

FEBRUARY 16, 2021

# Building Broad Community Consensus for Climate Action

**International Energy Agency | CERT**  
The role of 'Behavioural aspects' for  
reaching net zero emissions by 2050

April Salas | Revers Center for Energy | Tuck School of Business



BRIEFING ROOM

# Paris Climate Agreement

JANUARY 20, 2021 • STATEMENTS AND RELEASES

# We're back!

The US officially committed to  
rejoining the Paris Climate Accords  
on January 20, 2021



## ACCEPTANCE ON BEHALF OF THE UNITED STATES OF AMERICA

I, Joseph R. Biden Jr., President of the United States of America, having seen and considered the Paris Agreement, done at Paris on December 12, 2015, do hereby accept the said Agreement and every article and clause thereof on behalf of the United States of America.

Done at Washington this 20th day of January, 2021.

JOSEPH R. BIDEN JR.

## ENVIRONMENTAL REGULATIONS

64+ rollbacks from  
prior administration

## OFFSHORE DRILLING

including oil pipelines  
and drilling on federal  
lands

## ENERGY INDEPENDENCE

withdraw from Paris  
Climate Accords and  
stop contributions  
towards UN anti-  
global warming

## AMERICA FIRST ENERGY PLAN

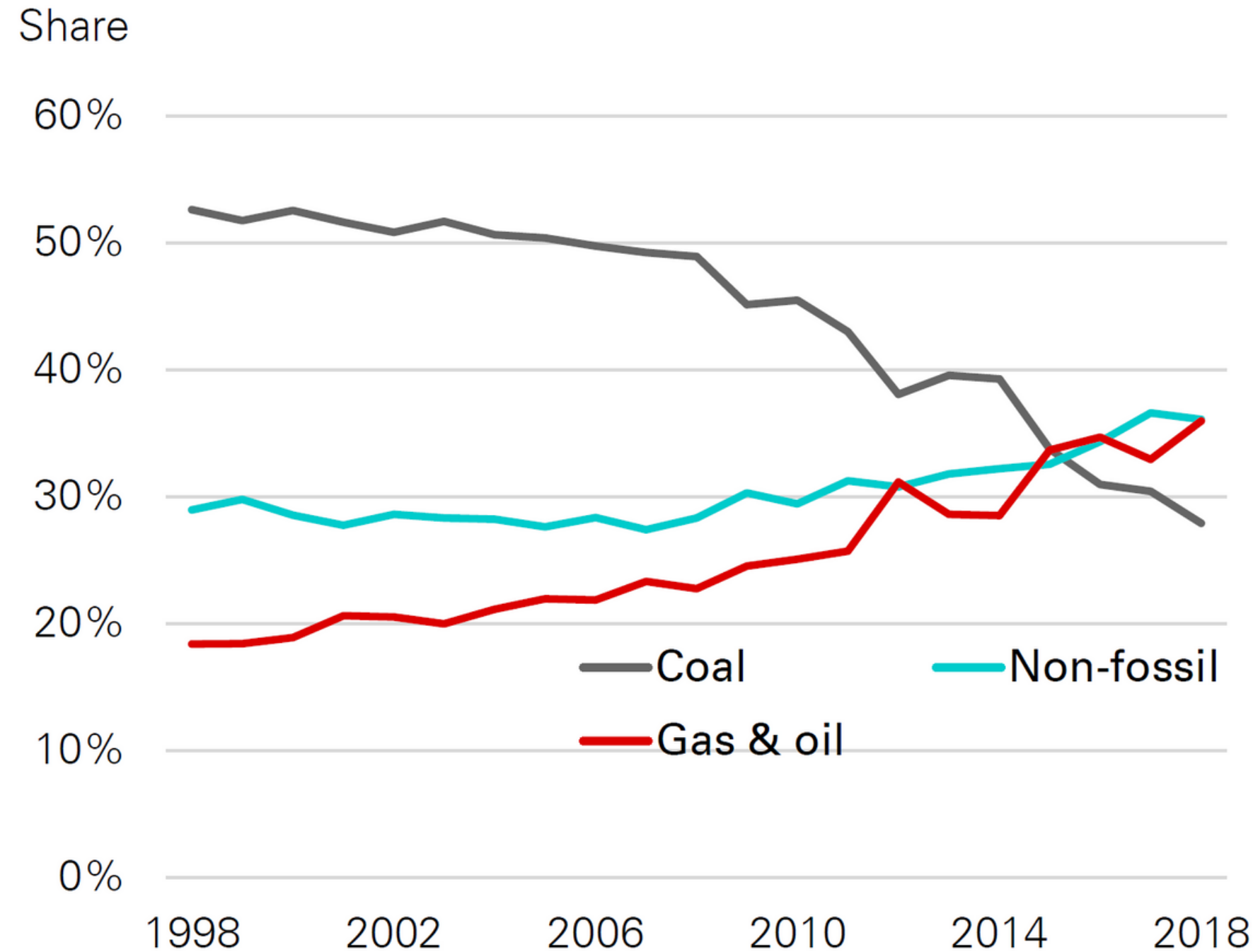
clean power plan and  
vehicle emissions  
standards

**US SOLAR  
INDUSTRY  
ADDED JOBS  
AT 5X THE  
NATIONAL  
AVERAGE  
~SEIA**

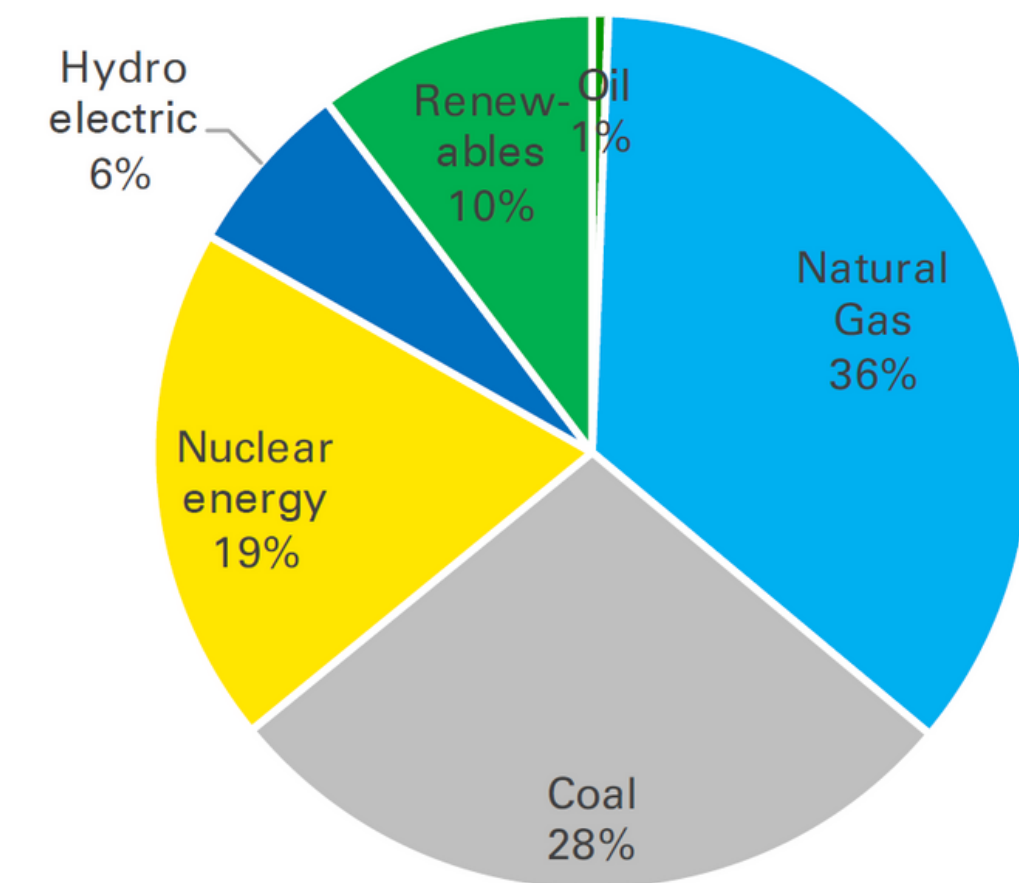
# Renewables, gas have helped decarbonize the US



Coal's share of the power mix is half of what it was in the 1980s



2018: US Power Mix





# Energy Trends

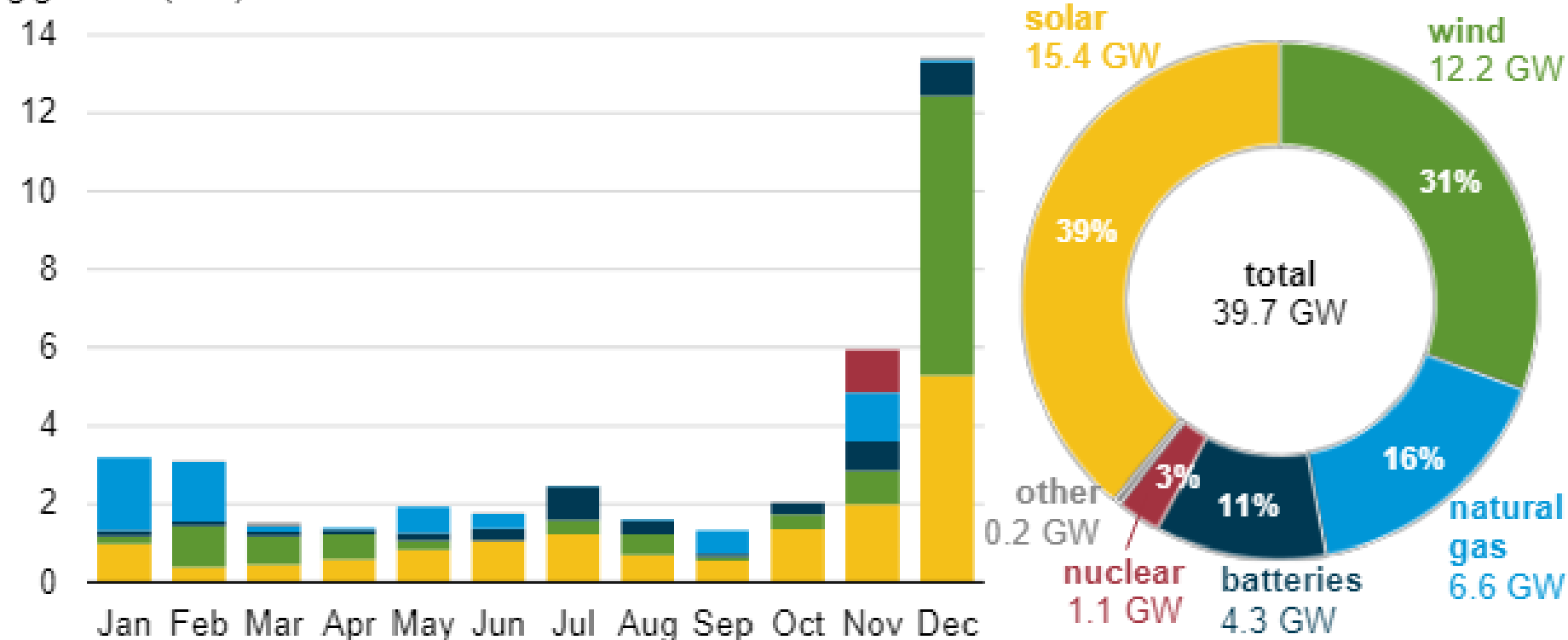
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What does the data in the US suggest that we can expect?

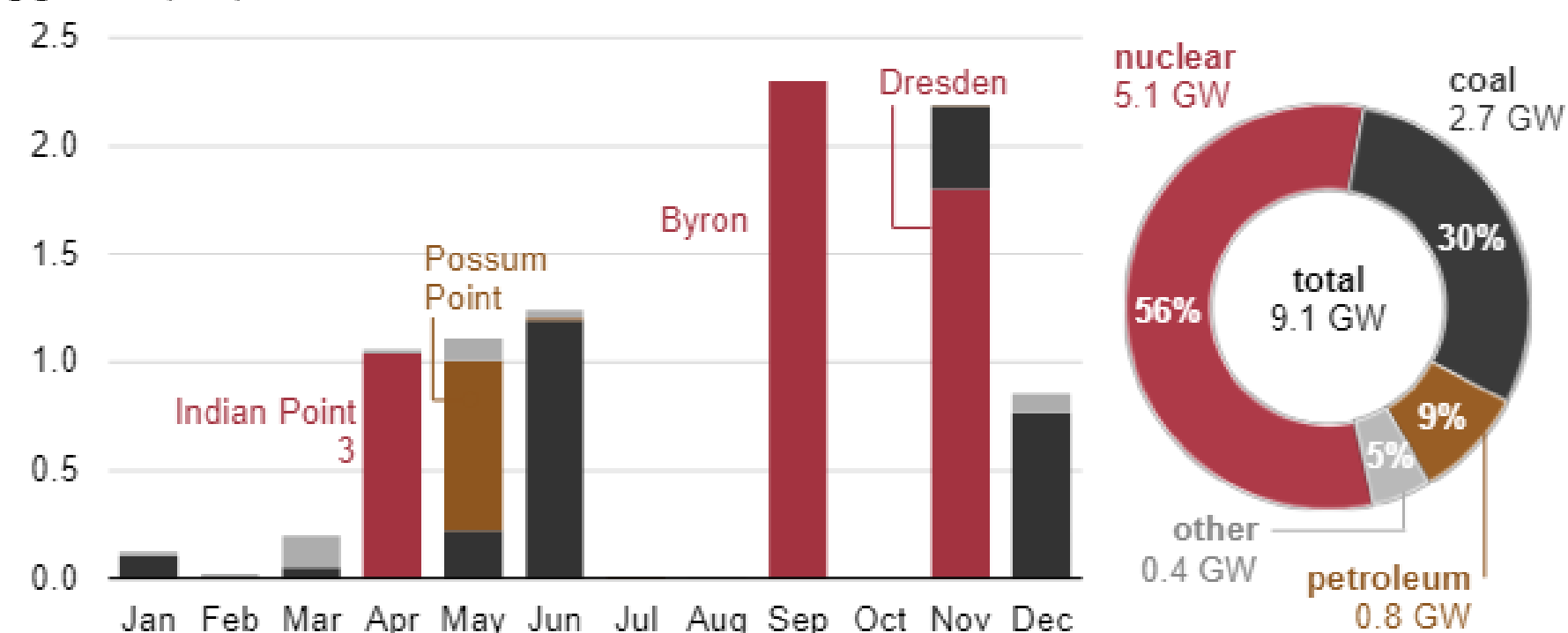
## Top Line

Renewable capacity additions are outpacing fossil capacity additions, and fossils are retiring at a more rapid rate than renewables

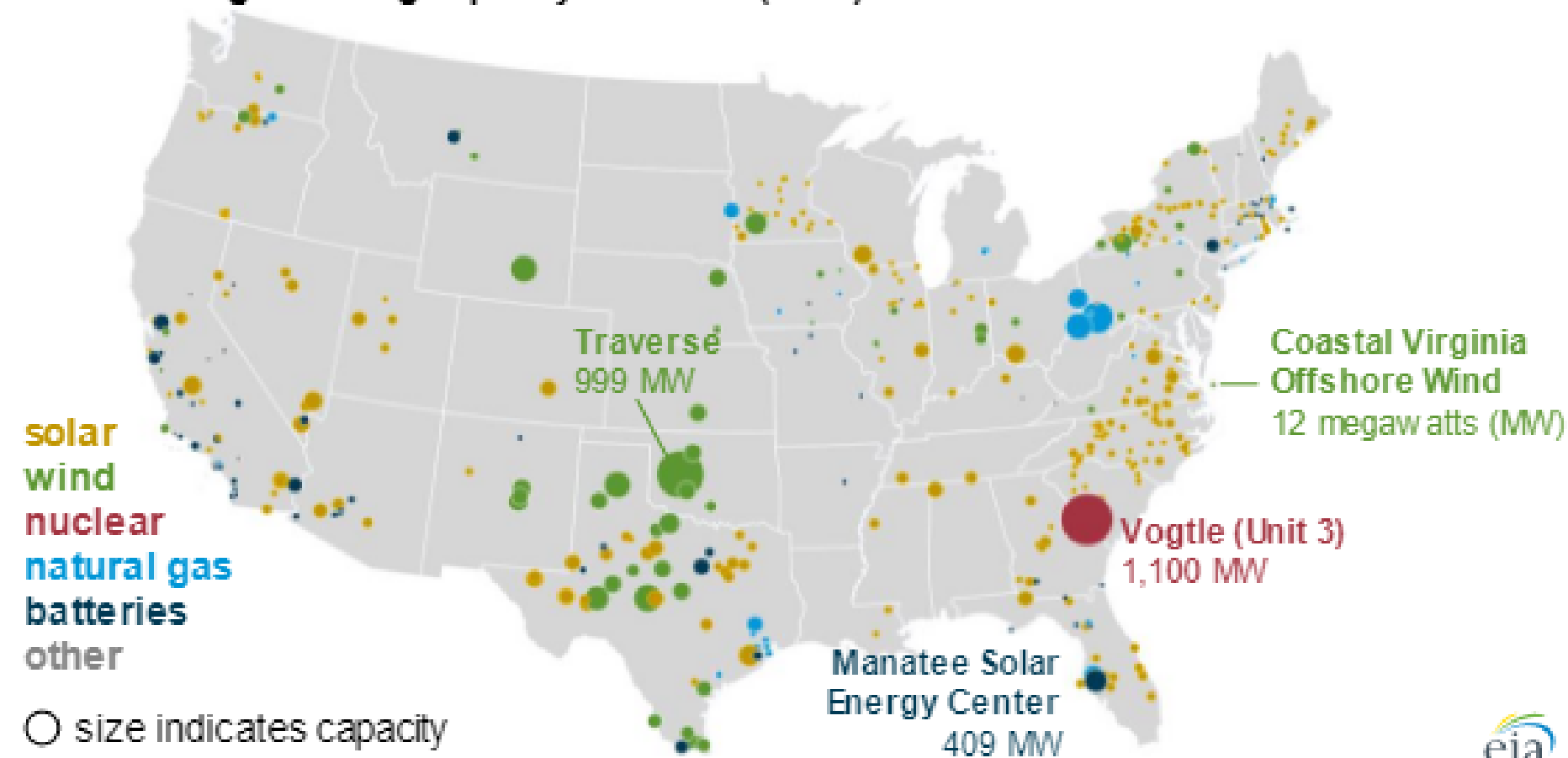
Planned U.S. utility-scale electricity generating capacity additions (2021)  
gigawatts (GW)



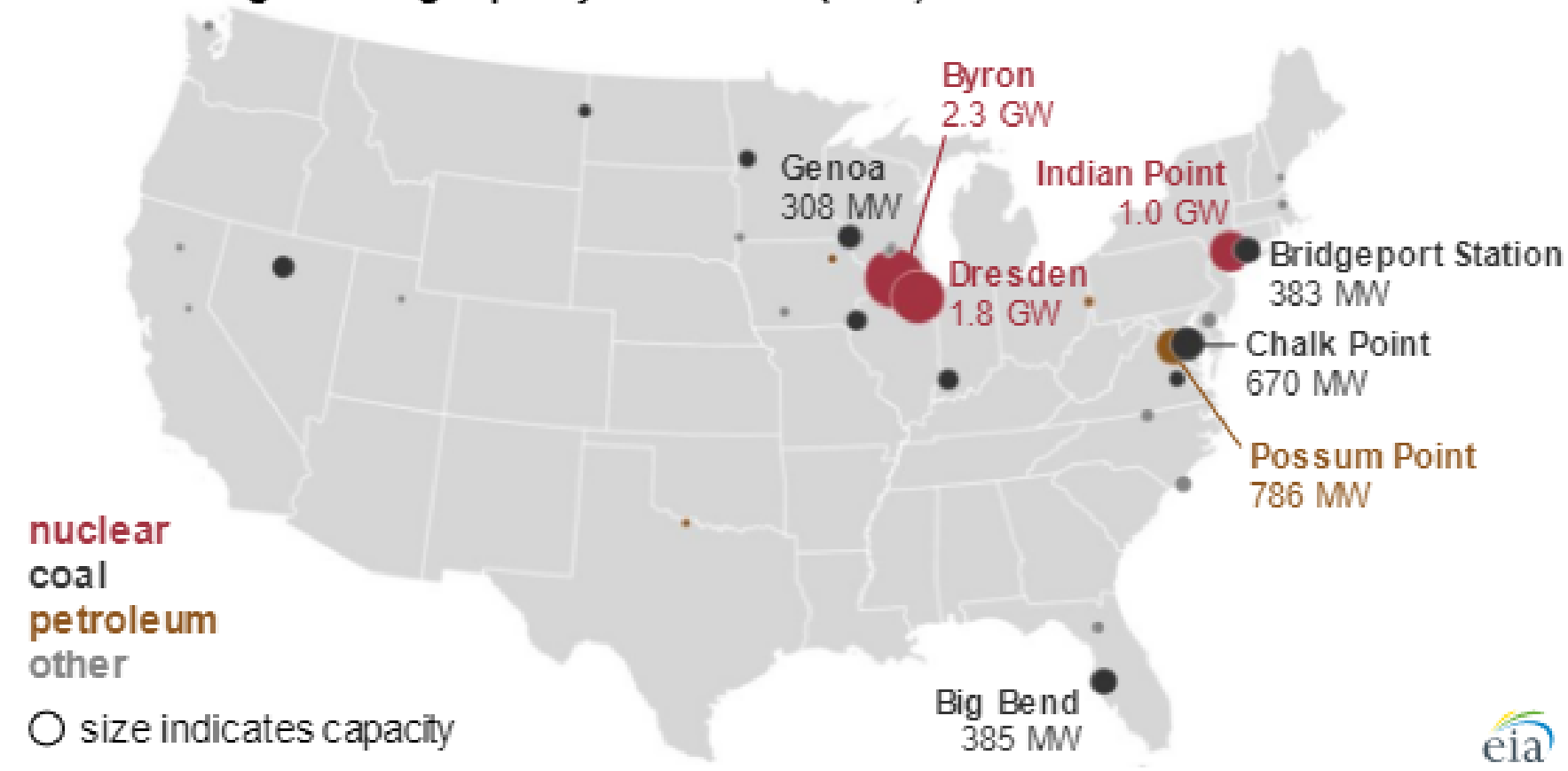
Planned U.S. electric generating capacity retirements (2021)  
gigawatts (GW)



U.S. electric generating capacity additions (2021)



U.S. electric generating capacity retirements (2021)





# There are a "new" set of actors

## Deployment Led Innovation

States, cities, towns, individuals and corporations see a whole new way to 1) participate, and 2) lead in the transition ...





# Cities

## Leading the Way...

New York is the fourth most populous state in the US and its third-largest economy. Now it is poised to adopt the country's most ambitious climate targets, including 100 percent carbon-free electricity by 2040 and economy-wide, net-zero carbon emissions by 2050.

In passing bold climate legislation, New York will follow in the footsteps of Maine, Oregon, Washington, Colorado, New Mexico, California, and New Jersey, all of which have passed substantive clean energy policies in the past year or so. (Hawaii has had its 100 percent renewables target in place since 2015.)

### New York just passed the most ambitious climate target in the country

Carbon-free electricity by 2040 and a net-zero carbon economy by 2050.

By David Roberts | @drvox | david@vox.com | Updated Jul 22, 2019, 8:56am EDT

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[Sinatra singing here] | Shutterstock

**MOST READ**



<https://www.gov.ca.gov/2020/09/23/governor-newsom-announces-california-will-phase-out-gasoline-powered-cars-drastically-reduce-demand-for-fossil-fuel-in-californias-fight-against-climate-change/>



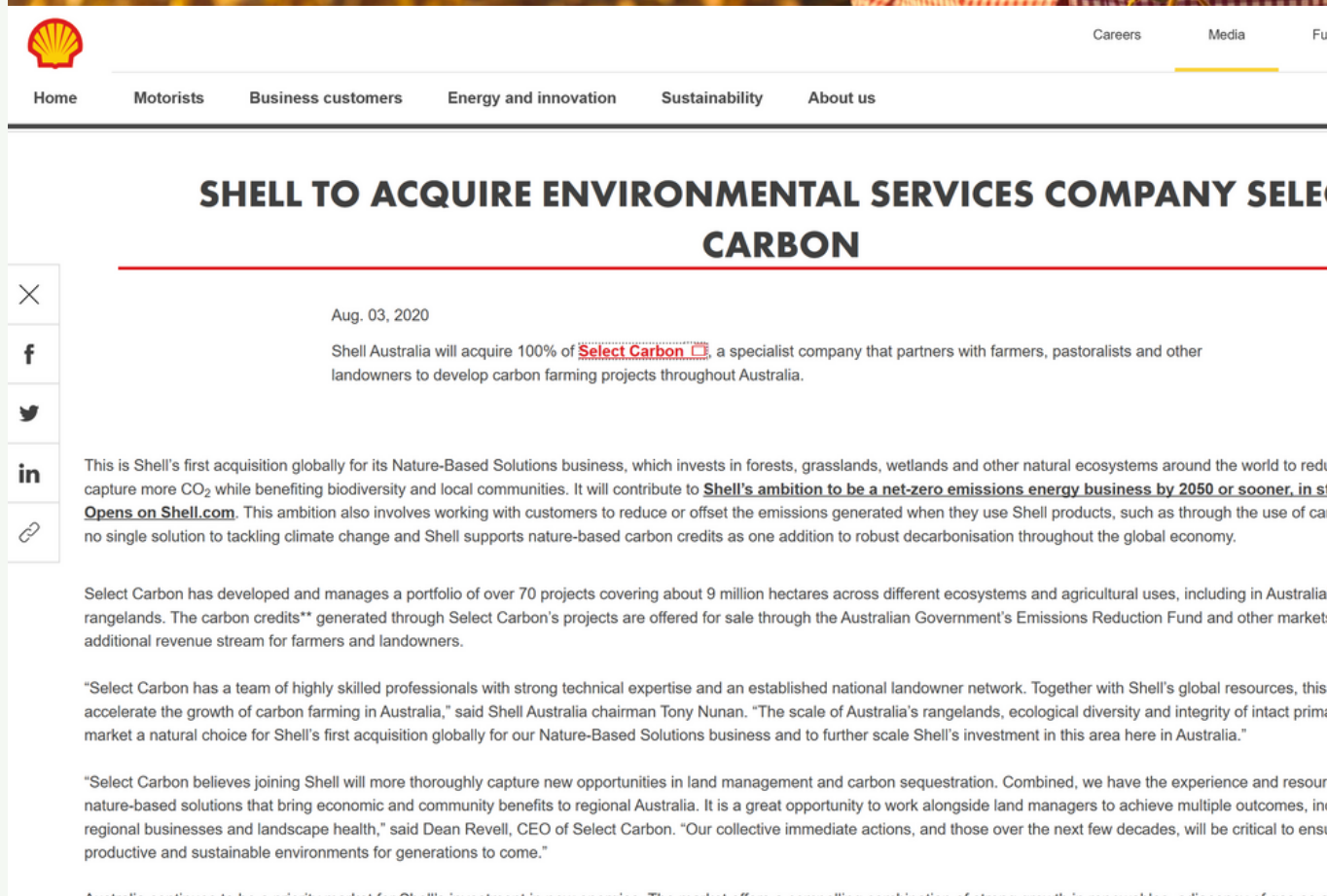
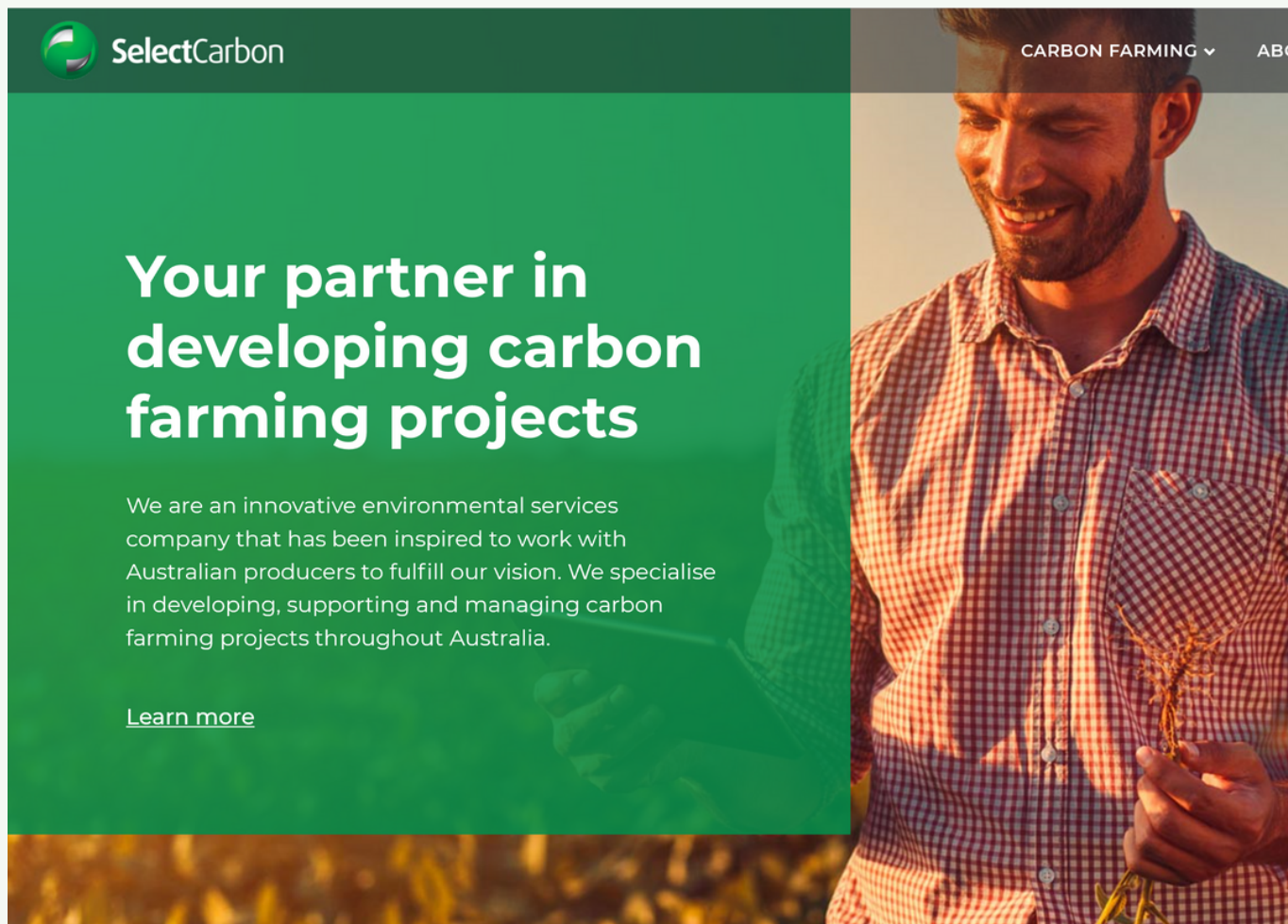
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Think about it

# **WHAT ELSE IS INSPIRING THIS CHANGE?**

WHAT IS DRIVING CORPORATIONS TOWARDS ACTION



# R100 + Science Based Targets Initiative

R100

280 Companies (315+ Twh/yr)

SCIENCE BASED TARGETS

942 companies are taking science-based climate action and 427 companies have approved science-based targets

For additional corporate case studies:

- <https://sciencebasedtargets.org/case-studies-2/>
- <https://www.there100.org/companies>

## New Renewable Energy Landscape

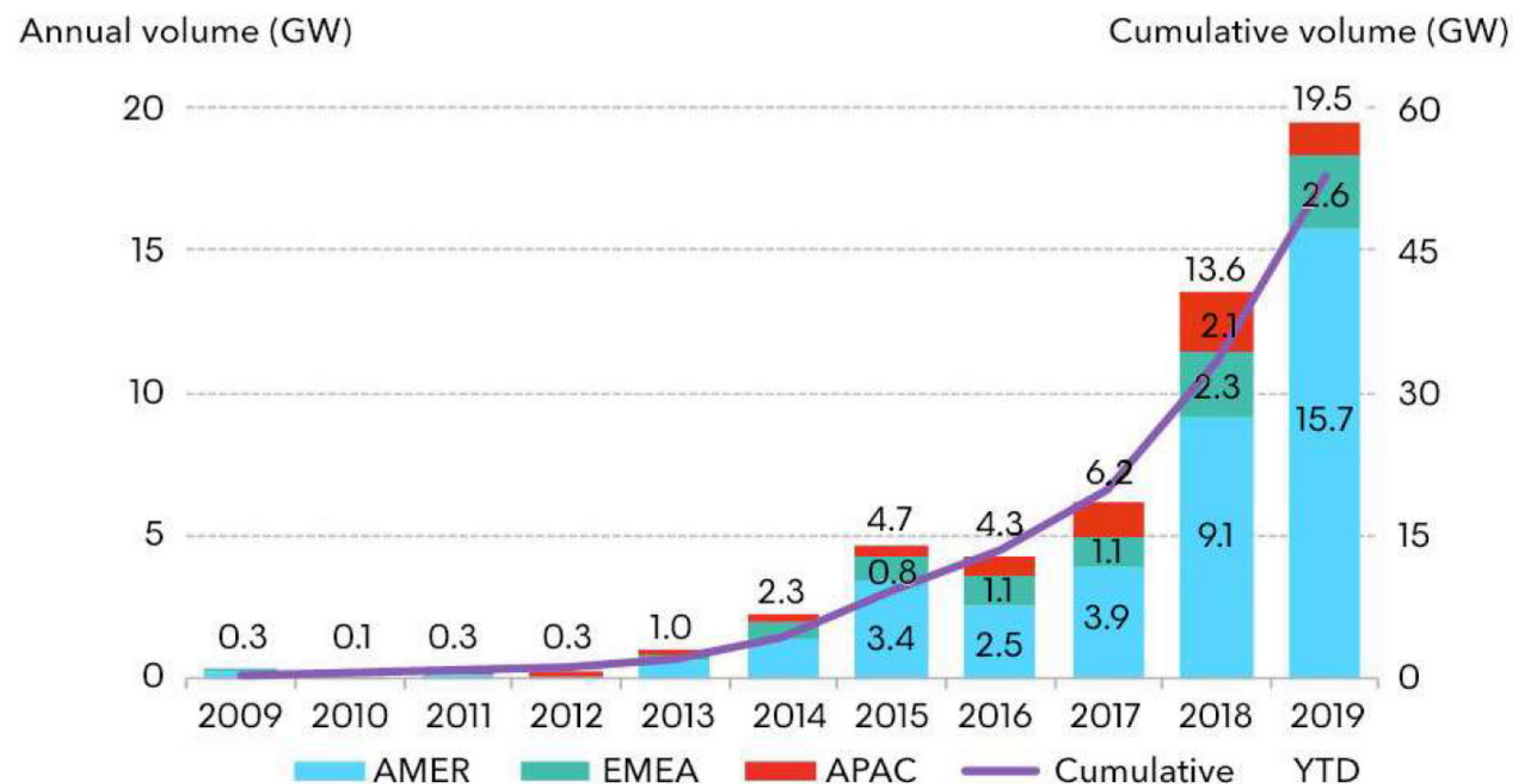
**RE 100**

**232 Companies**  
**63 joined in 2019**



**861 Companies**  
**~400 joined in 2019**

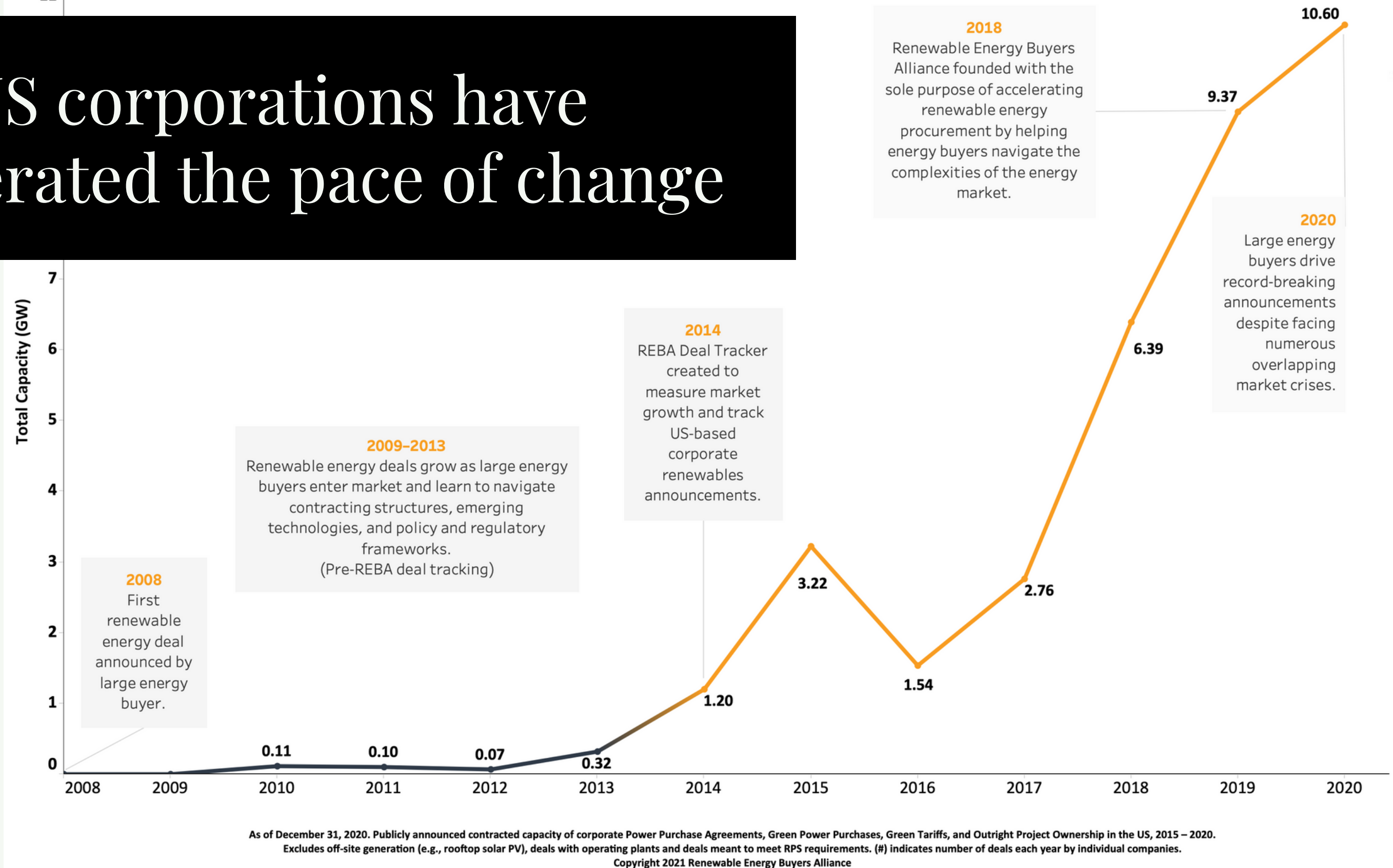
## Global Corporate PPA Volumes



Source: BloombergNEF. Note: Data are through 2019, reported in MW DC capacity. Onsite PPAs are not included. Australia sleeved PPAs are not included. APAC number is an estimate. Pre-market reform Mexico PPAs are not included. These figures are subject to change and may be updated as more information is made available.



# US corporations have accelerated the pace of change





# Microsoft



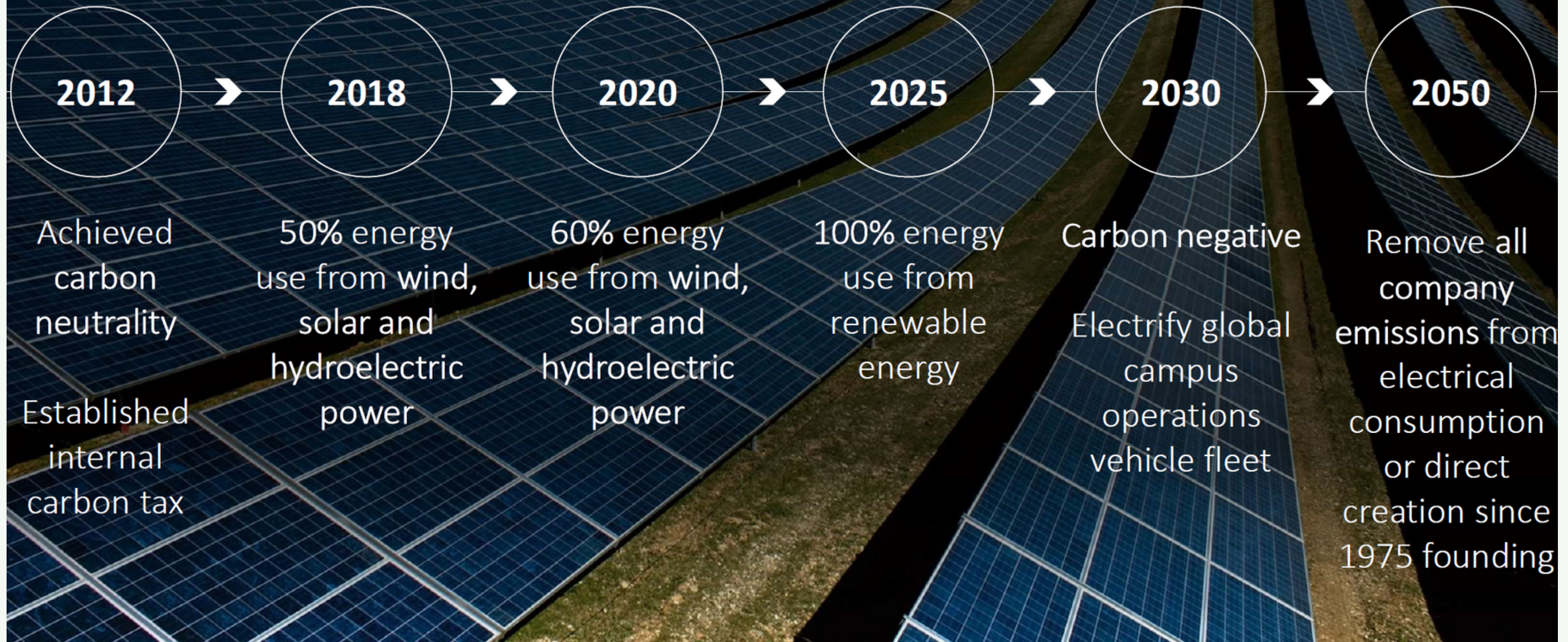
Microsoft President  
Brad Smith

Chief Financial Officer  
Amy Hood

CEO Satya Nadella



# Microsoft's Commitment Journey





# Increasing our goal to 100% renewable by 2025

Since our first power purchase agreement in 2013, Microsoft has signed agreements that will enable approximately 2GW of incremental renewable capacity in grids around the world

In 2016, Microsoft committed to a goal of achieving 70% renewable energy by 2023

This year, Microsoft has increased its commitments to green energy, with a goal of achieving 100% renewable energy for all Microsoft electricity consumption by 2025



## Increasing our targets

### Generate clean energy

Enabling the transition towards a grid powered by carbon-free energy



20 MW Supporting solar energy in Virginia



37 MW Advancing wind power in Ireland



110 MW New wind power in Texas

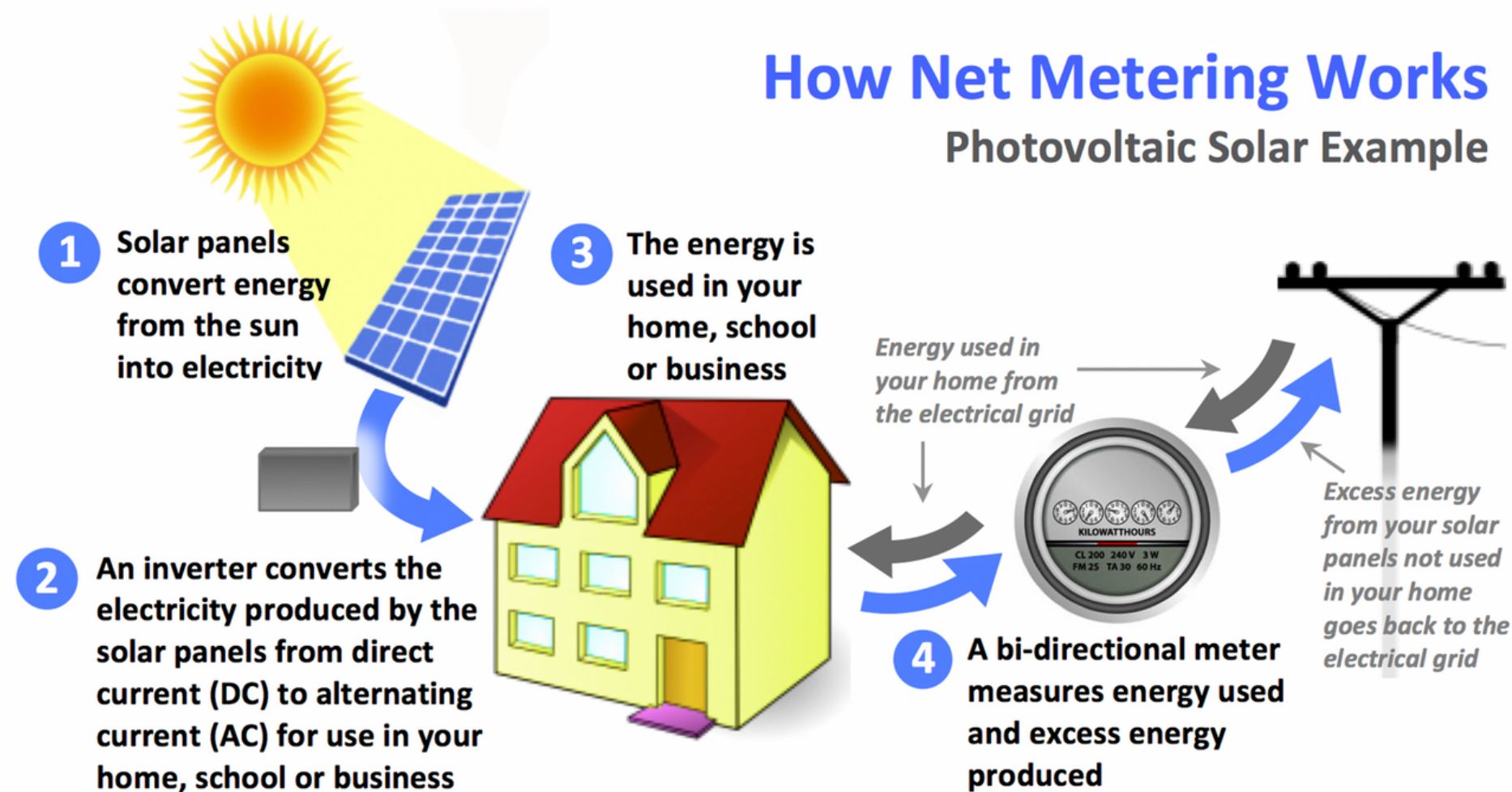


175 MW Harnessing the wind in Illinois



180 MW Capturing clean energy in the Netherlands

# Technology is unlocking new markets



...and market participants

This presents new opportunities for sustainable business models to emerge



# The Future Outlook

LAST 4 YEARS' FEDERAL POLICIES TRANSFERRED ACTION  
TO CORPORATE / STATE / INDIVIDUALS

BROAD BASED ELECTRIFICATION AND DECARBONIZATION  
POLICIES AND PROGRAMS EXPECTED GOVERNMENT-WIDE

COVID-19 IMPACTS TO CLEAN ENERGY ECONOMY  
UNCERTAIN

ENERGY TRANSITION AND SOCIAL JUSTICE FOCUS

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*And Summary*

# Thank you

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## Tuck at COP24

Five representatives from Tuck traveled to Katowice, Poland to join the conversation alongside tens of thousands of other delegates from around the world.



## Revers Center Examines Puerto Rico's Recovery After Hurricane Maria

The Revers Center for Energy and its MBA fellows traveled to Puerto Rico to learn about its efforts to restore the electrical grid after Hurricane Maria.

