



# Renewable Electricity, and The business case for Climate Action

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#RE100

@samkimmins

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**CLIMATE  
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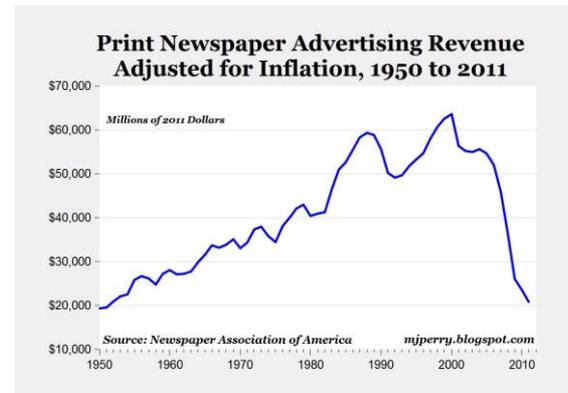
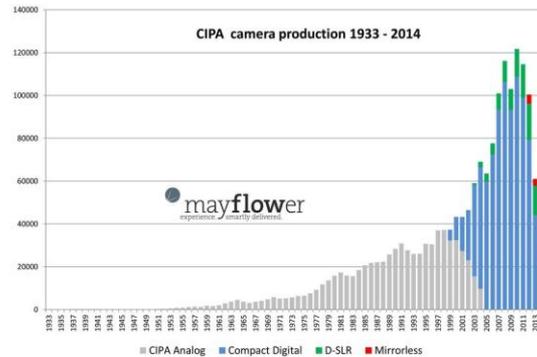
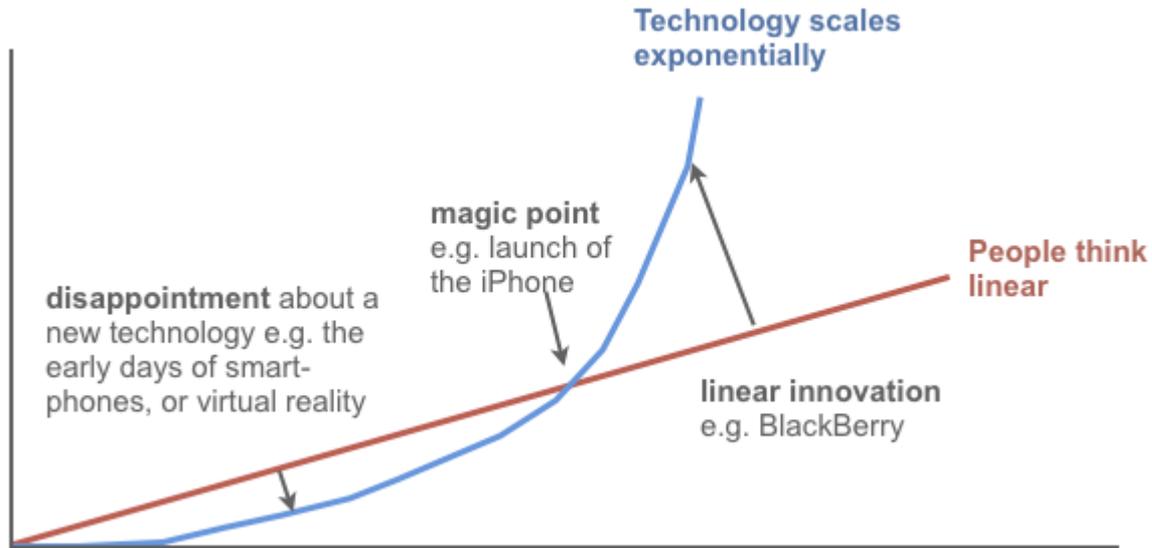
PLEASE SEE FINAL  
SLIDES FOR  
EXPLANATORY NOTES  
AND FURTHER  
READING

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Kodak







*The worlds most influential companies,  
committed to sourcing **100%** of their global  
electricity consumption from renewable sources*

**THE °CLIMATE GROUP**



# RE 100



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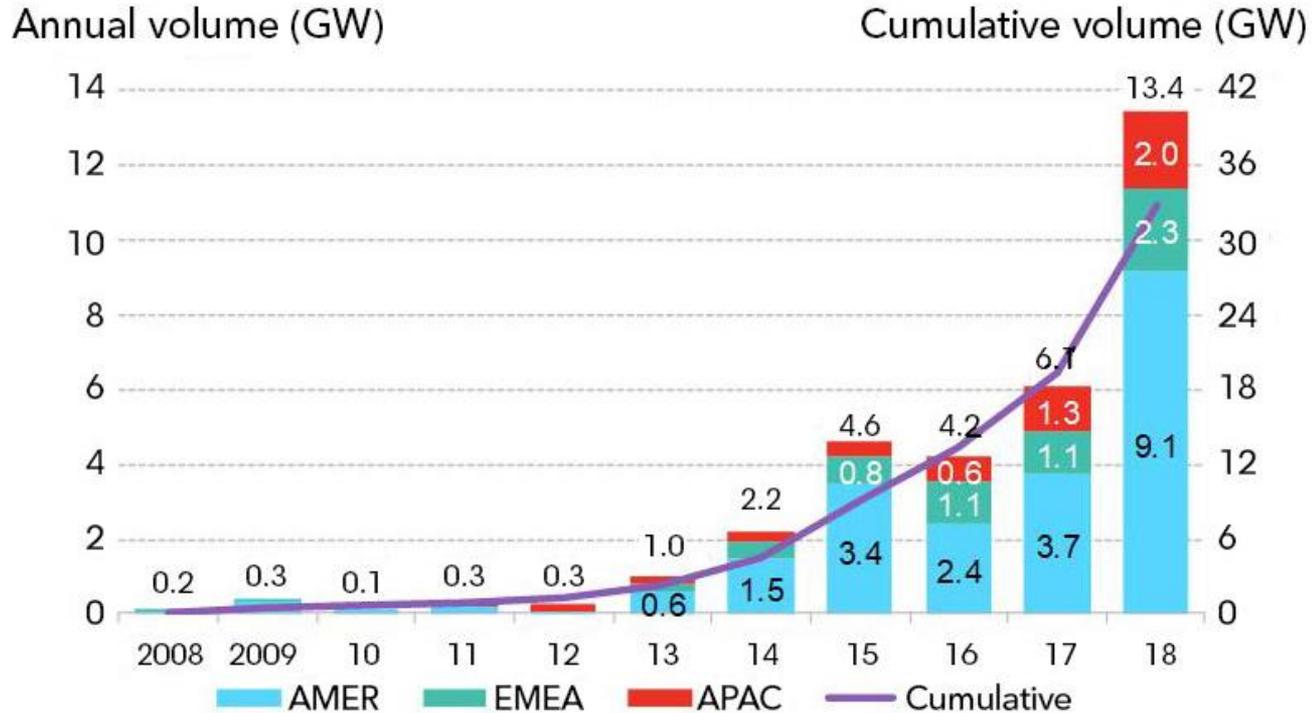


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FUYO LEASE  
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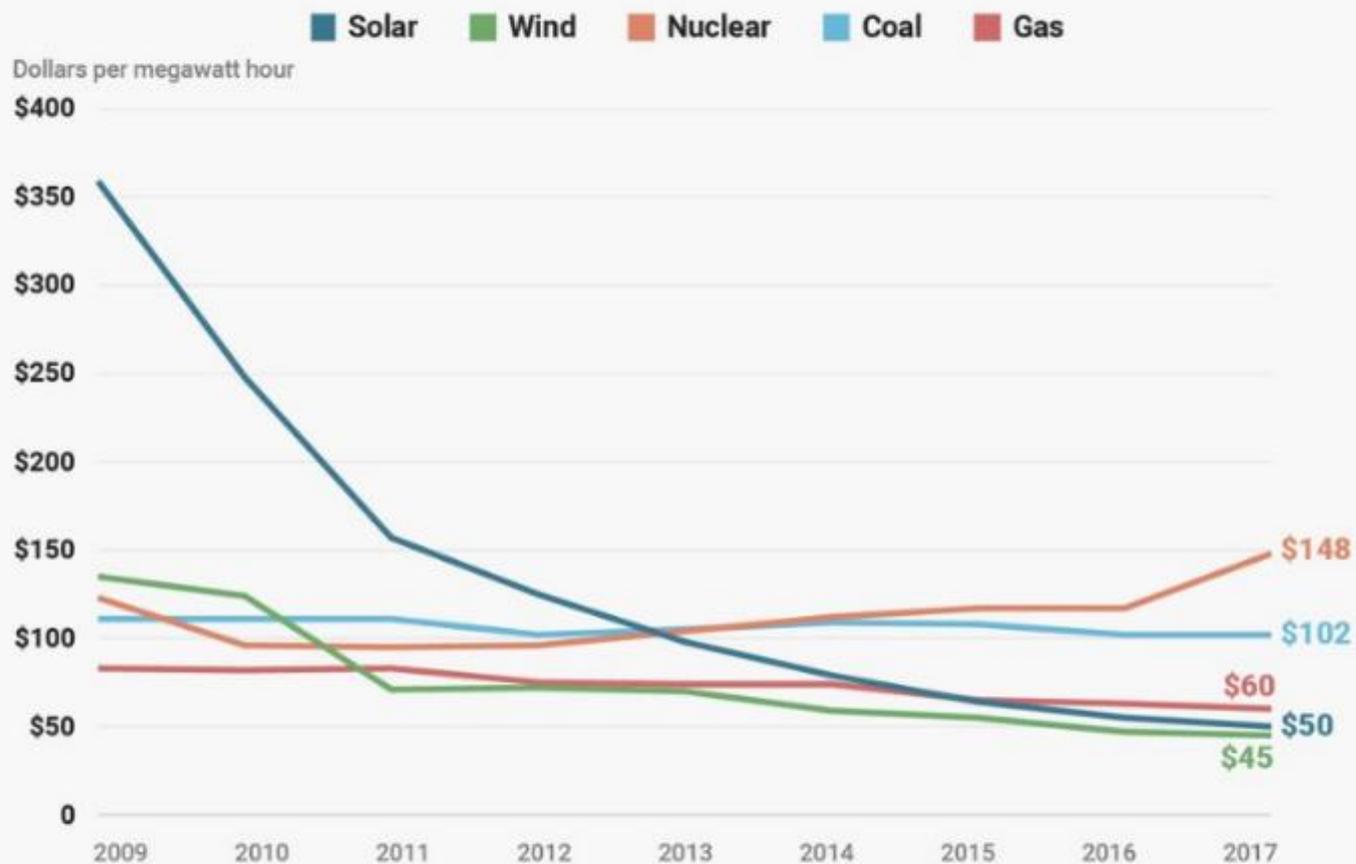


## Corporates purchased record amounts of green power in 2018



Source: BloombergNEF 2019

## The average cost of energy in North America



## Renewables are now the cheapest source of energy, says EBRD

Announcing its participation at the FT Climate Finance Summit in London, the bank says that through targeted financial commitments, increasing competition and progressive policy changes, prices for renewable energy resources have come down to US\$0.025/ kWh in Egypt and Jordan, for example. The bank calls for a change in investment practices to further this development.

OCTOBER 9, 2018 **MARIAN WILLUHN**

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The EBRD's financial backing in Egypt has accelerated the nation's solar ambitions.

*Image: Complete Energy Solutions*

## South Australia's Tesla battery on track to make back a third of cost in a year

**World's largest lithium battery cost \$90.6m but revenue is healthy, according to documents filed by French renewable company Neoen**



▲ The Hornsdale windfarm, which is paired with Tesla's lithium-ion battery in South Australia, which is on track to make back almost a third of its construction costs in its first year. Photograph: David Gray/Reuters

“Declaring our [RE100 and EV100] intentions has become our passport to the world

Shoichiro Iwata, President and CEO



A screenshot from a video recording of a speaker at Climate Week NYC. The speaker is a woman with dark hair, wearing a dark blazer, speaking at a podium. The background features a large screen with the text "CLIMATE WEEK NYC" and "LIVE AT #CWNYC". Below the video, there is a banner with "RE 100", "RE100.org", and "#RE100". At the bottom, it says "BROUGHT TO YOU BY C" and "IN PARTNERSHIP WITH CDP". To the right of the video, there is a quote in bold black text: "We have to be the ripple on the pond. We can't just be 100% renewable energy – we have to bring others with us". Below the quote is the name and title of the speaker: "- Lisa Jackson, Vice President of Environment, Policy and Social Initiatives, Apple". At the bottom right, there is a call to action: "JOIN THE WORLD'S MOST INFLUENTIAL COMPANIES COMMITTED TO 100% RENEWABLE POWER".



“We have a global commitment to be a low-carbon business, using our size and scale to help the companies that supply us commit to do the same”

**Gabrielle Ginér, Head of Environmental Sustainability at BT**

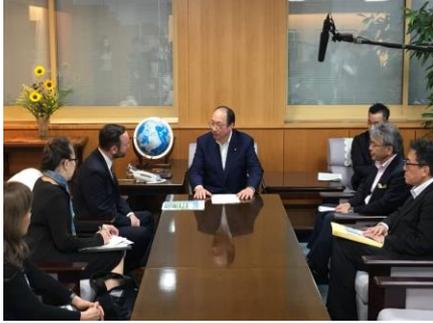
## RE100 signatories to spur \$94 billion investment opportunity

By Paul Dvorak | March 21, 2018

The companies currently committed to the RE100 campaign will need to procure an estimated 172 TWh of additional clean energy generation by 2030 to meet their renewable energy targets. If corporations were to meet this demand through PPAs, it could catalyze 87 GW of new solar and wind build, representing a potential \$94 billion investment

# GLOBAL REACH

## RE100 – Increasing Ambition in the EU Clean Energy Package



18,210 views | Aug 1, 2017, 01:17pm

# California Goes All In -- 100% Renewable Energy By 2045



**Trevor Nace** Contributor  
Science



## South Australia will be at 100% renewables by 2025 – market operator

Giles Parkinson 17 August 2018 244 Comments

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**E&E NEWS**  
ENVIRONMENT

## As Hawaii Aims for 100% Renewable Energy, Other States Watching Closely

How to incorporate solar and wind while keeping the electricity grid stable is a key question

By John Fialka, E&E News on April 27, 2018

# Northern Indiana utility ditching coal in favor of renewable energy in next 10 years

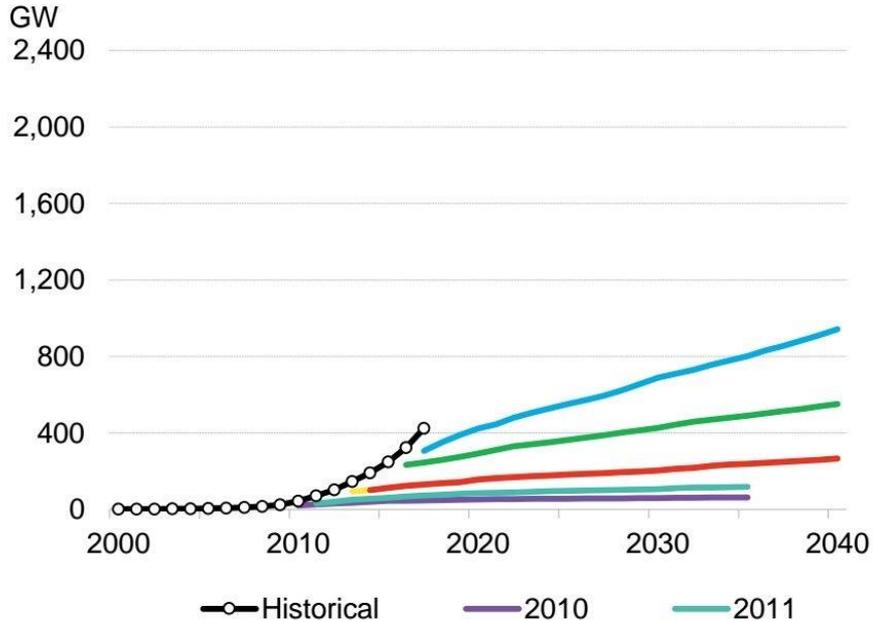
Sarah Bowman | Indianapolis Star

Published 4:59 PM EDT Sep 20, 2018

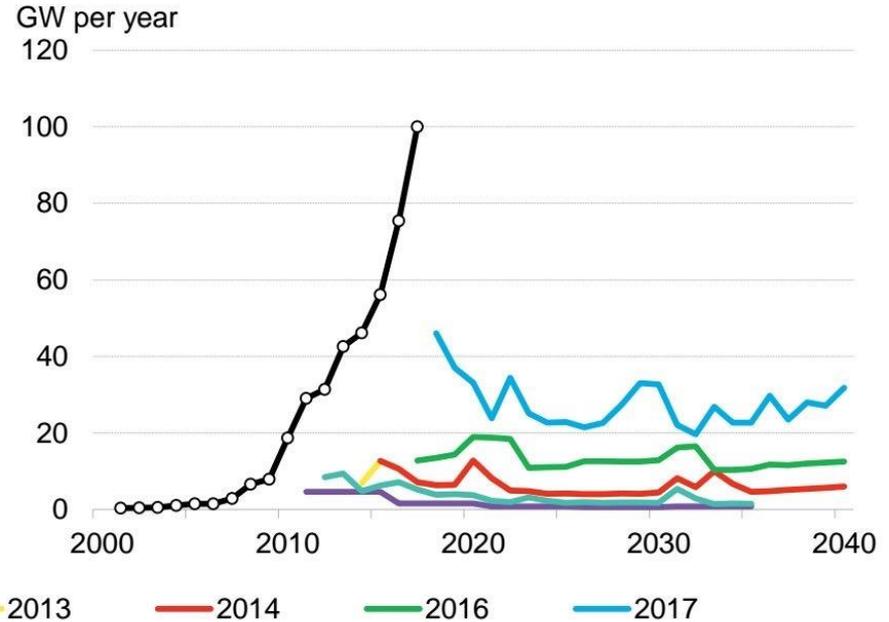


# EIA solar capacity forecast evolution

## Global cumulative solar installations



## Annual solar additions



Note: Reference scenario

Source: EIA International Energy Outlook

## Key points:

**100% renewable grids are necessary (by 2050) to achieve Paris goals**

**The market-driven renewables revolution is happening now**

**It's just a question of how fast, who benefits, and who is left with expensive stranded assets**



MICROCOMPUTER

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## Further Info

### **1. Growth of RE – evidence of exponential growth and future of Baseload**

At The Climate Group we have used BNEF data to inform our assessment of RE growth and parallels with precedents set by other technologies. Of all the analysis available we find BNEF projections track most accurately against subsequent real-world trends. A good synopsis of BNEF's 2018 energy outlook can be found here

<https://about.bnef.com/blog/henbest-power-system-will-dance-tune-wind-solar-batteries/>

Full version available to BNEF subscribers

### **2. Policy Recommendations and Market Design**

For information on policy options and market design to access corporate investment in renewables

- RESource policy recommendations to the EU and global: <http://resource-platform.eu/policy/>
- NREL policy recommendations: <https://www.nrel.gov/docs/fy17osti/68149.pdf>

**RE**

**100**



# Thank You

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#RE100

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## Slides 3-4

- Change happens fast. Kodak invented the digital camera in 1975. By 2012, they had filed for bankruptcy, largely because their business had been disrupted by their own invention, the digital cameras
- The common misconception is that they lost because they didn't grasp the significance of their own invention and tried to suppress further development. This is not true. Kodak recognized the opportunity and developed a robust plan to transition to digital. The mistake they made was to underestimate the pace of change – and the way in which change happens.
- It is a common mistake to think that technology uptake is linear. It is not. Change is often exponential, doubling every year. Competitors who recognized this, seized the opportunity and out-manoeuvred Kodak in the new digital market.
- This example is important to bear in mind when considering the renewable energy revolution – we are seeing a similar exponential growth of renewables, and expect fossil fuels to crash dramatically following a similar pattern to film cameras and other sunset technologies

## Slides 5-8

- Companies are demanding renewable electricity. The RE100 group of companies committed to 100% renewable electricity, now numbers 165 companies with total electrical demand of over 190TWh/yr (larger than that of Poland)
- These companies are making tangible investments – in 2018, corporate off-takers of renewable electricity purchased a record 13.4 GW of clean energy contracts – double that of the previous year

## Slide 9 - 11

- The reason for this? Companies are using renewable electricity because it makes business sense. Initially companies were doing this because it was the right thing to do – for CSR and carbon reductions. But the cost of renewable electricity from wind and solar has dropped by around 10% per year for the last 9 years – and is now the cheapest form of electricity in much of the world.
- Similar price drops are being seen in storage technology, and we're expecting a similar, exponential growth in demand

## Slide 12-15

- RE100 companies represent a huge potential investment in renewables. That investment is being spent in countries that allow direct purchases of renewable electricity – via Power Purchase Agreements or similar mechanisms. Leaders in this are currently Ireland, Netherlands, Denmark, UK and the USA. A surge of investment is also expected in Taiwan and France in 2019
- Governments are therefore keen to learn how to benefit from this growing new investment source. RE100 is actively working with governments across the EU, and in Japan and Taiwan

## Slide 16

- This information is slow to catch on – and many forecasters are still chronically underestimating the growth of renewables every single year. Governments need to act on better information (eg BNEF) that better reflects the rapid pace of change – otherwise they risk being left behind.