7th June 2022

# Strike launches Mid West Low Carbon Manufacturing Precinct

- Strike has entered into a binding agreement to purchase 3,500 ha of freehold farming land in the Three Springs Shire in which Strike's 100% owned South Erregulla gas discoveries and carbon sequestration reservoirs sit below.
- Strike will utilise the freehold land to create a low carbon integrated energy and industrial manufacturing centre, to be called the Mid West Low Carbon Manufacturing Precinct (the Precinct).
- The Project Haber fertiliser plant will be relocated to the Precinct, and Strike will assess potential renewables developers and other low carbon manufacturing collaborators to join Strike with developments at the Precinct.
- Relocation of Project Haber to the Precinct coupled with the co-located renewable energy generation opportunities has the potential to materially benefit the Project's economics and carbon footprint, including:
  - o Capital cost reduction of ~A\$85 million with removal of requirement for 105km Haber- Geraldton gas pipeline.
  - Integration of up to 170MW of on-site renewable energy to produce some of the lowest carbon urea fertiliser in the global market.
  - o Displacement of 5-10TJ/d of gas consumption through integration of behind the meter dedicated on-site renewable power.
  - o More than 1,500 hectares of carbon farming and offset opportunities.
  - o Streamlining environmental approvals and de-risking land access arrangements for the integrated development.

Strike Energy Limited (Strike - ASX: STX) is pleased to provide an update on its Project Haber development strategy with the launch of the Mid West Low Carbon Manufacturing Precinct ('Precinct') via the acquisition of the freehold farming land that sits above the South Erregulla gas fields into a low carbon integrated energy and industrial manufacturing centre.

# Deputy Premier and Minister for State Development of WA the Hon. Roger Cook MLA said:

"The State strongly endorses Strike's decision to take advantage and integrate the Mid West's vast renewable energy, gas and carbon sequestration opportunities via the relocation of Project Haber to Three Springs. The pursuit of a low-carbon manufacturing precinct has the opportunity to generate substantial regional prosperity through major job creation and import substitution. Through projects like this, Western Australia continues to demonstrate that it will be a global development powerhouse in the transition to a low carbon and ultimately net zero economy."



# Strike Energy Limited Managing Director & CEO Stuart Nicholls said:

"Strike continues to display sectoral leadership through its strategic development approach at Project Haber, in utilising its natural resource endowment in partnership with world class renewable energy in the Mid West to manufacture globally low carbon critical agricultural commodities. The creation of the Mid West Low Carbon Manufacturing Precinct will support Strike in producing some of the lowest cost and lowest carbon fertiliser in the global market which illustrates Strike's commitment to Net Zero by 2030."



#### Mid West Low Carbon Manufacturing Precinct

Strike has signed a binding contract for the acquisition of 3,500 hectares (35km²) of freehold farming land in the Shire of Three Springs in the Mid West of Western Australia. This land holds substantial strategic value for Strike in its pursuit of reducing the cost and carbon intensity of Project Haber's nitrogen-based fertilisers.

The land possesses several natural resources and assets, including the South Erregulla Kingia and Wagina low impurity gas fields, 103m of excellent Jurassic aged carbon sequestration sandstone reservoir<sup>1</sup>, some of Australia's best wind resources, and provides the following key opportunities for Strike:

- 1. Industrial envelope for Project Haber, its operations and construction camp with surplus land for possible expansion
- 2. Potential integration of 100 MW of tier one developable wind resource
- 3. Potential integration of 1 MWh per 3 ha of land for solar power generation
- 4. Potential Research & Development grain farm for fertiliser product testing
- 5. 1,500 ha of potential revegetation and carbon farming/offset land

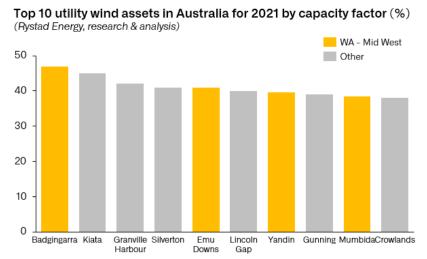
The land will now be referred to as the Mid West Low Carbon Manufacturing Precinct and it is planned that other proponents may join Strike in the development/expansion of the Precinct.

<sup>&</sup>lt;sup>1</sup> ASX Announcement dated 7<sup>th</sup> of March 2022 titled "South Erregulla Unlocks Project Haber"



# The Precinct's Wind & Solar Renewable Energy Potential

The Mid West Low Carbon Manufacturing Precinct is in an ideal geographic setting and possesses strong natural advantages in both wind and solar power generation. In particular, the wind resource that is available for capture at the Precinct is nationally significant, with the Precinct sitting on the first ridge line inland from the Mid West coast, elevated ~300m over a ~30km distance from the shore. This ridge line in the Mid West has a prolific wind resource and is host to four of the top ten most productive windfarms in Australia, including Yandin, Badgingarra, Mumbida and Emu Downs. (see chart and map below).





Strike's desktop analysis shows that the Precinct could host up to 100 MW of wind resources with an estimated capacity factor between 40-50% and, subject to land allocation, a further 70 MW of solar resource. Surplus renewable power outside of Haber's requirmenets could be made available for other behind the meter colocated industrial users, additional green hydrogen production or fed into the State's adjacent SWIS distribution and transmission network.



(above: map showing elevation to primary Mid West ridge line running through the Precinct)

#### Carbon and cost impacts from Project Haber relocation

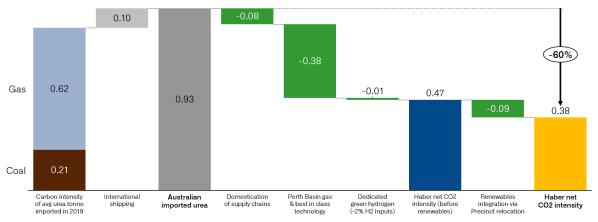
Project Haber has been engineered and designed to produce world class low emissions urea fertiliser. This is planned to be achieved through the combination of best-in-class technology, low impurity natural gas, integration of green hydrogen and the domestication of supply chains.



The resulting emissions profile (based on Technip's Pre-FEED engineering<sup>2</sup>) of the fertiliser would see an estimated 50% carbon reduction against the current imported supplies with a final carbon intensity of approximately 0.47 tonnes of CO<sub>2</sub>e per tonne of urea. The majority of the net Haber emissions are associated with power and heat generation for the plant's utilities where an additional estimated 126ktpa of CO<sub>2</sub>e can be removed through the integration of dedicated renewable energy (resulting in a 60% carbon reduction against base). Integration of this dedicated renewable energy is facilitated by the relocation of Project Haber to the Precinct.

# Average CO2 intensity of urea imported to Australia vs Haber

(tonnes of CO2e per tonne of urea)



Refer to ASX announcement: Project Haber to deliver huge carbon abatement and billions Australian GDP on 6th May 2021

(CO<sub>2e</sub> emissions per ton of urea equivalent, as at 2020)

On top of this renewable integration, re-locating Project Haber to the Precinct allows Strike to remove other potential emissions associated with gas transmission and piping the South Erregulla gas to Geraldton. The substitution of the plant's utilities-associated gas consumption of 5-10 TJ/d with the Precinct's planned dedicated renewable electricity reduces the final emissions profile of the urea produced (based on Strike's analysis) to an estimated 0.38 tonnes of CO2e per tonne of urea. Achieving this carbon profile will make Project Haber's urea one of the lowest carbon urea fertilisers available in the global market. Below is a carbon emissions intensity curve for all global ammonia-urea plants currently in operation showing Project Haber at the far left indicating a global top tier carbon performance.

# Global urea net CO2 emissions curve relative to Project Haber

Gas based Coal based 4 Haber within Precinct 3 Existing Aus supply Project Haber 2 0

cumulative urea associated ammonia production (Mt)

Sources: CRU (2021), Ammonia Emissions Database. Note: Volumes above relate to all facilities in the database with a non-zero quantity of carbon stored in urea – these facilities may produce multiple ammonia products

►~180Mt

<sup>2</sup> Refer to ASX announcement released 20th September 2021 titled "Project Haber to deliver further benefits as Pre-FEED completes".



A further future positive economic benefit of the substitution of the fuel gas for on-site behind the meter renewables is an increase in the final margin per tonne of urea by ~5%. The substitution also liberates gas supplies for further manufacturing allocation or other trading opportunities.

Through the relocation of Project Haber to the Precinct the requirement for the construction of the Haber-Geraldton gas pipeline will no longer be required. The removal of the 105km pipeline will reduce Project Haber's capital costs by approximately ~A\$85 million and eliminate the potentially lengthy process of obtaining pipeline access agreements.

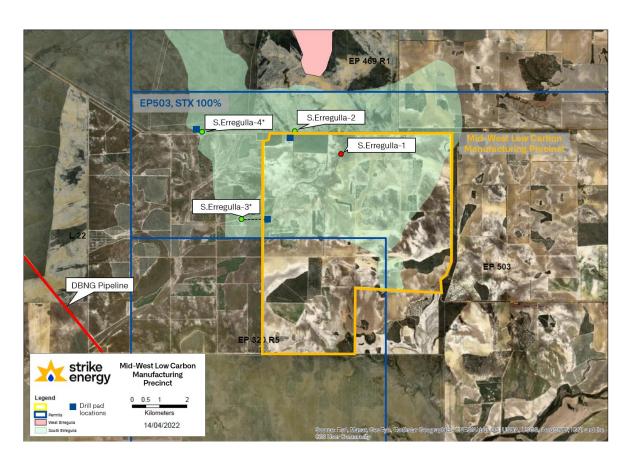
#### **Other Activities**

Based on current land use modelling of the Mid West Low Carbon Manufacturing Precinct, Strike will have the opportunity to dedicate up to ~1,500 hectares of ex-farming land for the deployment of a potential carbon farming project to generate carbon credits. Projects similar to this, based on Strike's analysis, have historically generated 3-5 tonnes per annum of carbon credits per hectare of land used under various generation methods, potentially providing up to 7,500 tonnes of carbon offsets per annum.

Other material land use opportunity is a Research and Development grain farm which can facilitate the testing and consumption of Project Haber's outputs as the facility evolves over time. This farming activity would also provide a complementary revenue stream during the construction and operation of the plant over its life.

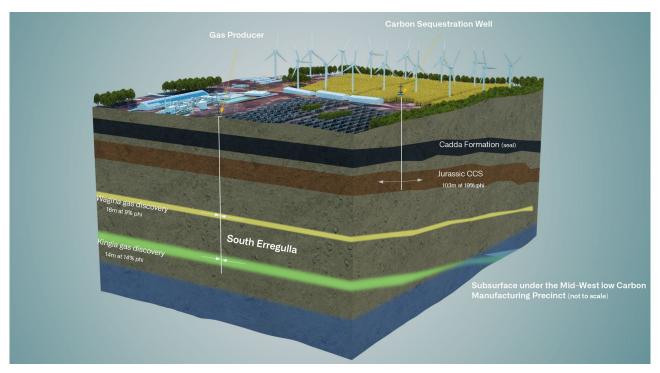
#### **Land Access**

The land acquisition has strategic benefits from a land access perspective, with an estimated 65% of the South Erregulla gas field polygon sitting directly underneath the farm. Strike estimates it will save hundreds of thousands of dollars in annual land access fees in the short term and millions over the life of the field with year-round access available rather than the usual post-harvest activity as is common with Perth Basin farming properties.





This uninhibited land access will ensure that Strike can always access its subsurface assets (both gas and carbon storage) and manage the timing of the access to optimise cost of delivery versus compete with other operators in the identical windows for a small group of available upstream service providers.



#### **Precinct Investors & Collaborators**

With an abundance of cleared land, below ground carbon capture and storage reservoirs and more renewable energy than Project Haber requires, the potential for similar low carbon manufacturers to co-locate at the Precinct is high. These may include other ammonia or hydrogen derivative producers or high energy intensive manufacturers of finished goods. Positively, the Dampier to Bunbury Natural Gas Pipeline is only 6km from the Precinct which





can facilitate other gas users/suppliers being able to readily transport additional gas volumes to the Precinct should they require for their own development plans.

At this stage, Strike does not plan to be the owner and operator of the renewable energy developments or carbon farm at the Precinct but will look to sign up to offtake arrangements for the available power and or potential carbon credits from proposed developers. Strike may, however, offer surplus gas supplies, carbon credits or carbon sequestration services to colocated proponents depending on their production needs and resources available.

# **Land Acquisition Key Terms**

Strike has signed an unconditional binding contract to purchase the 3,500 hectares of freehold farming land for \$13.5 million with settlement to occur in mid 2H 2022. Strike has also agreed to lease the farm back to the current owners on a periodic lease at standard commercial rates.

Strike intends to debt finance the acquisition and is currently working with its financiers on a mortgage facility that takes into account the various income streams that will be produced from the land over the next three to five years.

This announcement is authorised for release by the Managing Director and Chief Executive Officer in accordance with the Company's Continuous Disclosure Policy.

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# **Important Notices:**

# **Precinct Development**

The proposed Precinct development, including siting Project Haber within the Precinct area, will be contingent on, among other things, successfully re-zoning the land for the intended renewable and industrial uses and obtaining all other required regulatory approvals, licences and authorisations.

# **Project Haber**

The successful development of Project Haber is contingent on, among other things, the outcomes of FEED on Project Haber, the proving up of sufficient gas reserves at South Erregulla, access to finance and (where required) equity participation, finalising urea offtake agreements, and obtaining all requisite regulatory and stakeholder permits, approvals and authorisations.

The concept, feasibility and pre-FEED studies prepared by TechnipFMC on Project Haber to date (as referenced in ASX announcement dated 15<sup>th</sup> December 2021 titled Project Haber Update) have been undertaken to determine the potential viability of Project Haber and to reach a decision to proceed with more definitive studies, and as such are indicative in nature only. The studies are based on low-level technical and economic assessments and are insufficient to provide full assurance of an economic development case at this stage or provide certainty that the conclusions of the studies will be realised and that the development of Project Haber will be commercially viable.

#### **Future Statements**

Statements contained in this release are or may be forward looking statements. All statements in this release regarding the outcomes of preliminary and definitive feasibility studies, projections and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. These statements relate to future events and expectations and as such involve known and unknown risks and significant uncertainties, many of which are outside the control of Strike. Actual results, performance, actions and developments of Strike Energy may differ materially from those expressed or implied by the forward-looking statements in this release. Such forward-looking statements speak only as of the date of this release. Refer to the 'Summary of Key Risks' section of the release titled " Equity Raising and Corporate Update April 2021" released to ASX on 15 April 2021 for a summary of certain general, Strike specific and acquisition specific risk factors that may affect Strike. There can be no assurance that actual outcomes will not differ materially from these statements. A number of important factors could cause actual results or performance to differ materially from the forward looking statements, including the risk factors set out in the aforementioned ASX release. Investors should consider the forward looking statements contained in this release in light of those disclosures. To the maximum extent permitted by law (including the ASX Listing Rules), Strike and any of its affiliates and their directors, officers, employees, agents, associates and advisers disclaim any obligations or undertaking to release any updates or revisions to the information in this document to reflect any change in expectations or assumptions; do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence). Nothing in this document will under any circumstances create an implication that there has been no change in the affairs of Strike since the date of this release.