

# Policies in Support of Customers' Purchase of Renewable Energy

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THE **Brattle** GROUP



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- Defining Policy Pathways to Advance Access to Renewable Energy
  - Defining the Pathways
  - Near- and Longer-Term Opportunities for REBA
- Current Analyses and Next Steps

# Policy Pathways to Advance Access to Renewable Energy

## **The Brattle Group has been working with REBA to:**

- Develop a menu of “Policy Pathways” to advance access to renewable energy for energy buyers

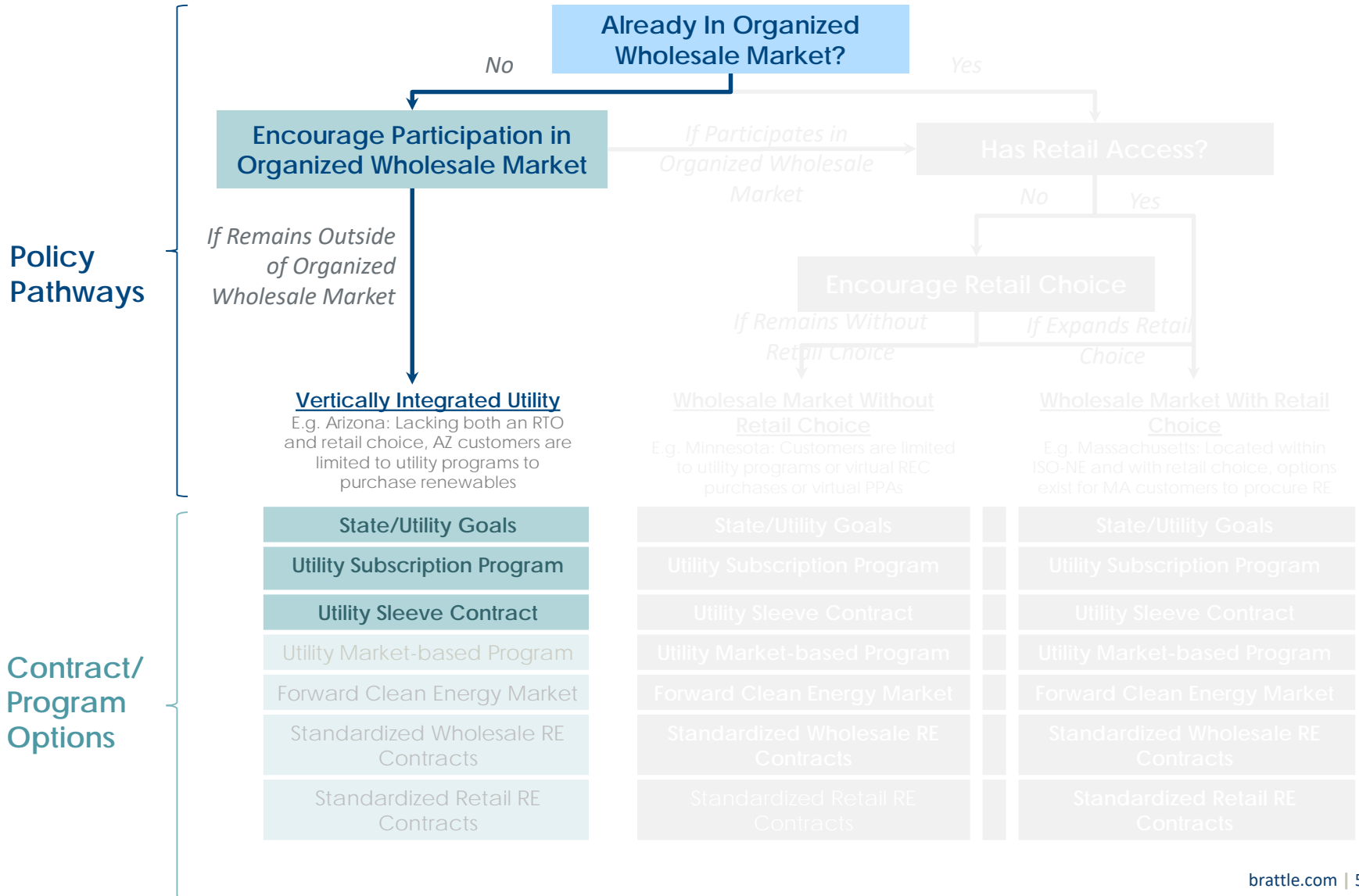
## **The goals of this effort are:**

- To apply “Policy Pathways” for certain states, model future scenarios in certain states, and evaluate potential impact
  - Analyze current policies and features of selected states, including barriers for RE procurement
  - Develop state-level Policy Pathways tailored to the context of each state (8 selected states)
  - Evaluate effects of Policy Pathways qualitatively and quantitatively

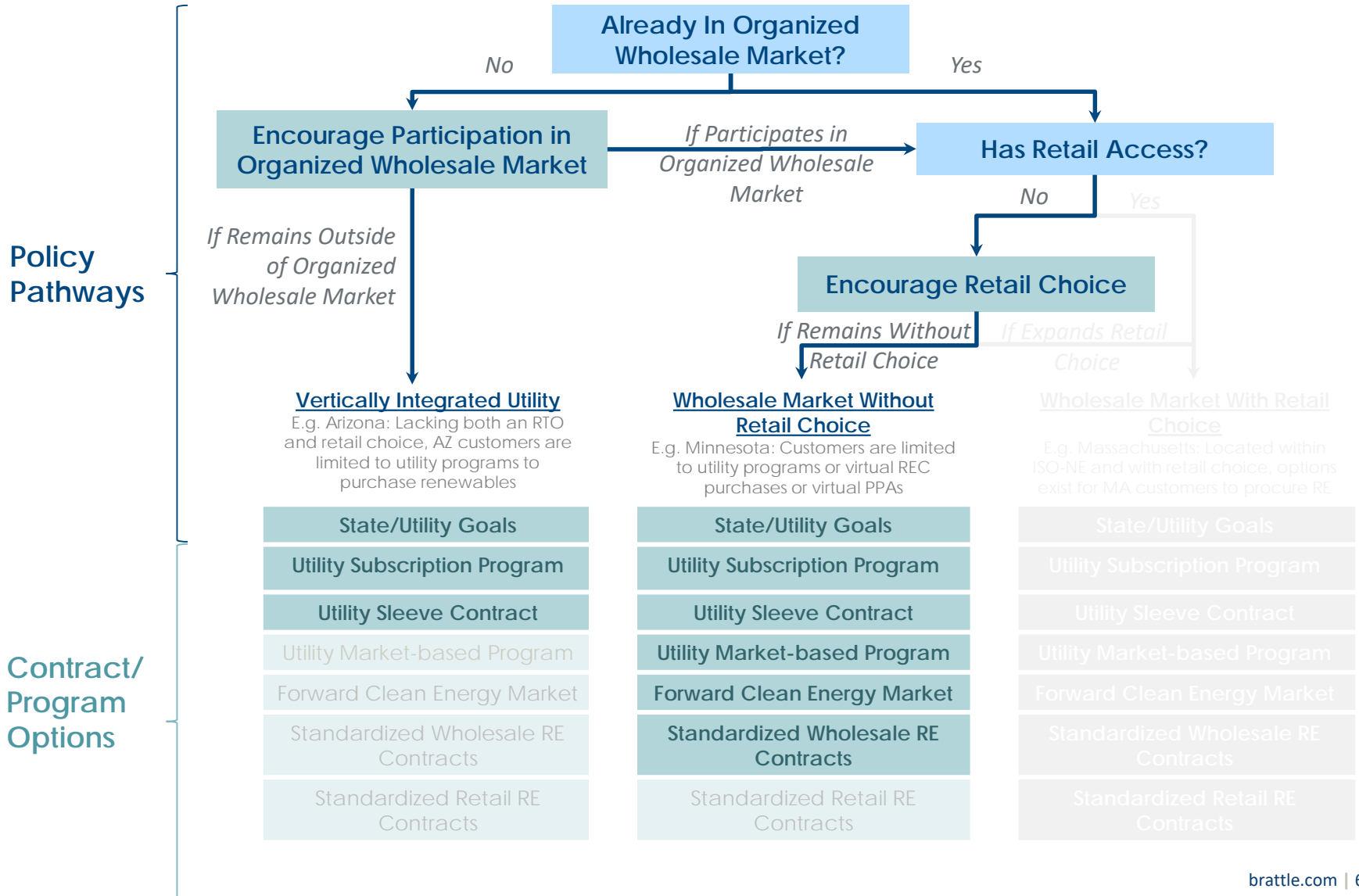
# Definitions of Policy Pathways

1. **Expand Federal/State/Utility Goals** to provide utilities procurement targets for clean energy directly or indirectly through emission reduction goals. The utility is the counterparty of RECs.
2. **Create or Improve Renewable Procurement Programs/Contracts:**
  - i. **Utility Subscription Programs** allow customers to subscribe to a portion of a renewable PPA through a tariff. The utility is the counterparty (buyer) of the PPA: Example: Xcel Colorado Renewable Connect
  - ii. **Utility Sleeve Contracts** allow customers to contract electricity from a specific renewable project through the utility. The utility is the counterparty (buyer) of the PPA that is sleeved through another contract with the buyer: Example: NV Green Energy Rider
  - iii. **Utility Market-Based Programs** allow customers to purchase renewable energy directly from the wholesale energy markets at market-based prices through a utility: Example: Dominion (VA) Schedule MBR
  - iv. **Standardized Wholesale Renewable Contracts:** a standardized renewable energy contract that minimizes transactions costs and can be scaled up to meet demand: Example: “REBA” Standard PPA
  - v. **Standardized Retail Renewable Contracts** allow customers to engage third-party retail electricity providers using a standardized tariff rate.
3. **Introduce Forward Clean Energy Markets** to allow customers to purchase renewable and clean attributes in a centralized forward market that aggregates demand and supply
4. **Adopt a Wholesale Market** to allow renewable energy to be developed by independent developers and sold in an organized wholesale market
5. **Adopt Retail Choice** to allow customers to engage with third-party retail electricity providers.

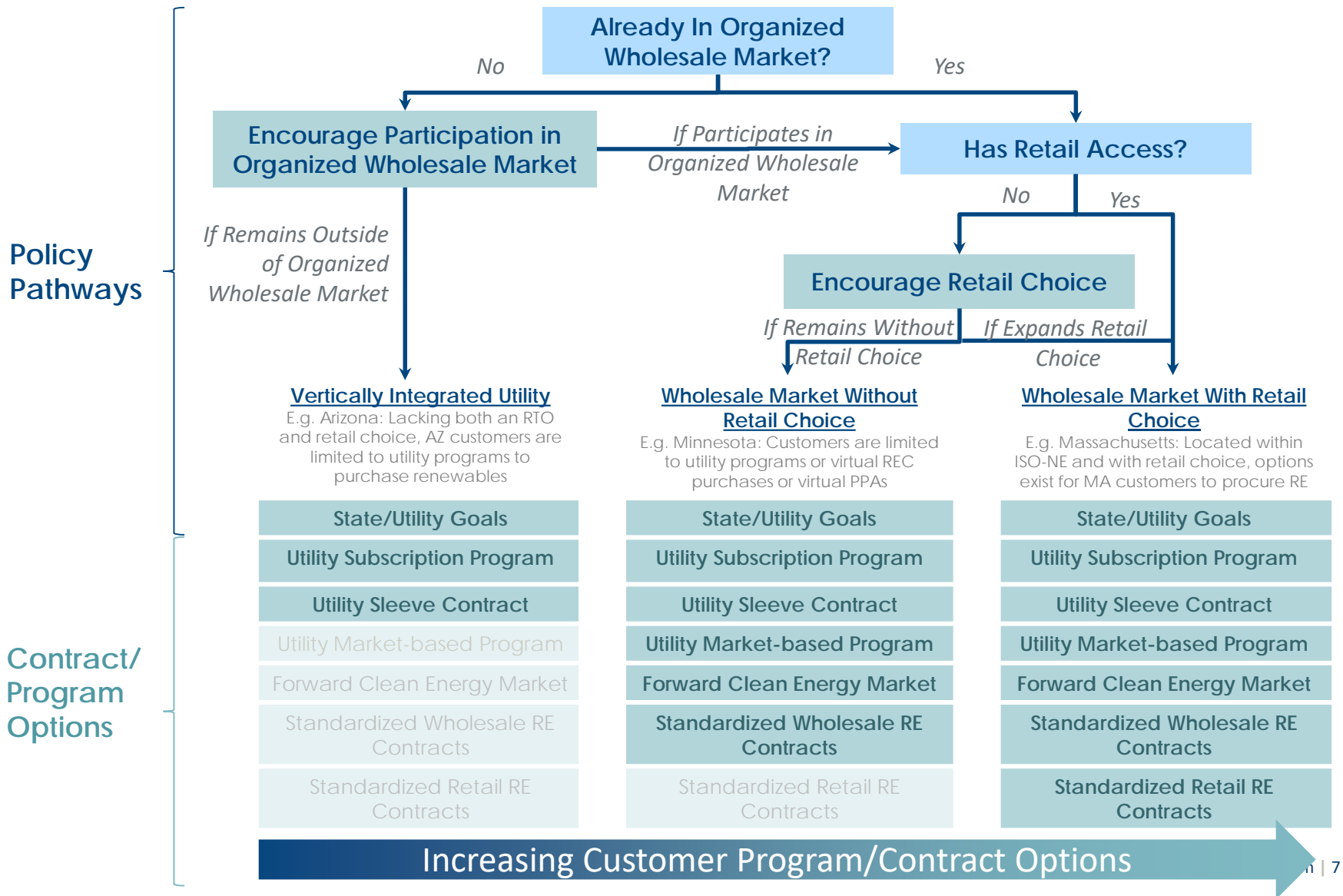
# Policy Pathways Identified



# Policy Pathways



# Policy Pathways



# Main Takeaways

- Customers are focused on obtaining options to purchase renewable energy
- Policies to drive increase in RE access will depend on the current structure and policies in the states
- Different states will require different approaches
- Simulations of each state will inform REBA and buyers the likelihood of success in pursuing certain pathways
- Next steps:
  - Simulate diverse range of states to demonstrate effects of policy pathways
  - Pursue other policy pathways to understand the potential implications, for example:
    - Federal renewable energy standard
    - Carbon price in the wholesale electricity market



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Ms. Judy Chang is an energy economist and policy expert with a background in electrical engineering, and has over 20 years of experience in advising energy companies on regulatory and financial issues, with a focus on power sector investment decisions in clean energy, electric transmission, and energy storage. Ms. Chang has submitted expert testimonies to the U.S. Federal Energy Regulatory Commission, and U.S. state and Canadian provincial regulatory authorities on topics related to resource planning, power purchase and sale agreements, and transmission planning, access, and pricing. She has authored numerous reports and articles on the economic issues associated with generation and transmission investments, clean energy development, energy storage investments, and systems planning. In addition, she has led teams of energy company executives and board members in comprehensive organizational strategic and business planning.

Ms. Chang holds a Bachelor of Science in Electrical Engineering and Computer Science from University of California, Davis and a Master of Public Policy from Harvard Kennedy School. She co-manages the power sector practice at Brattle and is the founding board member of the New England Women in Energy and the Environment.

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International Trade  
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Product Liability  
Securities & Finance  
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Valuation  
White Collar Investigations & Litigation

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