

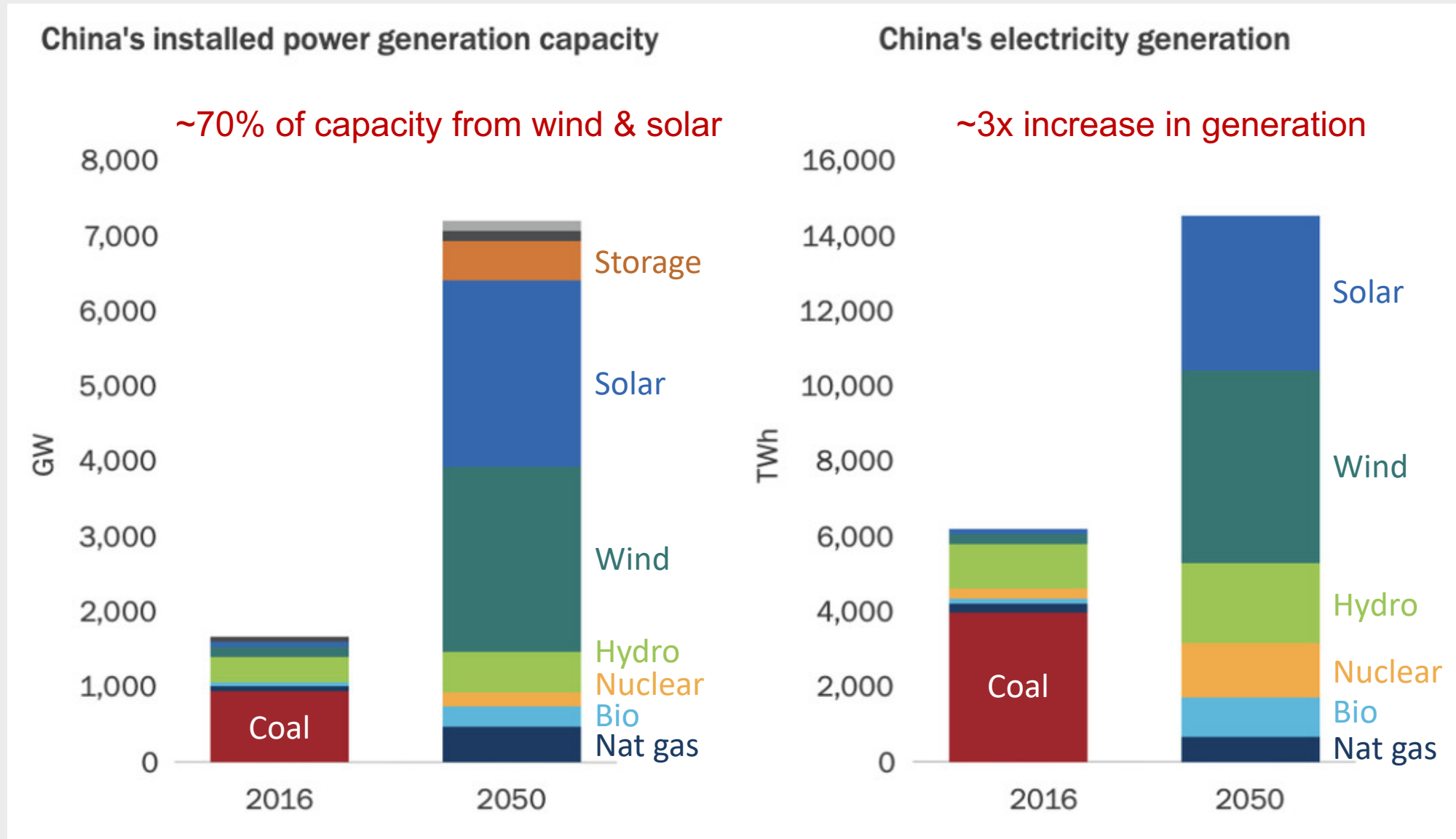


# China's key role in scaling low carbon energy technologies

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# A carbon neutral China by 2050: the challenge of SCALE



Source: Rocky Mountain Institute analysis for ETC China

# China is the global leader in the **mass production** of low carbon energy technologies

Solar Panels:	From 1% to 66% (2001-2018)
Wind Turbines:	1/3 of global supply (2018)
Electric Vehicles:	53% of global sales (2018)
Lithium-ion Batteries:	69% of global production (76% by 2025)
Nuclear Reactors:	From 45 to 88 plants by 2030

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LCET mass production?

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# How did China become the global leader LCET mass production?

Long-term institutional  
support for manufacturing

Development of innovative  
manufacturing capabilities

# We're running out of time

“It is unrealistic to expect that another nation will be able to rival China’s capabilities in LCET scale-up in the time frame needed to limit climate change to below 2°C.”

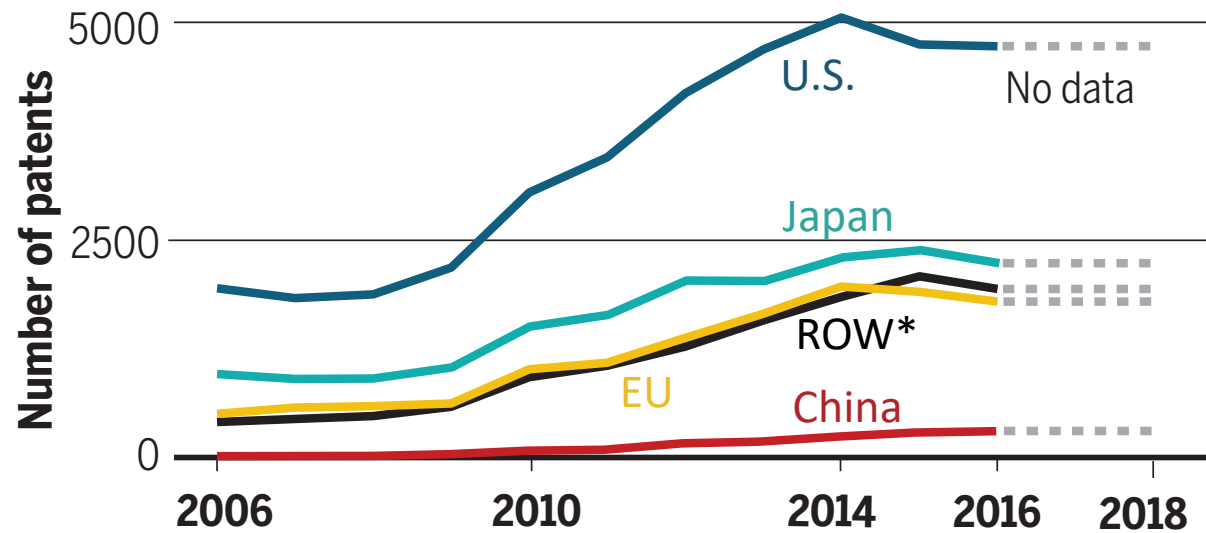
# Collaborative commercialization



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## US: Leader in LCET Innovation

Annual USPTO patents in clean energy technologies

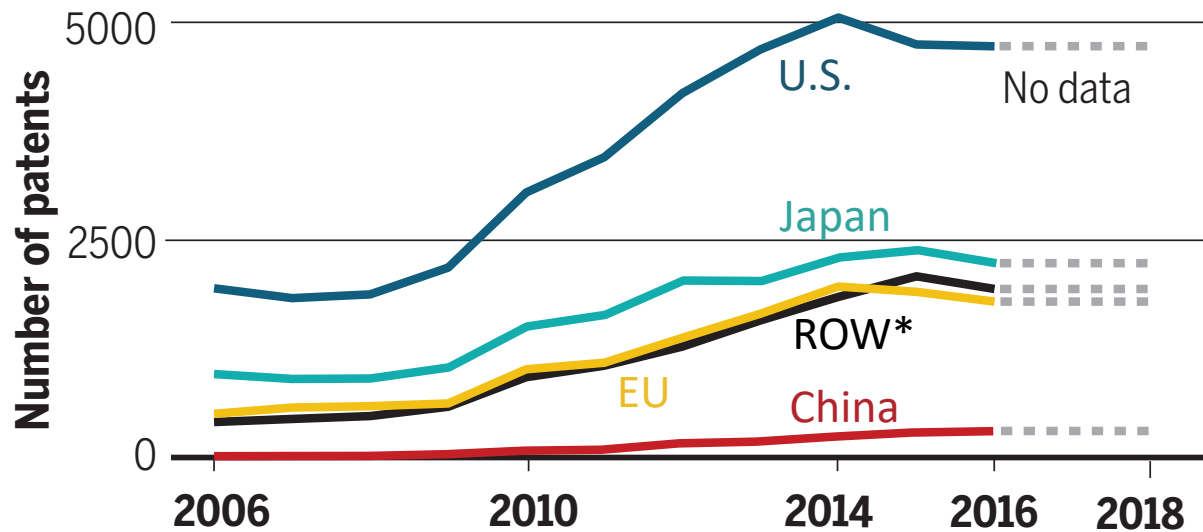


Data source: 2018 U.S. National Science Foundation  
Science & Engineering Indicators

# Collaborative commercialization

## US: Leader in LCET Innovation

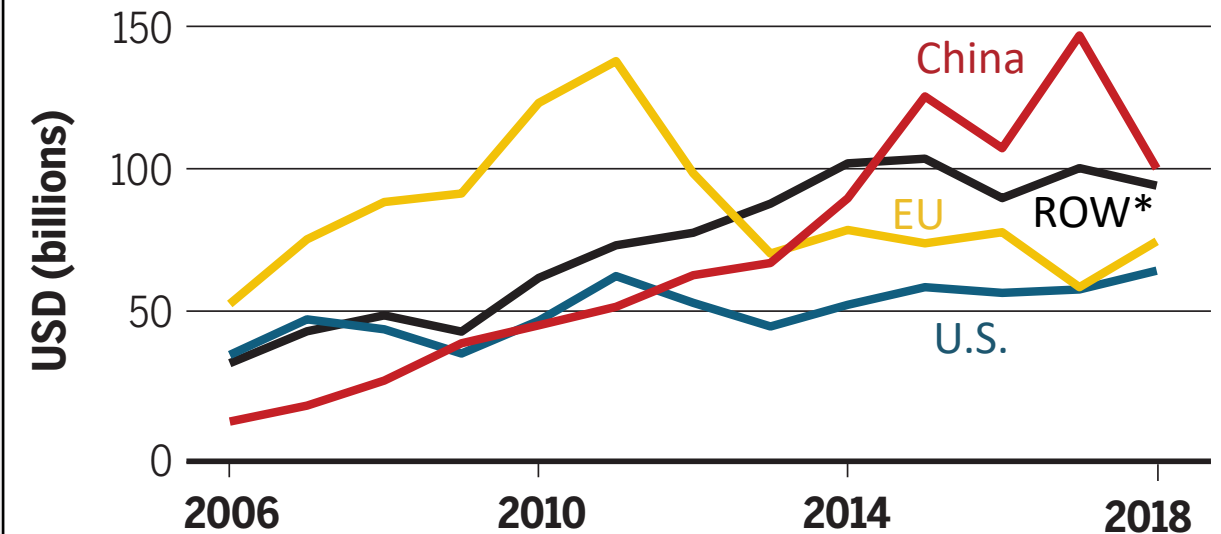
Annual USPTO patents in clean energy technologies



Data source: 2018 U.S. National Science Foundation  
Science & Engineering Indicators

## China: Largest LCET investor w/innovative manufacturing capabilities

New investment in clean energy technologies



Data source: Bloomberg New Energy Finance

# Making progress on climate

## China

- Allow foreign firms fair access to its domestic market

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- Allow foreign firms fair access to its domestic market

## U.S.

- Rejoin the Paris agreement
- Maintain a regular dialogue with China on progress
- Support domestical scale up and demonstration projects for emerging LCETs.

# Making progress on climate

## China

- Allow foreign firms fair access to its domestic market

## Both

- Establish partnerships around clean energy
- “Green” development assistance for other developing nations

## U.S.

- Rejoin the Paris agreement
- Maintain a regular dialogue with China on progress
- Support domestical scale up and demonstration projects for emerging LCETs.

# Thanks!

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Link to charts:

<https://github.com/jhelvy/charts>