

THE 50 STATES OF DECARBONIZATION:

STATE & UTILITY EFFORTS TO DECARBONIZE THE ELECTRIC GRID

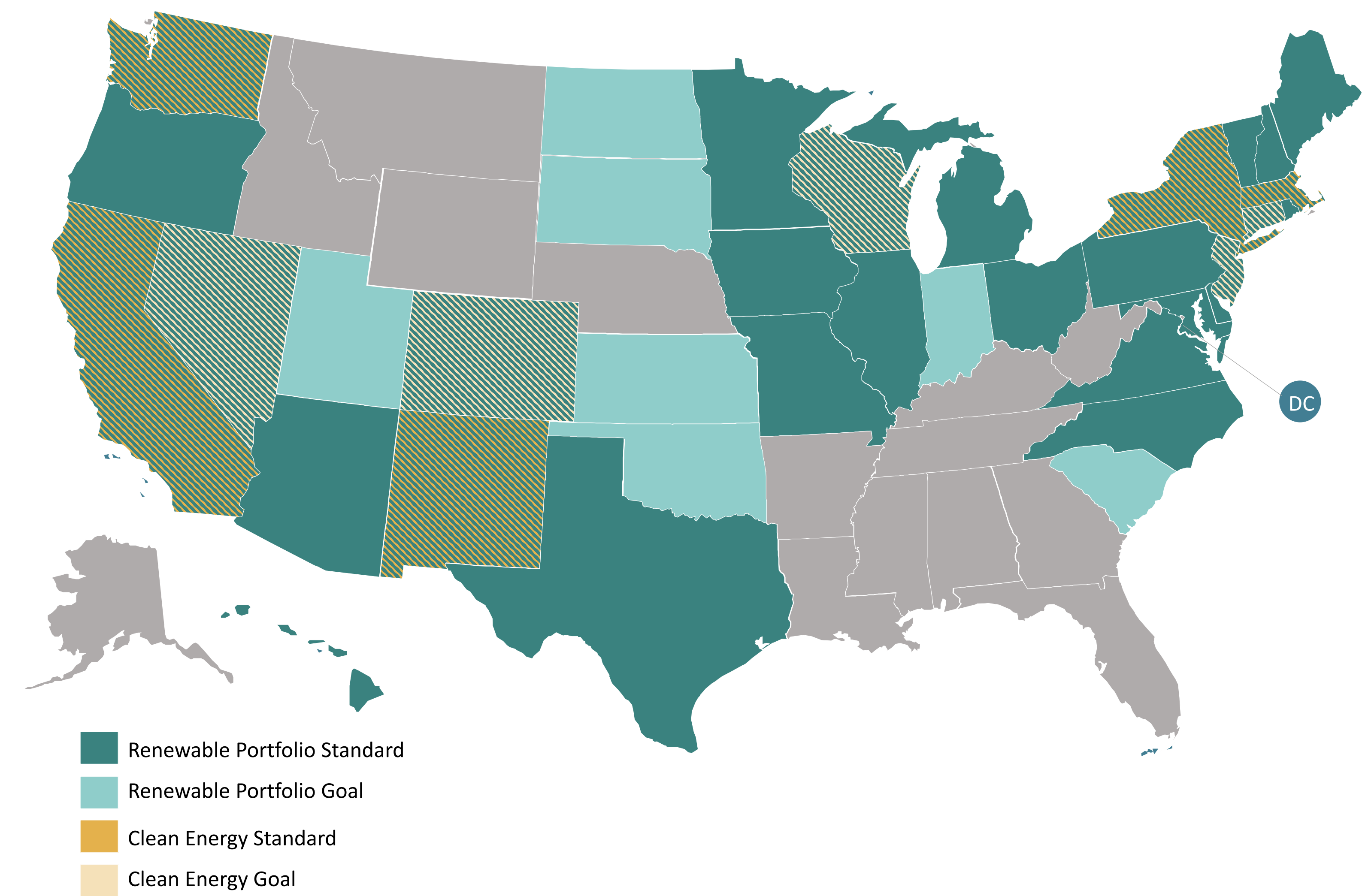
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INTRODUCTION

While renewable portfolio standards (RPS) have long been a popular policy mechanism to increase renewable energy deployment, many states have recently been considering increasing these standards or adopting new clean energy standards. Currently, 29 states and DC have mandatory RPS policies in place, while an additional 7 states have established renewable energy goals. Five states have adopted clean energy standards, and an additional five states have set clean energy goals. These targets typically allow any non-carbon-emitting technology to be used for compliance, even if it is not renewable, such as nuclear energy. The majority of these standards and goals aim for retail electricity providers to provide a portion of their electricity from renewable or clean energy sources, but increasingly, states are aiming to reach 100% renewable or clean electricity generation.

Many states are also establishing emissions reduction targets that apply to the electric power sector, or even economy-wide. Like RPS or clean energy standards, these targets vary from state to state, with a growing number of states aiming for carbon neutrality. Overall, a total of 19 states have adopted a standard or goal to achieve 100% clean energy or carbon neutrality. While the planned dates for achieving these targets also vary, most states aiming to reach 100% clean energy or carbon neutrality intend to do this between 2040 and 2050.

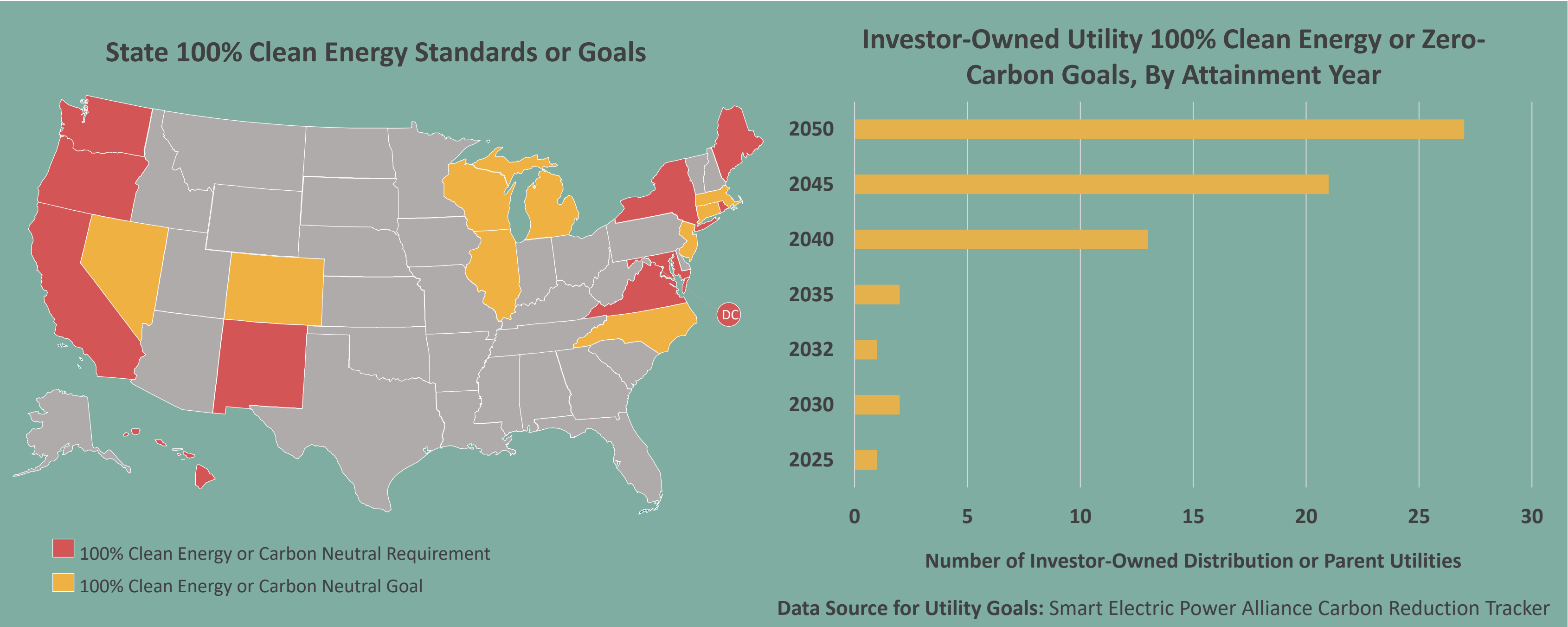
CURRENT STATE RENEWABLE & CLEAN ENERGY STANDARDS



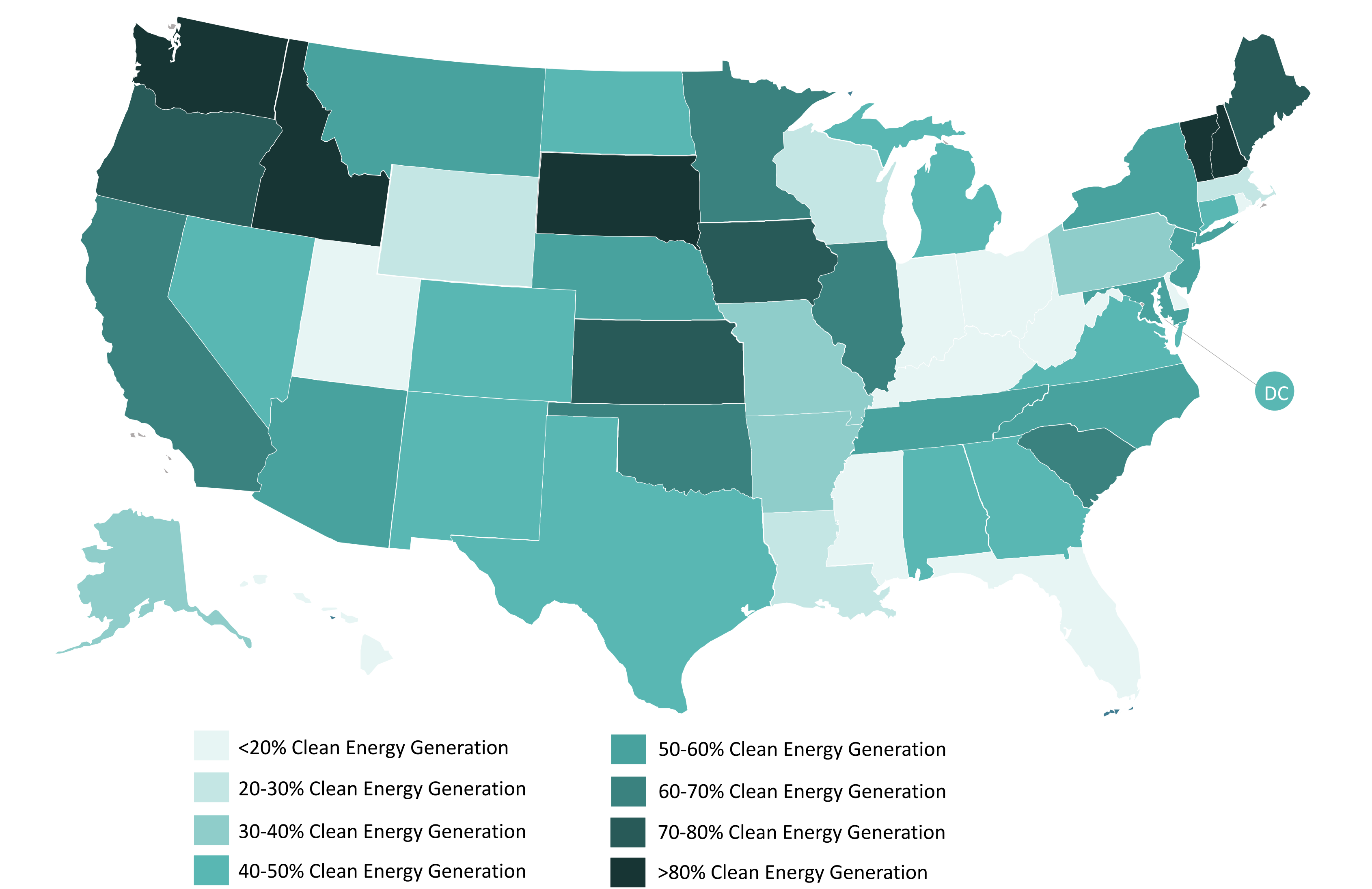
RECENT ACTIONS TO INCREASE DECARBONIZATION TARGETS

State	Bill Number	Proposed Change	Status
Alaska	H.B. 301	Establishes a renewable portfolio standard of 80% by December 31, 2040. Proposed substitute would establish a clean energy standard of 55% by December 31, 2040.	Did Not Pass
Colorado	S.B. 138	Establishes interim greenhouse gas emissions reduction targets of 65% by 2035 and 75% by 2040, each over 2005 levels.	Did Not Pass
Delaware	S.B. 305	Establishes a statewide greenhouse gas emissions reduction target of 90% over 2005 levels by 2050.	Did Not Pass
Florida	H.B. 491 / S.B. 548	Establishes a greenhouse gas reduction goal of reducing emissions by 100% over 2005 levels by 2055.	Did Not Pass
Hawaii	H.B. 1800	Sets a target of reducing statewide greenhouse gas emissions by 50% over 2005 levels by 2030.	Enacted
Maryland	S.B. 528	Establishes a target of net-zero statewide greenhouse gas emissions by 2045.	Enacted
New Jersey	A.B. 3079	Establishes a requirement for all electricity sold in the state to be from zero-carbon sources by 2050.	Introduced
New Mexico	H.B. 6	Establishes a statewide target of net-zero greenhouse gas emissions by 2050, provided that total statewide direct emissions do not exceed 10% of 2005 levels in 2050 or thereafter.	Did Not Pass
Rhode Island	H.B. 7277 / S.B. 2274	Increases the state's renewable portfolio standard to 100% by 2033.	Enacted
Vermont	S.B. 232	Increases the state's renewable portfolio standard to 100% by January 1, 2030.	Did Not Pass

STATE & UTILITY 100% CLEAN ENERGY GOALS



CURRENT CLEAN ENERGY GENERATION BY STATE



Data Source: U.S. Energy Information Administration – Electric Power Monthly, Net Generation by State by Type of Producer by Energy Source (March 2022). Map represents percent of total MWh generated in each state from clean energy sources (nuclear, hydroelectric, solar, wind, biomass, geothermal).

LOOKING FORWARD

While states are at different stages of electric power decarbonization, the general policy trend across the U.S. has been toward more aggressive targets - increasing emission reduction or clean energy goals and speeding up the timeline for achieving these. Utilities themselves are also setting their own goals, as identified by the Smart Electric Power Alliance's Carbon Reduction Tracker. With the majority of states having some type of a decarbonization target in effect, integrated resource planning and market rules will be important areas to watch as implementation of these policies unfolds.

The NC Clean Energy Technology Center provides public information on state RPS and clean energy standards in its Database of State Incentives for Renewables and Efficiency (DSIRE), and the Center plans to launch a new *50 States of Decarbonization* quarterly report series in the coming months, tracking state legislation, regulatory proceedings, and executive actions related to power sector decarbonization.

