

# YINSON RENEWABLES

COMMENTARY BY DAVID BRUNT, YINSON RENEWABLES CHIEF EXECUTIVE OFFICER

## HIGHLIGHTS FYE 2024

### ASSETS

**463 MW**

assets operational

**585 MW**

assets under construction and pre-construction

**~800 GWh**

total generation capacity

**~USD 1 billion**

in contracted revenues from PPAs

### PIPELINE

**1,186 GW**

projects secured and in development

**~2,000 MW**

early-stage development pipeline

**9 countries**

with active development projects

Collaborating with

**9** development partners across **4** continents

### PERFORMANCE

**~366 GWh**

net power generated\*

**~354,941 tonnes**

CO<sub>2</sub>e carbon avoided

\* 100% basis; some assets operating only part of the year.



## MARKET OVERVIEW AND OUTLOOK

During the COP28 Climate Summit, more than 130 national governments agreed to work together to triple the world's installed renewable energy capacity – a reflection of the collective global willpower that is driving the clean energy sector's fastest growth in history.

Accordingly, 2023 saw the deployment of clean energy soaring to new heights, with annual deployment of solar PV and wind growing by 85% and 60% respectively. This deployment, however, has been uneven, with China and advanced economies accounting for 90% of capacity additions for wind and solar PV.

Adoption of renewable energy must be further rolled out in advanced economies, but it is crucial that emerging economies concurrently accelerate their renewable energy adoption to keep pace. This is by no means straightforward, as current challenges include delayed policy responses to the new macroeconomic environment, insufficient investment in grid infrastructure, administrative barriers and lack of financing in emerging and developing nations. Many of these challenges (especially the lack of investment in grid infrastructure) are also issues affecting growth in advanced economies.

We have built our activities around three core regions: Latin America, Asia Pacific and Europe, which has allowed us to build a balanced portfolio. Within these regions, countries have been selected where we believe the policies, market conditions and growth prospects enable a path to achieve a commercially attractive and stable generation portfolio.

An outlook and a snapshot of our activities by region and most advanced projects are summarised in the next section.

## LATIN AMERICA



Latin America has one of the cleanest electricity systems in the world. Roughly 60% of the region's electricity today comes from renewable sources, and this is poised to grow to 80% by 2050 with today's policy settings. While hydropower has historically been integral to Latin America's energy mix, wind and solar will experience the highest growth in this region in the coming years. The cost competitiveness of renewables over other new energy sources anchors renewables as the preferred source of power generation.

**Peru**

Peru is the first country in the region where we will have a project in operation. Project Matarani, which is a 97 MWp solar PV project, is expected to be commissioned by the third quarter of 2024. Following this, the first phase (54 MWp) of the 130 MWp Majes solar PV project is expected to be ready for construction before end 2024.

**Brazil**

In Brazil, two wind projects – Vicoso and Santa Clara, totalling 486 MW, located in the Ceará region, are being prepared to be ready for construction activities while we anticipate the outcome of the grid availability.

**Chile**

In Chile, two hybrid (solar + battery storage) projects with a total solar PV capacity of around 212 MWp are in the late stages of development. We expect at least one of these projects to reach ready-to-build stage by the end of 2024.

**Colombia**

A 118 MWp solar PV project in Colombia is expected to be awarded grid connection this year, after which the remaining development activities would be completed to be ready for construction.

## ASIA PACIFIC



Decarbonisation is a common theme across Asia Pacific, but the pace and scale differ vastly due to varying levels of wealth, hydrocarbon reserves, political and regulatory conditions, and renewables potential. New Zealand already has a low-emissions electricity system, with a large proportion of its electricity coming from renewables (over 80%). The country's long-term energy strategy to increase renewable energies will further drive decarbonisation and provide power for increased electrification on its pathway to net zero. This will galvanise the outlook for renewables activities even further. In South and Southeast Asia, most countries have committed to long-term plans for a more secure energy future, which include boosting clean energy technology. Such policies, together with intraregional and international support for the region's transition, present promising opportunities for clean energy investors.

**New Zealand**

Throughout 2023 we have continued to assess and secure greenfield wind energy opportunities. Our overall pipeline is becoming significant with several large-scale opportunities being investigated and taken forward. Our most advanced project, Pahiatua, which is located in the North Island, is expected to be submitted for planning consent this year.

**Malaysia**

We have continued to work closely with our joint venture partner, PXS, growing steadily in the commercial and industrial rooftop (C&I) space with around 10 MWp in operation and a further 16 MWp secured or in construction to be operational by end of 2024. In addition, we are exploring locations and identifying potential partners to position the company for upcoming large scale solar projects in Malaysia.

**India**

Our activities in India are conducted through our subsidiary, Rising Sun Energy. Our two operational projects, Rising Bhadla 1 & 2 Solar Parks, continue to perform well. This financial year has seen the latest addition to our portfolio, the 285 MWp Nokh Solar Park in Rajasthan.

**Indonesia**

Our activities in Indonesia are conducted through our subsidiary, Inecosolar. In 2023, we won our first Indonesian C&I project to supply Lazada Indonesia with solar energy from a 396 kWp rooftop system. This was followed with a 264 kWp solar system supplying Finusolprima. We continue to install domestic systems, and have 666 kWp in operation in Bali across a wide range of industries including off-grid, residential, hospitality and manufacturing. We also opened a new office in Jakarta to tap into the opportunities in that region.

**EUROPE**



By 2030, the European Union aims to achieve an overall renewable energy share of 45% and has set a binding target of 42.5% for all member states, up from the previous 32% target. The directive entered into force in all EU countries on 20 November 2023, calling for almost double the existing share of renewable energy in the EU. To achieve its targets, the EU is committed to speed up permit-granting procedures for renewables and facilitate power purchase agreements (“PPA”). These steps bode well for renewable energy players, especially those who have established a local presence and track record.

In Europe, our current focus is Italy. As part of its National Energy and Climate Plan (NECP), Italy targets reaching 40% of its gross energy needs from renewable sources and aims for renewables to account for 65% of electricity generation by the end of this decade. To achieve this, Italy plans to add 70 GW of renewables to the existing capacity. The strategy for reaching these objectives focuses both on boosting the share of renewables in electricity.

**Italy**

We have nearly 500 MW of wind and solar PV projects in development, of which over two-thirds are already in the consenting process. New projects are also being investigated and we expect to grow this pipeline steadily over the coming year.

**CONSTRUCTION & OPERATIONAL HIGHLIGHTS**

**India**

A significant milestone for us in the financial year was undoubtedly the completion of the 285 MWp Nokh Solar Park, which commenced commercial operations on 3 November 2023. The park is now exporting power to the Rajasthan power grid, aligning with the Indian government’s National Solar Mission. The project has a 25-year PPA with NTPC Limited, which is majority-owned by the Indian government and is India’s largest power utility company. Since commencing operations, Nokh has been performing well, with full output achieved on 3 April 2024.

The Bhadla assets in India continued to perform very well in the year under review. Irradiation levels during the year were around 5% lower than forecasted, which is a common variance. That considered, the assets continued to perform strongly during the year under review to generate just 2% below forecast. Taking a longer view, the asset has performed above forecast over its six years of operation – a testament to the commitment and capabilities of the overall Yinson Renewables team.

**Peru**

We acquired the 97 MWp Matarani Project in Peru from Grenergy Renewables in January 2024. The project is located in the Mollendo Desert in the Arequipa region, one of the world’s highest solar irradiation areas. A 15-year PPA has been signed with Enel Generation Peru, one of the largest utility companies in Peru. The project is currently under construction and is expected to enter commercial operations before the end of 2024. Matarani will be Yinson Renewables’ first operating project in the South American region.

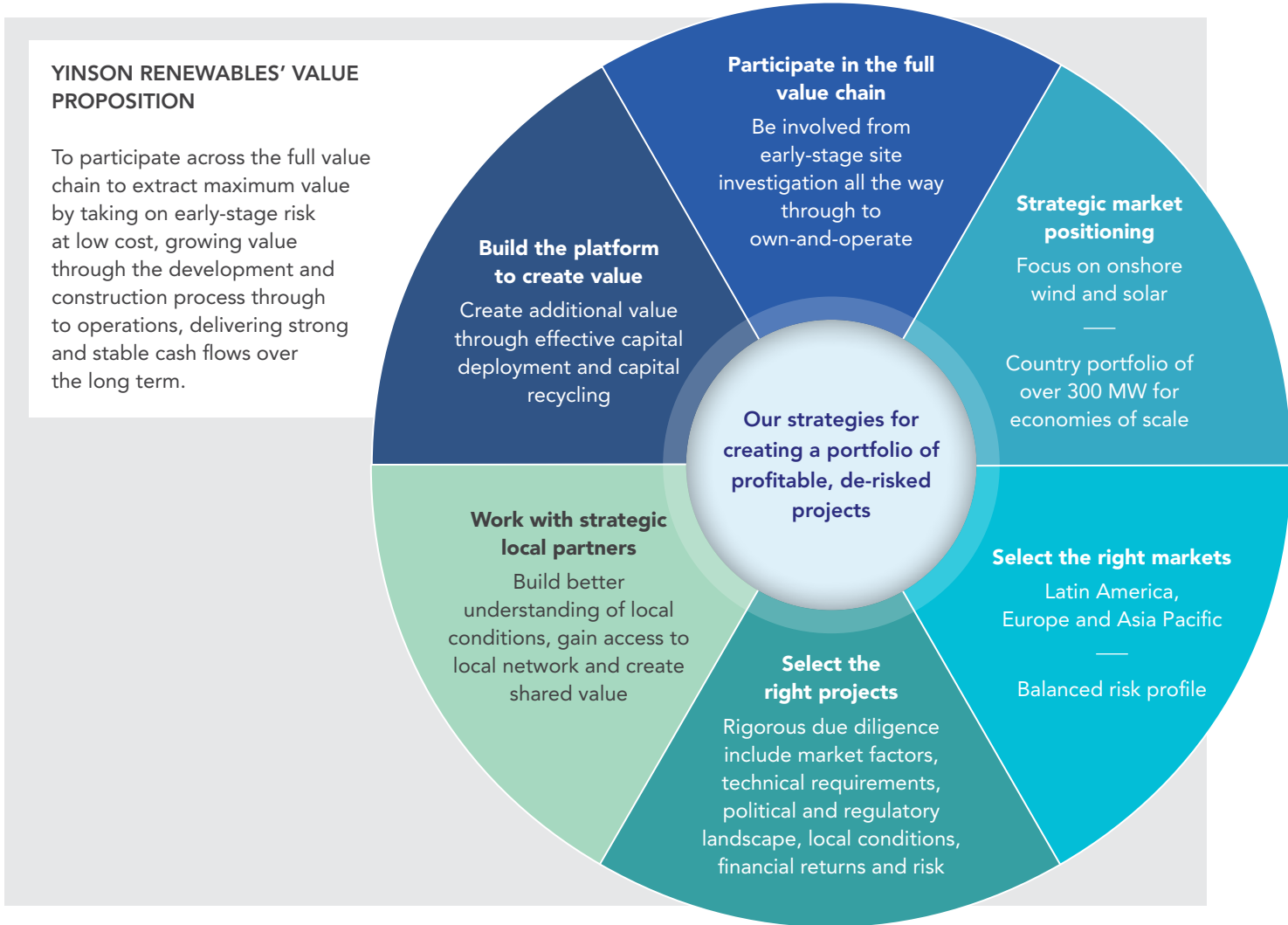


## RISKS AND OPPORTUNITIES

External environment	Risks	Opportunities	Yinson Renewables' response
<b>Short to medium-term (1 to 5 years)</b>			
Higher interest rate market.	<ul style="list-style-type: none"> <li>• Tighter access to capital.</li> <li>• Slower build-out of existing pipeline.</li> <li>• Impact on new project equity returns.</li> </ul>	<ul style="list-style-type: none"> <li>• Seek alternative equity capital sources.</li> <li>• Market conditions (PPAs) will adapt over time to deliver higher returns, but there may be a time lag.</li> </ul>	<ul style="list-style-type: none"> <li>• Pursue alternative external sources of equity capital.</li> <li>• Optimise pace of development to match current available capital.</li> </ul>
Increasing pressure and volatile pricing on supply chains.	<ul style="list-style-type: none"> <li>• Supply chain constraints leading to increased costs and delayed deliveries.</li> </ul>	<ul style="list-style-type: none"> <li>• Rationalisation, consolidation and new market entrants within the supply chain.</li> <li>• Market conditions (PPA pricing) adapting to increased costs.</li> </ul>	<ul style="list-style-type: none"> <li>• Manage supplier costs through robust procurement processes.</li> <li>• Strong supplier relationships.</li> <li>• Ensure projects continue to give robust returns by securing attractive PPA terms.</li> </ul>
Grid uncertainties affecting operational and potential new projects.	<ul style="list-style-type: none"> <li>• Lack of grid infrastructure to enable timely connections.</li> <li>• Curtailment of generation.</li> <li>• Higher costs to renewables developers, investors and consumers.</li> </ul>	<ul style="list-style-type: none"> <li>• Participate with grid operators, regulatory authorities and industry trade bodies to accelerate grid infrastructure development.</li> </ul>	<ul style="list-style-type: none"> <li>• We adhere closely to our Investment Policy which evaluates market fundamentals and ensures our selected projects meet rigorous criteria including regulatory, political and operational standpoints.</li> </ul>
<b>Long-term (6 to 10 years)</b>			
Increased renewable energy targets globally.	<ul style="list-style-type: none"> <li>• Unable to meet targets due to permitting delays and infrastructure limitations.</li> <li>• Policy and regulatory uncertainties.</li> <li>• Higher costs of capital.</li> </ul>	<ul style="list-style-type: none"> <li>• Policy-led incentives for renewable energy players.</li> <li>• Demand for renewable energy from corporate offtakers.</li> <li>• Security of supply concerns in changing geopolitical landscapes creates greater demand for projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Yinson Renewables is well positioned in terms of pipeline, expertise and resources to capitalise on the growing opportunities in the renewable energy space.</li> </ul>
Rapid technological developments.	<ul style="list-style-type: none"> <li>• Failure of non-mature technologies.</li> </ul>	<ul style="list-style-type: none"> <li>• Integration of different technologies into projects, increasing opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• Experienced team is able to keep abreast of technological developments and integrate them into our projects.</li> <li>• We adopt proven technologies.</li> </ul>
Strong investor expectations.	<ul style="list-style-type: none"> <li>• Inability to meet expectations in a challenging economic climate, leading to reputational impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Investors favour companies with a strong track record of delivery with demonstrated capability to manage renewables value chain risks.</li> </ul>	<ul style="list-style-type: none"> <li>• Our involvement in the full value chain allows us to use our experience and expertise to manage early-phase risks, offering investors de-risked investment opportunities with stable returns.</li> </ul>



**SHIFTING GEARS TO CREATE MAXIMUM VALUE OVER THE LONG TERM**



Our value proposition provides clear guidance for decision-making. We constantly realign our business decisions while steadfastly adhering to our strategies to ensure that the projects that we select deliver maximum profitability with limited risk.

While we have grown our operational assets portfolio and pipeline in 2023, we have also had to be adaptable to react to both internal and external factors. The increasing cost of capital, which also feeds into our supply chains and influences capital priorities, has made us more restrictive about the projects that we choose to progress at the current time. We are managing the progress of our existing development projects carefully, while keeping our external stakeholders updated with the change of pace.

This may affect our ability to deliver on our near-term generation targets. Our long-term targets remain within reach, with the two most crucial variables being the availability of capital and market conditions. We will look at options to source external capital to get back on track as soon as possible.

Our focus in the coming year will be delivering the Matarani Project and commencing commercial operations in Peru. We are also planning to make investment decisions on two other projects, although these will be dependent on external factors including grid and commercial considerations.

**CLOSING REMARKS**

In 2023, we further established our standing as a serious player in the global renewable energy space through our new operating and construction assets, and strategic progression of our pipeline. We have successfully adapted how we operate to accommodate the changes brought about by the business environment around us and made prudent decisions to manage the associated risks which will result in slower growth in 2024.

With this experience under our belt, together with our lean, experienced and professional global team, we are poised and ready to re-accelerate our growth when conditions allow. I thank my team, our valued local partners and all our stakeholders who have supported our journey towards a cleaner energy future.