Roundtable

Asian renewables

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'Asia is where you have to be – that's where the growth is'

Despite the region's diversity, the growth potential for clean energy across Asia is staggering. Four industry experts tell **Eduard Fernández** where they are looking for opportunities and what challenges they face

Just one day before our Asian renewables roundtable took place, the UN's Intergovernmental Panel on Climate Change issued its latest report. The study detailed some of the devastating consequence our planet could face due to global warming and stressed the need to cut carbon emissions, keeping rising temperatures below 1.5-degrees Celsius.

Currently, Asia appears to be leading this much-needed transformation towards sustainable energy, with 64 percent of global renewable capacity being added in the region in 2017, according to the International Renewable Energy Agency. Therefore, as we met at the offices of Pacifico Energy, in Tokyo's glittering Roppongi Grand Tower, it seemed appropriate to start our conversation by asking whether a report like this could trigger further change across the region?

"Most people believe there's evidence on climate change, and that it requires a global solution. However, we don't expect major policy change coming out of the report, because organisations are already working on that track, to become more green and environmentally friendly," starts Sushil Verma, managing director and head of Asia-Pacific at GE Energy Financial Services.

Patrick Boocock, head of Asia-Pacific

at Brookfield Asset Management, agrees and points out the study might push countries that have been slow to catch on to renewables to "get their skates on". He singles out Australia, "which has a lot of renewables potential, but has been fairly slow to enact it".

But with everyone around the table more than sold on the environmental benefits of renewables, the key message participants hope to get across is that renewables are not just about being environmentally friendly anymore – they are increasingly about cost-effectiveness.

"The new [UN] report is helpful, and everyone understands that renewables are good for the environment," says Nate Franklin, president and chief executive of Pacifico Energy. "But in my view, we are getting to the point where renewables are getting cheap enough, are easier to build and experience less price volatility – so the demand is coming because they make economic sense, not just to be green."

Asia is likely to continue to be at the forefront of the energy transition because of its fundamentals. "There are two primary factors for this growth: one is an increasing demand for energy in the region, and the other, an absolute desire to reduce CO2 emissions. If you put those two together, you have a significant investable market," explains Boocock.

"The challenge is how to fill the gap, because subsidies can't fund this massive funding gap. Luckily, we are seeing some countries coming into grid parity, which is when renewables become economically feasible," he adds.

The question is also 'who' will fill the gap? According to Boocock, the market initially took off with the investment of local conglomerates from Japan and China. "In the next wave, foreign renewables sponsors got into the programme, primarily in Japan, and less so, in China."

Finally, as the market matured, institutional investors started to come in: "More recently, we have been starting to see institutional capital, as these assets become operational. We have seen sovereign wealth funds, pension funds and infrastructure funds investing in this space," he says.

'CLOSER TO GRID PARITY'

As has been happening across Europe in recent years, the price of renewable energy is starting to fall quickly, bringing renewables closer to grid parity.

"If you look at Japan, the wholesale-traded market for power has been growing rapidly, and the pricing is between ¥10 and ¥15 per Kwh, so it's getting closer to grid parity. Solar and wind are going to get closer and closer to fossil fuel prices, if not beating [them] already," Franklin argues.

But the situation needs to be analysed on a country-by-country basis, all participants stress. "The cost of constructing a solar plant in Japan is more expensive than in India, for example. It also depends on the availability of fuel sources in

AROUND THE TABLE

Nate Franklin, president & CEO, Pacifico Energy

Franklin is the president and chief executive of Tokyo-based Pacifico Energy. The company was founded in 2012, after the new Japanese Renewable Energy Act was introduced, and has developed eight large-scale solar plants totalling over 640MW in the country. The company announced in February that it had raised ¥15.5 billion for its first solar fund. Before joining Paifico, Franklin worked as director of solar development at BP, and as vice president of alternative energy at Jaco Oil.

Helge Rau, head of M&A, wpd

Rau has worked as head of M&A at German wind-farms developer wpd for six years. The company has been developing projects for more than 20 years, and is actively engaged in 18 countries. The Taiwanese market plays an increasingly important role for wpd, where it is developing the pipeline of 500MW onshore wind farms, 1,000MW offshore wind farms and 50MW photovoltaic plants. Previously, Rau worked as manager at Kompass Corporate Finance GmbH & Co.

Patrick Boocock, managing partner & head of Asia, Brookfield Asset Management

Boocock is responsible for Brookfield's investment and asset management activities in Asia. He has worked in Brookfield since 2009, where he has held several senior positions, including chief financial officer of Brookfield's global construction company and managing director of an Australian natural gas transmission and distribution portfolio. Previously, he worked as a senior vice president at Plenary Group.

Sushil Verma, managing director and head of Asia-Pacific, GE Energy Financial Services

Verma has helmed GE Energy Financial Services' operations in Asia Pacific for over three years. The company focuses on equity investing and third-party financing, particularly in India, Japan, Australia, Vietnam, South Korea, Bangladesh and Sri Lanka. Previously, he held positions as managing director of business development at GE Power and chief risk officer of Commercial Finance in India for GE Capital.

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the country. India does not really have gas resources and lacks good quality coal. Hence, Indian solar power is well-placed [to grow]," GE Energy's Verma points out.

When it comes to promising markets in the region, Japan and Taiwan are highlighted as having the most potential, with South Korea coming a close third.

"Taiwan is a good market for [solar] PV, and, of course, offshore wind, but there are also onshore wind opportunities. Another huge market will be offshore wind energy in Japan, mainly floating," Helge Rau, wpd's head of M&A, says. "And South Korea has established very aggressive and ambitious political goals".

Responses become more mixed when participants are asked about opportunities in Southeast Asia. Everyone sees tremendous long-term growth potential in what is one of the fastest-growing areas in the world – but everyone also points at how some of these promising markets are struggling to take off.

"Markets like Indonesia or Malaysia have potential. However, we do not expect to see a lot happening there, in terms of MWs and GWs," Verma says.

Rau, though, highlights that a lot of investors "are opening new offices in the region", meaning "there will be a lot of capital coming into the market, and it will be looking for growth opportunities". He adds: "The Philippines seems to be quite an interesting market. Vietnam has ambitious goals and at least there is a feed-in scheme behind it, so this is kind of driving these markets."

Pacifico Energy's Franklin argues Southeast-Asian "markets are more difficult, they aren't as mature, and you have more offtake and finance risk – the utilities aren't as bankable as [in] developed markets. They are growing faster, so there's definitely an opportunity, but policies aren't as stable."

"Different countries will give you different kinds of risk," Verma offers. "If you talk about Vietnam, for example, the sovereign and offtake risks are the main ones. Also, PPAs that do not meet international standards result in financing risks." Franklin reflects on his experience developing a project in Vietnam to talk about the differences with more developed markets, like Japan. "I realised we got 'spoiled' in Japan, where the market and the banking system is mature.

"Going to Vietnam has been very much a learning experience," he points out. "From a development perspective, permitting risk, trying to get in the market, can be tricky, because you need to have the right local team when you are making bets on land and taking positions. You are taking local risks, that might come from the community, the unions, land rights and so on," he says.

Still, with Pacifico Energy currently involved in the construction of a 40MW solar project in Vietnam, Franklin couldn't hide his enthusiasm for the country: "Vietnam is just such an exciting place to be in, with lots of energy and an exploding middle class. You are out at night and there's just kids everywhere, families. Policy-wise it's challenging, but it's moving in the right direction, and we see things starting to get easier."

Economic considerations aside, Rau reminds us that, when it comes to renewables, natural resources play a crucial role. "Vietnam has good wind resources, Laos has some good wind resources and some parts of India, too. Taiwan is excellent, as it is located in the Strait of China," he notes.

India is indeed another large market with a growing energy appetite that is starting to develop its renewables industry. The country is planning to increase the share of renewables in its electricity mix to 55 percent and its installed capacity has already surpassed 70GW.

"My view is that we are going to see tremendous growth in India. Last week, Indian Prime Minister Narendra Modi announced an $80 billion renewables-investment programme. He is really keen to promote renewables, and there are a lot of renewables developers in the market, so it's becoming more competitive," Boocock says.

Not everyone is keen to explore the Indian opportunity, though. Franklin, for example, says his firm has decided to stay away from the country so far. "We have looked at it, and our view is that there's too much risk for too little return. You have to make aggressive assumptions and then everything has to go exactly right. Then you might make a little profit".

Verma also believes India is an emerging opportunity, but thinks the market is overcrowded. "Given the [large] size of the market, every player wants to get in, and this is reflecting on low auction prices. We do expect some rationalisation over time," he says.

Nevertheless, he makes clear that GE will be following India closely. "As a business objective, we are aligned to our industrial side, which manufactures wind, gas and steam turbines. We view the opportunities, therefore, through where the opportunities exist for the industrial business. From that perspective, India is

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where there's going to be a huge demand for growth in GWs and MWs."

TIED TO THE POLICYMAKERS

Despite all the talk about nearing grid parity, the reality is that two of the booming renewables markets in the region – Japan and Taiwan – were helped by favourable energy policies from their respective governments.

"Utilities must have a programme to procure power, which, in the end, is driven by policy coming from the regulator – as a developer you have to respond to it" **Franklin**

After the 2011 Fukushima incident, the Japanese government approved a feed-in tariff for renewable electricity. Similarly, Tsai Ing-Wen has been pushing for a greener energy mix since she was elected president of Taiwan in 2016, setting an ambitious goal to boost renewable energy to 20 percent of the country's supply by 2025.

With that in mind, will the Asian renewables market, as it matures, continue to be tied to the whims of policymakers?

"We are always going to be dependent on policies, especially for the kind of utility-scale projects we invest in. All the markets are always going to be policy-driven to an extent, because that's how the global power industry is organised. Utilities must have a programme to procure power, which, in the end, is driven by policy coming from the regulator – as a developer you have to respond to it," Franklin argues.

Rau uses wpd's experience in Taiwan – where the German developer has won bids to build two offshore wind projects with a combined 1GW capacity – to talk about what it's like being in a new market from scratch.

"We started off there 15 years ago with our local partner, when there was basically nothing. Our first choice was not only to develop projects, but also to find a turbine manufacturer that could deliver in that country," he recalls. "You need to build up the supply chain and a certain trust. Once you have done that, investors might come in the first place, because they are expecting high returns. Afterwards, maybe you can cease to have tariffs and move towards auctions".

Everyone believes that, as renewable energy becomes cheaper, policies might change from providing subsidies to supporting renewables with growth targets.

"To that extent, we expect to see a phasing out of feed-in tariffs, as we are

"There are still a few challenges to overcome associated with corporate PPAs. And a lot of corporates may not want to lock in for a period of 10 or 20 years, because they see power prices coming down" **Verma**

seeing with the US PTC [Production Tax Credits] phase out," Verma predicts.

A NEED FOR ENERGY STORAGE

Where there is a pressing need for incentives, though, is in the nascent energy-storage market, widely seen as a much-needed complement to renewable energy.

"You need to have an incentive to do that, the costs are too high at the moment," Rau says. "Even if you achieve grid parity for renewables in certain markets, but you then add an additional substantial cost for storage, there's no grid parity anymore."

Franklin recalls his frustration when talking with suppliers: "Major storage suppliers come to us to pitch the product, and I always tell them that they need to go talk with the utility companies and regulators, not us."

In that regard, South Korea – where the government announced it will give additional points to renewable-energy certificates tied to plants that install energy-storage systems – seems to be taking the regional lead in the sector.

Corporate power-purchase agreements are highlighted as another possible game-changer. Google has just signed a corporate PPA with three energy developers, including wpd, in Finland. Will similar experiences start to emerge in Asia soon?

"In markets where we achieve grid parity, you don't have to incentivise corporate PPAs, they will emerge on their own. Big industrial players will start asking how they can secure energy on a long-term basis at a reasonable price," Rau answers.

But Verma has doubts on just how interested companies really are in PPAs at the moment:

"There are still a few challenges to overcome associated with corporate PPAs, in terms of transacting with creditworthy companies you can rely on for the next 10 to 20 years. And a lot of corporates may not want to lock in for a period of 10 or 20 years, because they see power prices coming down. The biggest factor determining their evolution will be the bankability of corporate PPAs."

Still, despite all the unknowns and some of the challenges pointed out earlier, our participants believe renewables are bound to keep expanding rapidly across Asia.

"There are going to be some risks, including counterparty risk and development risk, which may create a few bumps along the road, but the path towards a sustainable, long-term renewables market is certain to happen," Boocock states.

And that, as Franklin neatly summarises it, makes Asia key for renewables investors: "It's hard to talk about the region as a whole because every country has a different culture, geography, language. But looking globally, Asia is where you have to be – that's where the growth is." ■