



GOLDEN PLAINS – BRIDGE TO CONTRACTING

*The Golden Plains Wind Farm in Victoria, Australia, is one of Australia's largest permitted wind farms, sponsored by clean energy investor TagEnergy and project-financed on a fully merchant basis by a group of commercial lenders, including the Clean Energy Finance Corporation. Technologically advanced and financially innovative, the landmark clean energy project is already playing an important role in the journey to decarbonising Australia's energy sector, as part of the country's ambitions to achieve net-zero emissions by 2050. By **JOE HARBER**, head of wind investment, **CEFC**.*

Australia's wind sector has gone from strength to strength in the past decade, from being a bit player in a promising developing resource to supplying more than 35 per cent of the country's clean energy and just under 10% of Australia's overall electricity generation.¹ But with sharply increasing ambitions for emissions and renewable energy, the work of the wind sector has only just begun.

SCALE AND INNOVATION

Sponsor TagEnergy, part of the Impala SAS Group, is the owner of Stage 1 of the Golden Plains Wind Farm, which achieved financial close in 2022 attracting investment of circa A\$2bn. The Golden Plains financing model, recognised as Asia-Pacific Renewables Deal of the Year in the annual PFI Awards, features an innovative "bridge to contracting" approach, allowing development to proceed at pace, ahead of locking in long-term energy offtake agreements. Fully-merchant financing at this scale marks a significant development in the rapidly expanding and maturing Australian wind industry.

The Golden Plains Wind Farm attracted a syndicate of private and public sector capital amounting to A\$1.8bn. Debt providers included international and Australian financial investors such as Japan's Mizuho Bank, the Bank of China, Germany's KfW IPEX-Bank, Denmark's EKF, and Australia's Commonwealth Bank Australia and Westpac Bank, alongside the Clean Energy Finance Corporation, which made its largest single debt commitment to a wind project of US\$175m in the transaction.

As the largest permitted wind farm in Victoria to-date, the project is expected to yield the biggest single contribution to emissions reductions to the CEFC portfolio, with estimated annual emissions abatement averaging 770,000 tonnes CO₂-e, or more than 23m tonnes CO₂-e over the project's 30-year lifetime.

Alongside TagEnergy as the sole equity investor in Stage 1 of the project, global furniture giant Ikea's investment arm Ingka Investments has taken a 15% stake in Stage 1 of the project as part of Ikea's plan to become climate positive by 2030. As a company outside of the energy supply sector, Ingka's investment interest marks a point of difference from

The bridge to contracting strategy is a mechanism that acts to effectively accelerate the development of Australian wind farms by removing the need for shovel-ready projects to pause

the more-typical arrangement of securing a long-term PPA with an energy user, and highlights the changing appetite among investors for wind projects.

Investors are increasingly accepting wind as a known and accepted asset class and, in parallel, technological advances, are materially improving efficiency. These factors mean investments in wind farms are moving towards a risk analysis similar to that of more conventional infrastructure assets. This should further accelerate project timelines and the transition to clean energy.

BRIDGE TO CONTRACTING FINANCE MODEL

The CEFC is proud to have played a key role in helping the market transition away from requiring new wind farms to have a significant portion of their offtake to be contracted to investment-grade counterparties under long-term power purchase agreements (PPAs) prior to commencing construction.

The bridge to contracting strategy is a mechanism that acts to effectively accelerate the development of Australian wind farms by removing the need for shovel-ready projects to pause while they source and negotiate long-term PPAs. Instead, developers can proceed with construction in parallel with pursuing PPAs. In addition to accelerating development times, this financing strategy has proved advantageous to equity sponsors of CEFC projects, which have been able to secure more favourable PPA terms from energy offtakers.

The substantial and complex financing arrangement for Golden Plains gives confidence about the market appetite for commercially-viable large-scale wind developments, and signals growing investor appreciation of the required scope and scale of new wind generation in Australia. Progressing wind farms to a fully merchant basis without a pre-existing PPA shakes up what has until now been a common feature of wind farm contracting strategy operations. Reaching financial close on a fully merchant basis shifts this power dynamic, with wind farm operators able to trade in the wholesale energy market instead of underpinning revenues via long-term PPAs.

ABOUT GOLDEN PLAINS

The Golden Plains Wind Farm is situated near the small rural town of Rokewood, near Geelong in Victoria. The land will continue to be used for broad acre cropping and livestock grazing during construction and throughout the project's operating lifespan. The first stage of the project will see the installation of 122 wind turbines, each with a capacity of 6.2MW, generating some 756.4MW of renewable energy.

Transmission lines in the South West Victorian Renewable Energy Zone will connect the Golden Plains development to the Cressy Terminal Station section of the Victorian transmission network. Only 60 kilometres north-west of Victoria's second largest city Geelong and comparatively close to Melbourne for a wind farm, the site is ideal for wind conditions and its proximity to population and demand load. Being geographically closer to Victoria's load centre reduces transmission loss and further assists in grid stability.

With a planned capacity of over 1,300MW when completed, the combined Golden Plains East and Golden Plains West windfarms will produce more than 4,000GWh of sustainably sourced energy annually. With an expected project cost exceeding A\$3bn, the wind farm will generate enough electricity to meet nine per cent of Victoria's power demand – the equivalent of every home in regional Victoria. Provisions have also been made for a 300MW battery energy storage system (BESS) to add further flexibility and stability to the grid network.

COMMUNITY CONNECTIONS

In making their investment decisions, investors considered a range of social licence aspects related to the project, including potential impacts on nearby Brolga habitats (a species of Australian wetland bird), native vegetation and fauna. Community engagement matters were also undertaken by TagEnergy, including:

- A community reference group to enhance communication and encourage community partnerships
- A community grants programme to provide support for a range of community-based initiatives
- A financial incentive programme for neighbours within a two-kilometre radius of a wind turbine
- A community investment programme to provide benefits to the 39 host landowners for the life of the wind farm
- A community energy programme to share the benefits of the project across a larger section of the community by offsetting electricity costs for registered dwellings within a three kilometre radius of constructed turbine towers.

FIRST NATIONS ENGAGEMENT

Particular effort was also made to ensure First Nations engagement was meaningful and had longevity and a long-term impact. The project developed a First Nations engagement strategy for the local community, including annual investment of at least A\$10,000 in First Nations engagement activities. These may include First Nations training scholarships and employment opportunities, in addition to the activities of the Community Benefit Fund.

COLLECTOR WIND FARM EXPERIENCE

The benefits of this strategy were seen in Australia's Collector Wind Farm, a project backed by the CEFC. In 2019, the CEFC became the sole debt financier to the 54 turbine, 226.8MW capacity New South Wales wind farm, allowing the project to reach financial close on a fully merchant basis. RATCH-Australia subsequently secured offtake agreements for 80% of the generator's output. It officially opened the Collector Wind Farm in November 2022, noting the support of the CEFC, Lumea and Vestas, as well as its offtakers Iberdrola and ALDI Supermarkets.

The A\$174.6m CEFC senior debt facility was repaid in 2022, at which time the project became one of three assets in a RATCH-Australia renewable energy platform, which secured debt finance from a syndicate of major Australian and international lenders, including Bank of China, DBS, Deutsche Bank, E.Sun, ING, MUFG, SMBC, and Société Générale, and A\$50m from the CEFC.

WIND AND AUSTRALIA'S ENERGY OUTLOOK

Recent changes to the Australian regulatory and budget environment point to continued momentum for the wind sector in the decade ahead. In September 2022, the newly-elected Australian Government legislated economy-wide emissions reduction targets as part of its commitment to achieve net-zero emissions by 2050. Critical milestones include reducing emissions to 43% below 2005 levels by 2030 and increasing renewable energy generation to 82% of the National Electricity Market (NEM) by 2030.

This means Australia needs to decarbonise at an average annual rate of 17 Mt CO₂-e, which is 40% faster than it has since 2009. The technologies for meeting the 2030 target exist, but Australia will need to transform its electricity grid, build renewables, diversify supply chains, upskill and train workforces, and change planning and approvals processes to get there.

In parallel, the Australian Government is creating a A\$20bn Rewiring the Nation (RTN) infrastructure programme to fast-track the development of critical infrastructure to expand and modernise Australia's electricity grid as the nation transitions to a decarbonised and decentralised energy mix. Integrating clean energy into the grid requires significant investment in grid-balancing technologies, energy storage and transmission interconnectors, as well as the development of renewable energy zones, which strengthen the grid closer to the point of generation.

This may include electricity transmission and distribution infrastructure, long duration storage such as pumped hydro, grid-supporting technologies such as synchronous condensers, and distributed energy generation projects that support the grid, eg, virtual power plants. It may also include other technologies that are needed as the needs of electricity grids evolve.

The investment and change needed to reach the energy transformation required for Australia to meet its ambitious 43% emissions target by 2030 is monumental – with the country needing to install at least 40 seven megawatt wind turbines every month for the next seven years. To put that in perspective, the mega-project that is the Golden Plains Wind Farm, which uses the latest in Vestas turbine technology, will deliver 122 turbines, each with a generation capacity of 6.2MW.

Under the Australian Energy Market Operator's 2022 Integrated System Plan, Australia will need to double the amount of electricity currently fed into the grid by 2050, increasing wind and solar capacity by a factor of nine and rooftop solar by a factor of five. In its so-called step change scenario, considered to be the most likely method of implementation, AEMO said additional wind capacity would complement the existing strong uptake of solar to the point where wind would represent approximately 85% of all additional utility scale variable energy across the NEM.²

RISING TO THE CHALLENGE

The urgency of the transition to renewable energy is heightened by the escalating shift in Australia's energy mix. Thermal energy generation is withdrawing at an accelerated rate, with announcements by thermal plant owners suggesting that up to 60% of capacity will be withdrawn from the grid by 2030. Australia's biggest single carbon polluting power plant, the Loy Yang A plant in Victoria, is scheduled to shut down in 2035, a decade earlier than previously planned. As more of Australia's coal-fired generation winds down, ambitious plans to bring in more renewable storage to the power system and forestall gaps in electricity supply as the transition occurs are crucial.

AUSTRALIA'S GREEN BANK

The CEFC, Australia's green bank, has been appointed to play a key role in delivery of the RTN infrastructure programme, with the government looking to the CEFC as the finance arm of the RTN programme, working alongside AEMO as technical adviser.

In its first decade, the CEFC established its credentials as a leading investor in decarbonisation, particularly in the all-important energy sector. Since its inception the CEFC has committed A\$3.1bn to 5.2GW of renewable energy, alongside A\$580m as part of A\$2.75bn in new investment in nation-building infrastructure and A\$261m to help finance the delivery of 468MW of large-scale energy storage.

GOLDEN PLAINS AND NET ZERO

Golden Plains is destined to play a key role in the achievement of Australia's ambitious renewable energy and emissions targets. Early works have begun, with power expected to start being generated in early 2025. The project was recognised as one of the most significant and innovative global transactions of 2022 by this very publication and was named Asia-Pacific Renewables Deal of the Year in the prestigious Project Finance International (PFI) Awards. Innovative in myriad ways, the Golden Plains project sends a powerful signal about the role of wind in our net-zero future, with improving financing, technical and commercial factors likely to prove increasingly attractive to large-scale investors. ■

FOOTNOTES

1 - Clean Energy Council, Wind generation in Australia

2 - AEMO ISP 2022, p40

Under the Australian Energy Market Operator's 2022 Integrated System Plan, Australia will need to double the amount of electricity currently fed into the grid by 2050, increasing wind and solar capacity by a factor of nine

