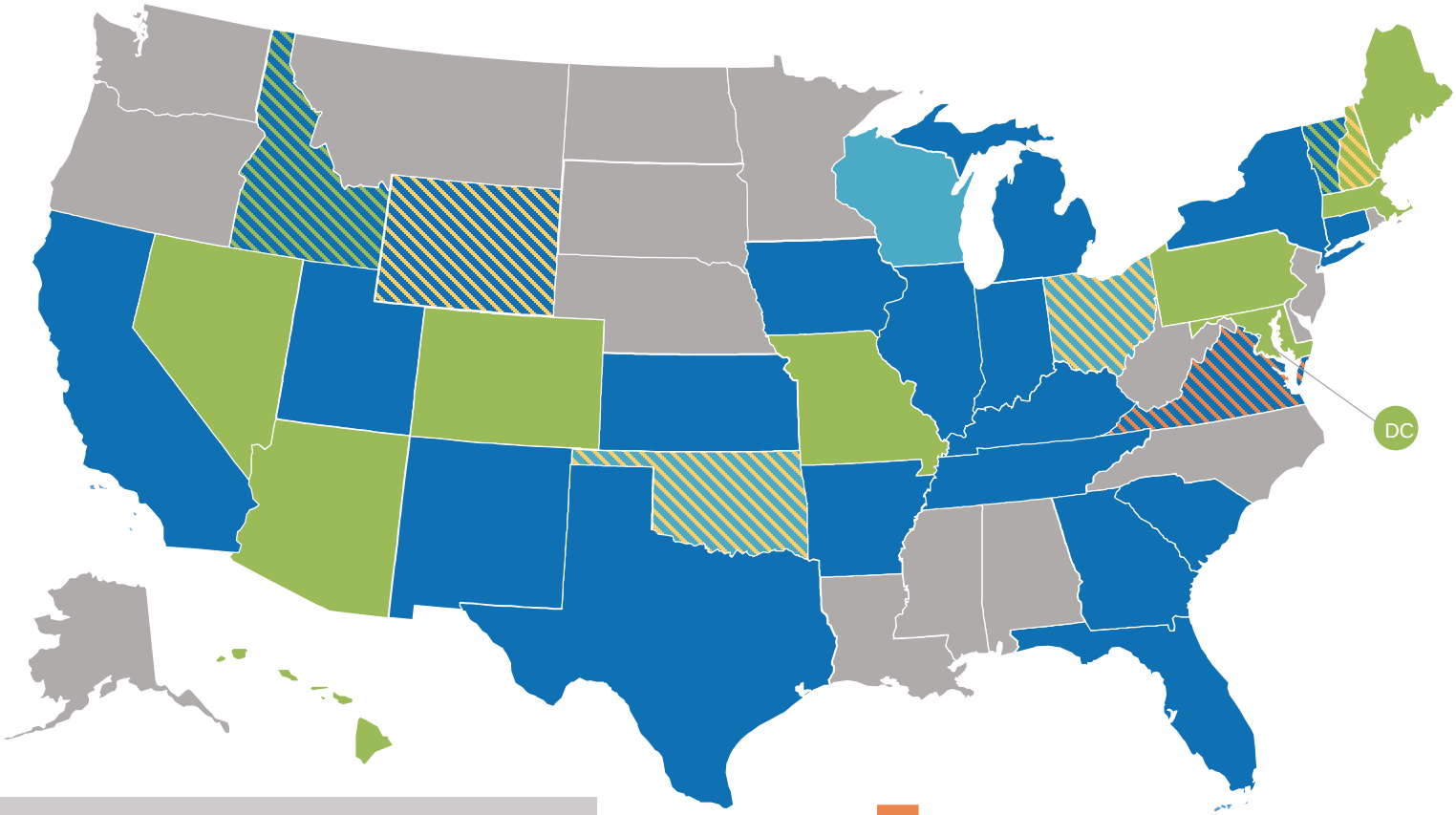
2020 Distributed Solar Policy & Rate Design Action



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

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2020 Proposed or Enacted Changes to Net Metering Policies by Type



34 States + DC took action on net metering during 2020

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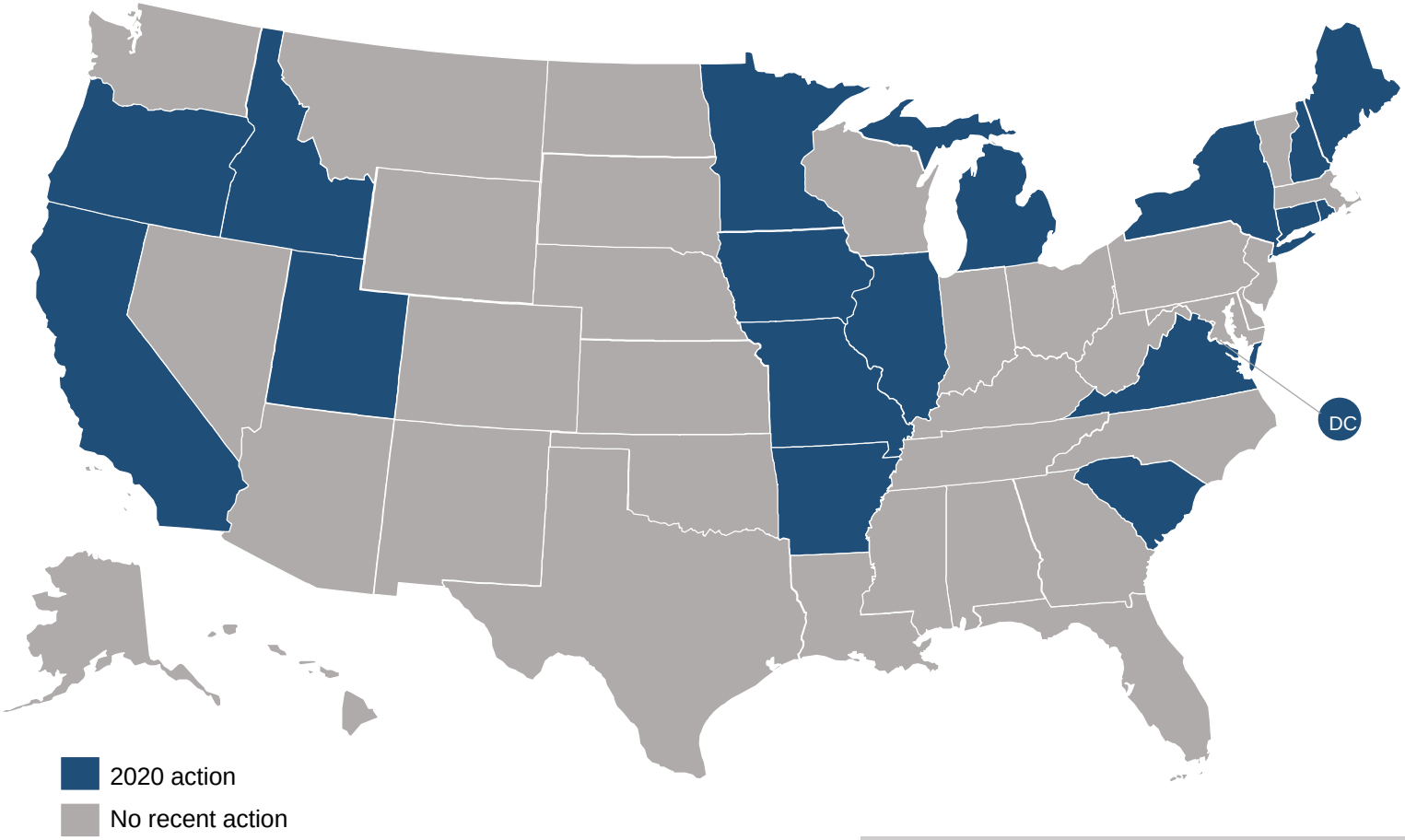
Net Metering Policy Trends

- 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.
  - Almost all successor tariffs allow self-consumption

Net Metering Policy Trends

- Examples of Credit Rate/Netting Period Changes:
  - **Arizona** – Phasing down to avoided cost
  - **California** – TOU rates
  - **Indiana** – 1.25 times avoided cost rate
  - **Louisiana** – Avoided cost rate
  - **New York** – Value of DER rate (larger customers)
  - **Utah** – Rate includes value for avoided energy, generation capacity, T&D capacity, line losses, integration costs
  - **Vermont** – Credit rate adjustors
- Some states have elected to continue retail rate net metering

2020 Action on Distributed Solar Valuation and Net Metering Studies



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

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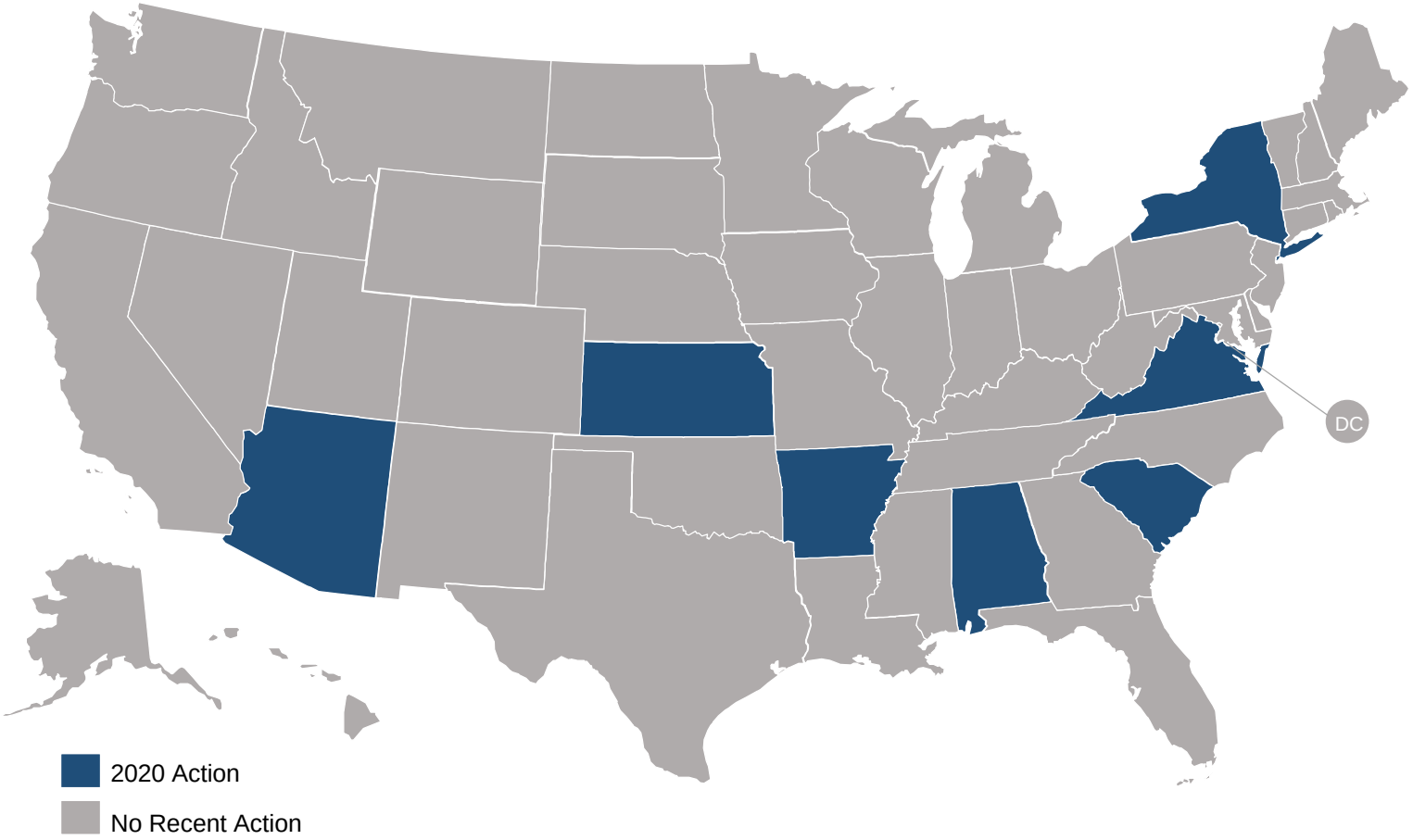
Net Metering Policy Trends

- Undertaking **studies** to inform net metering credit rate changes
- Examples:
  - **Connecticut** - PURA value of DER study conducted to inform NEM changes
  - **Idaho** – PUC requiring utilities to conduct on-site generation studies before addressing NEM reforms
  - **New Hampshire** – Value of DER study expected March 2022, locational value of DG study completed

Net Metering Policy Trends

- States establishing **timelines to transition** to net metering successor tariffs
- Examples:
  - **Arkansas** – Utilities can propose alternatives beginning in 2023
  - **Iowa** – Value of solar rate to be developed after July 2027
  - **Indiana** – Utilities moving to new tariff once aggregate cap (1.5%) is reached
  - **South Carolina** – Successor to take effect June 2021
  - **Virginia** – Proceeding to be opened when utility reaches 3% installed net-metered capacity
  - **Washington** – Utilities may establish successor tariffs once aggregate cap (4%) is reached or June 30, 2029

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 (approved), New York (approved), Duke Energy (SC, pending), Dominion Energy (SC, pending), Evergy (KS, rejected)
- Interest growing in **minimum bills** as a DG rate design element
  - Duke Energy (SC), Evergy (KS), Virginia (shared solar)

Net Metering Policy Trends

- States **grandfathering** existing net metering customers under current rules
  - Time period varies, typically 15-20 years
- **Engaging stakeholders** and efforts to reach compromise, with varying degrees of success
- Considering **other DERs,** such as **storage**, as part of tariff design
  - States authorizing net metering for projects paired with storage
  - Innovative programs – Hawaii Smart Export, APS R-TECH, New York Hybrid Tariff

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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