

AWEA State RPS Market Assessment 2016: Executive Summary

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AMERICAN
WIND ENERGY
ASSOCIATION

AWEA Data Services

Table of Contents

| | |
|---------------------------------------|----|
| Executive Summary | 4 |
| Introduction | 9 |
| Key Definitions | 11 |
| Methodology | 12 |
| National RPS Summary Map | 14 |
| Characteristics of State RPS Programs | 15 |
| Recent RPS Developments | 19 |
| State RPS Target Years | 20 |
| Comparison of State RPS Targets | 21 |
| Nationwide RPS Demand | 23 |
| Regional RPS Demand | 25 |
| State RPS Demand | 27 |
| State by State RPS Demand | 29 |
| Appendix: Model Assumptions | 58 |
| Wind Capture Rate | 58 |
| Wind Capacity Factors | 59 |
| Electricity Load Growth | 60 |

Executive Summary

Across the United States, 29 states and the District of Columbia have mandated Renewable Portfolio Standards (RPS), requiring utilities serving customers in each state to supply a targeted portion of their electricity from renewable resources by a certain year. The purpose of this report is to determine near-term demand for wind and other renewables from state RPS programs, accounting for compliance to date. The report looks out to the year 2025, when the majority of RPS requirements must be met in full, to determine the amount of incremental renewable energy demand that RPS programs will drive. For states with RPS targets beyond 2025, this edition of the report includes state-specific projections through the final RPS target year.

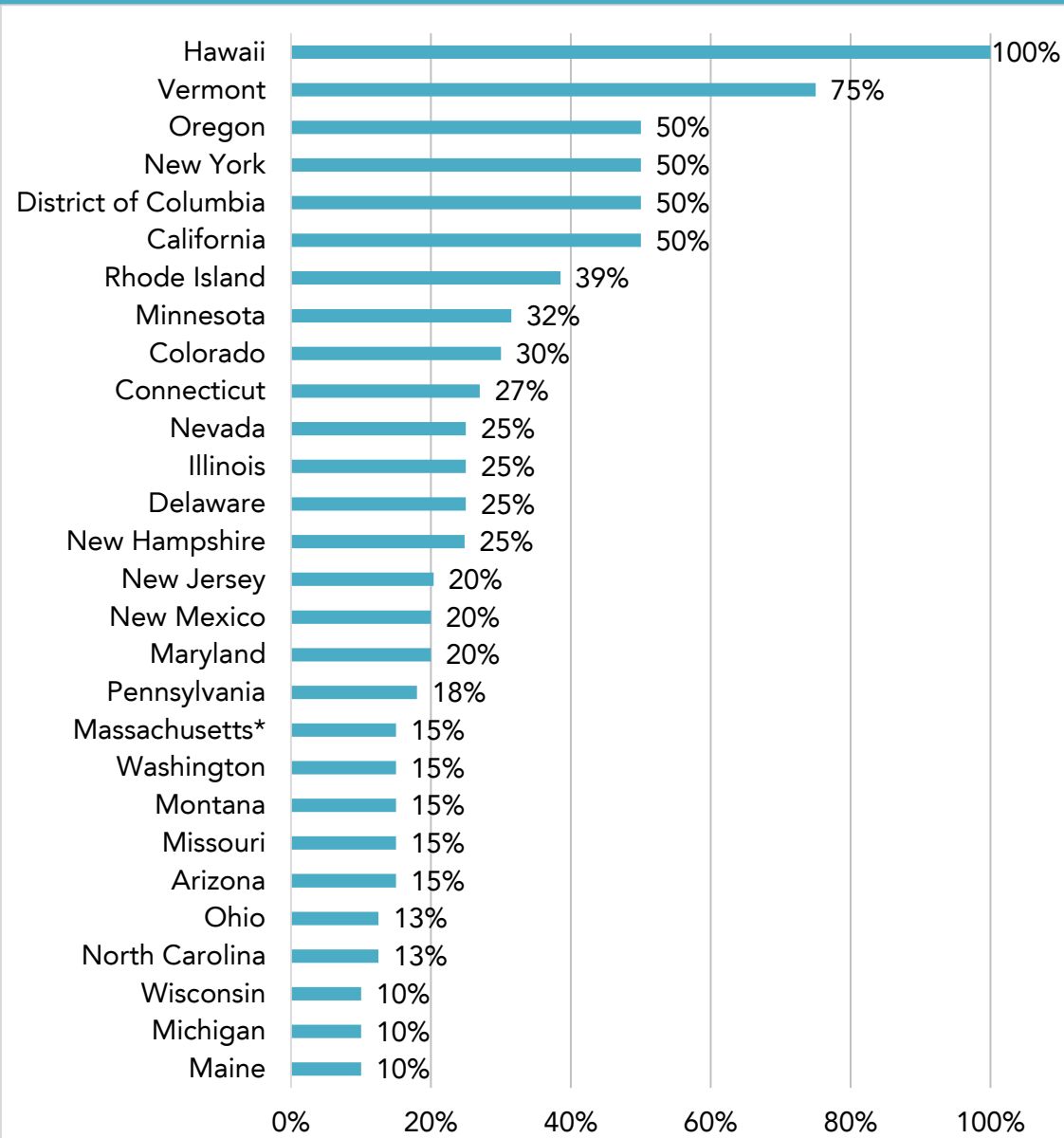
Wind energy has historically been the renewable technology of choice to meet RPS requirements. State RPSs may be used as starting points for Clean Power Plan compliance, providing major educational value for state compliance strategies. Given the success of RPS programs in driving significant wind energy development, this report takes a detailed look at total RPS requirements to assess the incremental RPS demand that wind is eligible to capture, as well as the RPS demand that wind is expected to capture going forward. RPS demand is broken out regionally and state-by-state, in addition to national figures.

In this report, readers will learn more about:

- Characteristics of RPS programs in each state
- Recent RPS expansions
- Total, wind eligible, and expected wind RPS demand
- Nationwide RPS demand
- Regional RPS demand
- State by state RPS demand
- AWEA's methodology and assumptions

Executive Summary

Current RPS Target Percentages



State RPS Targets

- In 2015, Hawaii became the first state to adopt an RPS target of 100% renewable electricity supply, with a target year of 2045.
- Vermont soon followed with the second highest RPS at 75% renewable energy by 2032.
- Three states, California, Oregon, and New York, and the District of Columbia now have RPS targets of 50%.
- 14 states have nominal targets of 25% or greater.
- Five states reach their terminal RPS year in 2020, with four more states reaching their terminal RPS year in 2021 and six states in 2025. Eight states have RPS targets beyond 2025.

Executive Summary

Nationwide RPS Demand

Total RPS Demand

- Through 2025, RPS markets will drive the development of approximately 153,000 gigawatt-hours (GWh) of renewable energy. This is equivalent to more than 51 gigawatts (GW) of wind capacity.

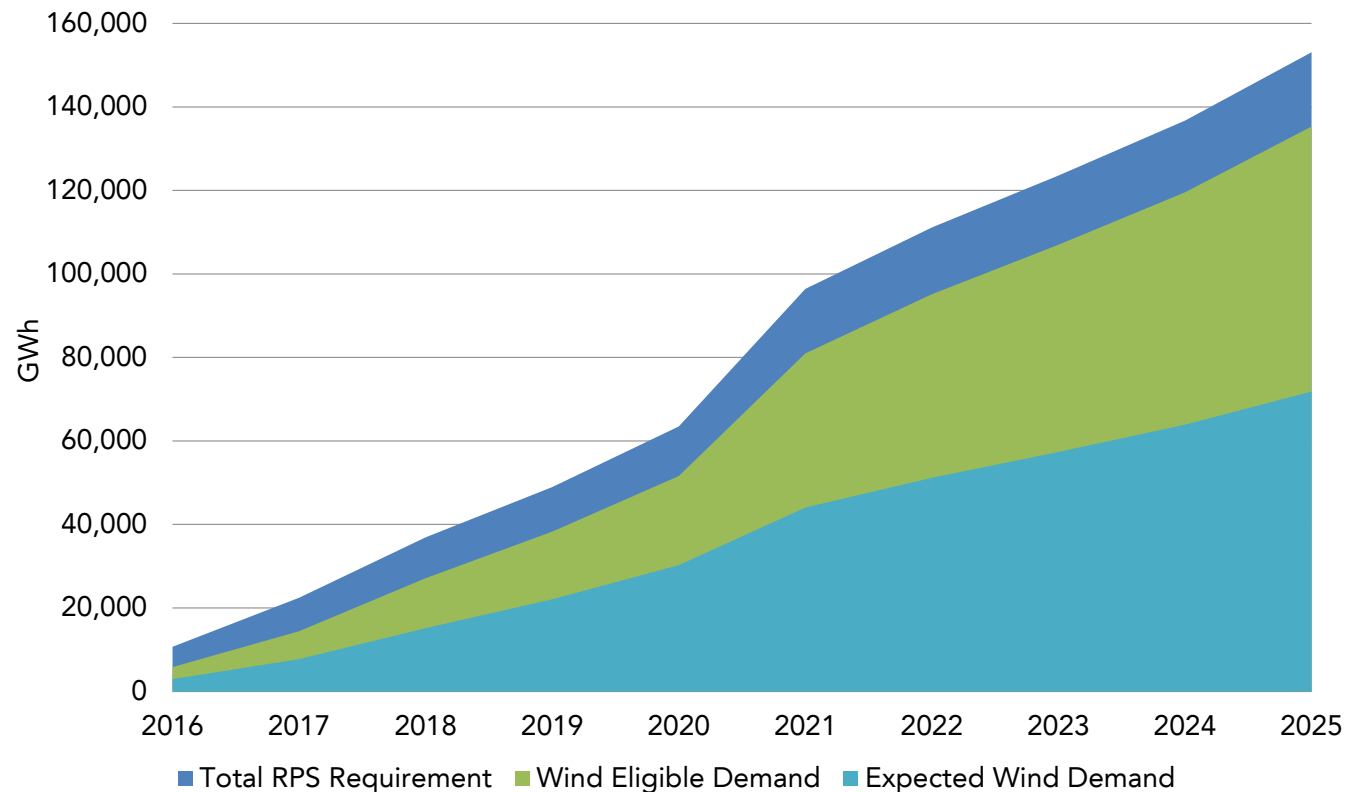
Wind Eligible Demand

- Through 2025, RPS demand where wind is an eligible resource reaches roughly 135,300 GWh. This is equivalent to 45 GW of new wind capacity.

Expected Wind Demand

- AWEA estimates that RPS markets will drive the development of approximately 24.2 GW of wind power capacity from 2016 through 2025.

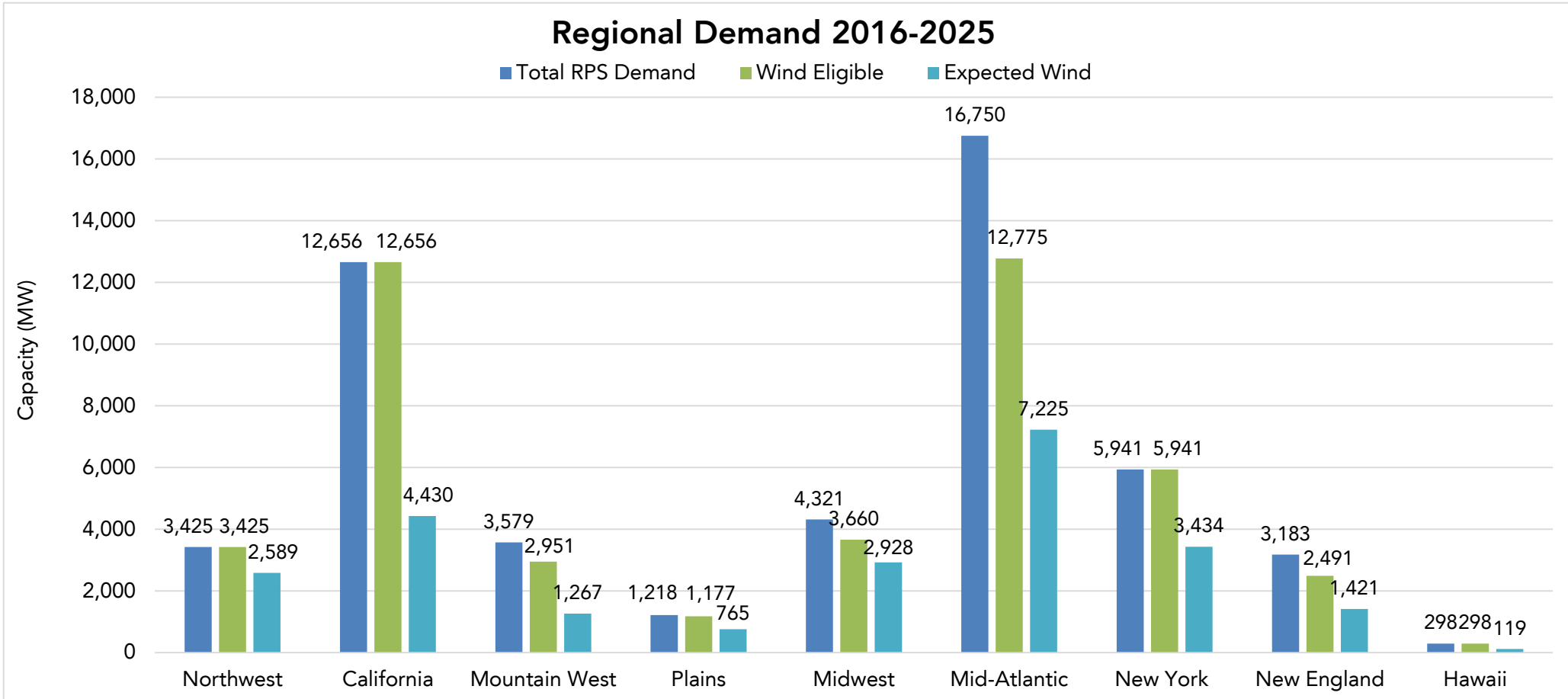
Nationwide Cumulative RPS Demand, 2016-2025



Executive Summary

Regional RPS Demand

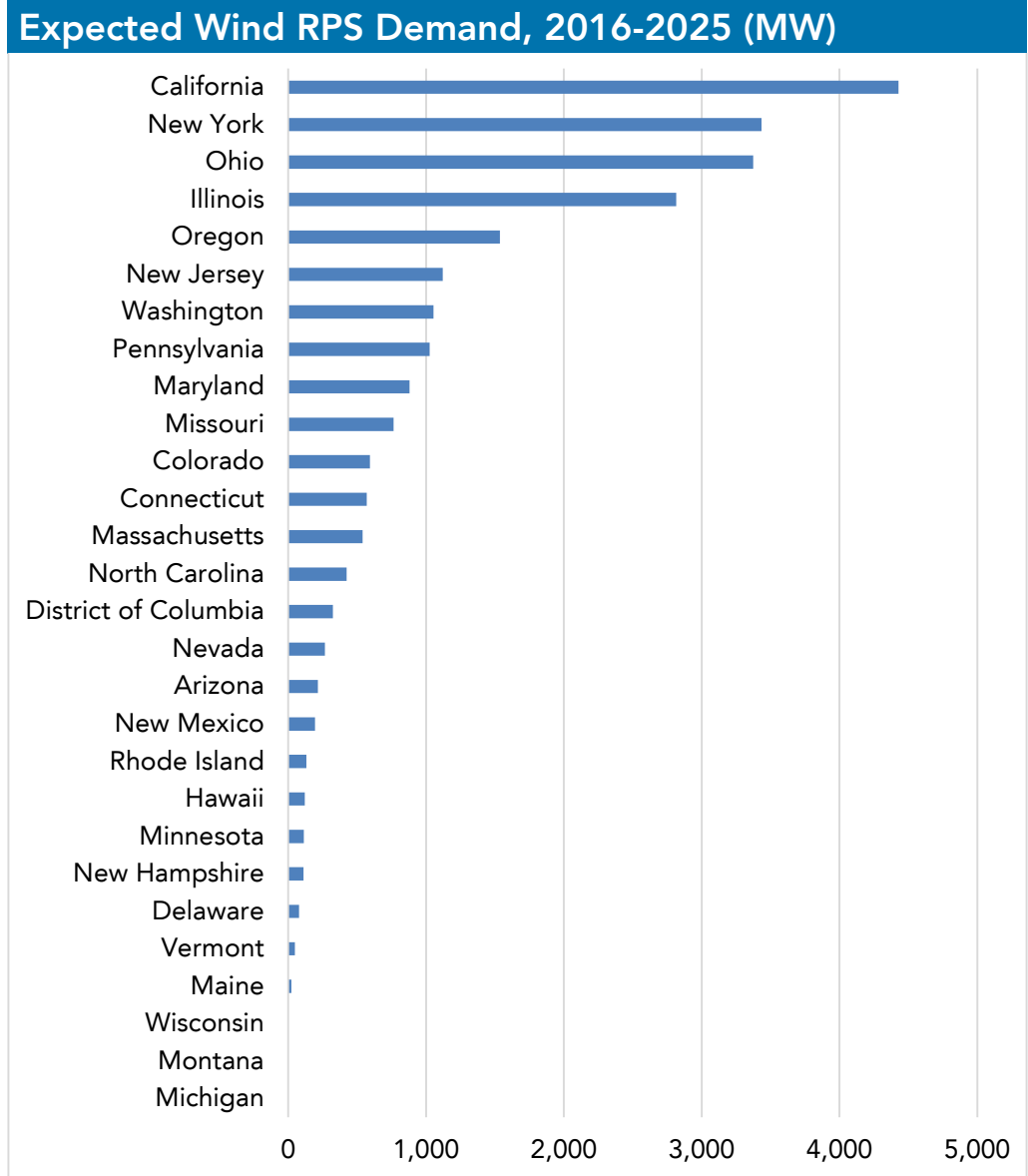
- Through 2025, the Mid-Atlantic region contains the most wind-eligible RPS demand, requiring an estimated 12,775 MW.
- California contains nearly as much wind eligible demand as all seven of the Mid-Atlantic states combined, with 12,656 MW.
- The Mid-Atlantic (28%), California (28%) and New York (13%) contain the most wind eligible demand, representing 69% of all wind-eligible demand in the country.
- The Mid-Atlantic region also contains the most expected wind RPS demand through 2025, driving an estimated 7,225 MW of wind capacity.
- California contains the second highest expected wind demand, with 4,430 MW, and New York comes in third with 3,434 MW of wind.



Executive Summary

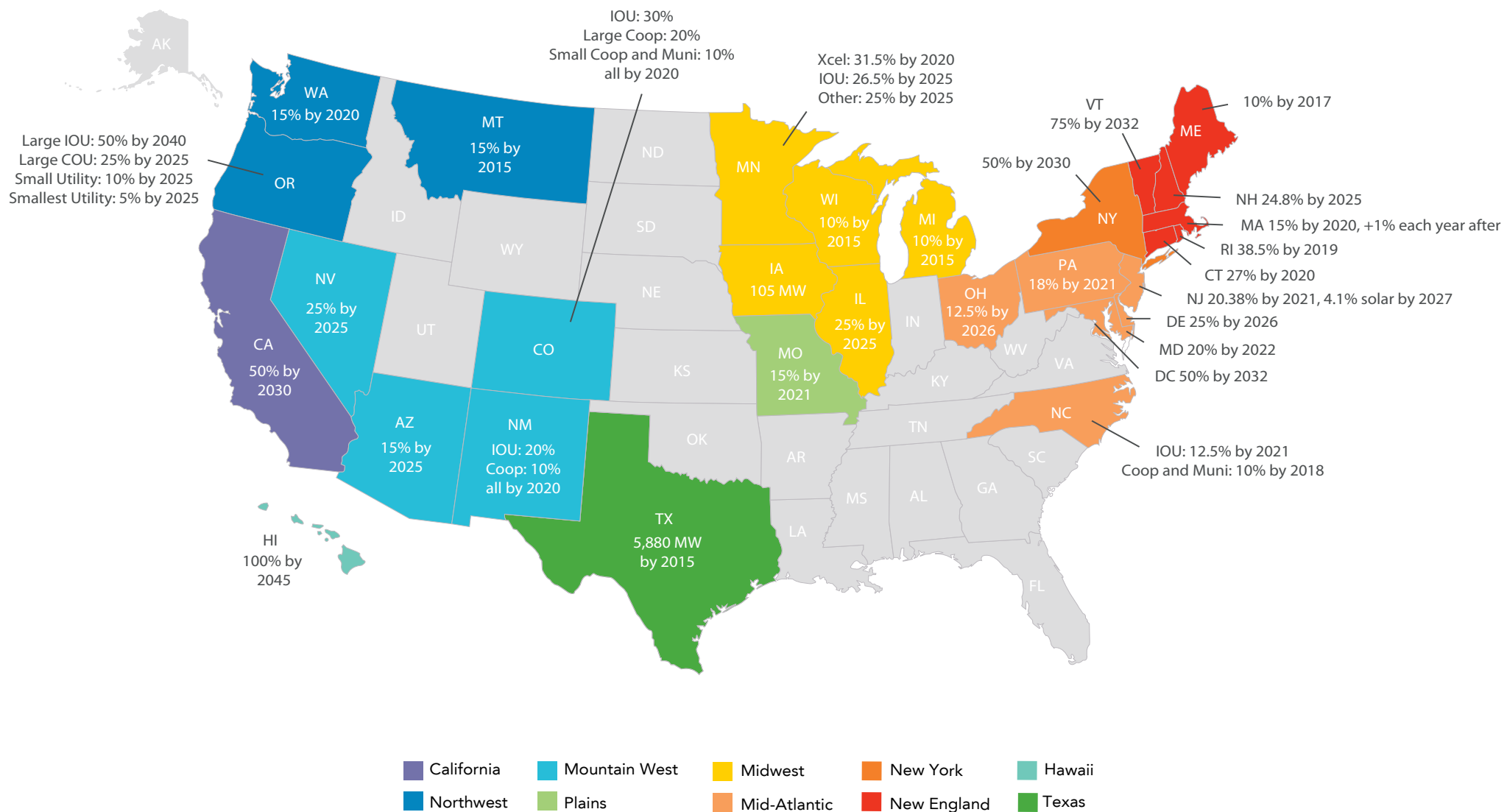
State RPS Demand

- California leads the RPS states in expected wind demand, with 4,430 MW of expected wind through 2025. New York contains the second highest demand with 3,434 MW of expected wind.
- The top five states in terms of expected wind demand are California, New York, Ohio, Illinois, and Oregon. These five states contain 64% of all expected wind RPS demand.
- California, New York, and Oregon all increased their RPS targets in the past year, demonstrating the role of state renewable portfolio standards in creating new demand.
- New Jersey, Washington, Pennsylvania, Maryland, and Missouri round out the top ten states.
- New Jersey, Washington, and Pennsylvania are each expected to drive over 1,000 MW of wind capacity.



National RPS Summary Map

Summary of State Renewable Portfolio Standards



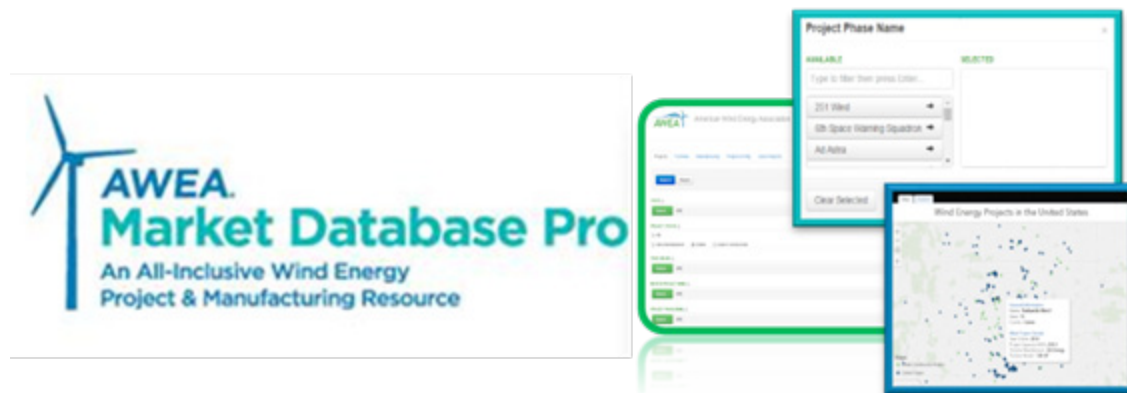
Find More Info in the Full Report

- Overview of RPS characteristics and design features
- Detailed Methodology
- Map summarizing RPS requirements across the U.S.
- Characteristics of state RPS programs
- Summary of recent RPS developments
- Summary of fulfilled RPS states
- Timeline of RPS target years
- Total and effective RPS requirements by state
- Charts of cumulative and annual nationwide demand
- Regional chart depicting RPS demand in 9 regions across the U.S.
- Breakdown of regional RPS demand
- State rankings of wind eligible demand and expected wind demand
- State by state examination of RPS demand and recent RPS compliance details, including wind's share of compliance
- Annual demand charts for each state
- Charts depicting each state's share of regional and national demand
- Assumption tables

The AWEA State RPS Market Assessment 2016 can be accessed at www.awea.org/rps2016.

For additional AWEA market analyses, please visit www.awea.org/marketreports where you can download previous versions of the RPS Assessments, Quarterly Market Reports, and the latest Annual Market Report.

Access the AWEA Market Database Pro at www.awea.org/database for a comprehensive database of all online and under construction wind projects, turbines, and active wind-related manufacturing facilities.



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