



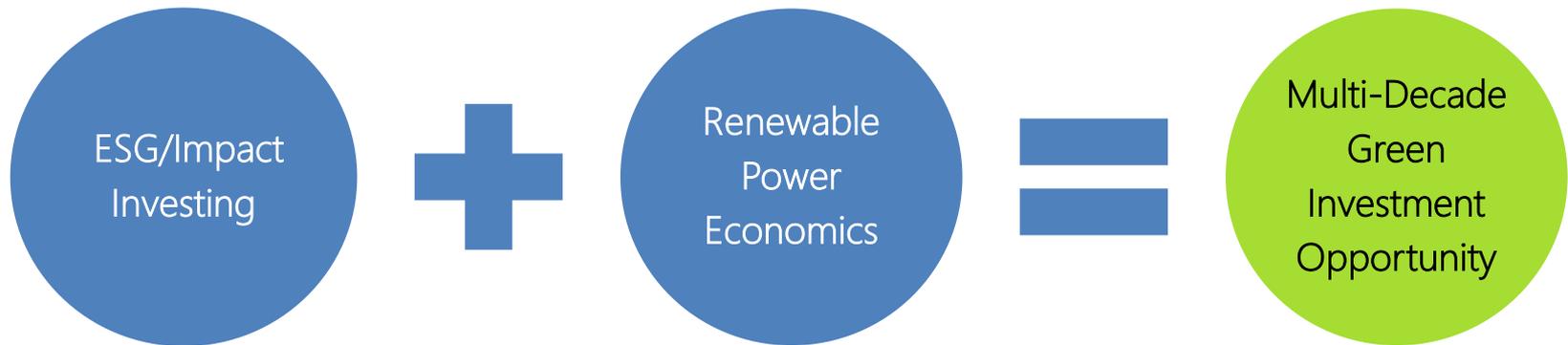
Investing In The Clean Energy Transition

January 2021

 EAGLE GLOBAL ADVISORS

The Clean Energy Transition

- Investors want to make an impact by participating in Global decarbonization efforts
- Renewable energy is now the cheapest source of power in most countries



Making An Impact

Renewable Energy: Benefits for Health, Environment and Economy

↓ **\$200bn**



Global health-related costs can be reduced up to \$200 billion annually

↑ **900,000 jobs**



Doubling the global share of renewable energy would create a net gain of 900,000 jobs in the energy sector in 2030

↓ **15%**



Demand for oil and natural gas can be reduced by around 15% creating more energy security for fossil fuel importing countries

↓ **26%**



Demand for coal can decline by 26% resulting in reduced carbon emissions and cleaner air

Findings from REmap 2030, the global roadmap from the International Renewable Energy Agency (IRENA)



Renewable Energy Will Lead CO2 Emissions Reductions

Nearly two-thirds of the world's power is currently generated using coal and natural gas. As a result,

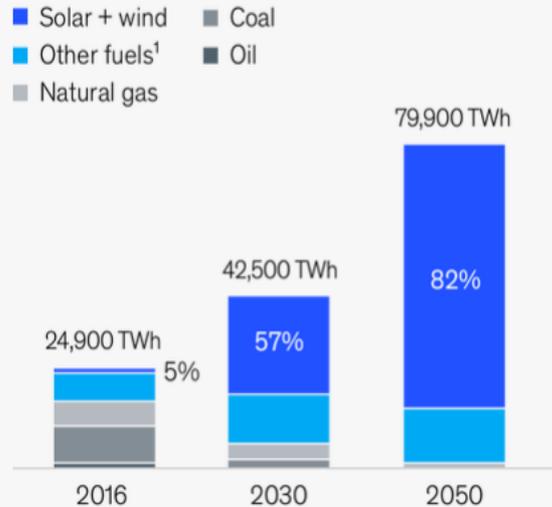
40%

of global CO₂ emissions come from the power sector.

A big increase in renewables would be needed to rapidly shift the energy mix.

SCENARIO A

Global power generation by fuel type, %



¹ Includes hydro, nuclear, geothermal, marine, hydrogen, and bioenergy.



8x

more solar panels



5x

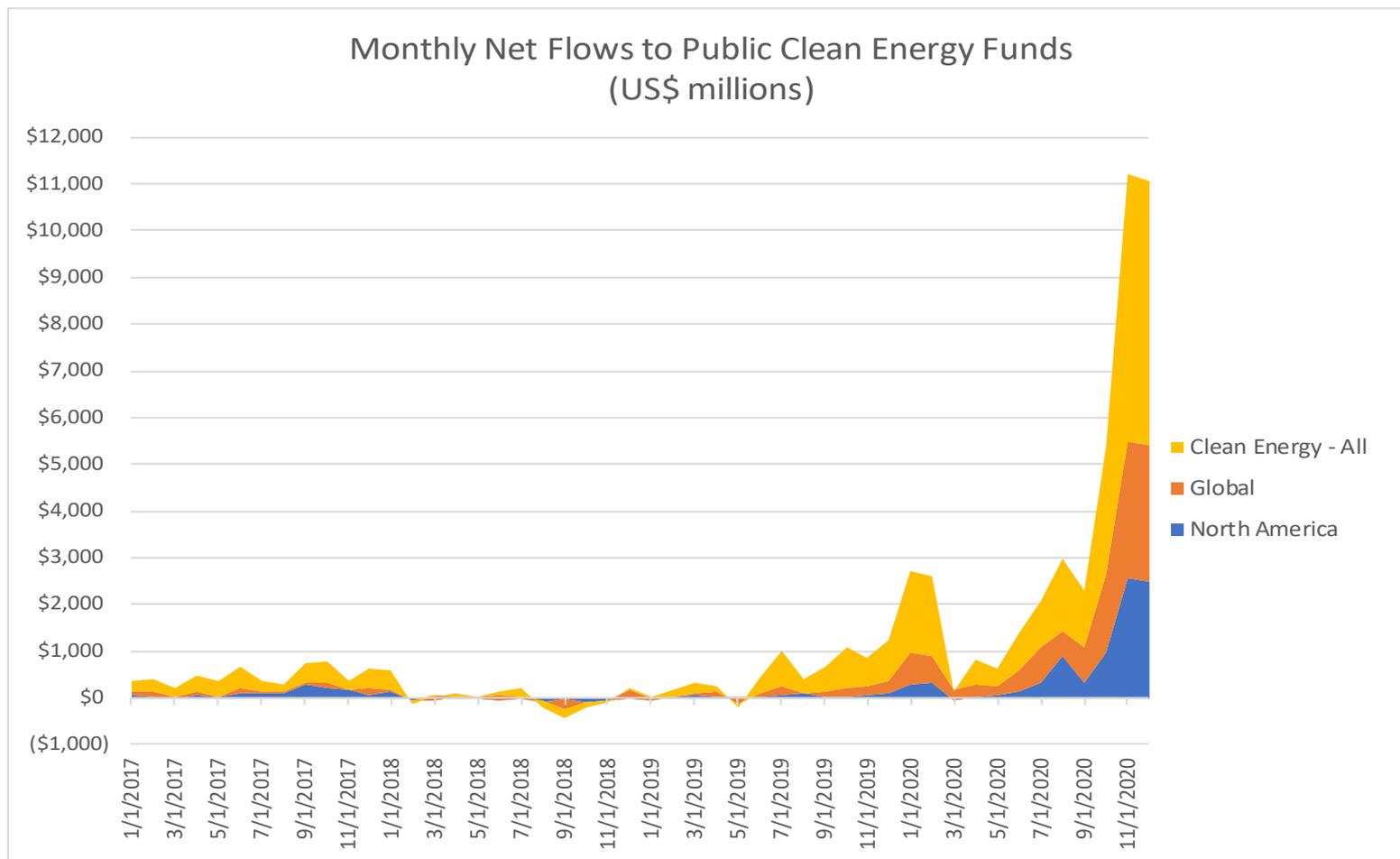
more wind turbines

would need to be installed yearly by 2030 compared with current levels.

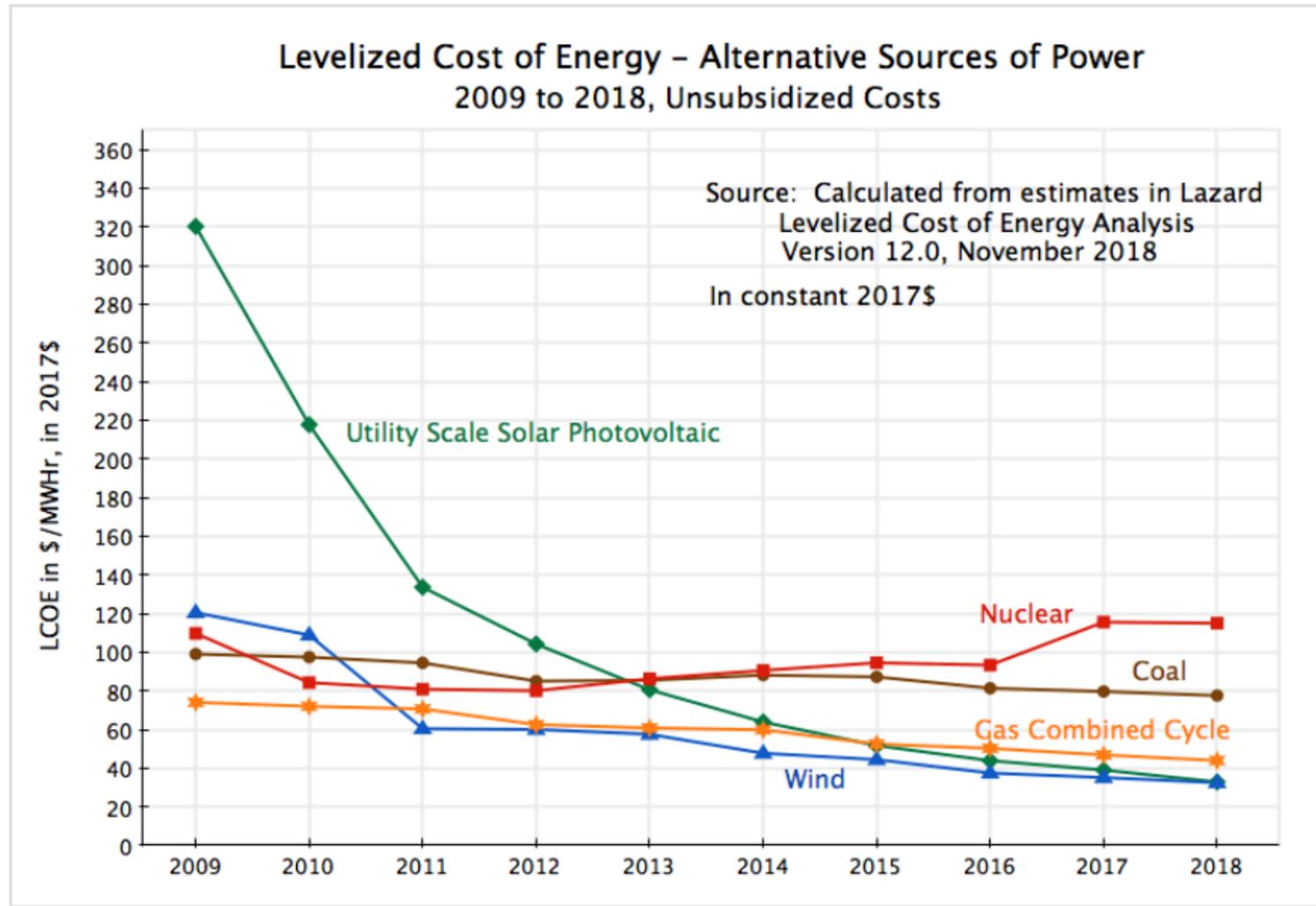
McKinsey Forecasts Renewables will Generate 82% of the World's power in 2050



Demand For Clean Energy Funds

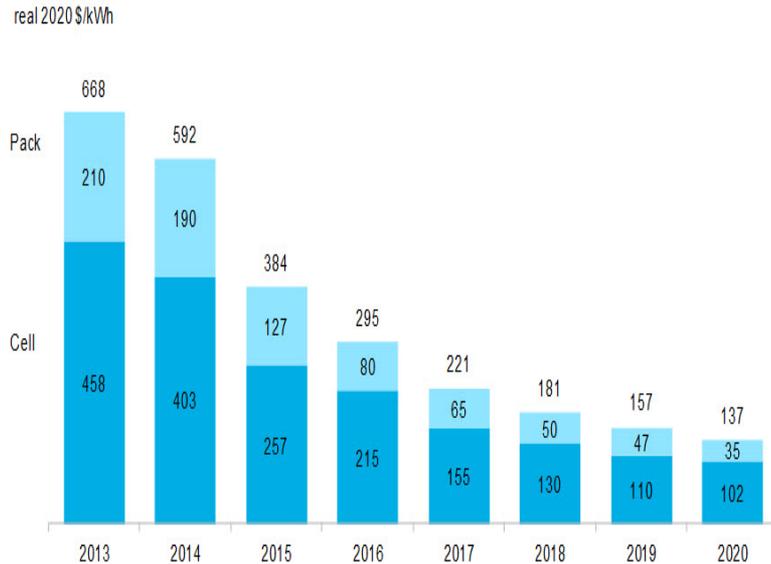


Renewables LCOE Now Below Coal And Nat Gas



Battery Storage Prices Also Falling Rapidly

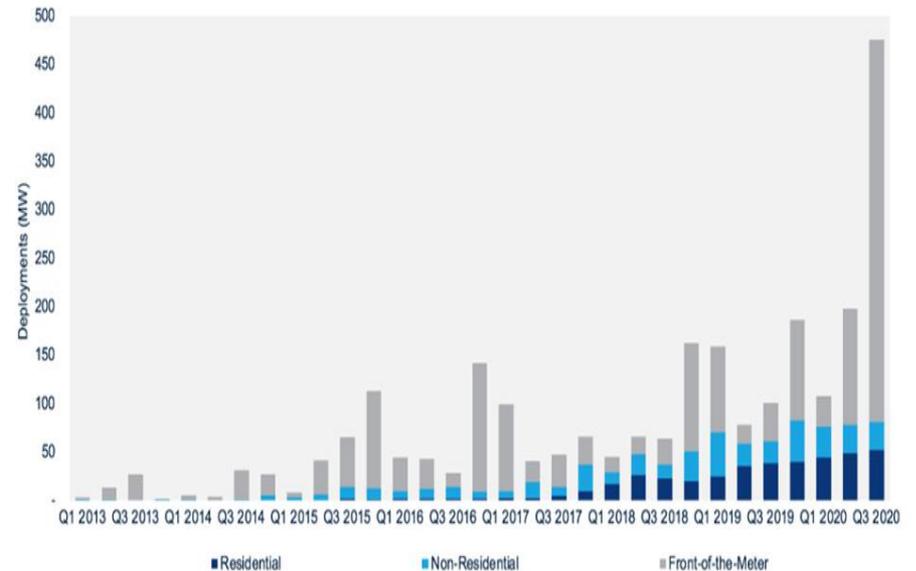
Figure 1: Volume-weighted average pack and cell price split



Source: BloombergNEF

- Lithium-ion battery storage costs declined 79% from 2013 to 2020
- An 18% historical learning curve implies avg cost \$37/kWh by 2025

Quarterly U.S. energy storage deployments



Source: Wood Mackenzie Power & Renewables

- US Annual Storage installation up 1,000% from 2013-2020 to 1.2TW
- Estimated to grow another 600%+ to annual rate of 7.5TW by 2025

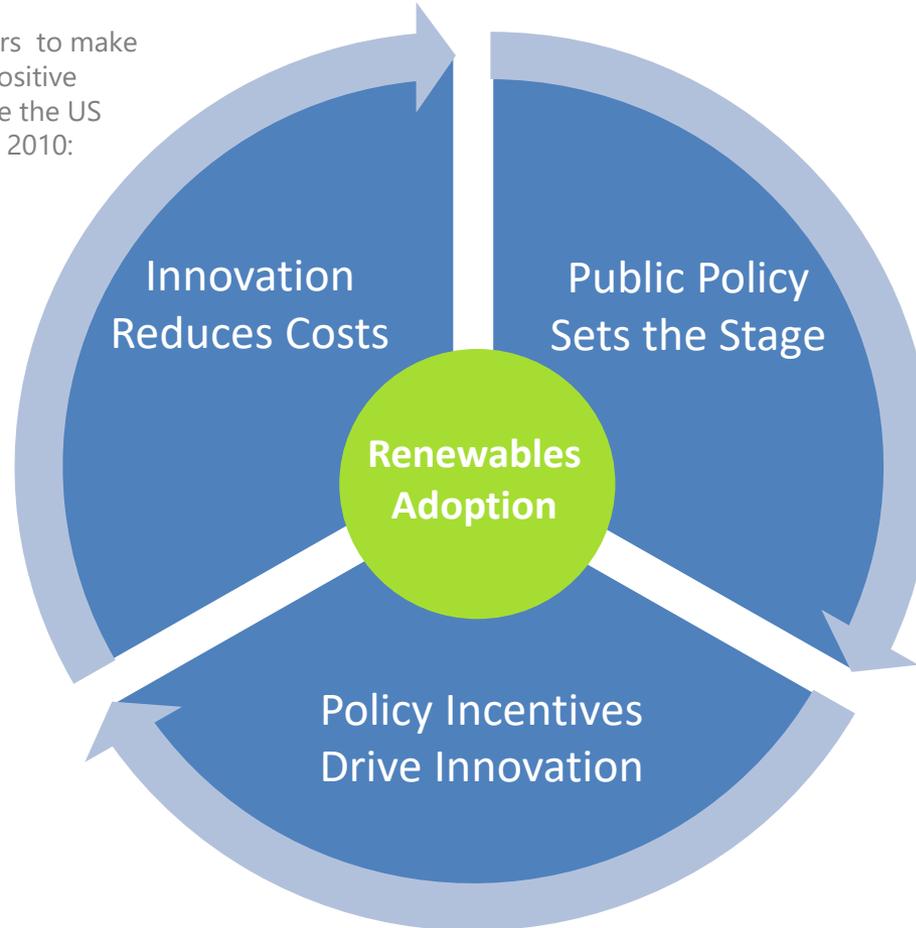


Virtuous Cycle Of Renewables Adoption

Economic Fundamentals

Lower costs incentivize policy makers to make bigger commitments, providing a positive feedback loop to Public Policy. Since the US last considered federal standards in 2010:

- 90% Lower Generation Costs
- 80% Lower Storage Costs



Public Policy

World governments rely on a range of policy instruments to reduce CO2 Emissions. Examples include:

- Carbon Taxes
- Cap-And-Trade
- Tax Incentives
- Renewable Portfolio Standards
- Loan Guarantees

Technological Innovation

Innovation is crucial to reduce costs and accelerate deployment.

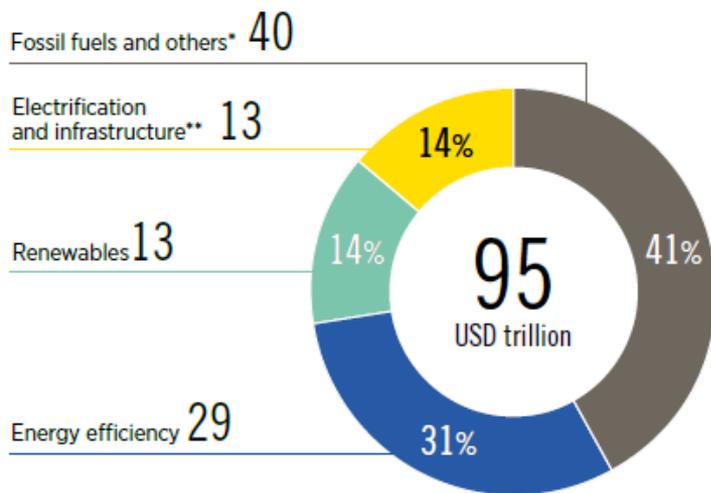
- Smart Power Grids
- Electric Vehicles
- Battery Mega Packs like Moss Landing



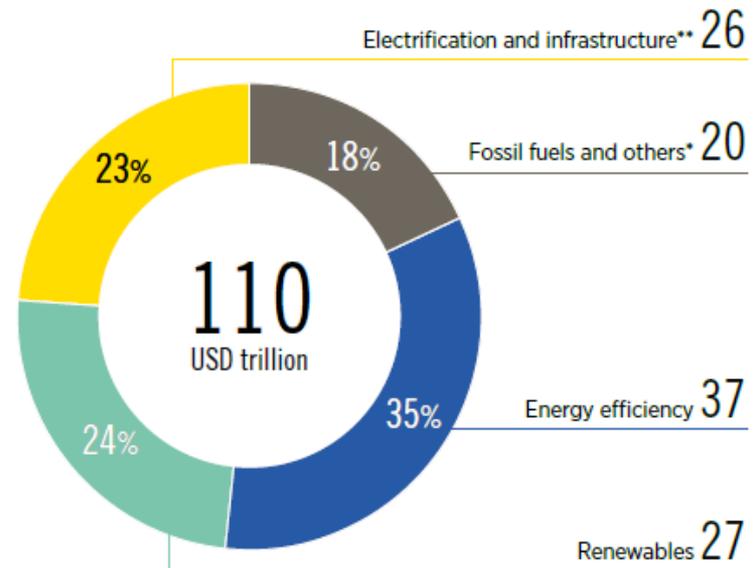
New Investment Priorities

Renewables Investment Doubles to \$27 Trillion to Meet Climate Goals

Reference Case cumulative investments, 2016-2050
(USD trillion)



REmap Case cumulative investments, 2016-2050
(USD trillion)



Notes: *includes nuclear, carbon capture and storage (CCS); **includes investments in power grids, energy flexibility, electrification of heat and transport applications as well as renewable hydrogen. "Energy efficiency" includes efficiency measures deployed in end-use sectors (industry, buildings and transport) and investments needed for buildings renovations and structural changes (excluding modal shift in transport). Renewables include investments needed for deployment of renewable technologies for power generation as well as direct end-use applications (eg. solar thermal, geothermal) USD throughout the report indicates the value in 2015.

Making Green While Going Green With Renewables



Making An Impact

- Climate Change Impact
- Global Health Benefits
- Poverty Reduction
- Job Creation

Investment Opportunity

- Energy Transition Megatrend
- \$13T+ Of Investment Needed
- Rapidly Falling Costs Drive High Growth

