COMMUNITY CHOICE AGGREGATION

A Cost-Effective Policy Tool that Accelerates Competitive Renewable Power Addition and Carbon Reduction at Scale

LEAN Energy US' 2023 Report

Webinar - June 28th, 2023 at 12 PM (PST)

Presented by:

Alison Elliott (Contributing Editor)

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Agenda

Introduction

Research Objectives & Methodology

Community Choice Aggregation: An Impactful Energy Policy Instrument

- National CCA Market Status
- States-by-States CCA Market Status
- CCA Market Growth Potential and Analysis: Addressing U.S. Government's objectives
- Challenges to Tackle and Best Practice Guidelines

Conclusion

Q&A

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Introduction

The Local Energy Aggregation Network (LEAN Energy US)

National 501(c)3 non-profit organization founded in 2011 dedicated to the accelerated expansion and competitive success of clean energy CCA programs. LEAN provides information resources and market expertise to a national network of local governments, commercial and non-profit organizations, advocacy groups and individuals wishing to pursue or expand CCA in their states and/or communities.

- monitor the “who, what, when, and why” of CCAs
- assist several states actively working to enable CCA legislation
- hold regular meetings for advocacy groups looking to establish CCA in their state or community
- present quarterly webinars providing updates on current nation-wide CCA activity
- provide support and networking opportunities to organizations and communities
- issue monthly federal funding opportunities reports to our members
- coming soon… will publish a national CCA metrics database, available to LEAN members

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Thank you LEAN Members!

Introduction

Acknowledgment

The author and contributing editors would like to express their gratitude to those who contributed to the report by providing relevant feedback and/or participating in surveys, interviews, and focus group sessions:

CalCCA
Calpine
Cape Light Compact
Clean Energy Alliance
Clean Power Alliance
Commercial Utility Consultants
Constellation
Desert Community Energy
East Bay Community Energy
Food & Water Watch
Good Energy
Green Energy Consumers Alliance
Herndon Enterprises
Joule Assets
Marin Clean Energy
MC2
Peninsula Clean Energy
Peregrine Energy Group
Pioneer Community Energy
Power Bureau
Redwood Coast Energy Authority
San Jose Community Power
Santa Barbara Clean Energy
Silicon Valley Clean Energy
Sonoma Clean Power
Sustainable Ohio Public Energy Council
Wunderlich-Malec Engineering

And all the local governments and state agencies that supported us.

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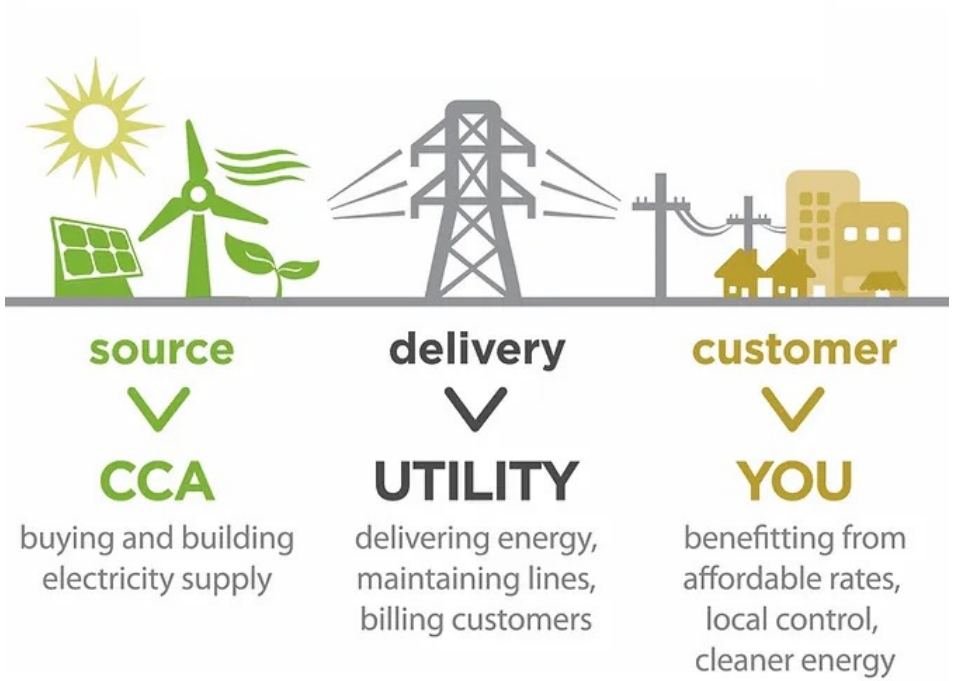
Introduction

What is “Community Choice Aggregation”*?

*a.k.a. Community Choice Electricity, Community Choice Energy, Community Energy Aggregation, Local Choice Energy, or Government Energy Aggregation

> Community-driven tool that allows local governments to automatically purchase and/or develop power on behalf of their residents and small businesses.



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Research Objectives

> To analyze the emerging value and potential of CCA in empowering local governments to reform energy sector governance and markets.

> To demonstrate how CCA can accelerate competitive renewable power additions and carbon reduction goals on a state and national level.

> To report on the potential of CCA in addressing the U.S. government's environmental, economic, and social goals.

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Research Methodology

> Combination of interviews, surveys, focus groups, and publicly available data

> Creation of an extensive CCA database (inc. interactive map on LEAN's website)

> Various key metrics

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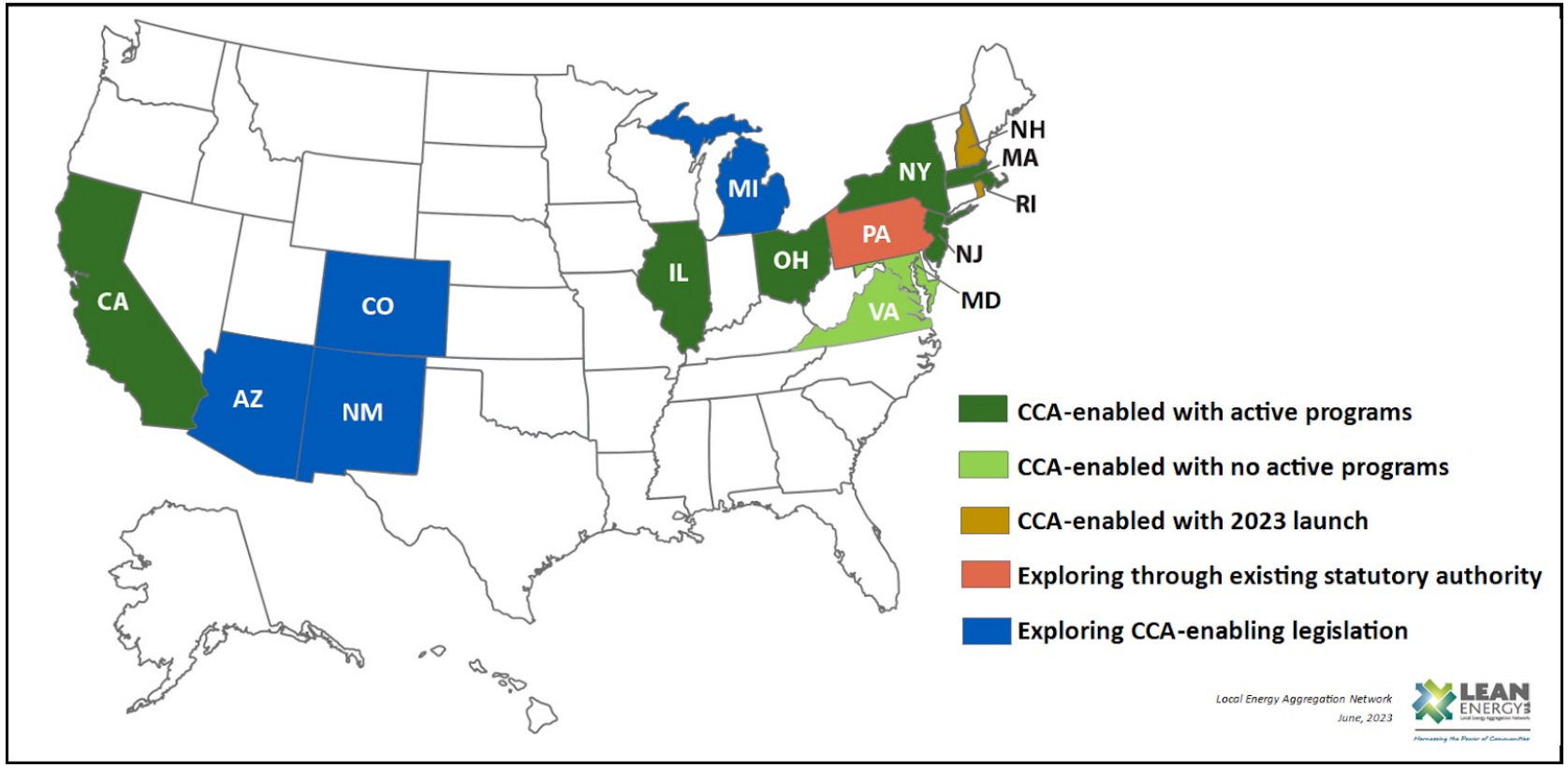
Community Choice Aggregation: An Impactful Energy Policy Instrument

I. National CCA Market Status

Map of CCA-Enabled States and Exploring States as of June 2023.



Community Choice Aggregation: An Impactful Energy Policy Instrument

Depending upon local context, CCAs may produce different levels of outcome and success towards competitive renewable power additions and carbon reduction goals.

- CCA 1.0: Short-term power supply contract with retail suppliers for aggregated residential and small commercial loads. Renewable power option.
- CCA 2.0: CCA 1.0 + Minimum requirement for a percentage of renewable power in retail contract. 100% renewable power option.
- CCA 3.0: Several communities leverage their combined buying power and power demand to dedicate a portion of the load for longer term contracting (e.g., local and remote renewable PPAs, energy efficiency, etc.)
- CCA 4.0: Several communities jointly purchase fully renewable energy, integrate DERs and PEVs, and/or engage with local distribution utilities at a deeper level

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BENEFITS	CCA MODEL			
	CCA 1.0	CCA 2.0	CCA 3.0	CCA 4.0
Protection of consumers against third-party predatory practices	✓	✓	✓	✓
Protection of consumers against price fluctuation	✓	✓	✓	✓
Aggregation of customers to secure lower cost power	✓	✓	✓	✓
Bi-lateral renewable power procurement at competitive rates (with/without RECs)		✓	✓	✓
Various types of RECs to support new remote/local renewable power plants		✓	✓	✓
80 to 100% renewable energy		✓	✓	✓
Drive the construction of new remote and/or local renewable power plants			✓	✓
Empower communities to decide on the type and location of power			✓	✓
Community animation in the market			✓	✓
Large amounts of local renewables and storage				✓
Full EV integration				✓
Joint utility distribution planning to prepare the grid				✓
Real-time dispatch of local resources to stabilize the grid				✓
Scaled virtual power plants				✓
Energy shed creation and analysis				✓

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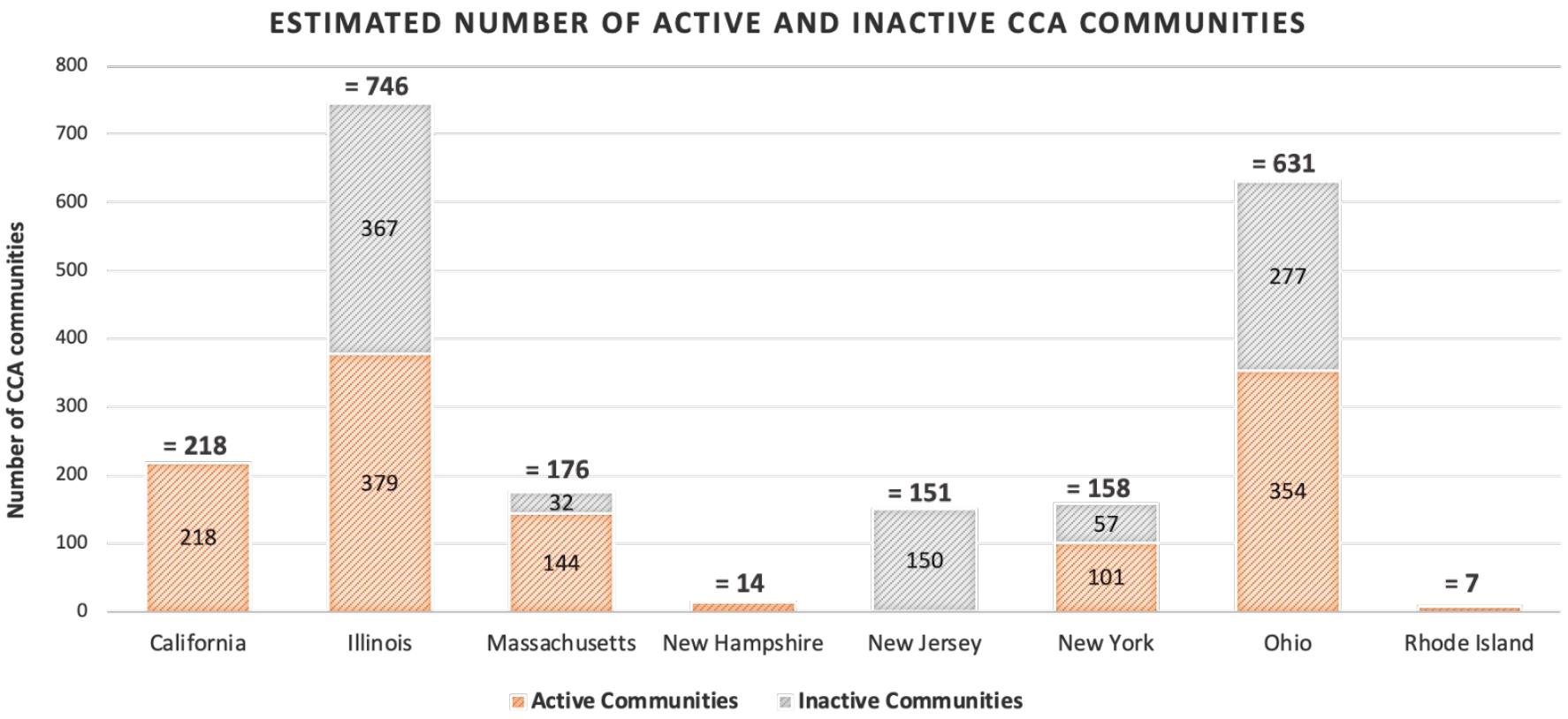
2,076 CCA communities



= 1,218 = 858

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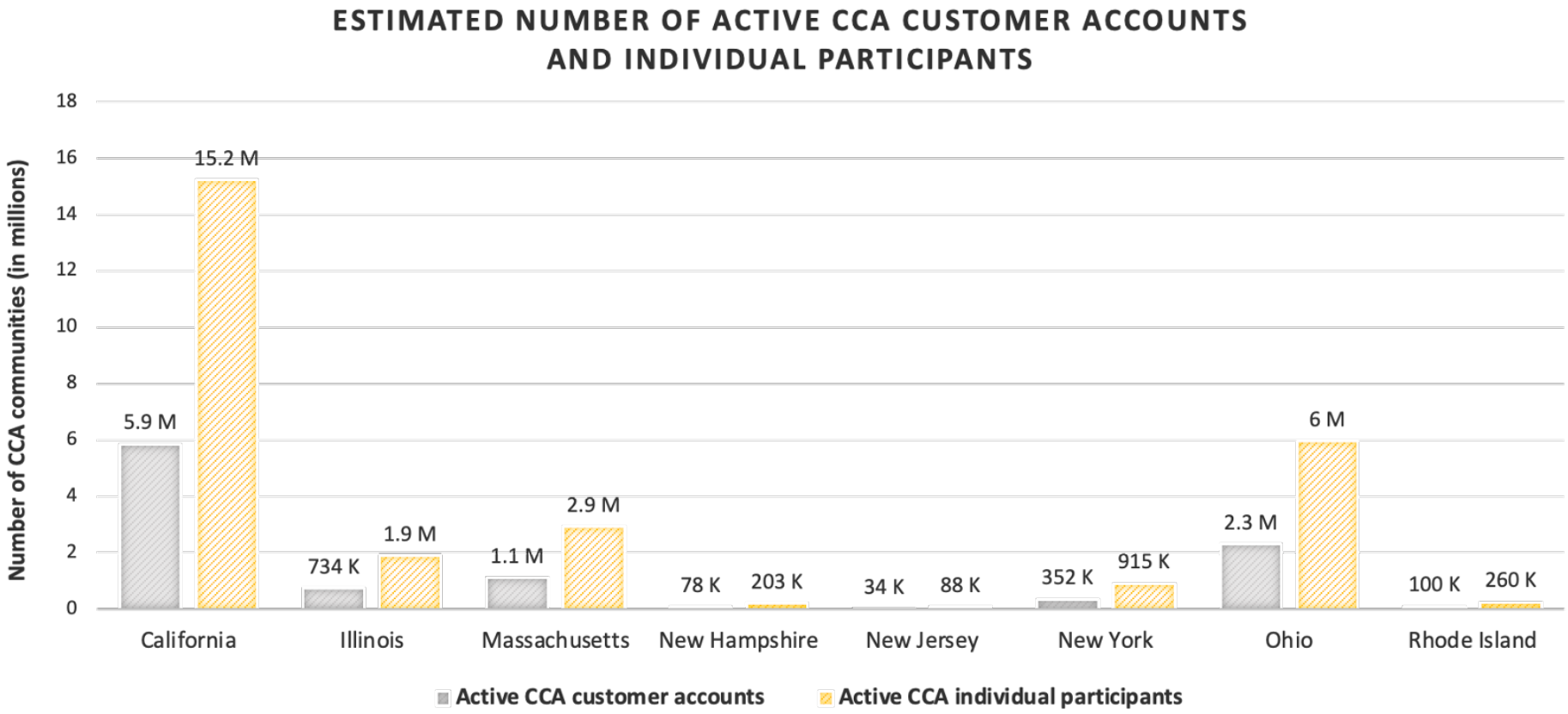

= 10.6 million

=27.5 million

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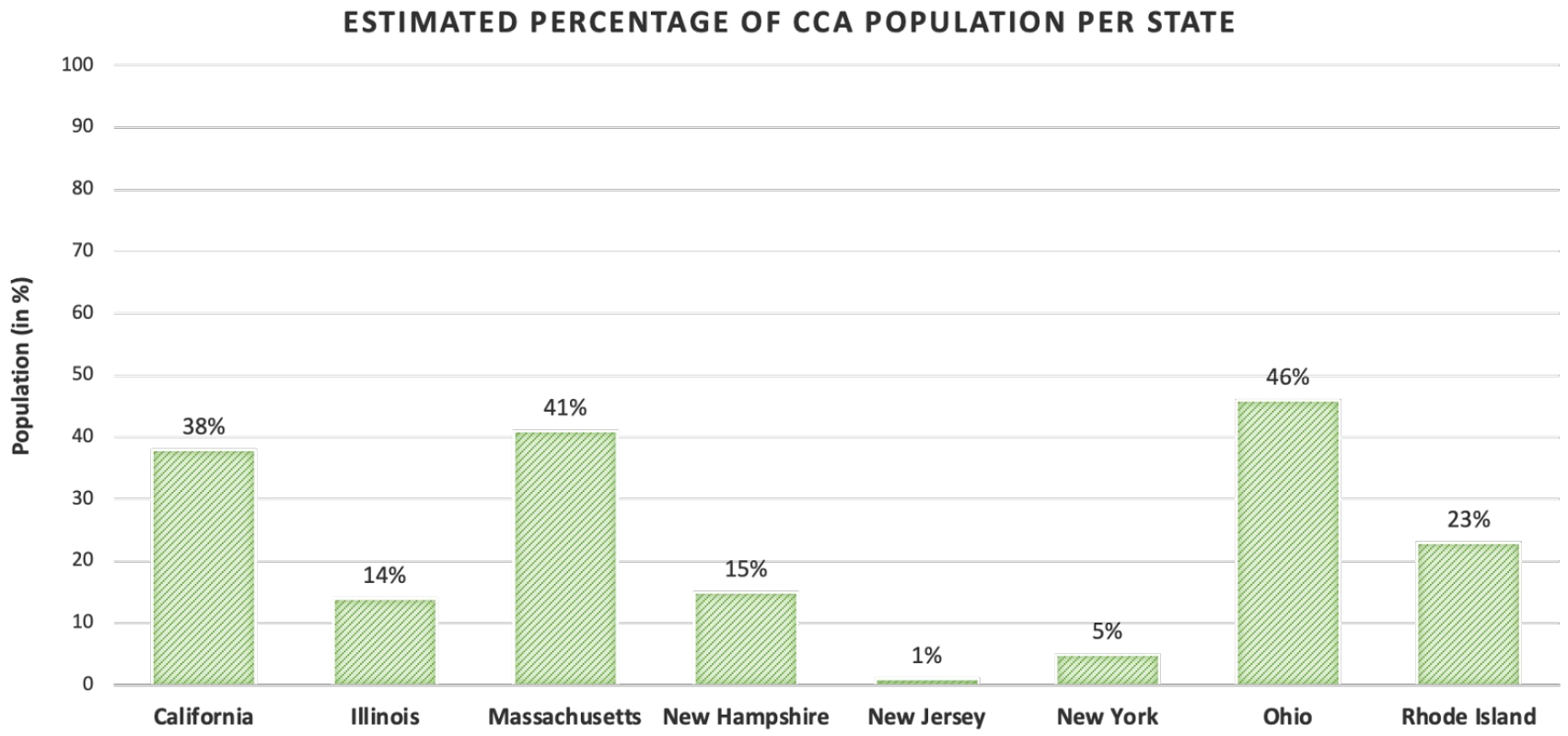

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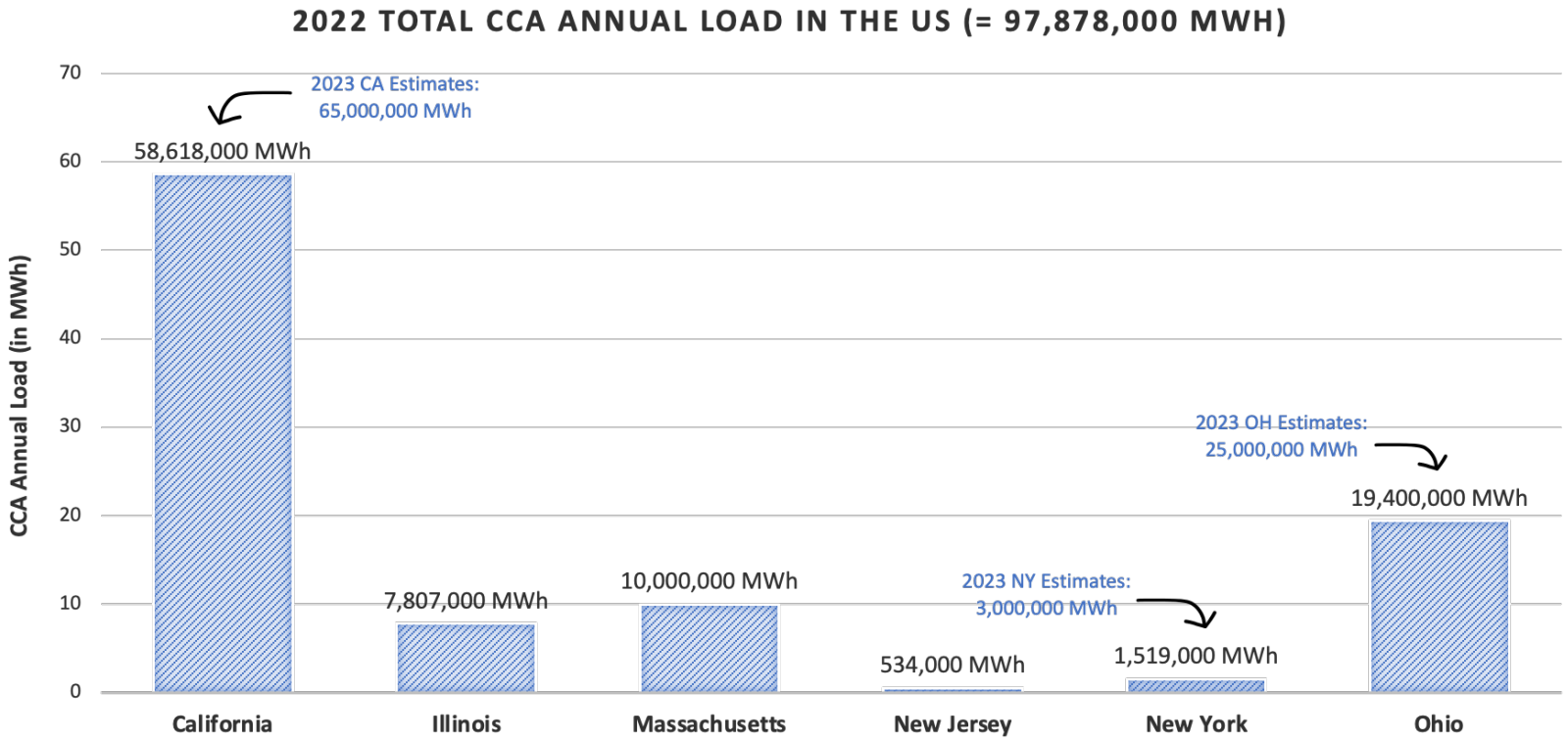

+ 2023 NH Estimates: 700,000 MWh
+ 2023 RI Estimates: 850,000 MWh

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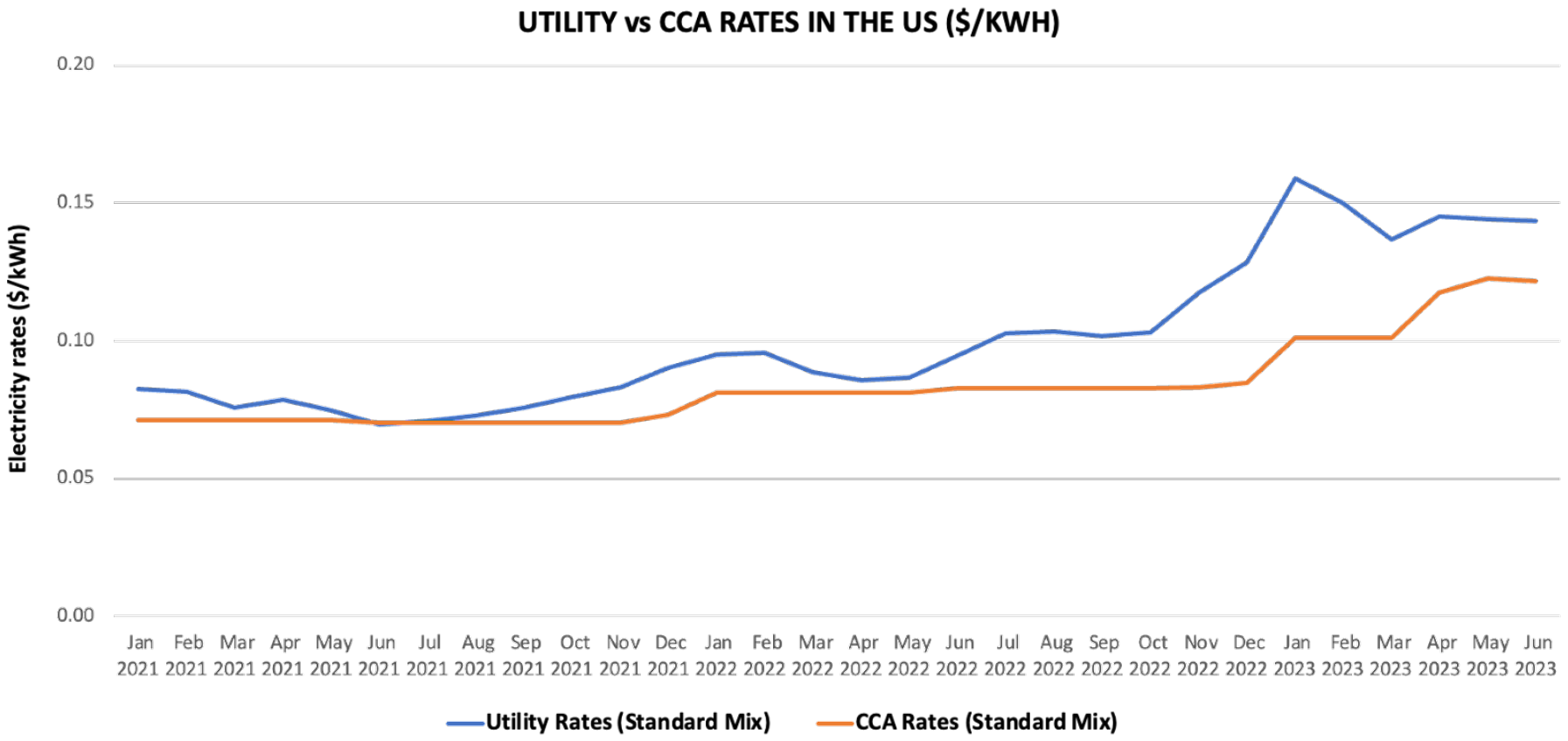

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II. State-by-State CCA Market Status

CALIFORNIA
ILLINOIS
MASSACHUSETTS
NEW HAMPSHIRE
NEW JERSEY
NEW YORK
OHIO
RHODE ISLAND

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CALIFORNIA

# of Communities with Local CCA Authorization:	218+511 unincorporated areas
# of Active CCA Communities:	218+511 unincorporated areas
# of Inactive CCA Communities:	0
# of Customer Accounts:	5,862,000
% of State's Population Participants:	38%
% Participation Rate Avg. (2022):	92%
Annual Load (2022):	58,618,000 MWh
Electricity Supply Contract Range:	10-25 years
MWh New Renewables:	11,258 MW since inception

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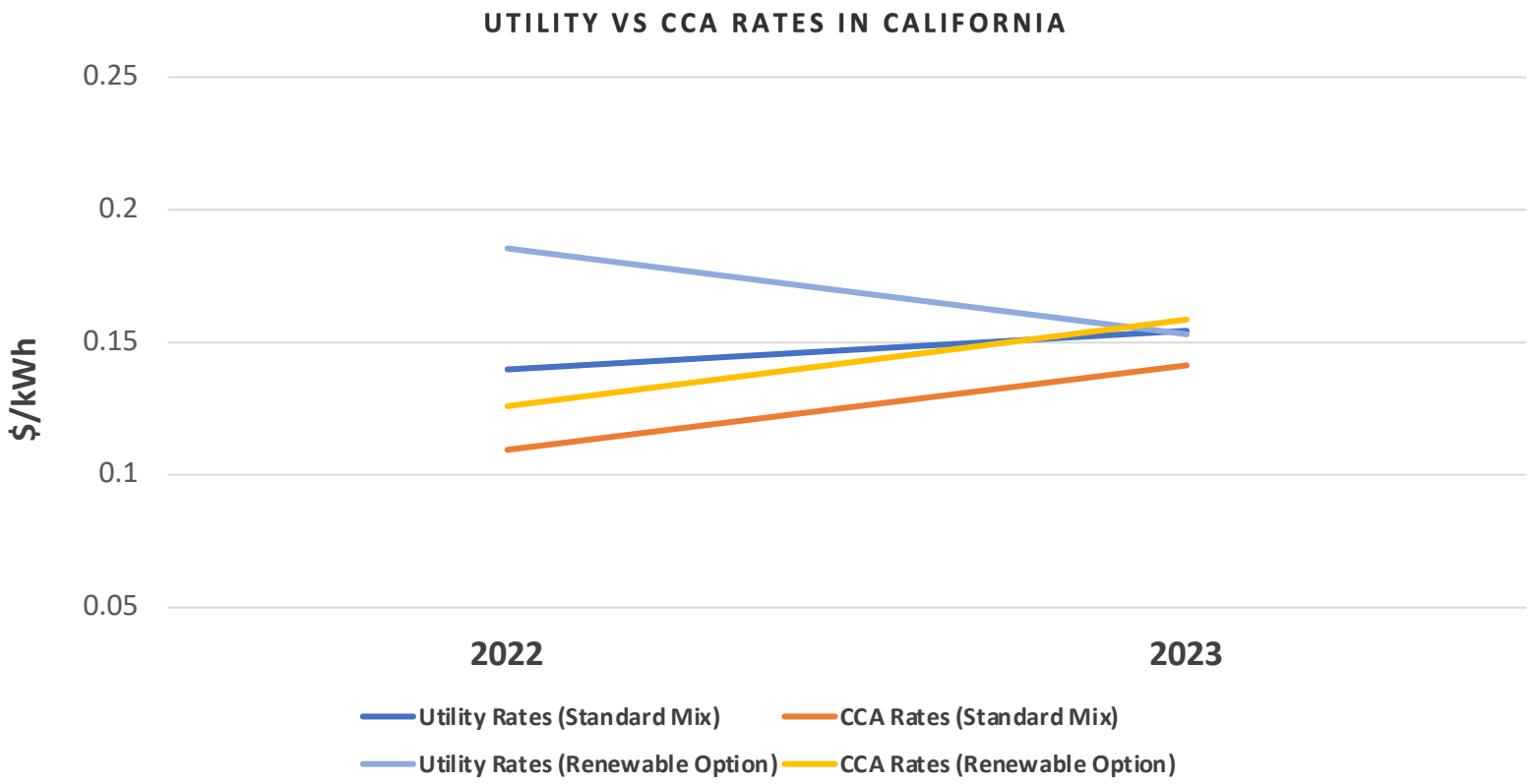
CALIFORNIA



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ILLINOIS

# of Communities with Local CCA Authorization:	746
# of Active CCA Communities:	379
# of Inactive CCA Communities:	367
# of Customer Accounts:	734,000
% of State's Population Participants:	14%
Annual Load (2022):	7,807,000
Electricity Supply Contract Range:	6-36 months

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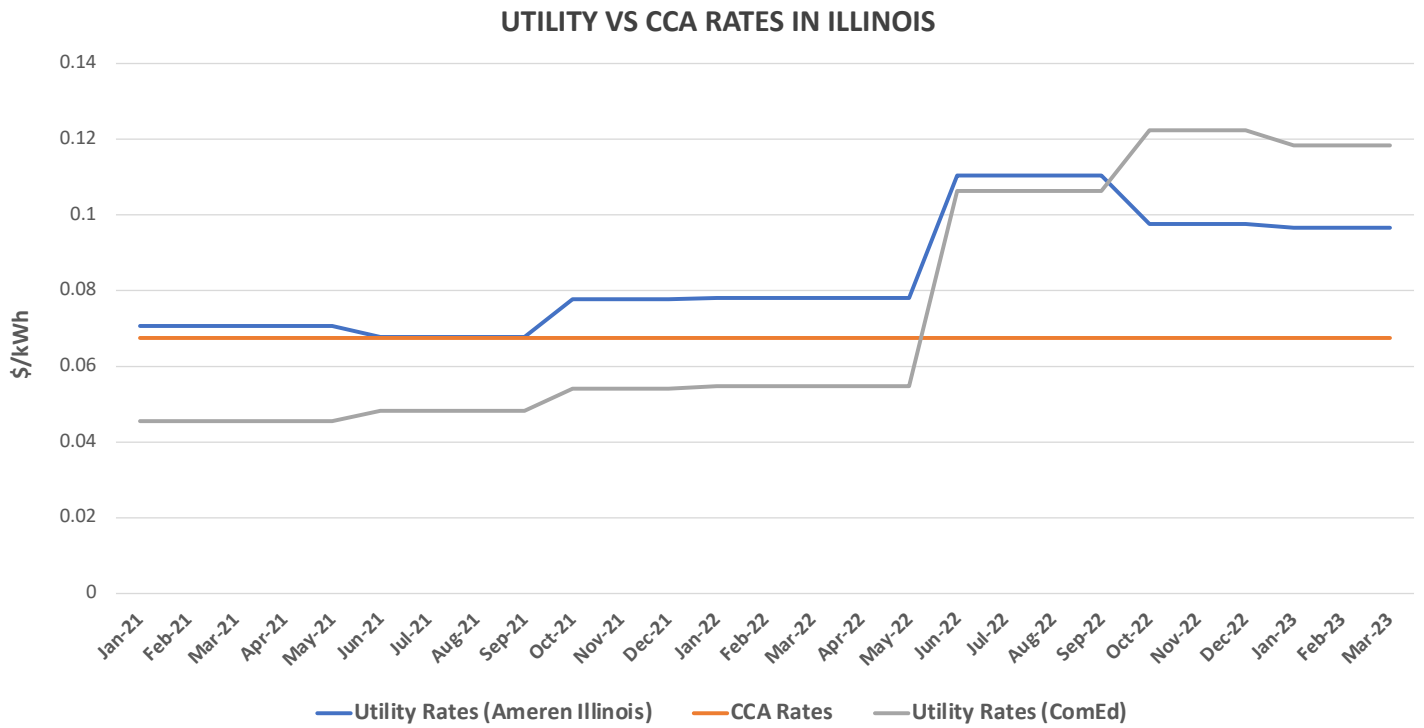
ILLINOIS



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MASSACHUSETTS

# of Communities with Local CCA Authorization:	176
# of Active CCA Communities:	144
# of Inactive CCA Communities:	32
# of Customer Accounts:	1,130,000
% of State's Population Participants:	41%
Annual Load (2022):	7,012,000
Electricity Supply Contract Range:	6-42 months

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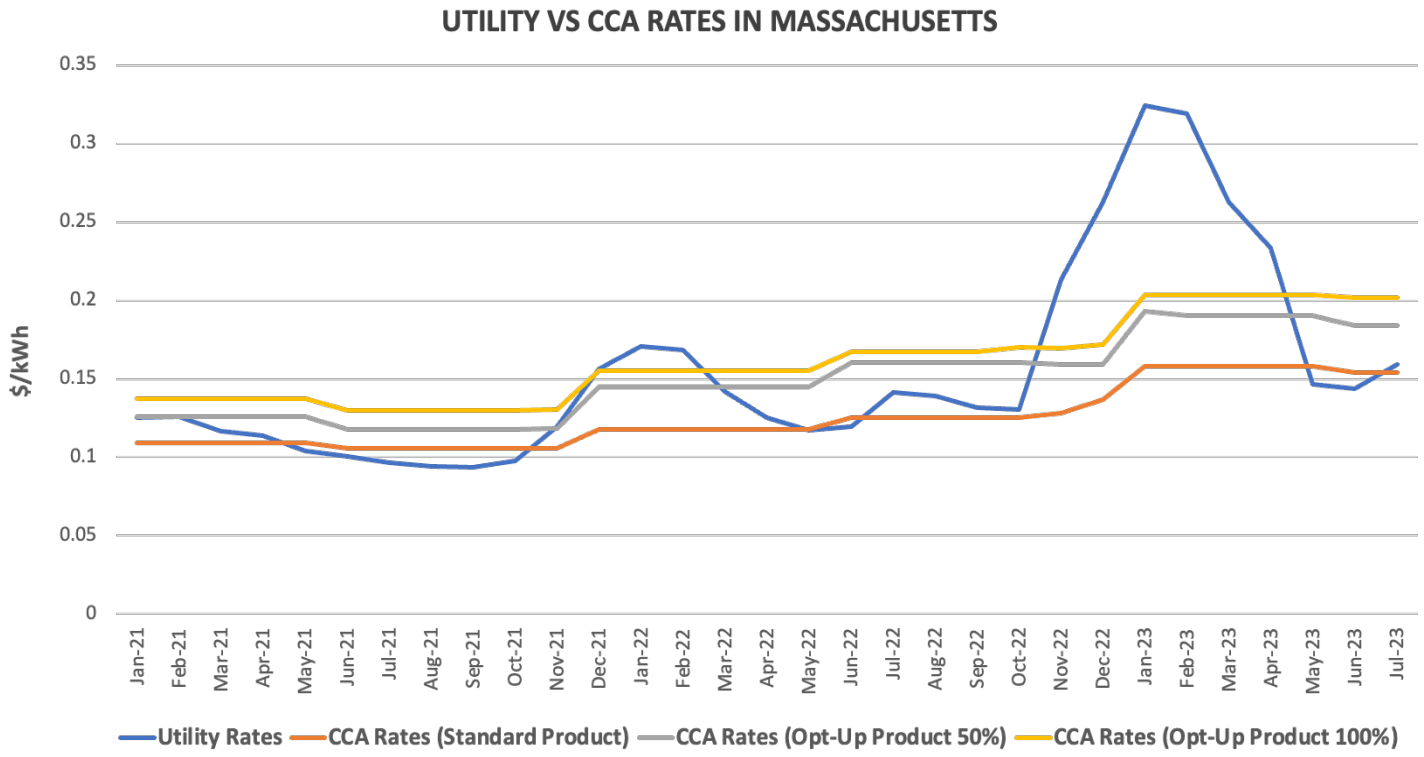
MASSACHUSETTS



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NEW HAMPSHIRE

# of Communities with Local CCA Authorization:	14
# of Active CCA Communities:	14
# of Inactive CCA Communities:	0
# of Customer Accounts:	78,000
% of State's Population Participants:	15%
Annual Load (expected, 2023):	700,000 MWh
Electricity Supply Contract Range:	3-30 months

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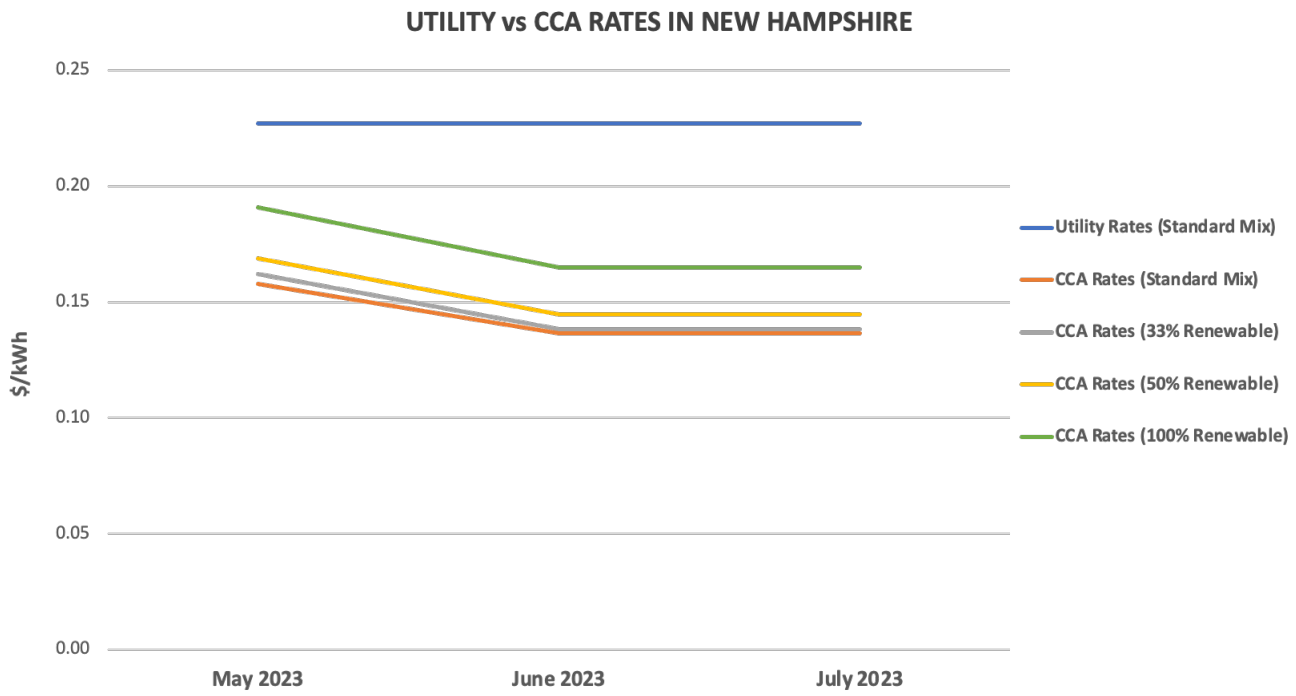
NEW HAMPSHIRE



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NEW JERSEY

# of Communities with Local CCA Authorization:	131
# of Active CCA Communities:	1
# of Inactive CCA Communities:	130
# of Customer Accounts:	33,000
% of State's Population Participants:	<1%
Annual Load (2022):	534,000 MWh
Electricity Supply Contract Range:	3-24 months

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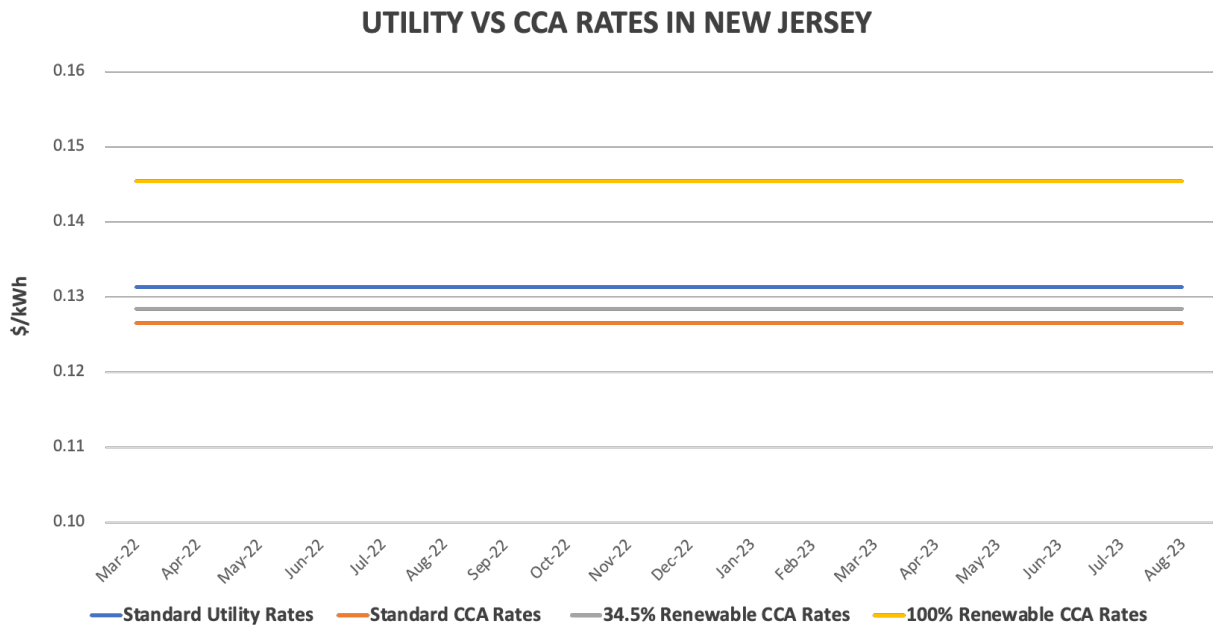
NEW JERSEY



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NEW YORK

# of Communities with Local CCA Authorization:	158
# of Active CCA Communities:	101
# of Inactive CCA Communities:	57
# of Customer Accounts:	352,000
% of State's Population Participants:	5%
Annual Load (2022):	1,518,891 MWh
Electricity Supply Contract Range:	1.5 to 3 years

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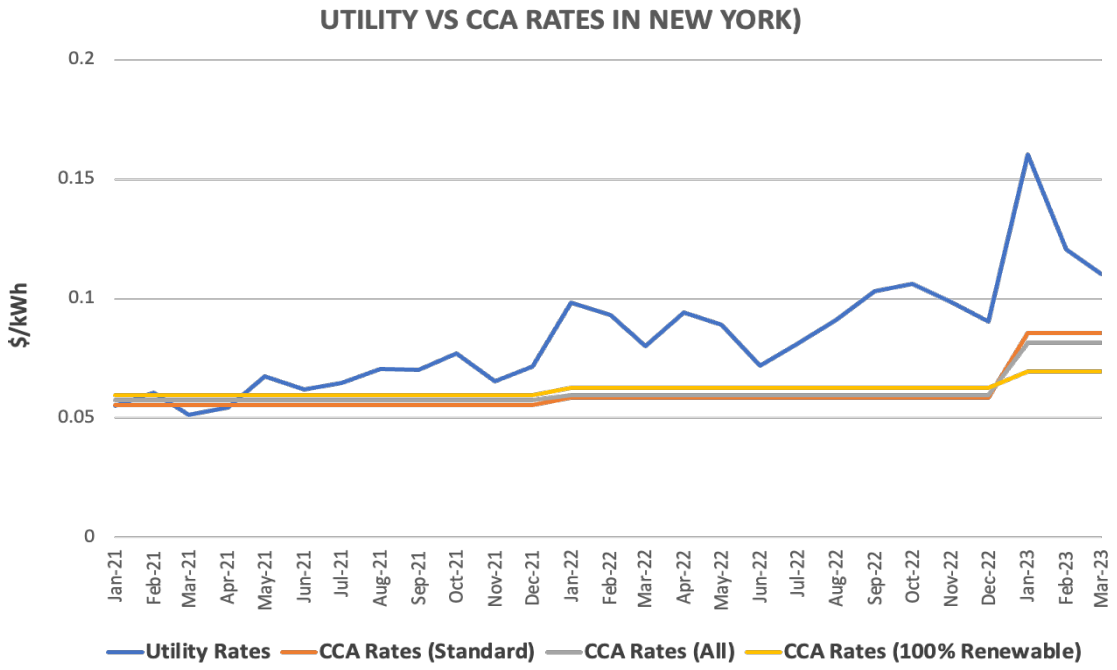
NEW YORK



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OHIO

# of Communities with Local CCA Authorization:	632
# of Active CCA Communities:	354
# of Inactive CCA Communities:	278
# of Customer Accounts:	2,300,000
% of State's Population Participants:	46%
Annual Load (2022):	19,400,000 MWh
Electricity Supply Contract Range:	1-3 years

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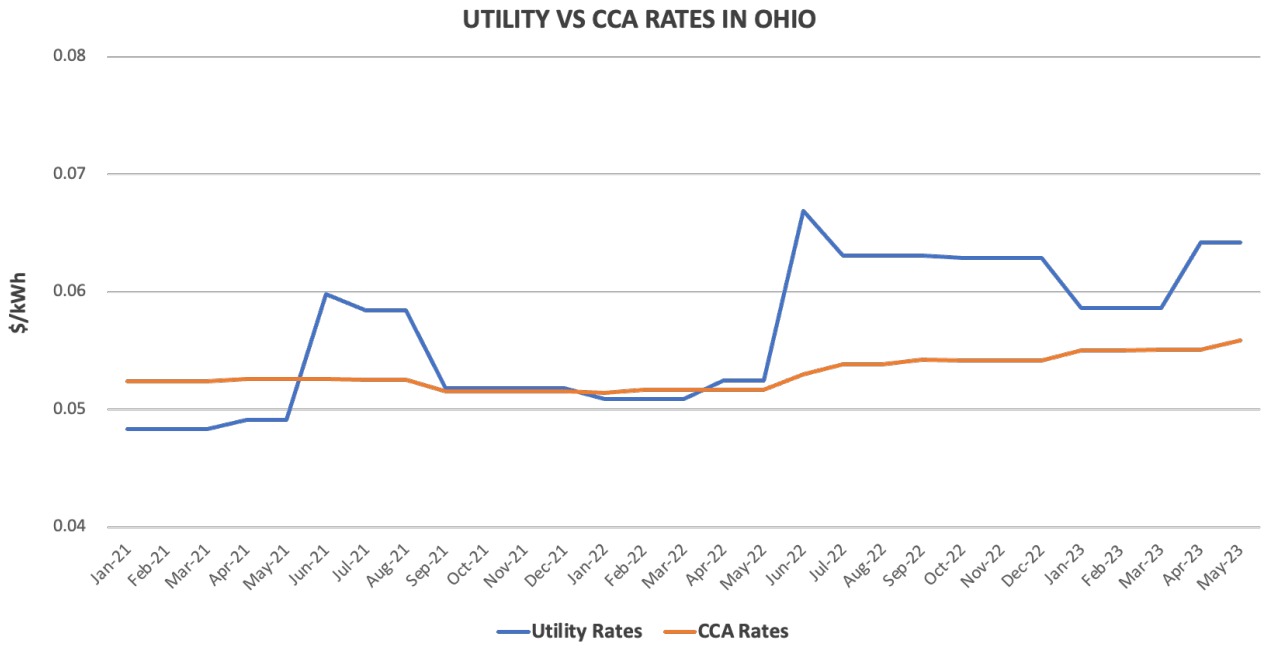
OHIO



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RHODE ISLAND

# of Communities with Local CCA Authorization:	7
# of Active CCA Communities:	7
# of Inactive CCA Communities:	0
# of Customer Accounts:	100,000
% of State's Population Participants:	23%
Annual Load (expected, 2023):	850,00 MWh
Electricity Supply Contract Range:	5 years with 6-month fixed rate period

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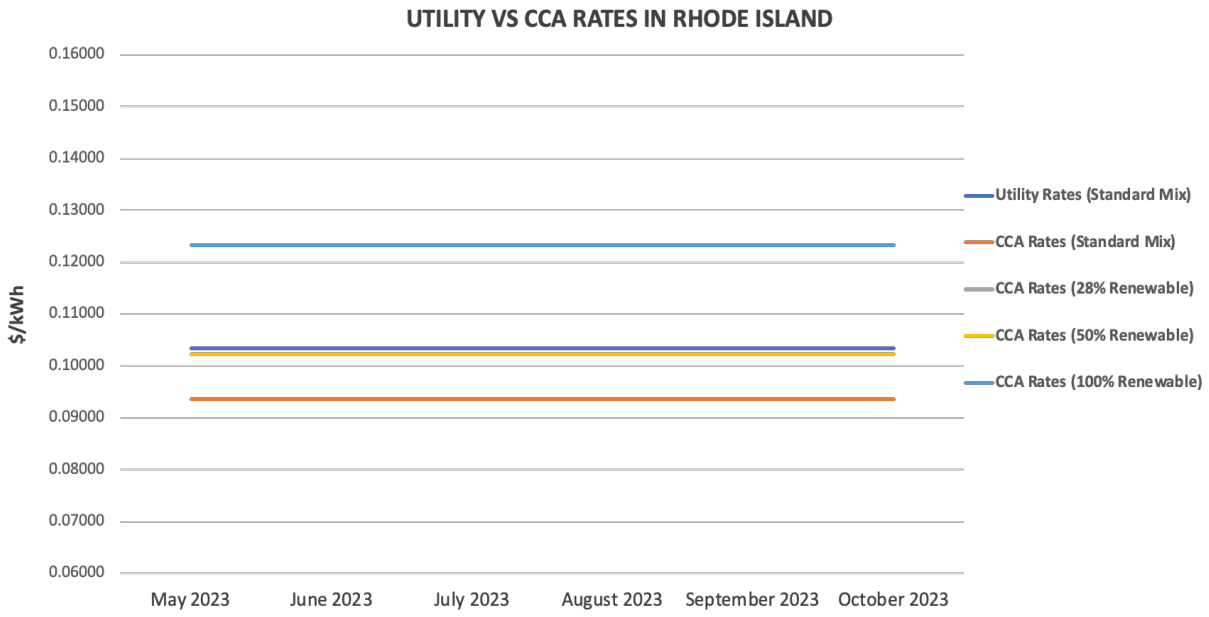
RHODE ISLAND



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III. CCA Market Growth Potential and Analysis: Addressing U.S. Government's goals

TOP 3 BENEFITS AND PRIORITIES OF CCA PROGRAMS:

> Price stability compared to default utilities (including lower rates when possible),

> Local customer choice, and

> Higher green energy content.

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Addressing U.S. Government's environmental goals

National targets:

- carbon pollution-free power sector by 2035
- net zero emissions economy by 2050
- 2030 emissions target of 50-52% below 2005 levels

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- CCA increases the amount of renewable energy on the grid.
  - in 2020, 75% to 100% of CCAs in CA, IL, and NY had default and optional 100% renewable energy offerings.

- CCA lowers greenhouse gas ("GHG") emission.
  - CCA communities with renewable power offerings have lower CO2 emission levels compared to what would have been produced using the default utilities' energy products.

- CCA develops the U.S. (voluntary) renewable energy market.
  - CCA communities captured 60% of the entire U.S. voluntary green power market in 2021, while CCAs represent less than 10% of the nation's households.

- CCA enhances climate-oriented innovations that are scalable.
  - CCA programs may include Community Distributed Generation, community solar, energy storage, demand response, eco civic prizes, building decarbonization, vehicle electrification, microgrids, etc.

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Addressing U.S. Government's economic goals

National goals:

- On August 16, 2022, the U.S. Government signed the Inflation Reduction Act which aims to "lower energy costs for families and small businesses, accelerate private investment in clean energy solutions (…), strengthen supply chains (…), and create good-paying jobs and new economic opportunities for workers" (The White House, 2022).

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- CCA ensures energy price stability.
  - CCAs have, on national average, offered lower and more stable standard rates than default utilities.
- Communities can save money with CCA.
  - CCAs have provided on average 2-25% savings nationwide for their customers, compared to the default utility's rates.
- CCA is cost-effective.
  - standard CCA programs can be launched with little to no funding resources from the community.
- CCA creates long-term job opportunities.
  - 3 to 80 new long-term job opportunities per program + support of local workforce development for the construction and management of new clean energy developments.

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Addressing U.S. Government's social goals

National goals:

- As part of the United Nations' Sustainable Development Goals program, the U.S. Government has committed to work towards the creation of an environment that "ensures access to affordable, reliable, sustainable and modern energy for all" by 2030.

- Justice40 initiative

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- CCA is a tool to empower low-income and disadvantaged communities (DACs).
  - Strong outreach and community engagement that can benefit low-income and DACs.
- CCA creates local choice and empowerment.
  - any community that wants a CCA program can start the process, if it is enabled in their state.
- CCA is accessible to everyone.
  - anyone regardless of their income or knowledge of the energy market, can participate in the CCA program of their community.
- CCA has a high level of community engagement.
  - many CCAs have a robust customer service and education plan, support and/or participate regularly in community events, and act as a liaison between the CCA and the community.
- CCA provides a high level of customer satisfaction and participation.
  - on average, 85-95% of eligible customers participate in a CCA program.

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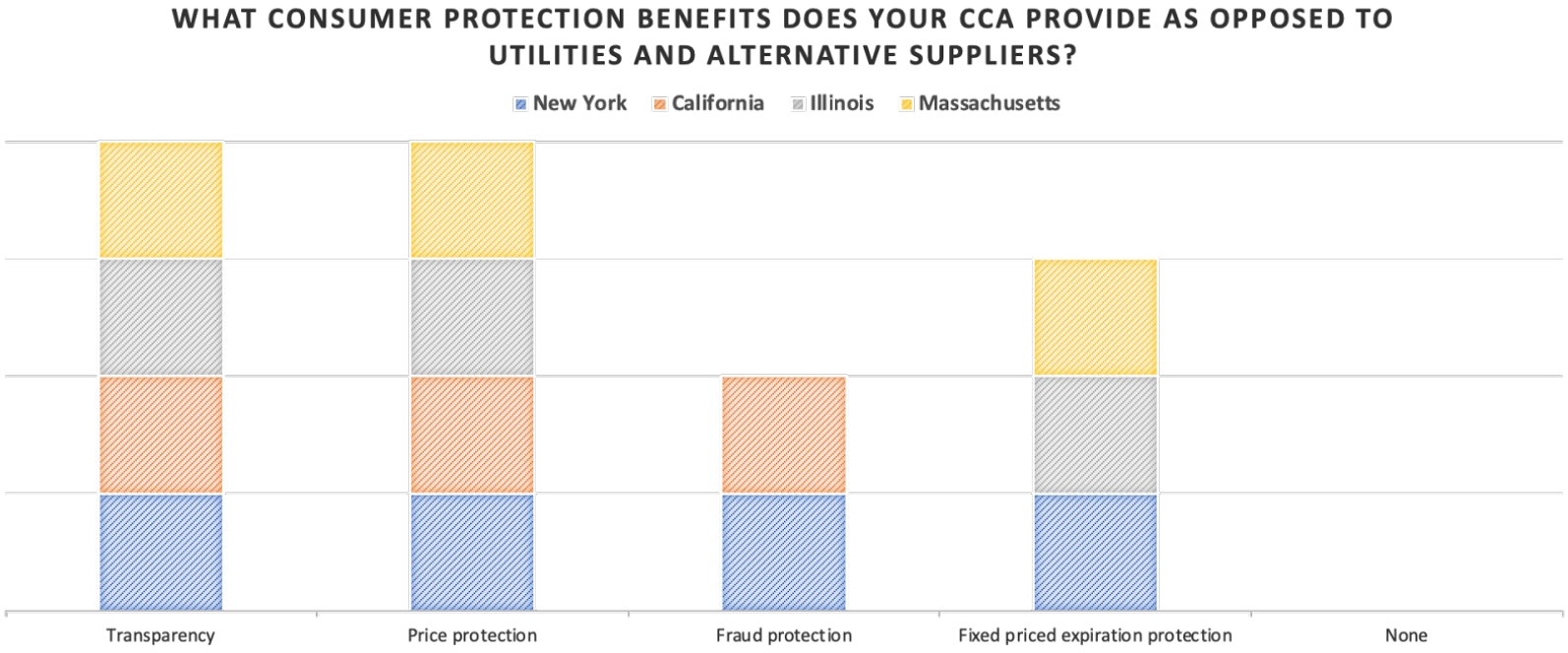
- CCA can offer higher consumer protection benefits than alternative suppliers and some utilities.
  - CCA leverages standard terms and conditions that include fraud protection, ability to opt-out, price stability, and transparency.



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IV. Challenges to Tackle and Best Practice Guidelines

BARRIER	SOLUTION
Regulatory challenges	Educational efforts among state agencies are required to create regulations consistent with CCA communities' needs and potential. Such agencies need to make their regulatory process efficient, more transparent, and more equitable for CCA.
Inability to access electricity customers' data	Local communities need direct, timely, and accurate access to default utilities' customer data at an early stage of their project in order to adequately develop their CCA program. DOE Green Button* program with custom features for CCAs.
Lack of access to RECs	In the long term, CCA communities should be encouraged and allowed by regulators to spark the development of new renewable generation in ways that would prevent them from being dependent on RECs.
Lack of state and federal funding resources	State and federal agencies are invited to consider CCA as a powerful procurement structure when funding opportunities arise. Agencies should list CCAs as eligible institutions in appropriate funding opportunities and encourage all applicants to partner with CCAs.
Difficulties to enable CCA in new states	Implement legislation enabling CCA (and partial or full competitive electricity supply) markets in all US states.

* requires utilities to share meter interval data with electricity customers.

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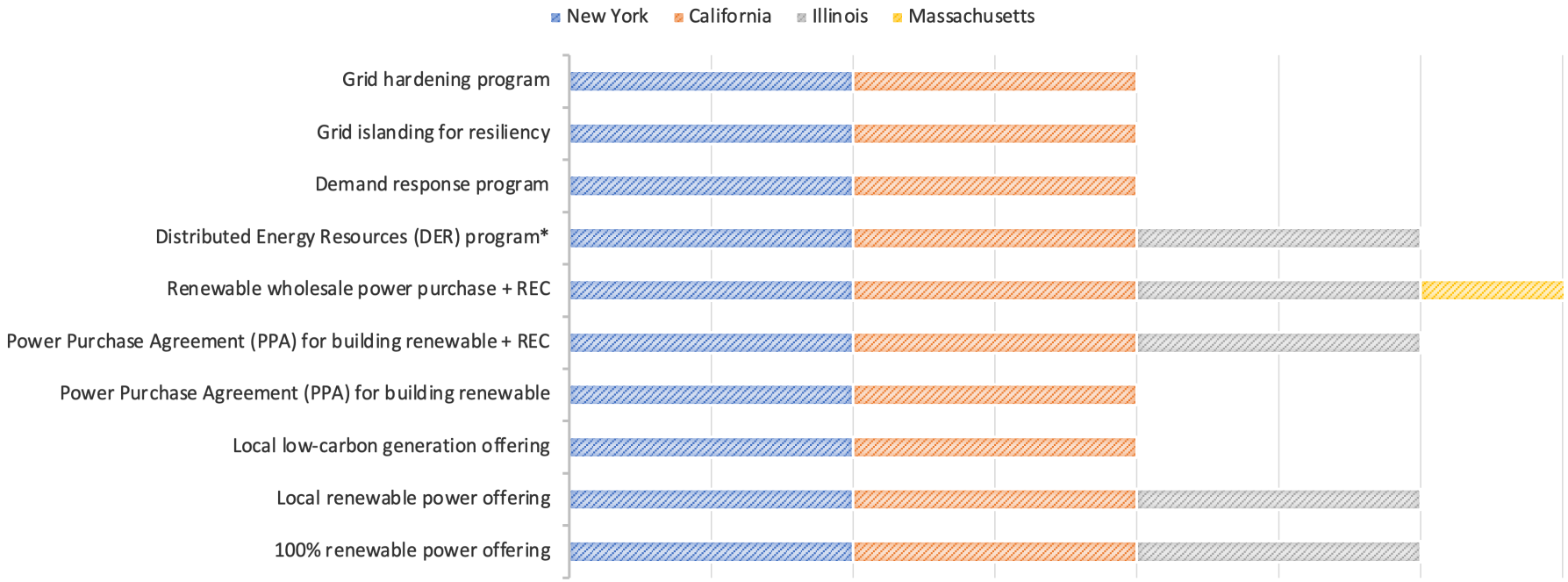
Moving Forward…

Answers to survey question "What would you like to see happen with your CCA program in the future?"



*May include electric vehicle charging station, battery storage, community solar, microturbines, wind turbines, biomass generators, tri-generation units, etc.)

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Conclusion

CCA is a set of evolving mechanisms that have the **capacity to act as foundation for state and federal agencies** to reach their energy, climate, and environmental justice targets.

Best practice diffusion and tangible funding can enable new states to enter effectively and allow established CCA states to achieve the full potential of their programs.

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Conclusion

Next Steps:

Educational effort among stakeholders

> Read, share, and give feedback on the report

National collaboration

> Join LEAN to contribute to the development of CCA across the country and receive support

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Q&A

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THANK YOU

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