REBA

State of the Market Update

Fall 2019

About the Update

ABOUT

REBA's State of the Market Update builds on an annual review of the corporate and large institution-backed renewable energy market.

The report combines original source data from the Renewable Energy Buyers Alliance (REBA) with a range of third-party data resources.

For ongoing updates throughout the year, please see REBA's Deal Chart at https://rebuyers.org

ACKNOWLEDGEMENTS

Lead Authors

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Supporting Authors

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- Katherine Kerr, REBA
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Third-party Data Sources:

- Bloomberg New Energy Finance
- Energy Information Administration
- CDP
- National Renewable Energy Laboratory
- RE100
- Science Based Targets

The buyers journey

From planning to action

Transparency

- Accounting for your carbon footprint
- Mapping your energy consumption

Commitment

- Setting carbon reduction targets
- Pledging to procure 100% renewable energy

Action

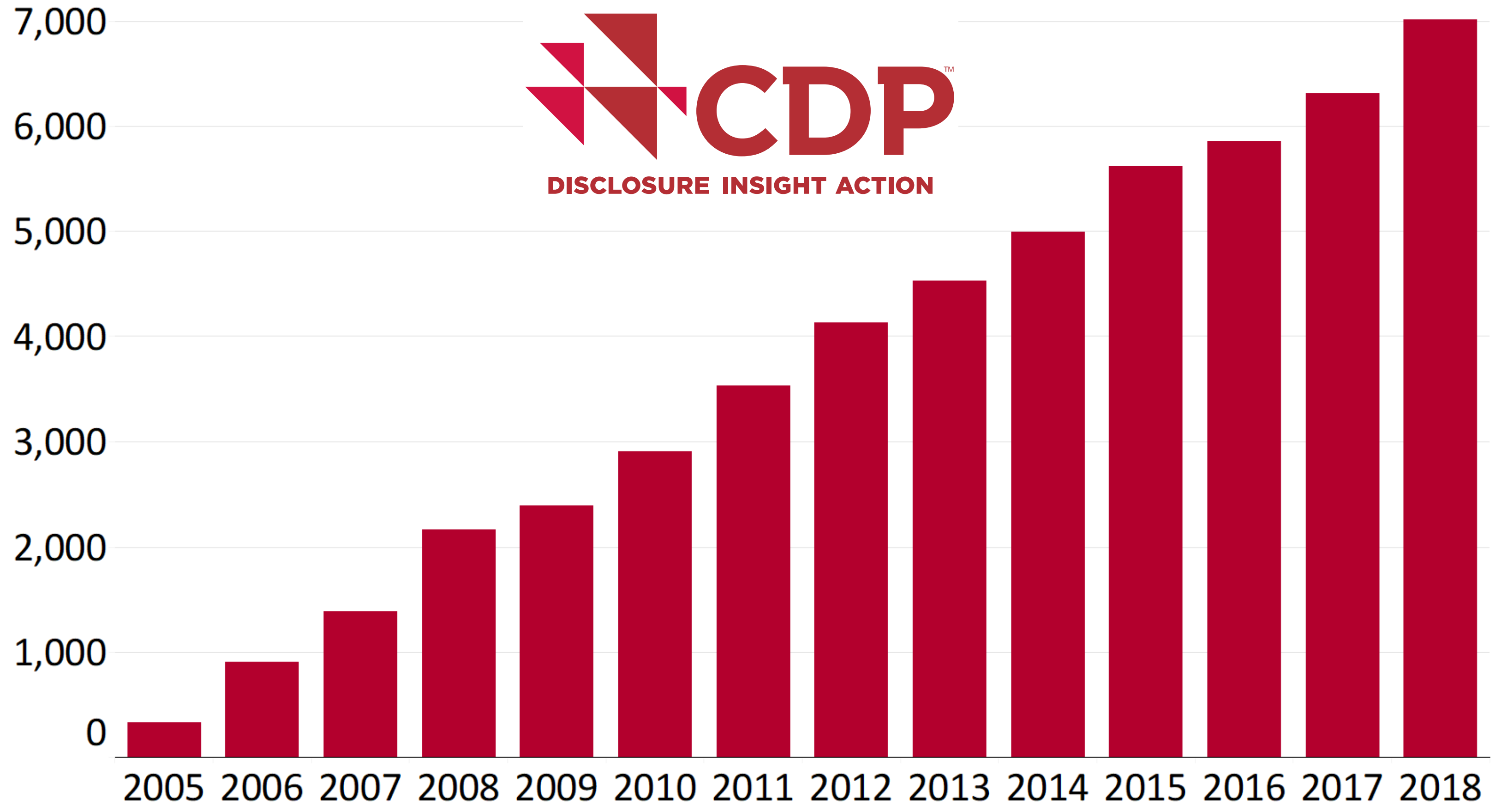
- Pursuing goals with RECs, PPAs, project ownership and more
- Restarting the process for supply chain, 24/7 renewables, etc.

Feedback Loop

REBA
Renewable Energy Buyers Alliance

The buyers journey – reporting and transparency

Steady growth of companies disclosing to CDP

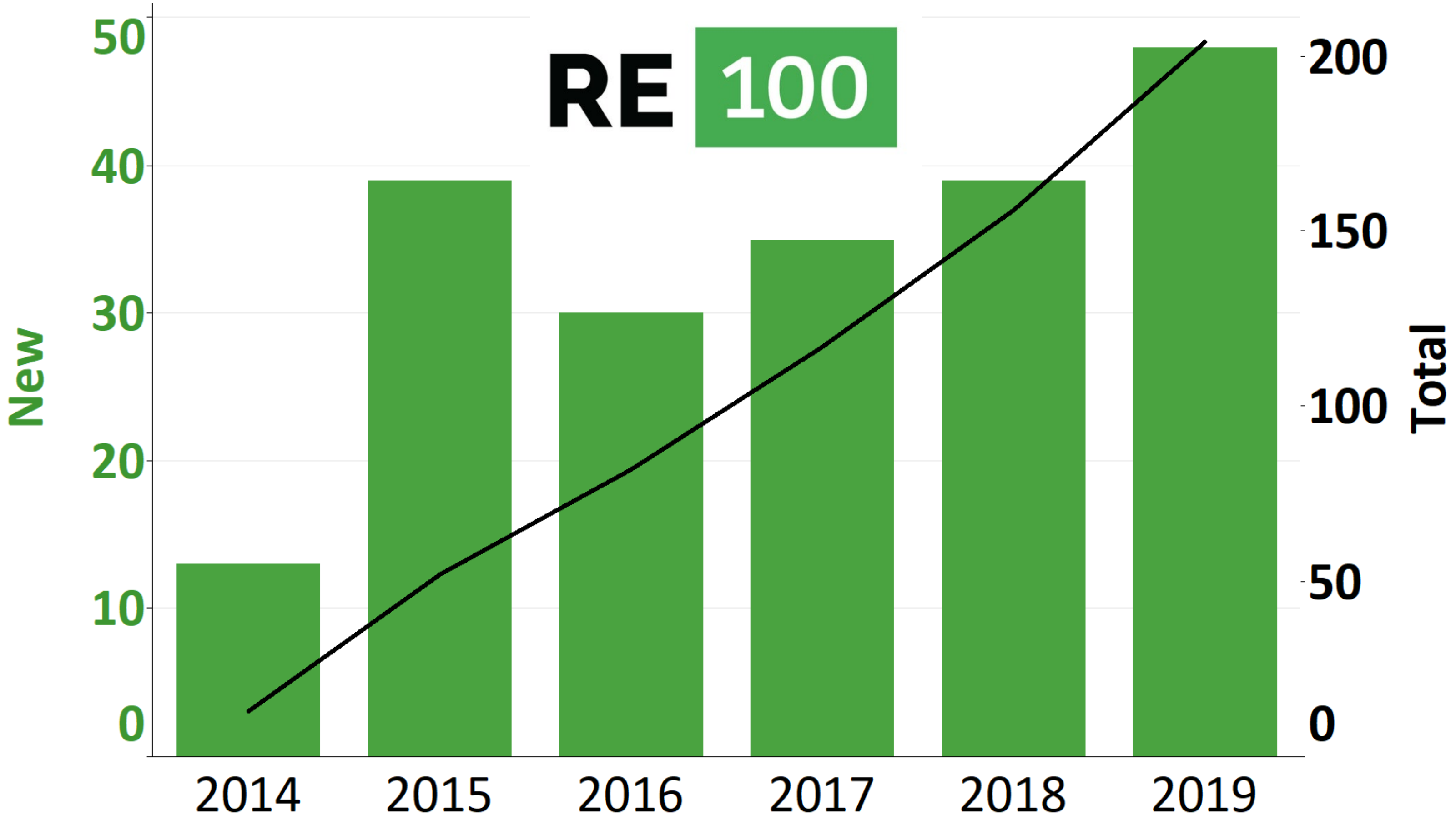


source: CDP

Sustainability is of increasing importance for corporate social responsibility – from 343 companies reporting to CDP in 2005 to over 7,000 companies reporting in 2018.

The buyers journey – commitments

Acceleration in the number of companies committing to RE100



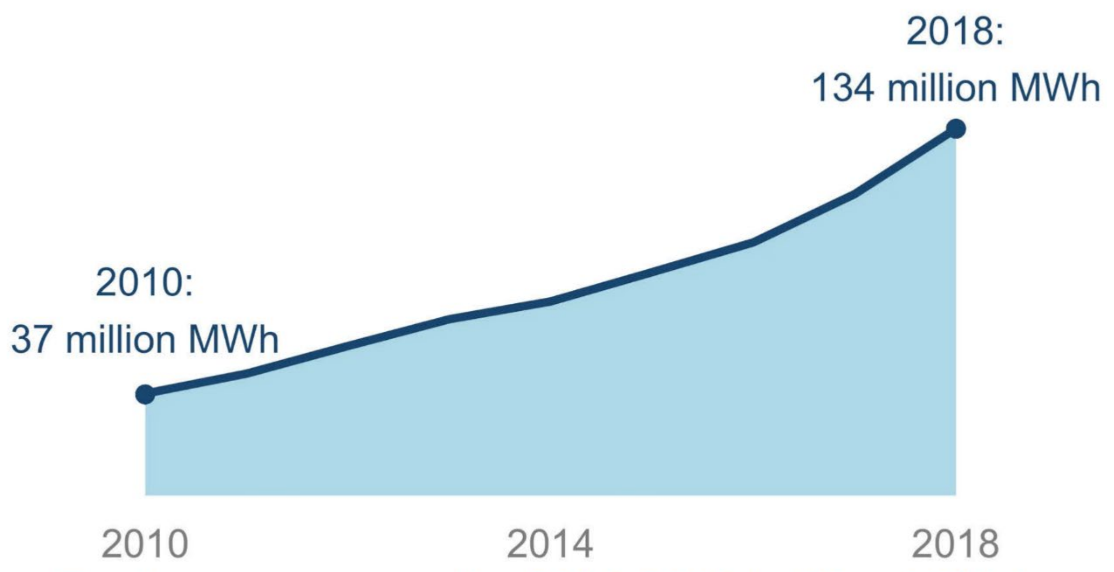
source: RE100

Increased reporting is leading to an accelerating number of companies committing to carbon reduction and clean energy targets. RE100 is just one example of these commitments.

The buyers journey – a growing voluntary market

2018

NREL
NATIONAL RENEWABLE ENERGY LABORATORY



Total green power sales 2010-2018 (million MWh)

Segment	Sales (million MWh)	Participation (x1000 customers)
Utility green pricing	9.7	966
Utility renewable contracts	3.3	0.03
Competitive suppliers	25	1,735
Unbundled RECs	63.2	209
CCAs	9.5	3,382
PPAs	23.5	.28
Community solar	0.1	6
Total	**134.3**	**6,298**

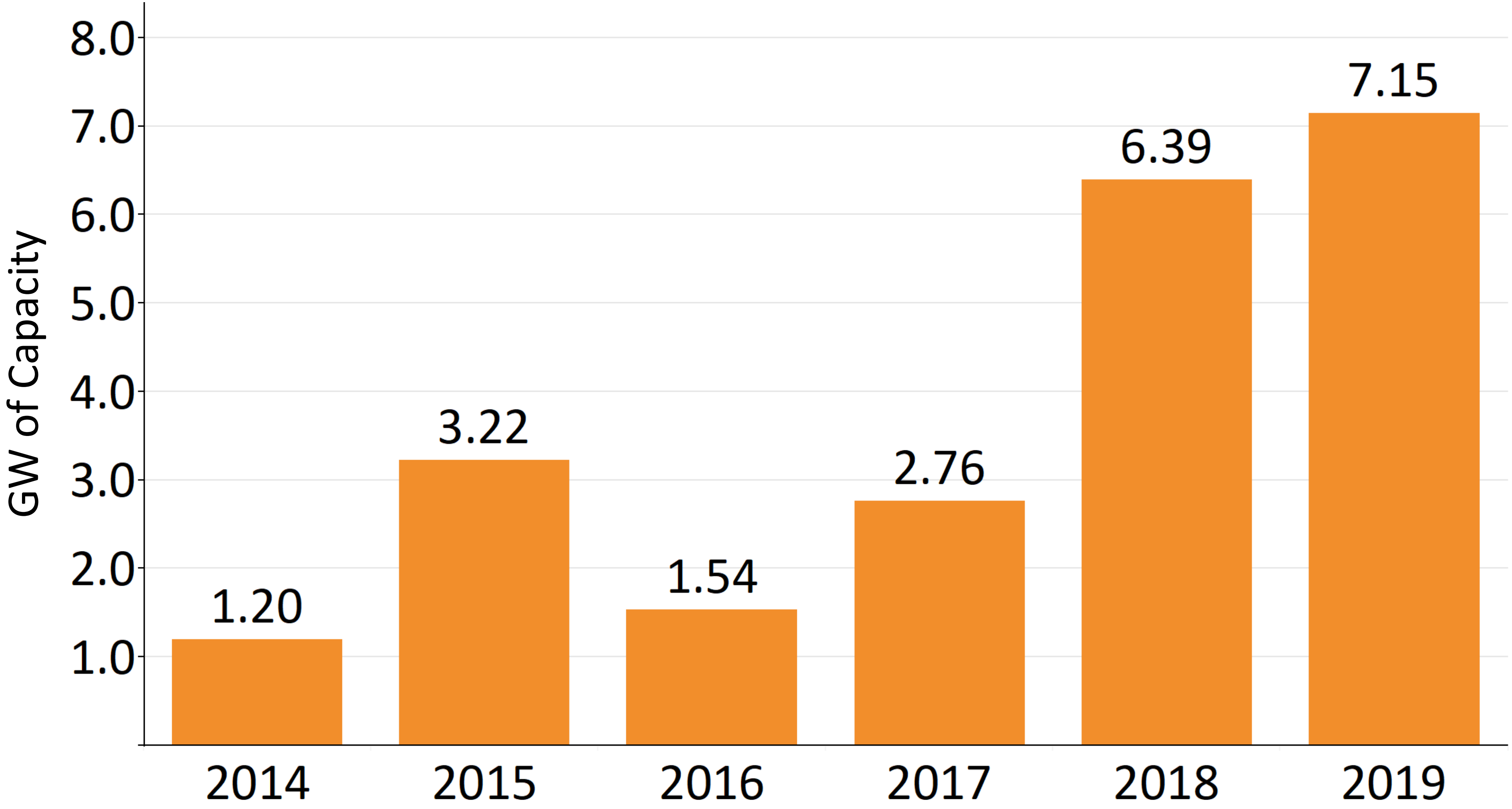
source: NREL

The number of corporates acting on their commitments is increasing. Notably, corporate buyers have an outsized impact on the volume of voluntary sales when compared to other customer segments.


MARKET OPPORTUNITY
Plan your journey up to—and including—action

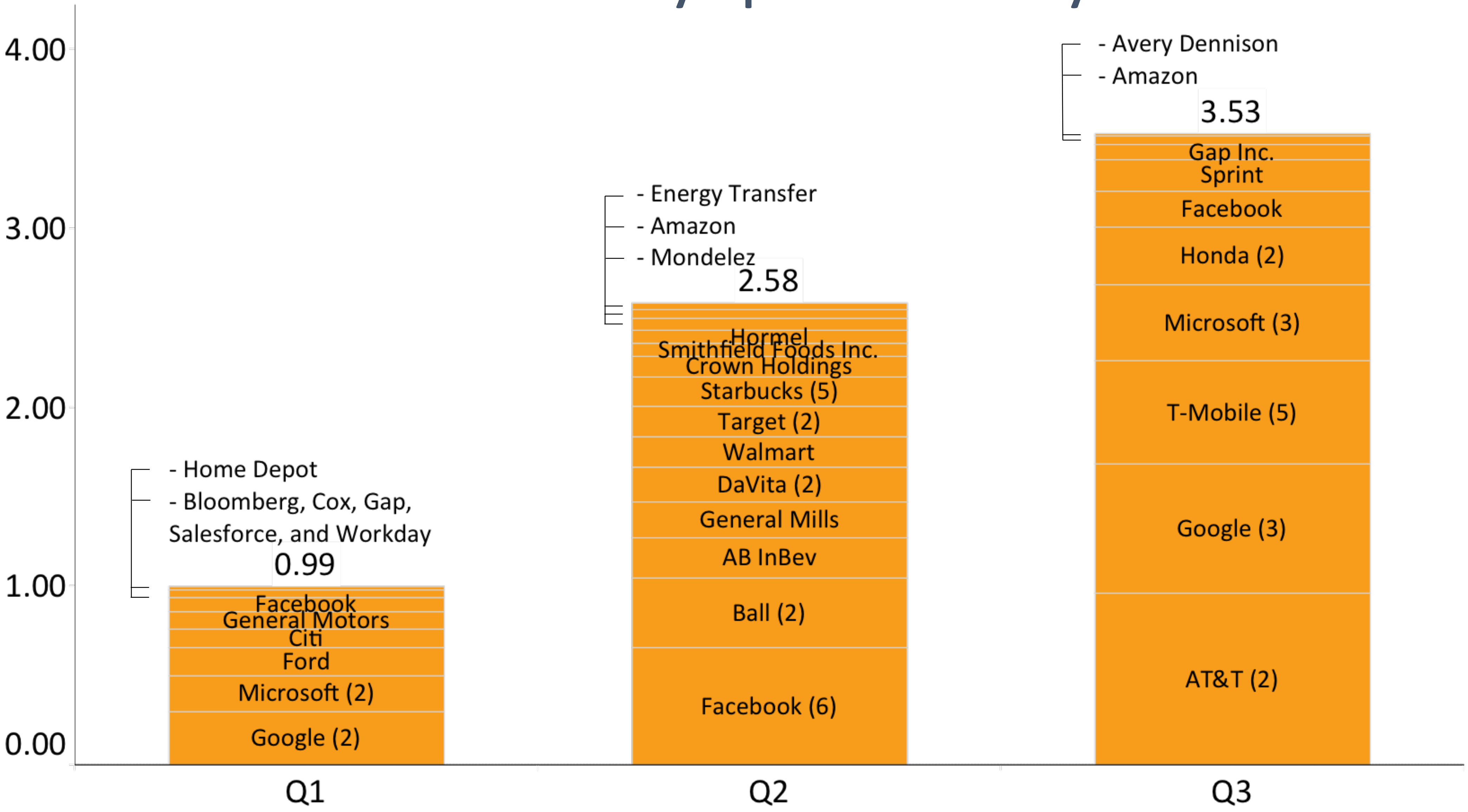
Announced corporate renewable deals in the U.S.

More than 22 GW since 2008



Publicly announced contracted capacity of corporate Power Purchase Agreements, Green Power Purchases, Green Tariffs, and Outright Project Ownership in the US, 2018 by quarter. Excludes on-site generation (e.g., rooftop solar PV) and deals with operating plants. (#) indicates number of deals each year by individual companies. Copyright 2019 by Renewable Energy Buyers Alliance

2019 deals by quarter: buyers



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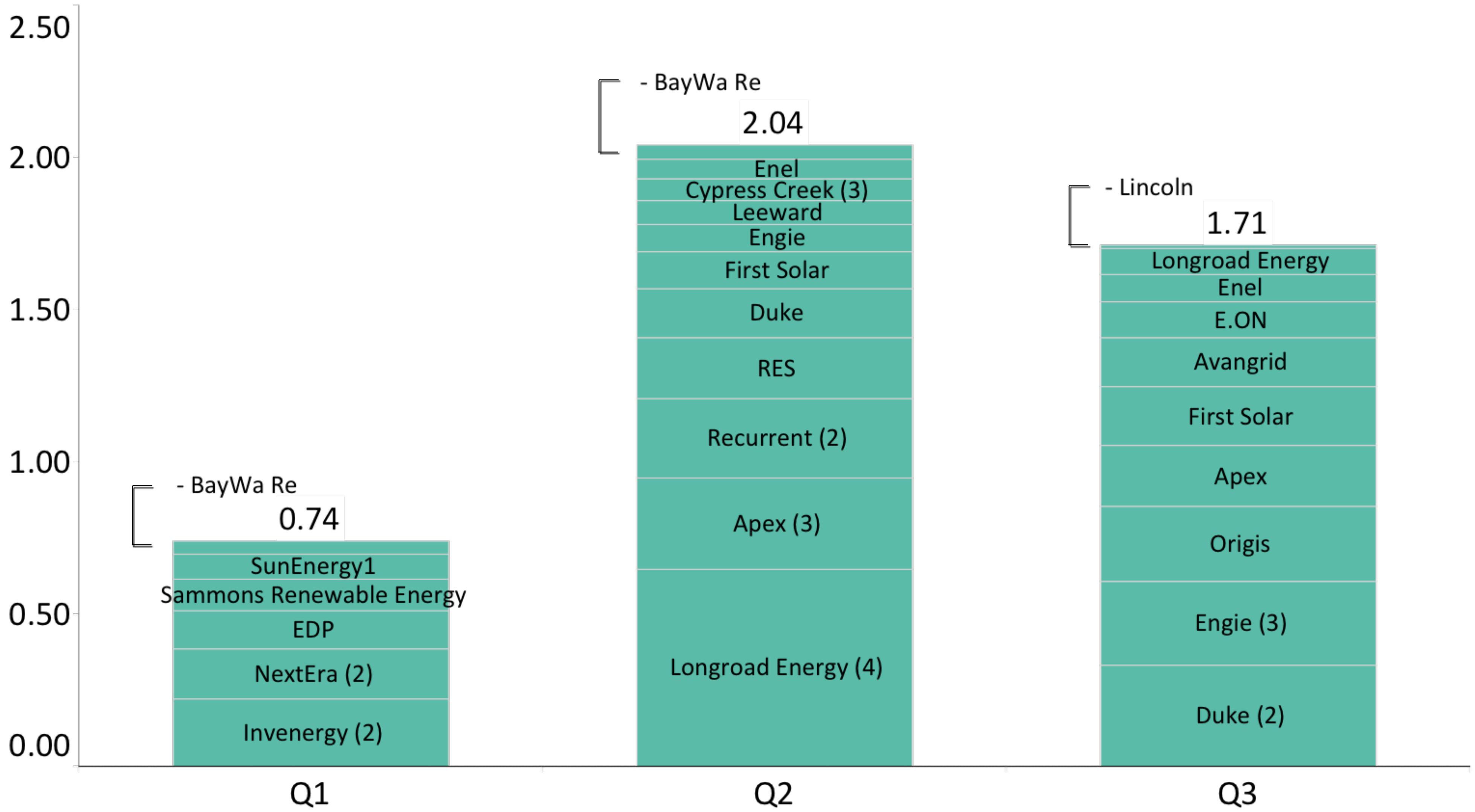
2019 deals by quarter: developers



**does not include deals in which the developer is not known*

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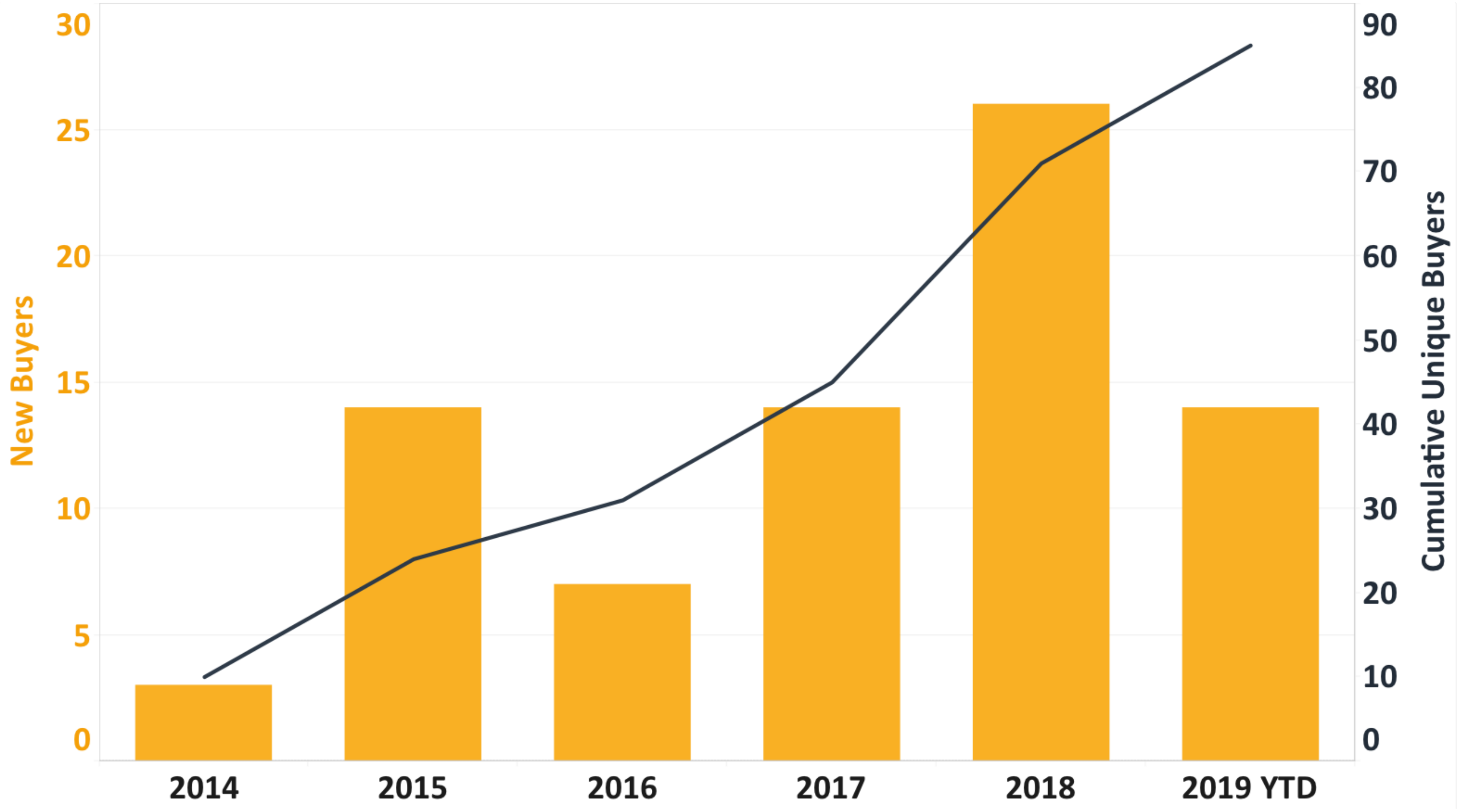
Market expansion: new buyers



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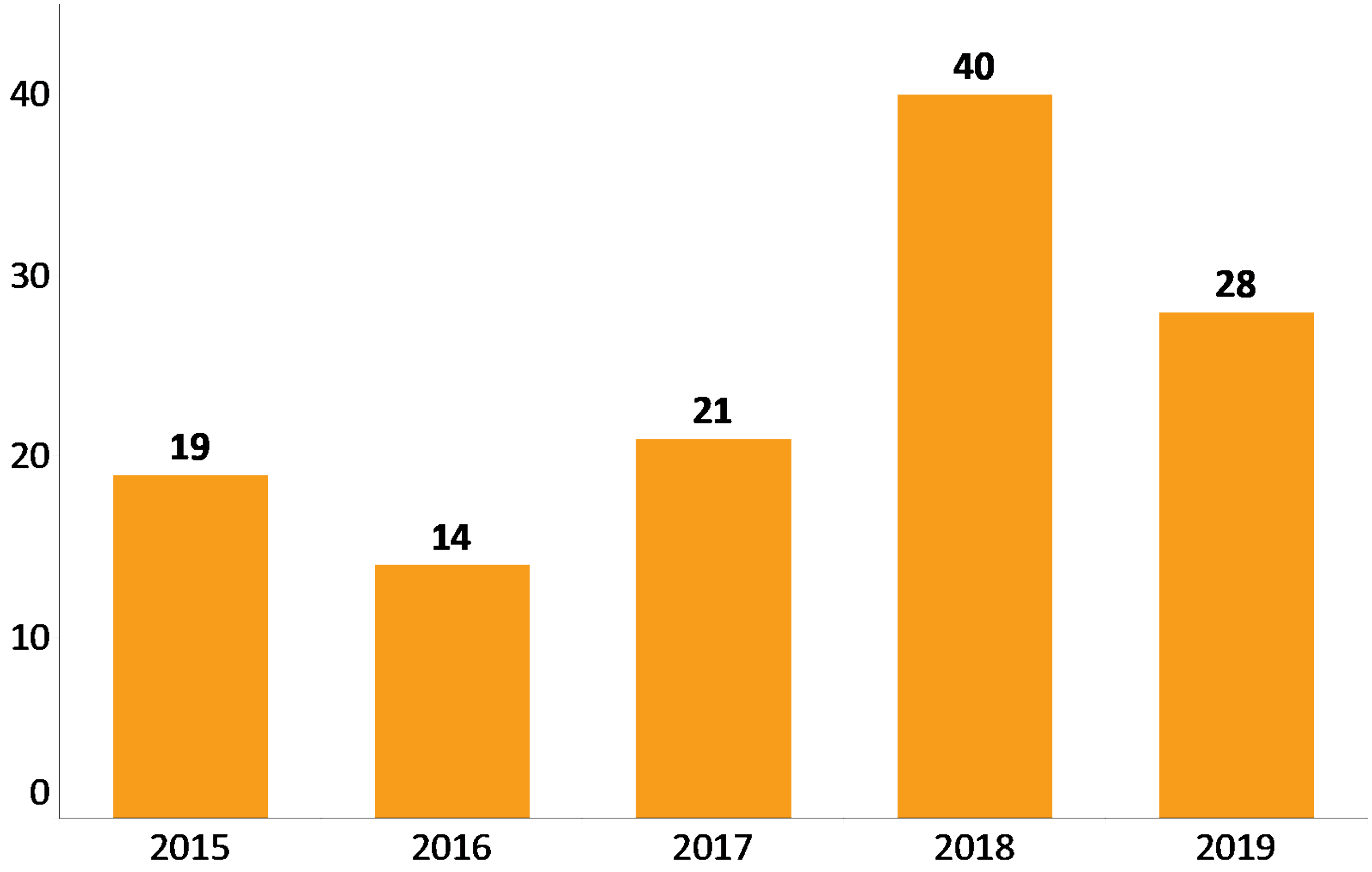
85 individual companies have transacted in the utility-scale renewable energy market since 2014.

Unique buyers each year



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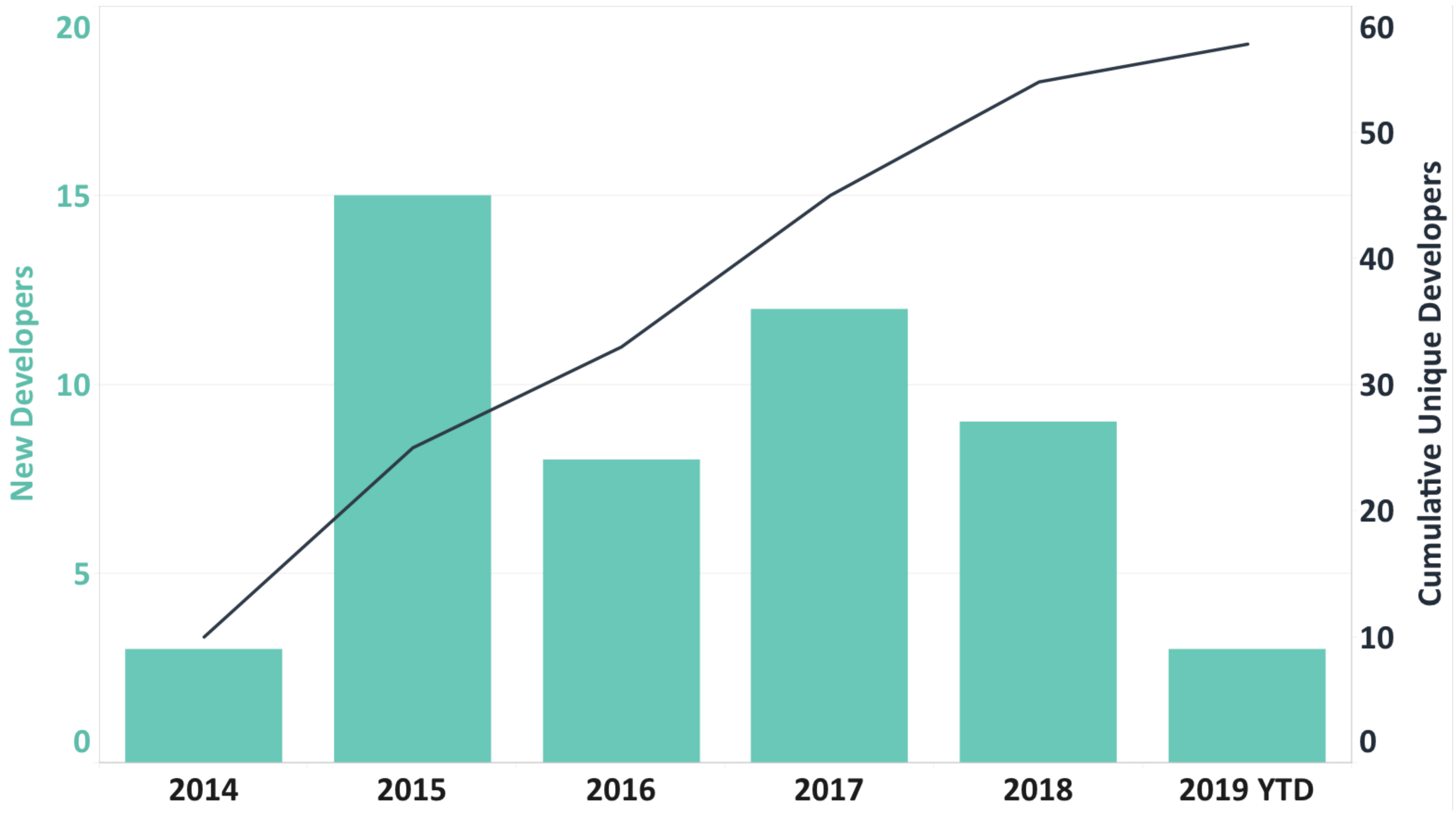
50% of the individual buyers in 2019 were first-time buyers

Market evolution: new developers



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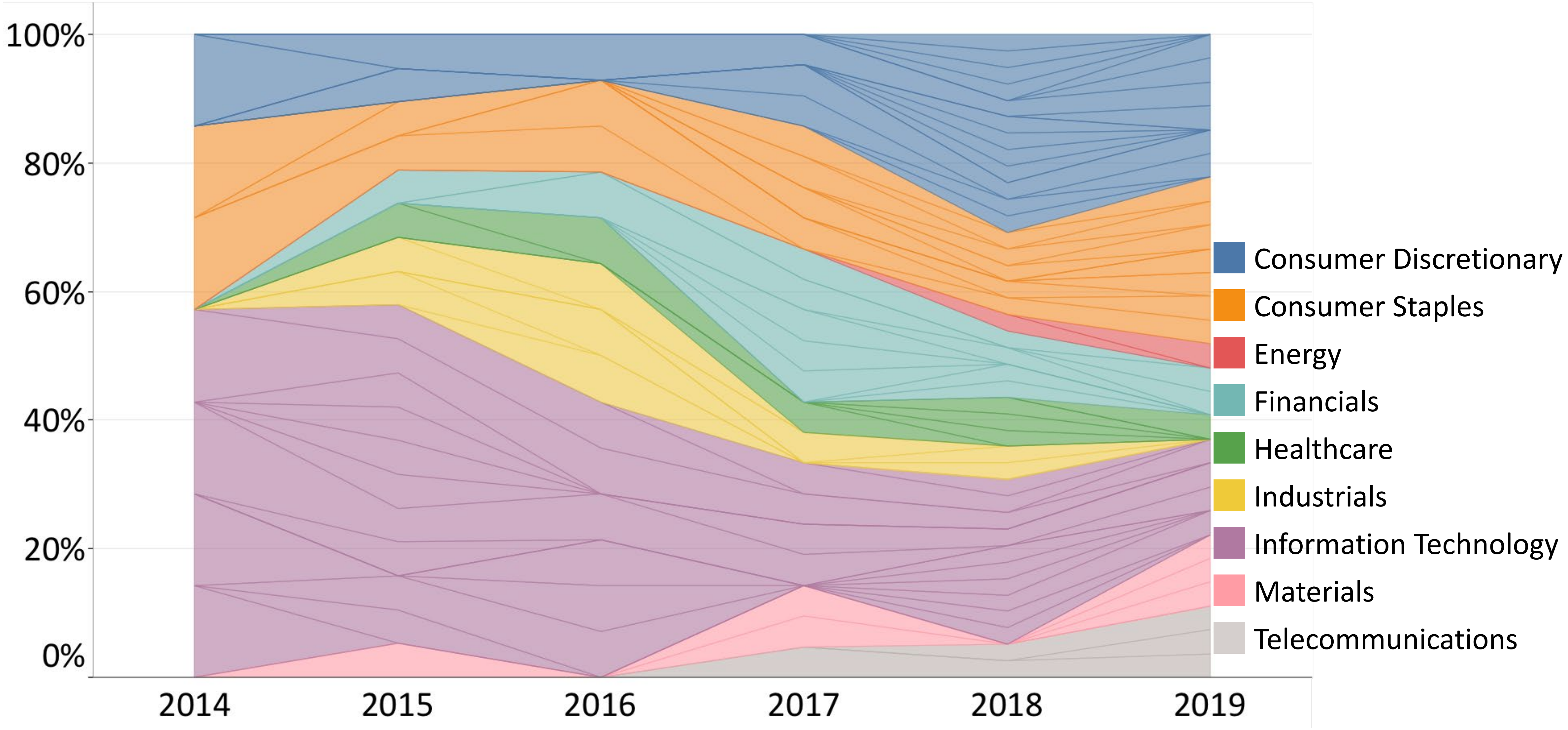
The total number of individual developer companies in 2019 YTD is 19

Annual unique buyers by industry segment



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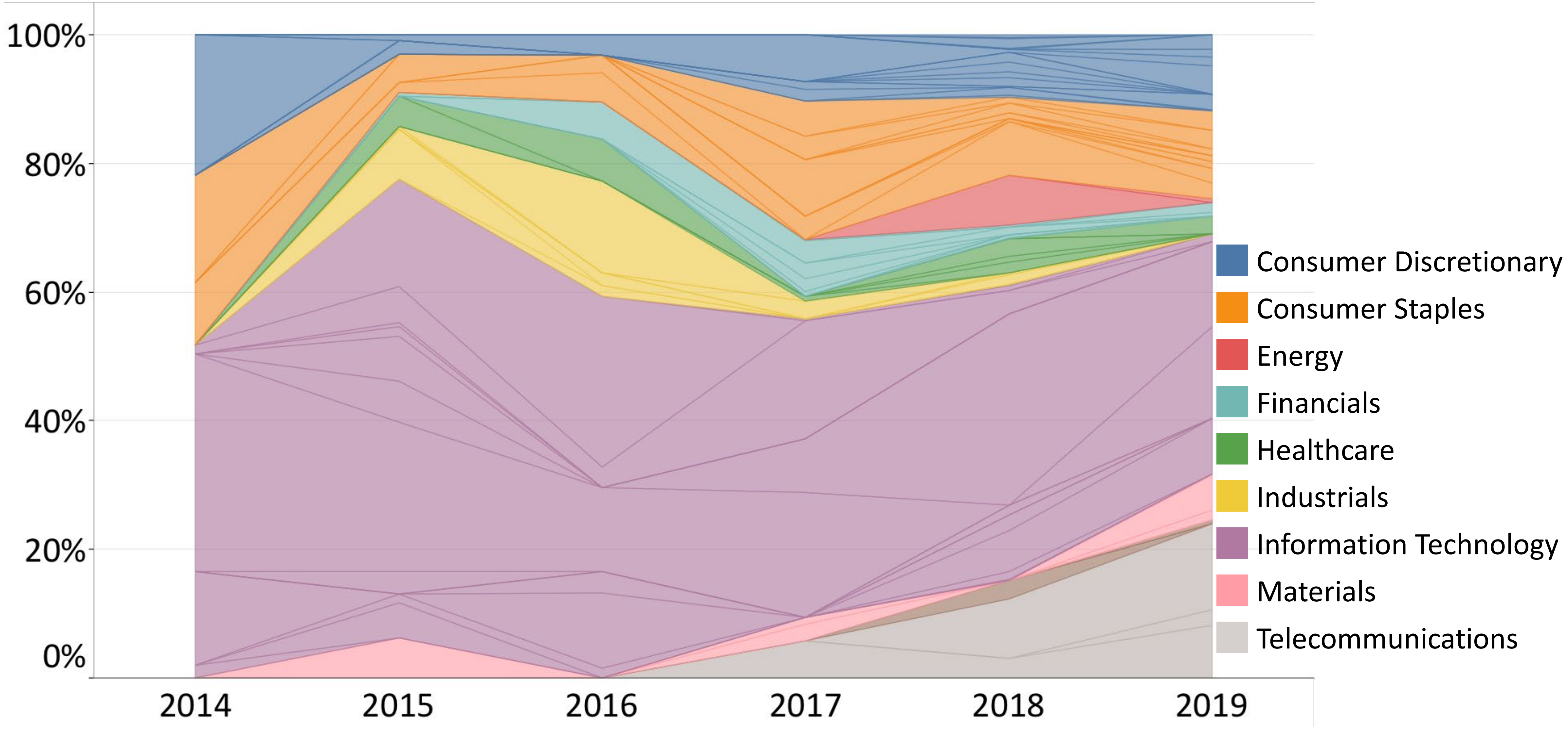
Project capacity by industry segment



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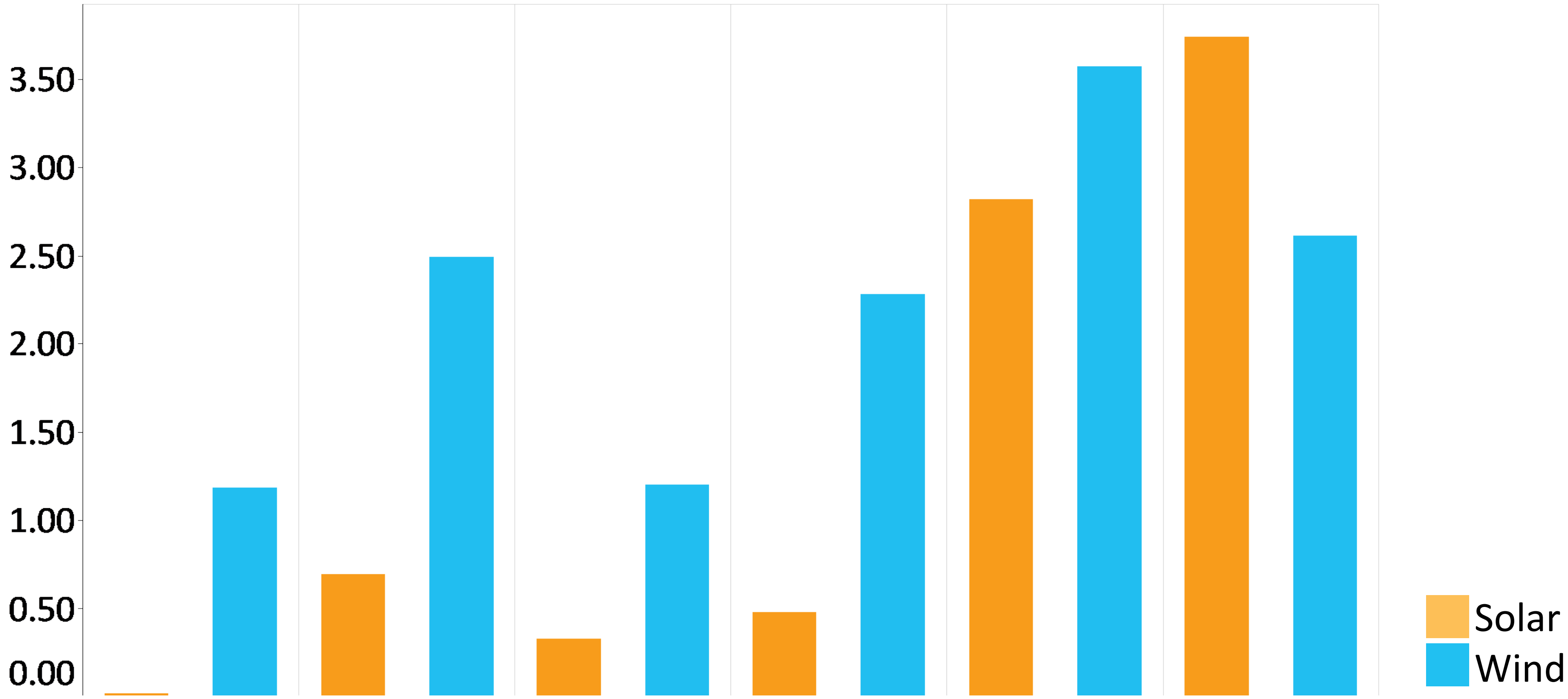
Technology evolution



**2019 does not include ~800 MWs of deals in which the technology is not known*

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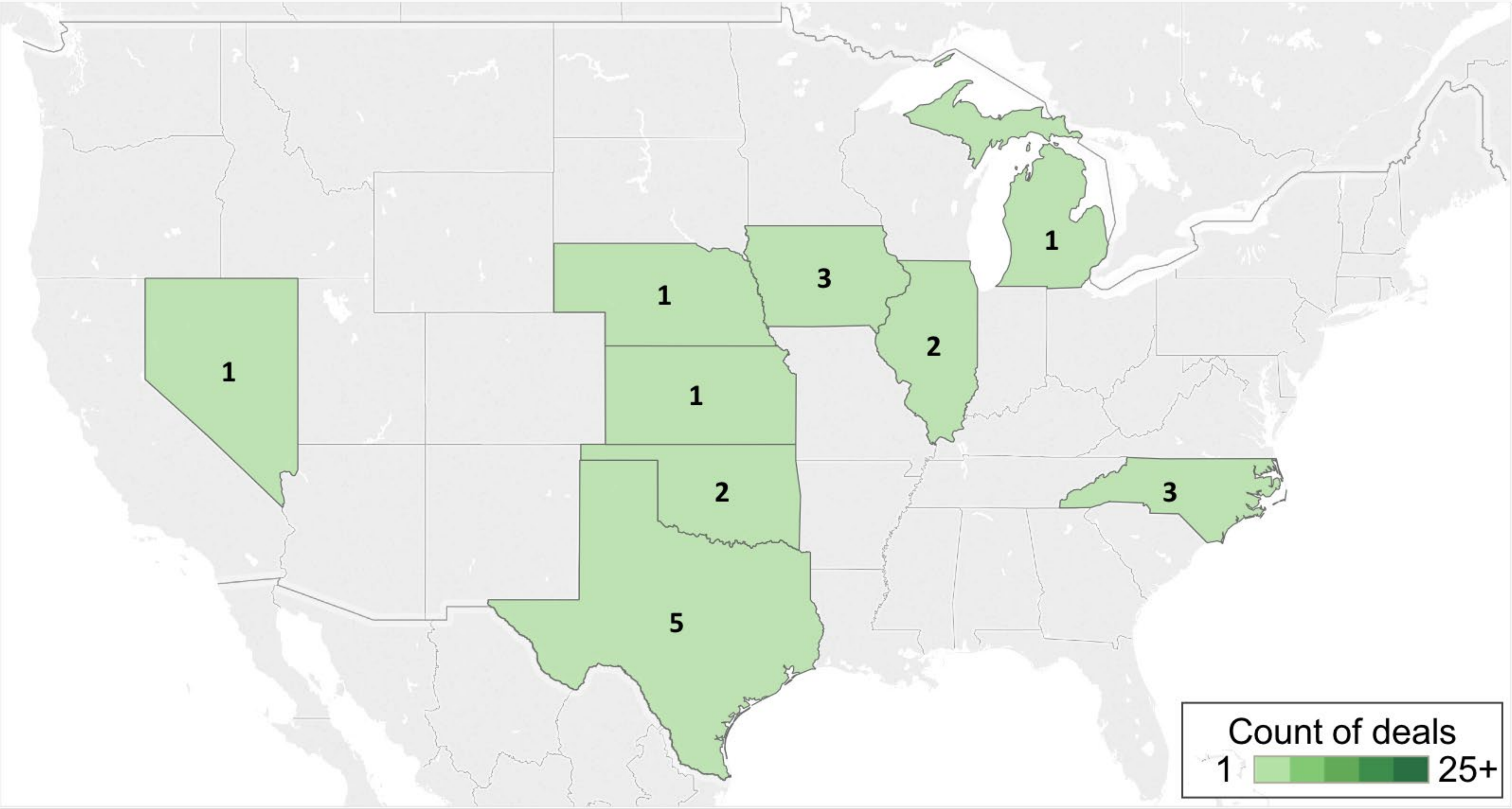
Nearly 2.2 GW of the over 3.7 GW of solar announced in 2019 has been in ERCOT.

Where are corporates signing deals? – until 2014



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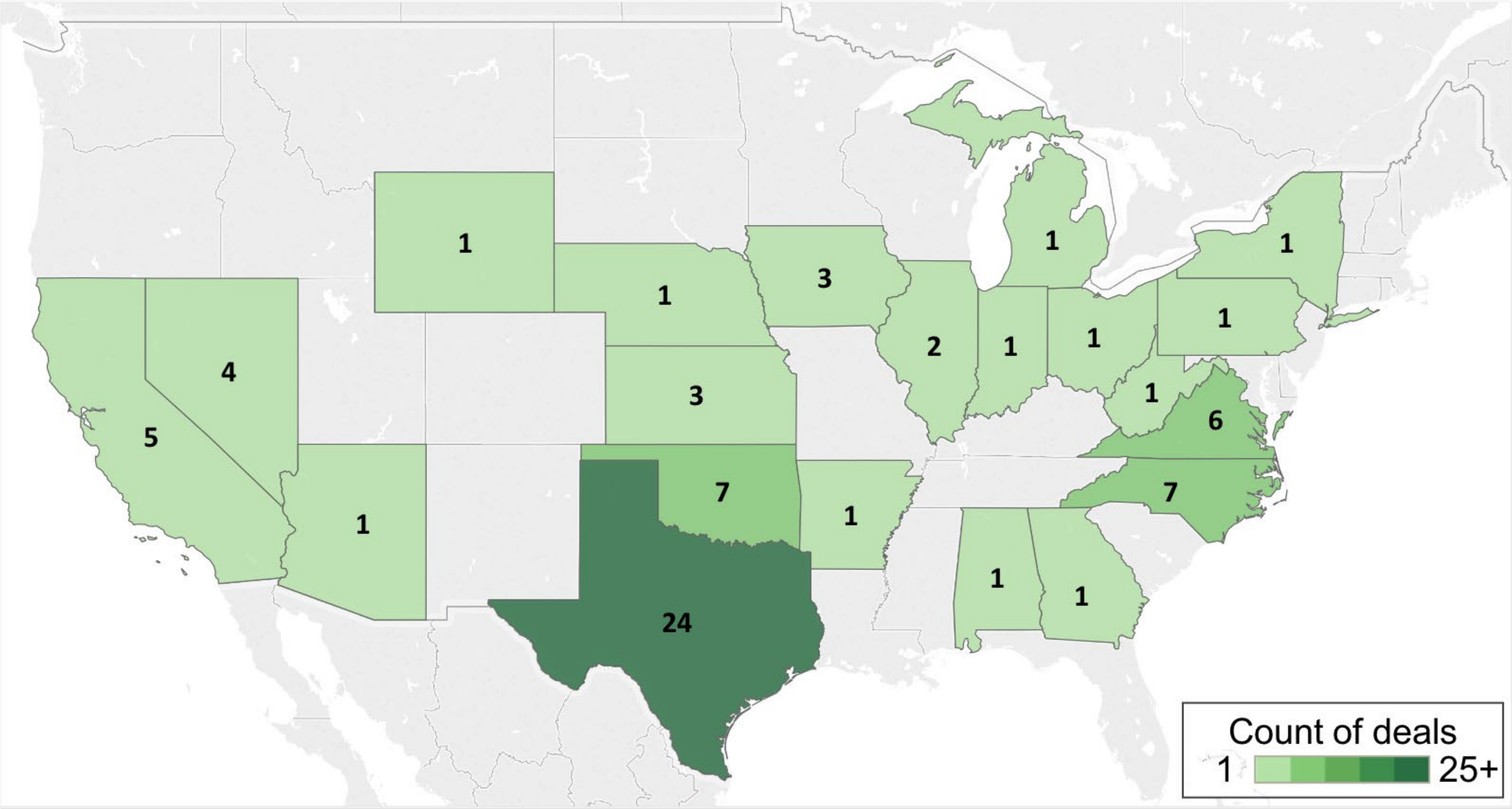
Where are corporates signing deals? – until 2016



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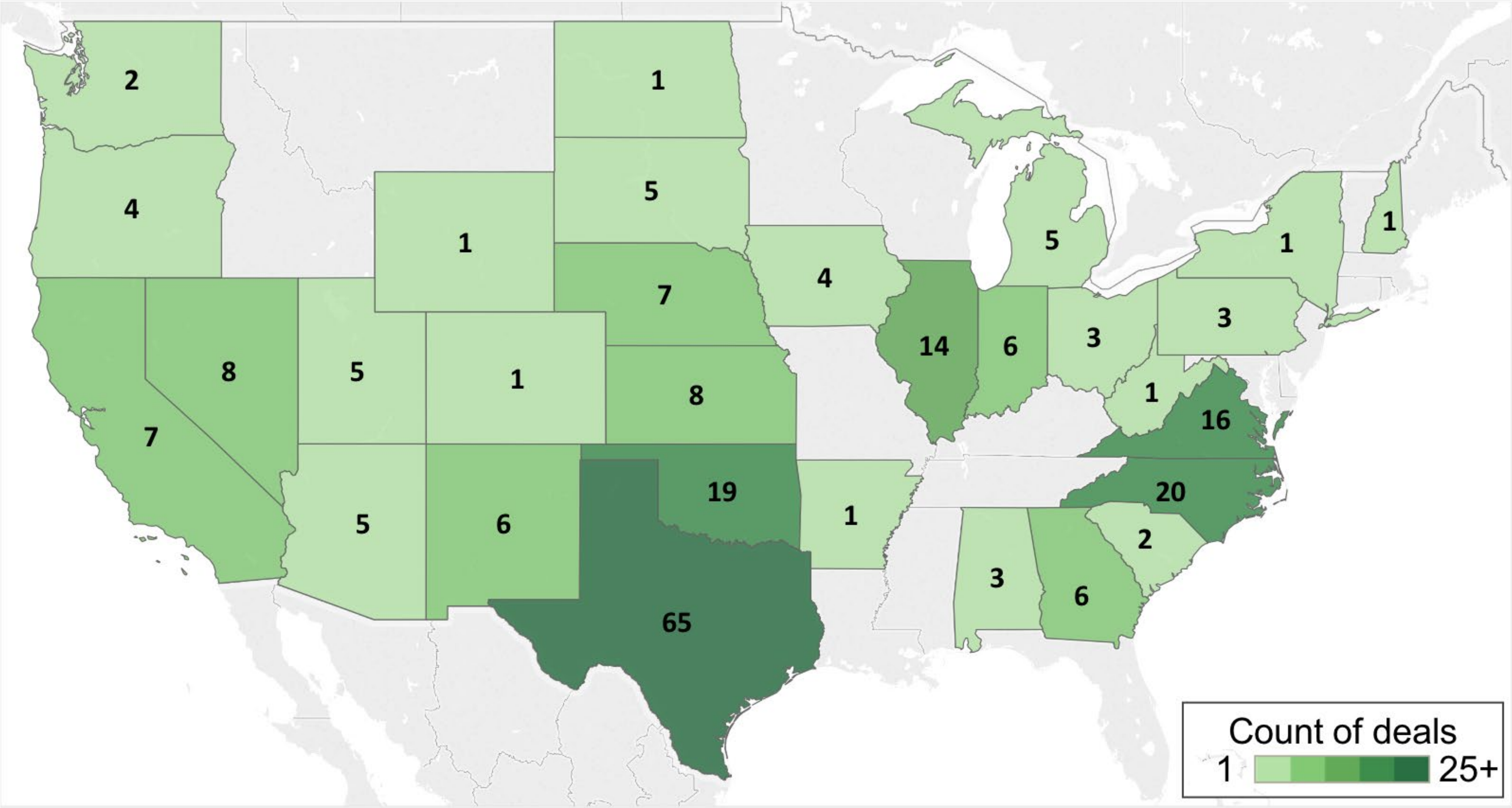
Where are corporates signing deals? – until 2019 YTD



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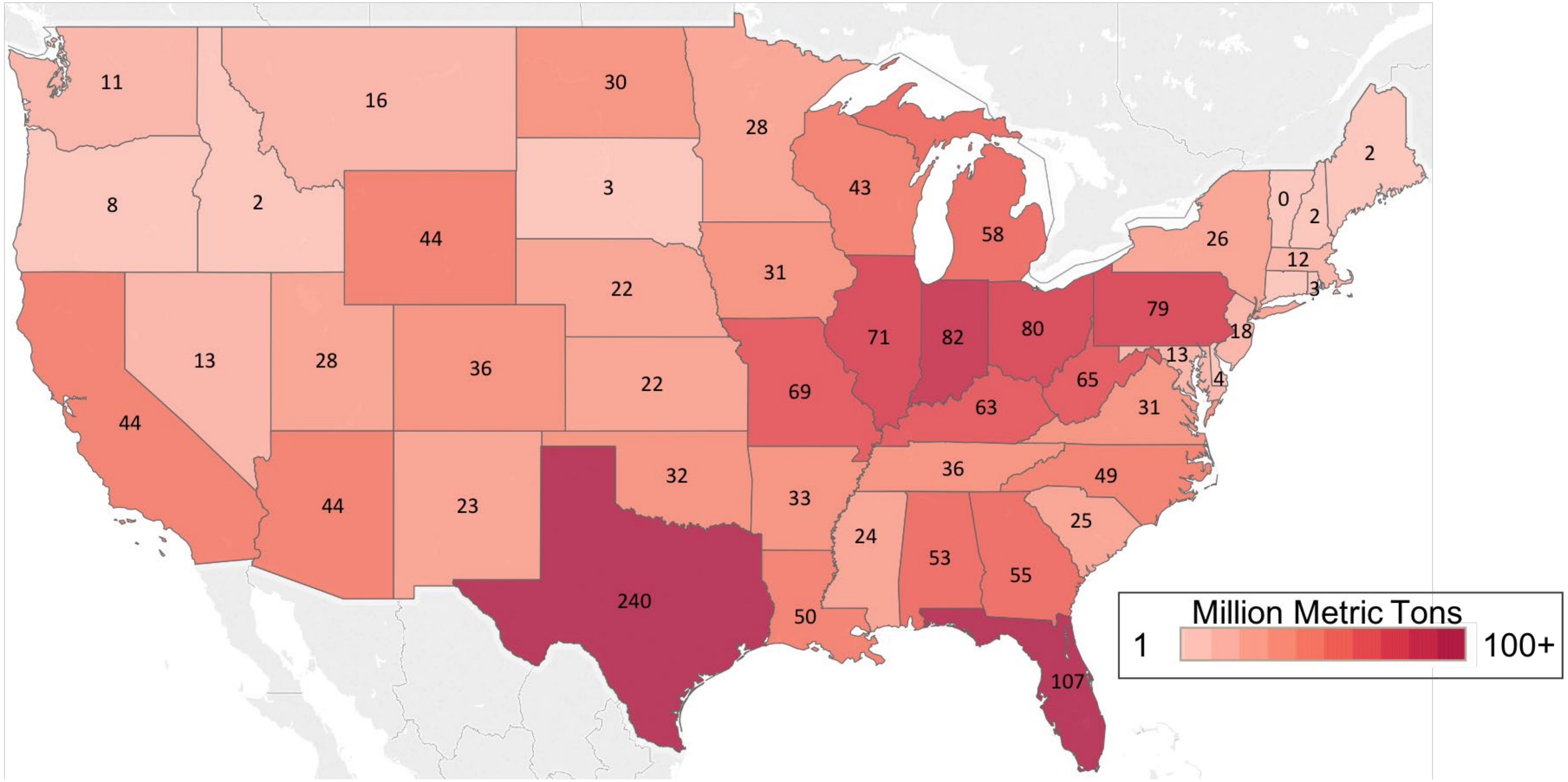
CO_2 emissions from electric power

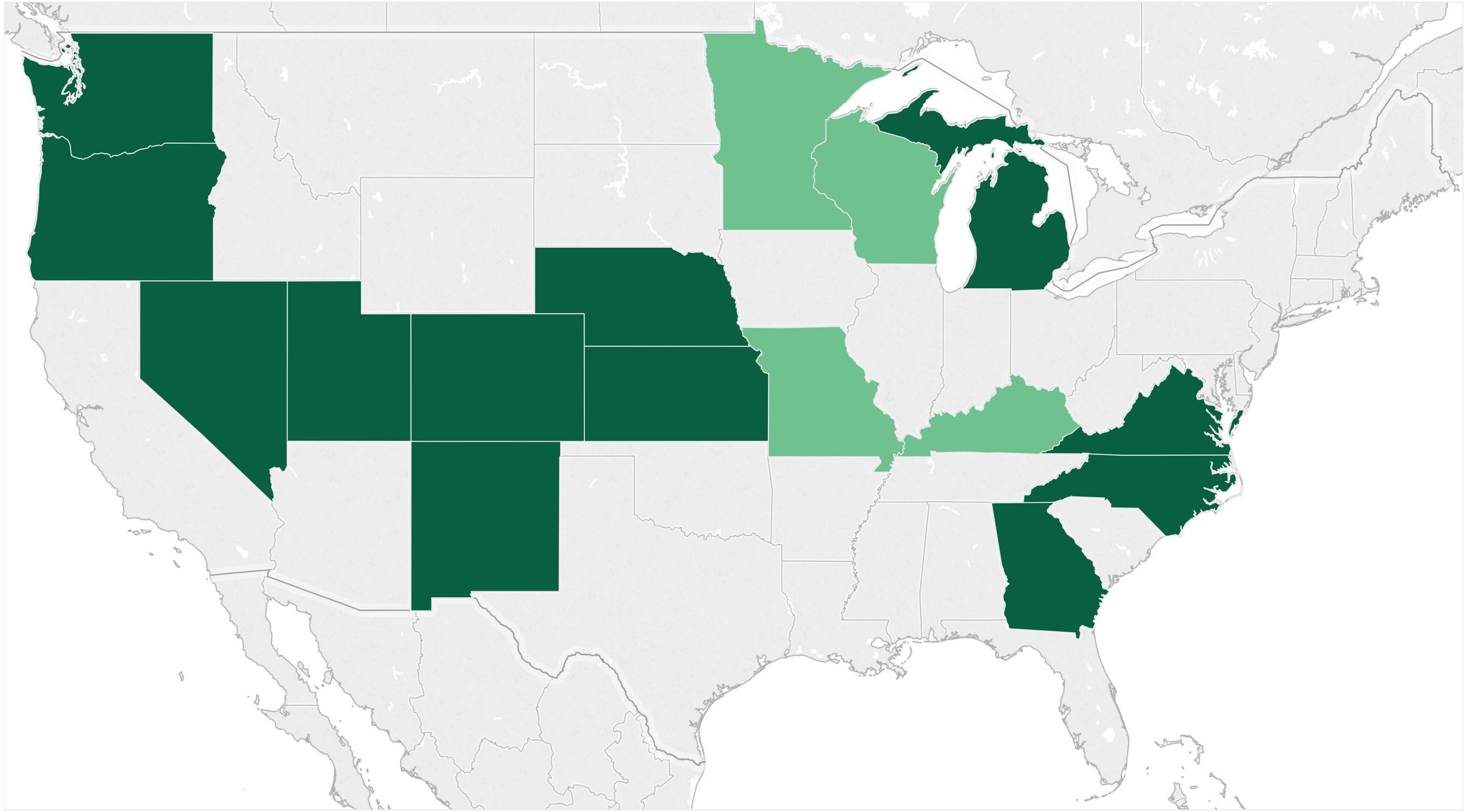


source: EIA

2017 Total Electric Power Industry data

As grid mix power moves toward lower-carbon generation resources, corporates will need to increasingly adjust procurement geographic to achieve desired GHG reduction impact.

States with green tariffs approved and used



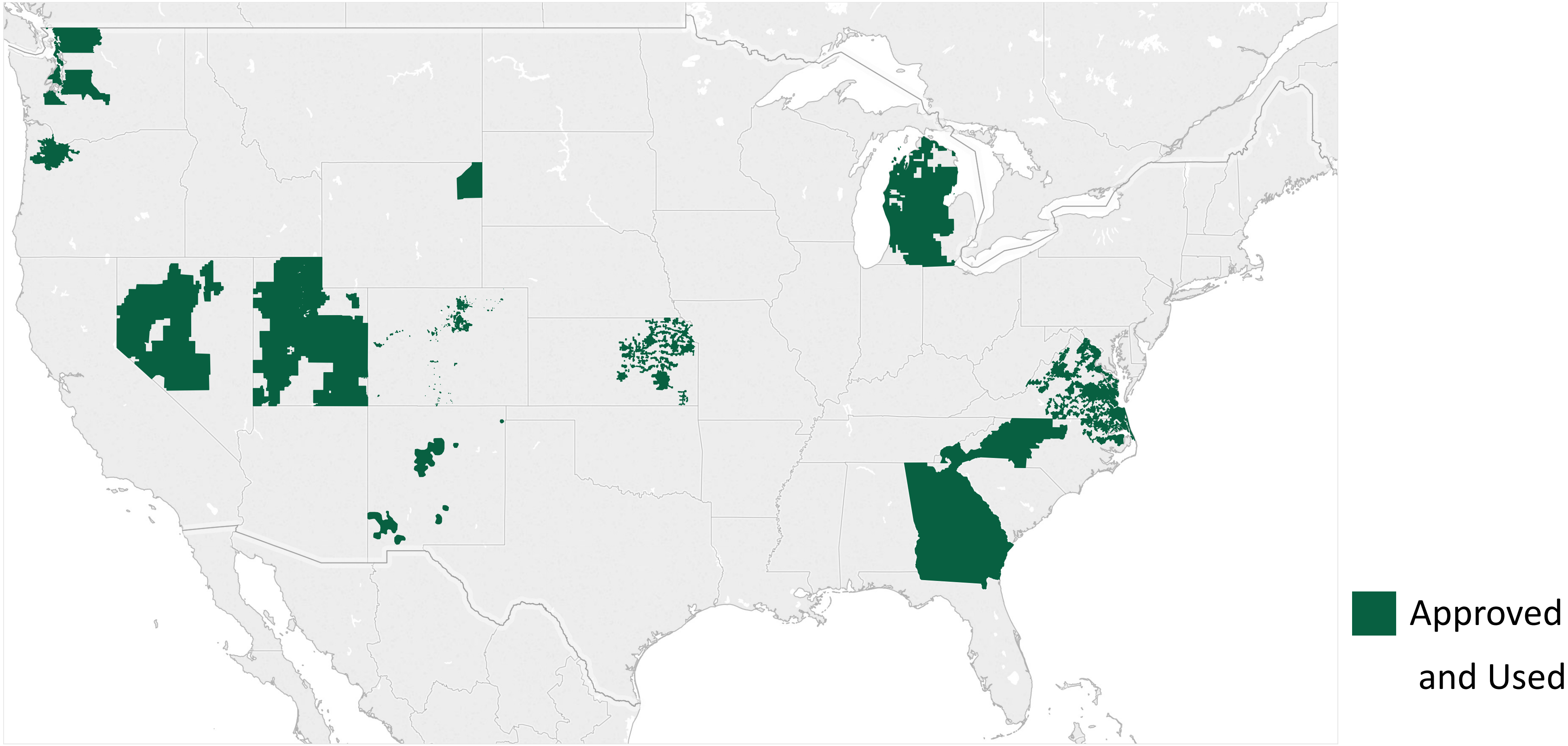
Approved

Approved and Used

Data only includes deals that involve build of new generation and corporate commitments

16 states have green tariffs available, only 12 have active customers.

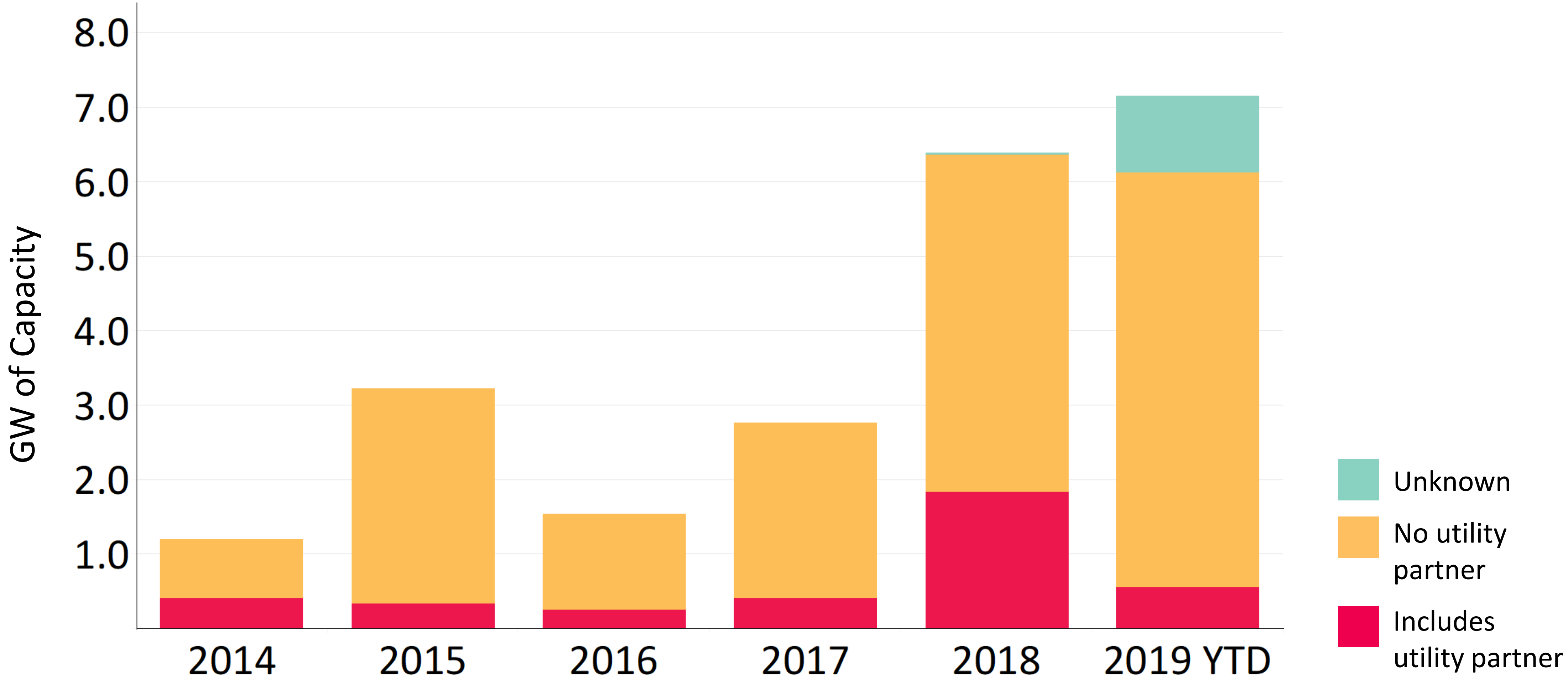
Utility service territories with PUC-approved green tariffs and executed corporate deals



Data only includes deals that involve build of new generation and corporate commitments

Narrowing deployed green tariffs to utility service territories further highlights their limited availability.

New renewables capacity by deal type



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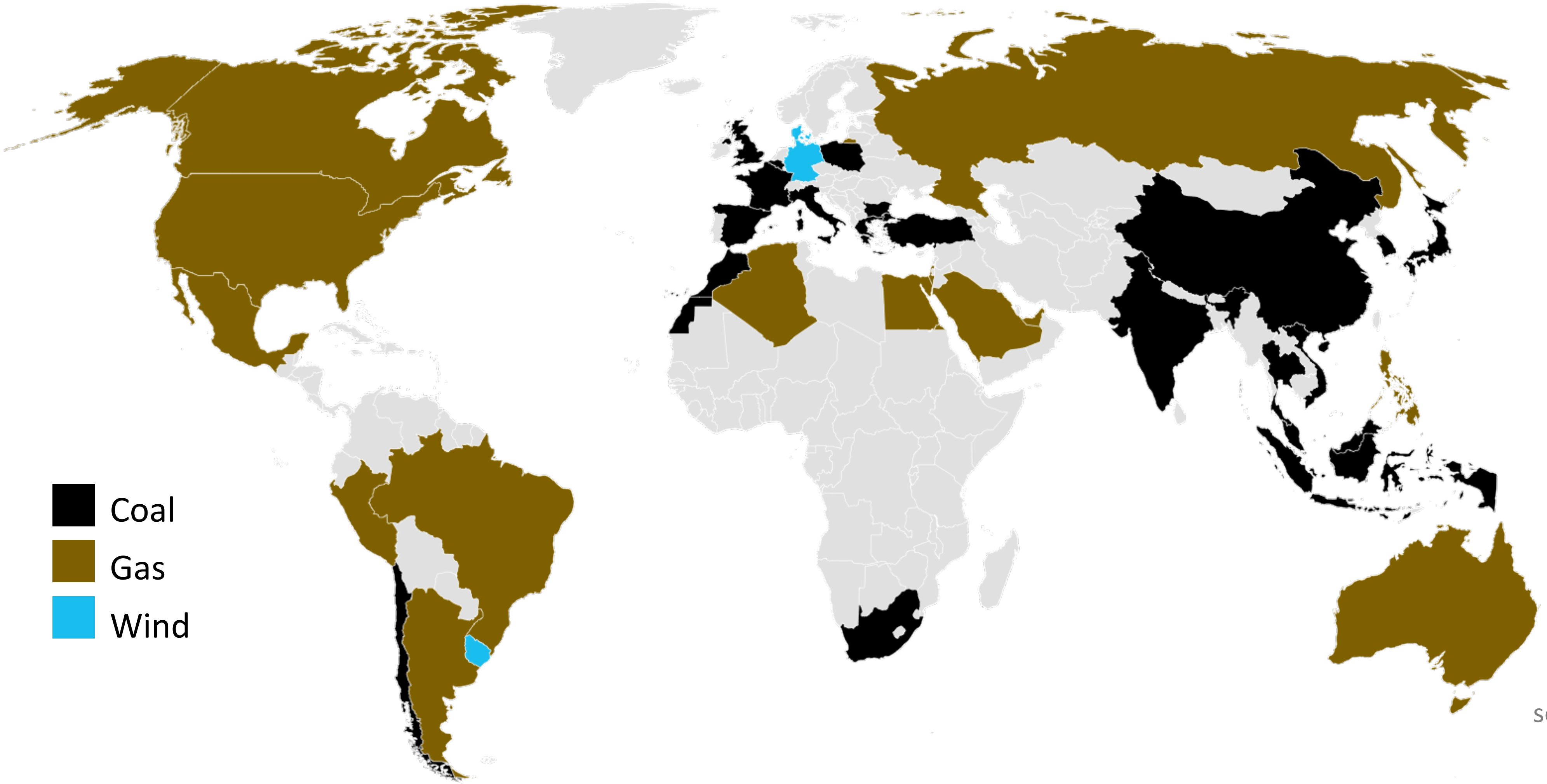
83% of corporate-backed renewable energy procurement (by capacity) does not include a utility partner.

MARKET OPPORTUNITY

Work together to collaborate with utilities and educate regulators

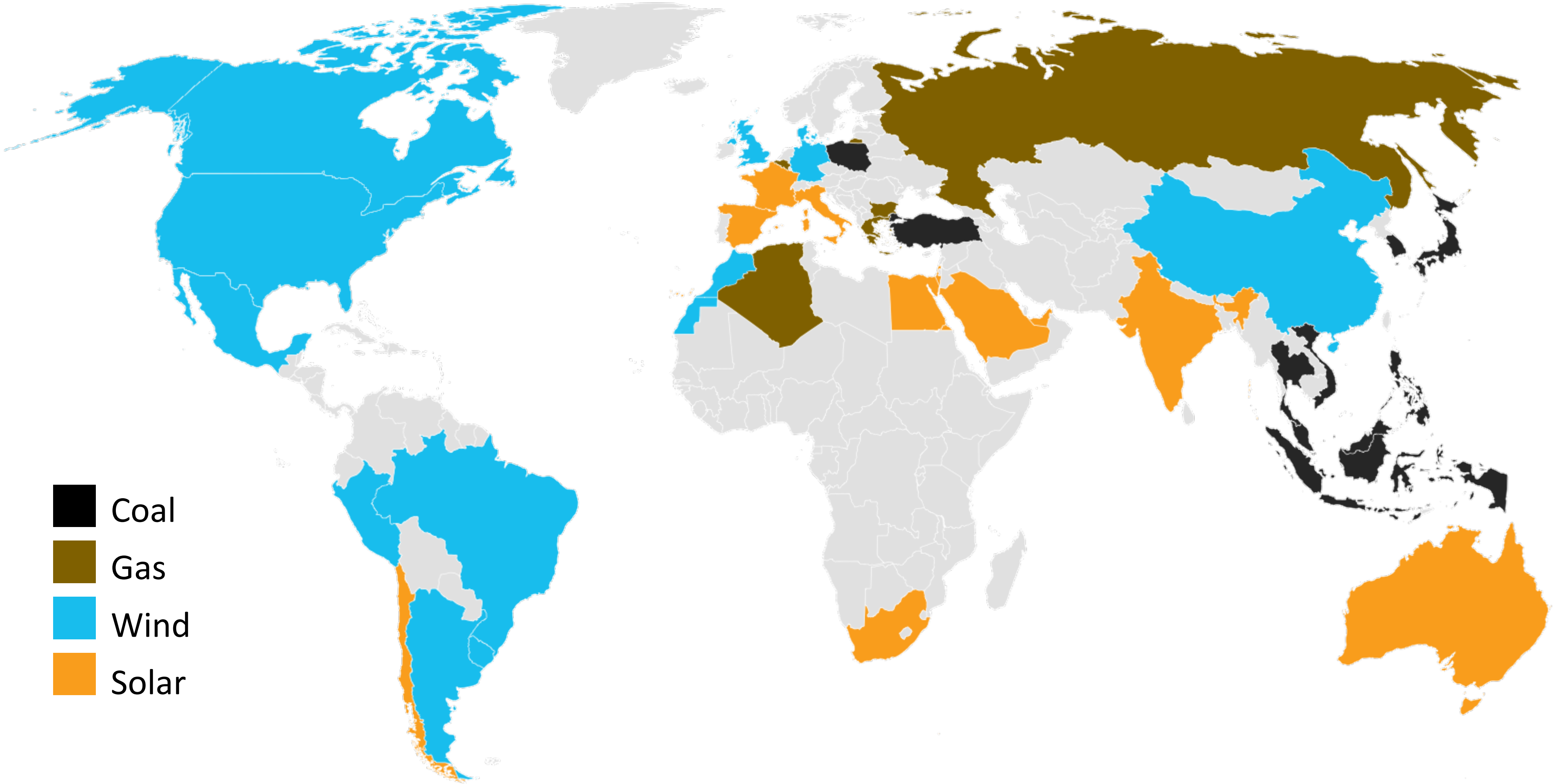
Lowest-cost energy generation technology by country – 2014



source: BNEF

Rapidly changing market conditions are enabling the shift to renewables.

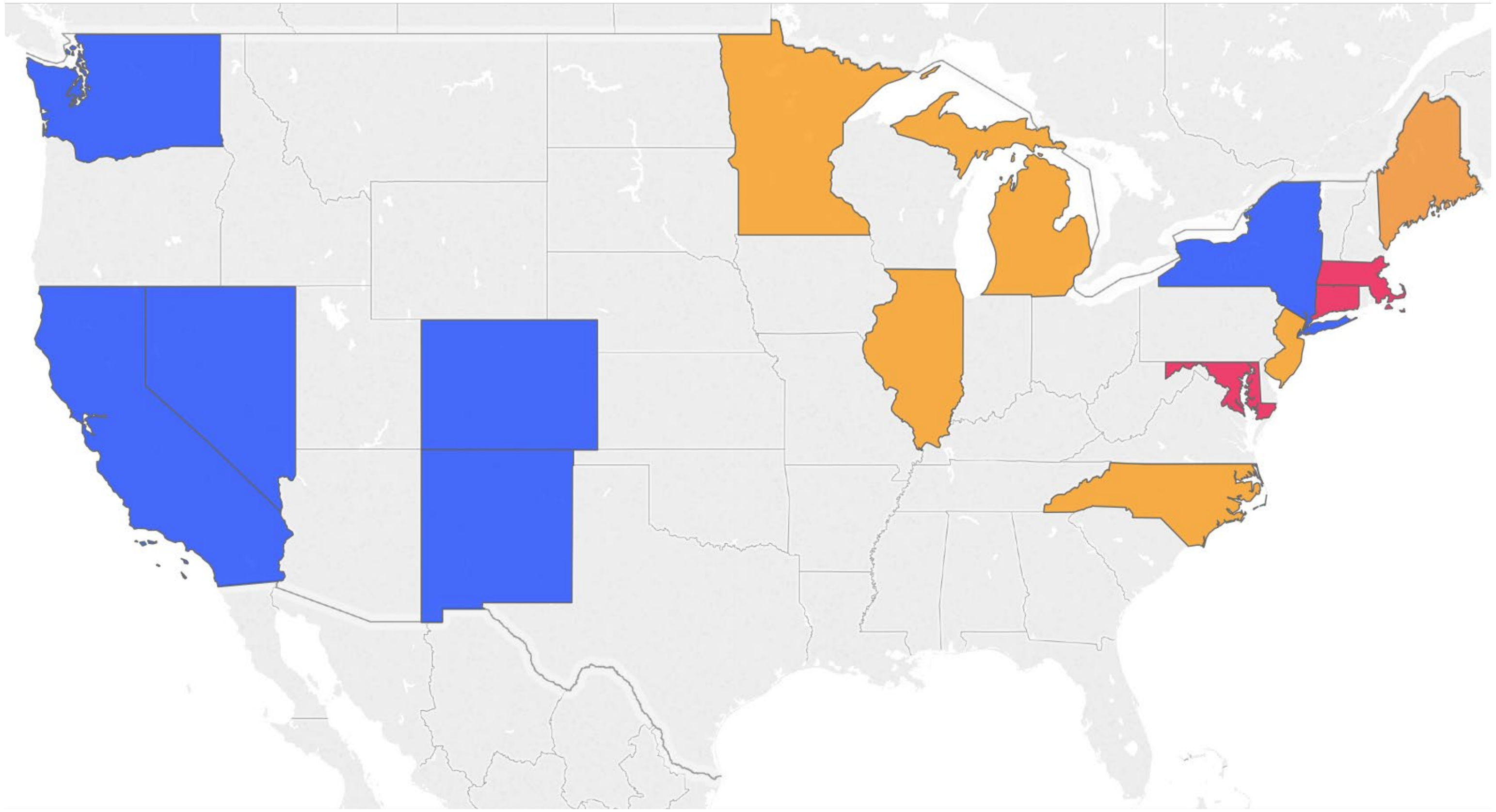
Lowest-cost energy generation technology by country – 2019



source: BNEF

Wind and solar power are now the lowest-cost generation options for much of the world.

State policy catching up with market dynamics



100% Clean Energy by Law

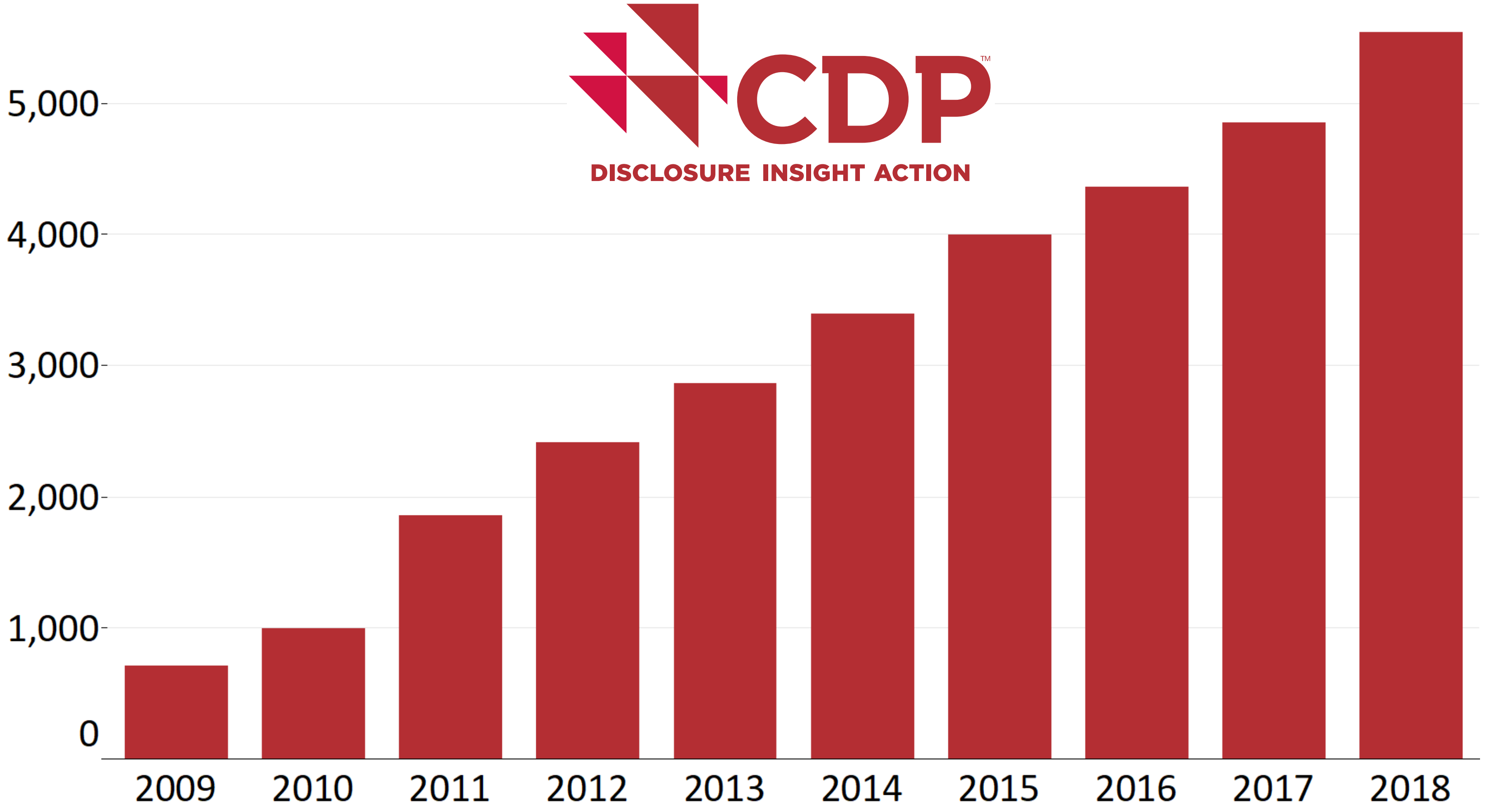
Governor Commitment to 100% Clean Energy

Recent Renewable Portfolio Standards Increases

Data from REBA Policy Team tracking

The buyers journey – addressing deeper decarbonization

Steady growth of companies disclosing to CDP Supply Chain Program

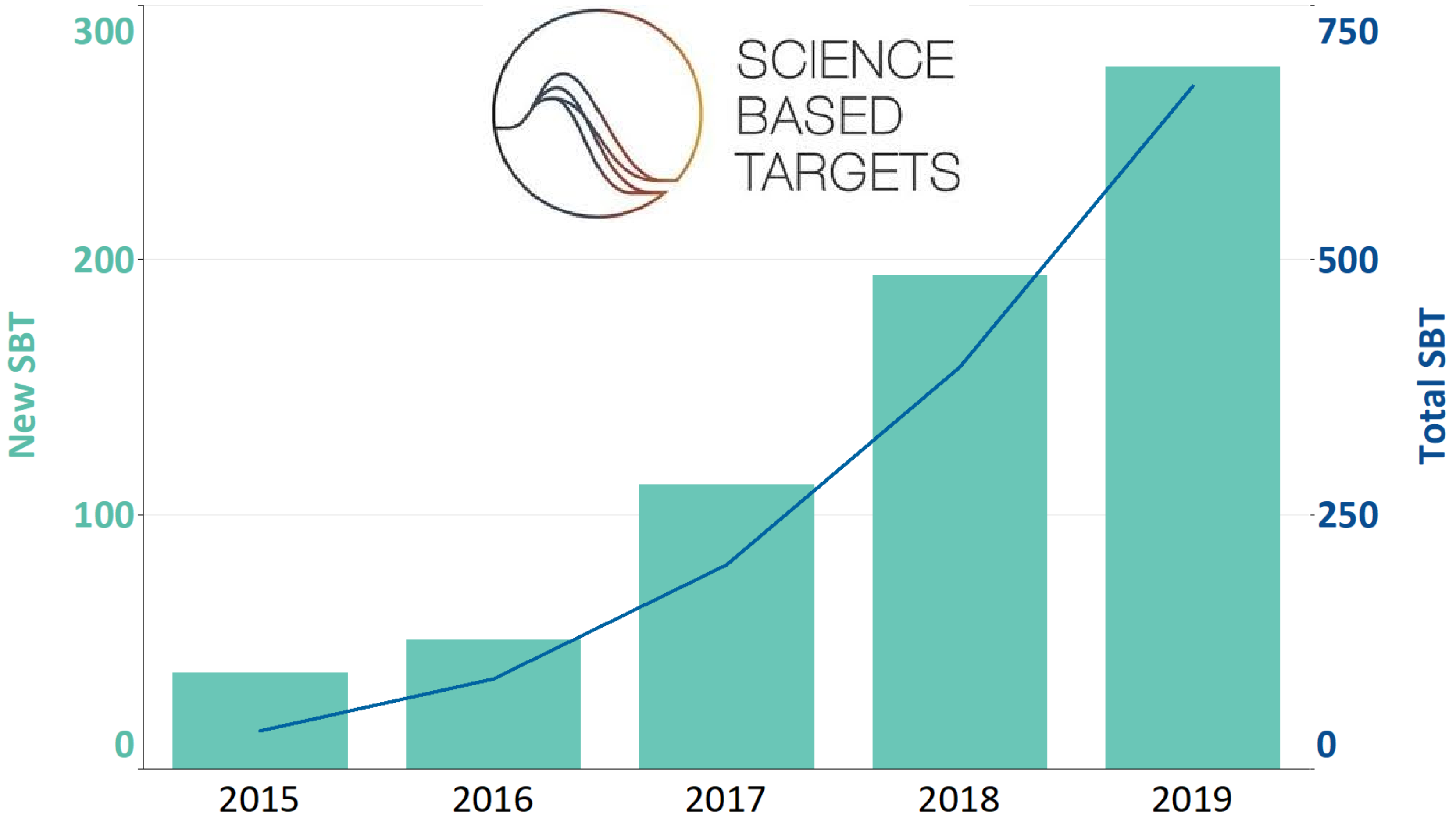


source: CDP

As companies decarbonize their direct operations, supply chains are increasingly becoming the next area of focus for reporting on sustainability metrics.

The buyers journey – accelerating commitments beyond direct operations

SBTs require Scope 3 focus

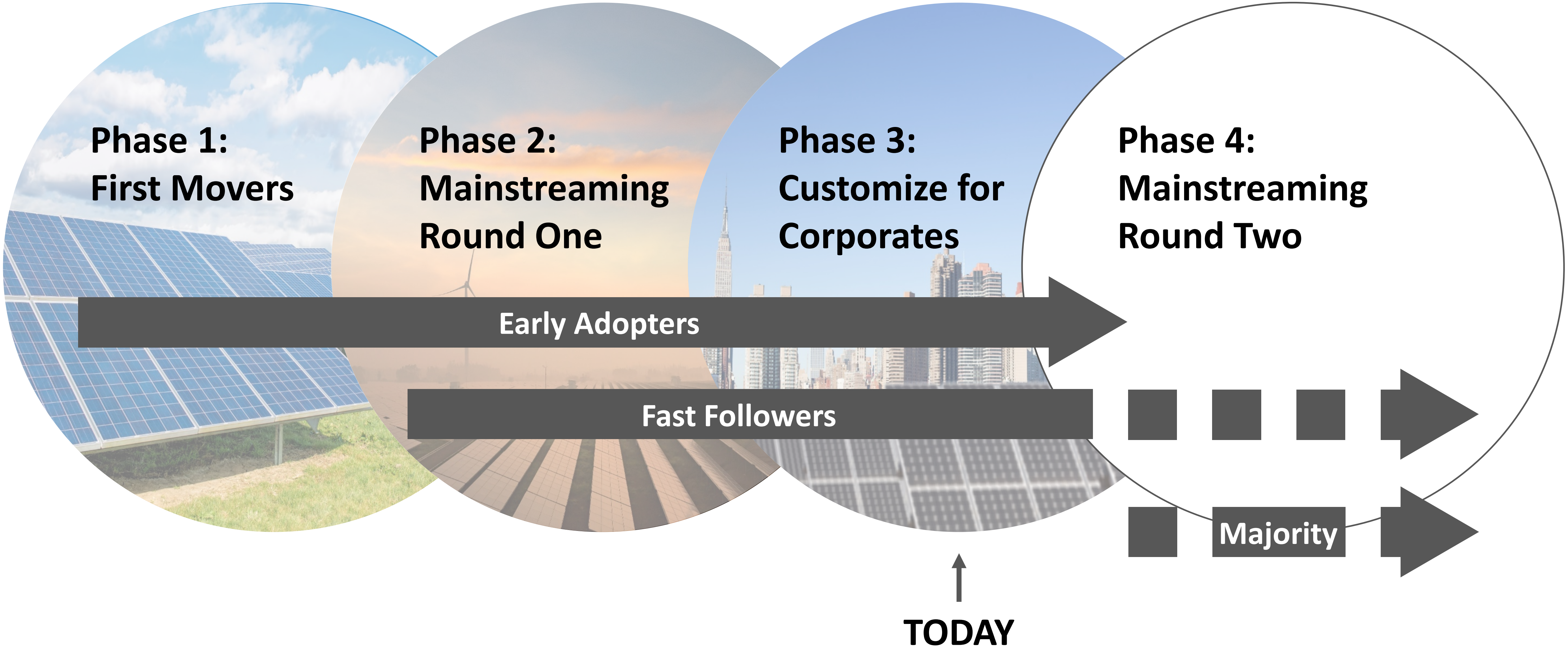


source: SBT

Supply chain reporting is also being translated into commitments, as increasing numbers of companies are setting Science Based Targets which include a Scope 3 emissions focus.

Where to go from here?

The evolution of corporate renewables



Contact

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