

3rd Global Renewable Energy Conference:

Powering the New Energy Transition

Post-event report



Baker McKenzie's **3rd Annual Global Renewable Energy Conference**, held on 13 March 2019 in Hong Kong, brought together over 200 industry experts, professionals and Baker McKenzie practitioners from around the world to discuss the global renewable energy market including key developments and trends.

The theme of the conference, **Powering the New Energy Transition**, generated varied discussion in factors contributing to the growth in renewables, the challenges and obstacles, as well as the role of government policy and incentives across developed and emerging markets. Panel sessions provided deep dive insights into offshore wind, innovation in DER (distributed energy resources), storage and digital technologies and the growth in corporate PPAs. Baker McKenzie lawyers provided updates on renewable energy markets around the world.

This report includes takeaway points from the conference and the results of audience polling taken at the conference.

Access the conference agenda

Read about the conference speakers

In partnership with







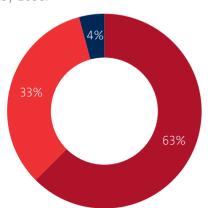
The transition to a new energy system – can this be done within a generation?

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37%

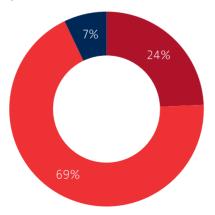
feel that we can achieve the aim of the Paris agreement and keep global warming to 1.5°, by cutting global emissions 45% by 2030, with net zero by 2050.



- Zero
- Reasonable
- Likely

76%

However, more than double believe we have a better chance of limiting global warming to 2°, by cutting global emissions 25% by 2030, with net zero by 2070.

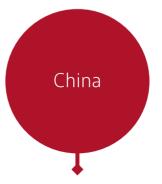


- Zero
- Reasonable
- Likely

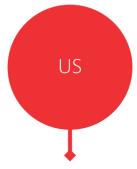
USD 332 BILLION

Investment in renewable energy in 2018 was slightly lower than the previous year. However, over the past five years, investment in renewable energy has been sustained at above USD300 billion per year.¹

The Asia Pacific region is leading the world in investment in renewable energy. The single biggest markets to renewables globally are²:



The centrally directed approach to renewables development in China has worked well so far. However, this model may be difficult to replicate in other jurisdictions with different political landscapes.



Despite the lack of support by the current US Federal administration, corporate America is moving ahead and driving renewables. 2018 was the best year in terms of new installations of both wind and solar. Between 2017 and 2018 actual energy consumption was flat, partly because of greater efficiency, but we foresee a spike in that with the rise in popularity of electric vehicles.



Motivation in many countries (e.g., China, Thailand) to transition to renewables derives from air quality or economic concerns rather than climate change per se.

¹Source: BloombergNEF

² Source: BloomberaNEF



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Key market updates: AP, EMEA, Latin America hot markets





Latin America

Most of the countries in Latin America have kept their pledges in the Paris Agreement. Of note is that under the new Mexican government, options for new PPAs have been postponed but there is still a fair amount of investment in wind in Mexico

Europe

The EU is absolutely committed to the Paris Agreement and is beginning to hit the conundrum of a forced renewable policy - balancing the effects of



versus



Climate change Rise in electricity prices

In the early years, the EU had a feed-in tariff incentive which was guaranteed for a period. When that incentive expired, it moved to fixed-price tenders. In 2020, the EU will be moving towards the market premium model.

Africa

- Decarbonisation, distribution, diversification and responsibility to the environment are hot discussion topics across Africa. Access to affordable electricity that is also sustainable is a key issue.
- Egypt, Nigeria and South Africa have successful renewable energy programs. South Africa has accelerated appreciation allowances. Indirect incentives, such as political will and political policy certainty, being open to foreign laws, and property rights, are also sought after.

Vietnam



Solar and wind are key in Vietnam. Many small gas projects in Vietnam are also experiencing great government support.



One of the tipping points for renewable energy is cars: Vinfast, a large local manufacturer, is introducing electric cars and motorbikes. Household solar is also gaining popularity.



Environmentally conscious foreign companies influence the market when they insist on manufacturers using renewable energy.



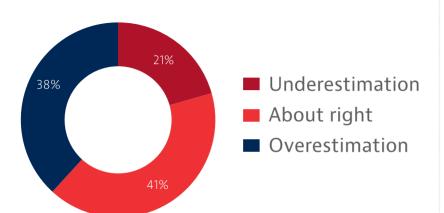


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41%

believe in Wood Mackenzie's estimation that offshore wind in Asia will rise 20-fold by 2027 to 43 GW, with China growing from 2 GW to 31 GW, and prices becoming competitive with 'traditional thermal' by 2027.



Asia is the next frontier



for offshore wind projects

- Asia is expected to catch up to the EU in terms of installed capacity it is a question of "when" and not "if".
- Momentum is building with large projects in China, South Korea, Japan and Taiwan. New projects are expected in Thailand, Vietnam and India.
- Offshore wind's momentum is driven by Asia's dense populations and need for large scale generation projects.
- Industry challenges to achieving 43GW offshore capacity in Asia include significant infrastructure / CAPEX investment, fabrication / installation challenges, unstable / inconsistent government policy and grid connection issues.



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Focus on Innovation

Realising the power of DER (Distributed Energy Resources), Storage and Digital Technologies to power renewables

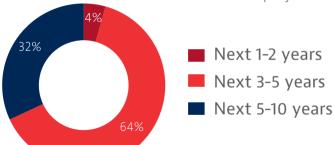


BloombergNEF 2019 predictions

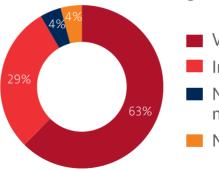
- 1 Energy storage adds 10GWh for first time
- 2 Electric vehicle sales up by only 40%

64%

think that it will take a modest 3-5 years for costs of battery storage technologies to decrease sufficiently to make them cost-effective in renewables projects



92%



feel that the uptake in distributed energy sources is important, or very important to the growth in renewables

- Very important
- Important
- Neither important nor not important
- Not important

39%

agree that blockchain and digital technologies are vital to drive growth in renewables

Going forward, the interplay between the government, private sector and technology innovation spaces will be critical to the success of renewables. In particular, policy needs to drive innovation by making it commercially appealing.

Trends



Decentralisation, off-grid and micro-grid energy



Rise of artificial intelligence and robotics to meet evolving demands



Distributed generation to improve grid reliability and energy efficiency



More and more corporates interested in sourcing their energy from renewables (RE100)

For more insights on opportunities and challenges on smart power, click to read our **Smart Power Revolution report** (2018).



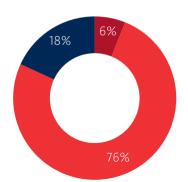
Focus on Corporate PPAs: Trends and Challenges for Buyers

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76%

expect that corporate PPAs are going to be a major part of the energy sector going forward



Corporate PPAs are:

- a bubble that will burst
- going to be a major part of the energy sector
- going to be a niche interest

Corporate PPAs continue to surge

Our panellists in the Morning Debate saw a bright future for corporate PPAs in their respective markets, each confirming that (although certain regulatory and market design changes will be required in many markets), corporate PPAs will grow significantly in the next four years.

The vast majority of existing corporate PPAs in the renewables space involve US corporates and US-based renewables assets. These account for 9GW in total and nearly three-quarters of all renewable PPA deals globally.

The region with the biggest potential for growth in corporate PPAs (both traditional and renewable) is **Asia**. However, there are significant barriers due to the lack of liberalised energy markets across the region.

3

The current regulatory climate in **China** poses significant obstacles to the growth of corporate PPAs, but there is a degree of optimism that the scheduled reforms will liberalise the market sufficiently to cause a shift from a top-down to bottom-up energy market.

64%

believe that corporate PPAs are for all corporate energy consumers, and not only for large sophisticated buyers Corporate PPAs are no longer isolated to energy-intensive industries and there is increasing uptake among:



Tech companies (with energy-hungry data centres)



Consumer goods companies (with brand image to protect)



Educational institutions

Read more on the growing trend of corporates entering into renewable PPAs in our report

The Rise of Corporate PPAs 2.0 (2018)



Scaling up renewables as an asset class:

financial investor, debt and equity capital market perspectives

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By asset class, funding from venture capital and private equity sources increased quite significantly from 2017.

However, overwhelmingly, renewable projects are still financed by traditional equity on balance sheet or debt.³

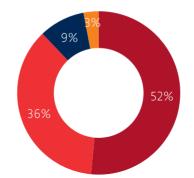
There has been an increased focus on sustainable investment.

Renewable energy as an asset class makes a great contribution to achieving the targets and objectives of sustainable investment.



52%

believe that asset owners don't invest more in renewable energy because of the lack of investable or suitable projects



- Lack of investable/suitable projects
- Policy, regulatory and exchange rate risks
- Lacks sufficient knowledge, skills or expertise
- Higher costs than traditional assets

There is appetite and capital ready to be deployed in the renewables sector. However, challenges for financial investors to invest in renewable projects include:



Scalability: difficulty in finding investment that is sufficiently large to make meaningful contribution to the portfolio.

One solution is through strategic partnership with developers, contractors and operators allowing investors to either buy into an existing portfolio asset and use that as a basis to further grow the exposure, or to build up a platform together from scratch.



Regulatory and political risk, especially in emerging markets, but recently, also in developed markets



Ever **growing**valuations, especially in competitive bid



Scaling up renewables as an asset class:

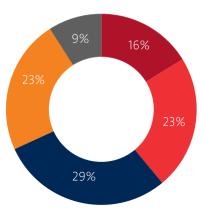
financial investor, debt and equity capital market perspectives

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29%

feel that political and stakeholder pressure will be the most significant driver in increasing institutional investment into renewables over the next 2 years



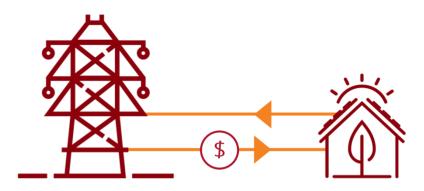
- Technological developments and improving investment practices
- Removing energy and renewable energy policy barriers
- Political and stakeholder pressure
- Developing pooled investment products
- Increasing private sector investment

As an asset class, the default risk for renewable projects is quite low. However, in many emerging markets, foreign currency risk arises from a mismatch of currencies - projects loans in one currency (e.g., USD) while project revenue is in local currency.

One solution is to develop local currency capacity indigenously in emerging markets. The challenge though is that in many emerging markets, there is insufficient long term indigenous savings - bank liquidity based on short term deposits are not in the right form. Government policy is required to develop such long term savings.

To introduce renewable energy, many countries use feed-in-tariffs (FiTs) and subsidies.

However, in many emerging markets, FiTs and subsidies are complex and limited (e.g., only for the first say 500MW of projects or projects completed by a certain date). Regulatory risk arises from uncertainty as to whether FiTs will be extended, renewed or replaced.



Growing public support for renewables in AP is in juxtaposition to many government policies there that inhibit renewables development, such as ending fixed FiT programs.



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