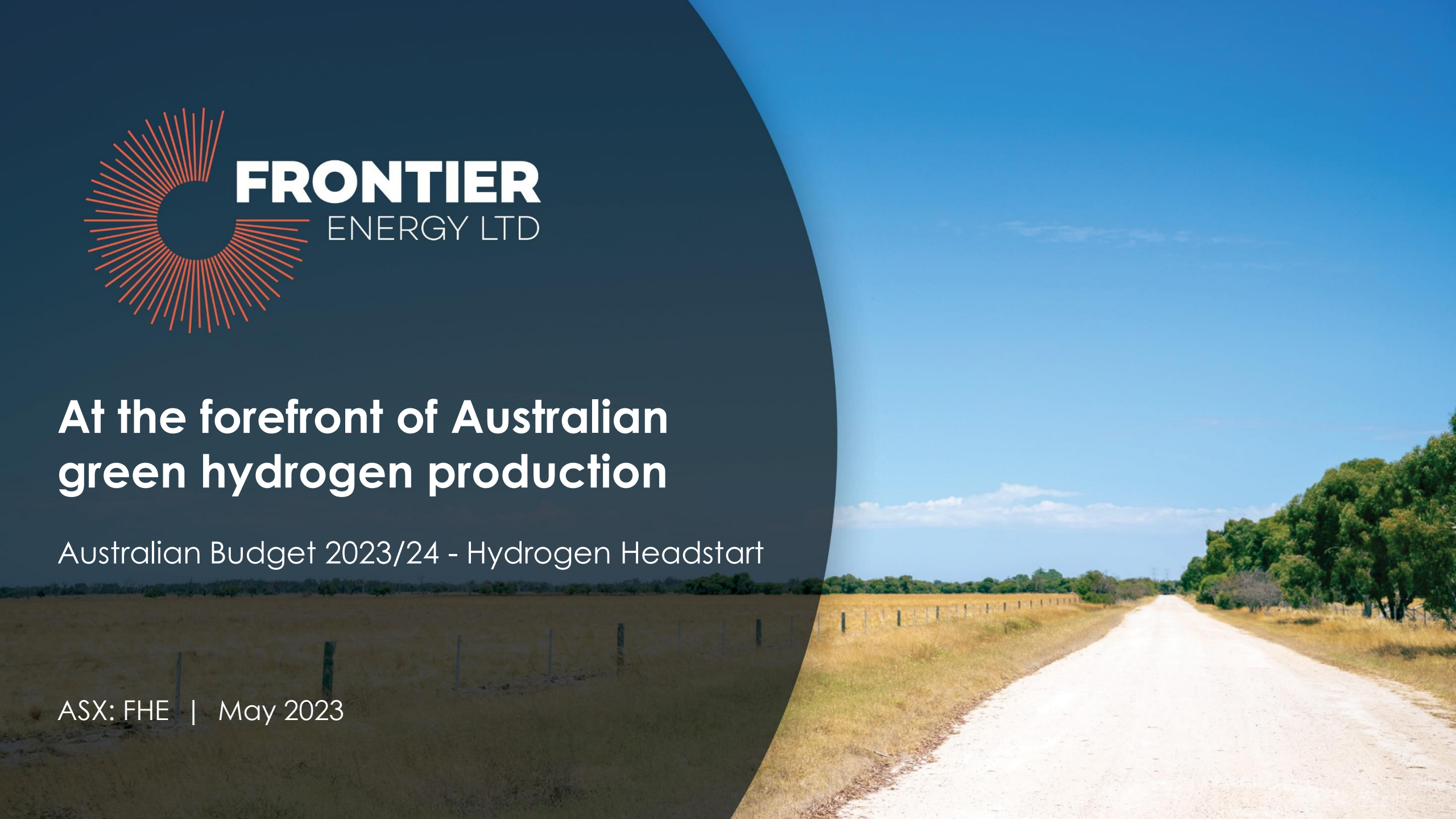
FRONTIER ENERGY LTD

At the forefront of Australian green hydrogen production

Australian Budget 2023/24 - Hydrogen Headstart

ASX: FHE | May 2023



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DEFINATIVE FEASIBILTY STUDY

For information in this document relating to the Definitive Feasibility Study (DFS), refer to ASX announcement dated 20 March 2023. The Company confirms that in relation to the DFS announced on 20 March 2023, it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions underpinning the forecast financial information included in that announcement continue to apply and have not materially changed.

ACKNOWLEDGEMENT OF COUNTRY

Frontier Energy acknowledges the traditional custodians throughout Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

Existing infrastructure puts the Bristol Springs Project in a class of its own

Water access ✓ ***Own the land*** ✓ ***Gas pipeline*** ✓

Grid connection (battery + foundation customer) ✓ ***Local skilled workforce*** ✓

- Without this critical supporting infrastructure in place, initial capex would likely be +$1bn[1], making the Project's development unachievable for a junior company

DFS for Stage One confirms Bristol Springs as one of Australia's lowest cost[2], near term green hydrogen producers

- 4.9M kg pa of green hydrogen production at a unit cost of A$2.77/kg (inc. capex)
  - *One of the lowest reported green hydrogen costs in Australia [2]*
- Low Initial Capital Cost - $242.5m (114MW solar + 36MW electrolyser)
  - *Low cost debt and incentives to minimise future dilution*

Commercialisation pathway advanced and well understood

- On-going discussions with multiple parties regarding foundation customer/offtake
- Initial consumption - gas pipeline (0.5km from the Project) and/or peaking plant (flexible power generation & storage – connected to the grid)
- Long term consumption (refuelling and export) – location advantage to major highway and multiple ports. Additional initiatives being assessed

Significant growth potential for +1GW of energy

- Landholding (868ha) under control and nearby opportunities allows for a renewable energy target of 1GW energy or ~ 80,000t hydrogen pa

1 – supporting additional infrastructure development + increased size of the operation to account for the economy of scale required; 2 - https://www.infolink-group.com/energy-article/green-hydro
costs-in-australia-to-reduce-37-by-2030

CAPITAL STRUCTURE

296.5m Shares on issue	**36.2m** Options
$125m Market Cap At $0.42/share	**~$8m** Cash April 23 Exc. +$10m investment in MZN (WHE) at C$0.06/share

Samuel Lee Mohan
Managing Director
Technical

Grant Davey
Executive Chair
Commercial

Chris Bath
Executive Director
Financial

Dixie Marshall
Non - Executive Director
Government & Comms.

Amanda Reid
Non- Executive Director
Government & Comms.

Hydrogen Headstart initiative from the Australian Government

Australian Federal Government announces initiatives to position Australia as a renewable energy superpower, particularly its support for green hydrogen in 2023-24 Budget

- **$2bn for Hydrogen Headstart, providing revenue support for large-scale renewable hydrogen projects through competitive hydrogen production contracts.**
- Hydrogen Headstart is part of a broader $4bn further investment in renewable energy.
- $38.2m to establish a Guarantee of Origin scheme to underpin markets for green energy, including hydrogen and other low emissions products.
- $14.8m to establish the Powering Australia Industry Growth Centre, which will support Australian businesses looking to manufacture, commercialise and adopt renewable technologies.

What does this mean for Frontier

- **This is a "Head Start" – just the beginning of Government production subsidy / support program**
- **$4.2m in the Federal Budget to support the development of the program**
  - Frontier will participate in industry consultations to support design of the guidelines
- **EOI are expected to open in early 2024. Successful projects will be awarded contracts with ongoing payments over a 10 year period from 2026-2027**
  - The subsidy provides Frontier with an opportunity to accelerate offtake discussions with large industrial consumers
- **Guarantee of Origin Scheme**
  - As Frontier finalises its net-zero carbon accreditation, the government announcement sends a strong signal to hydrogen buyers on the value of green hydrogen certificates

Development funding currently available from the Government

The Australian and State Government's are assisting early movers in the hydrogen industry to accelerate the development of the industry, meaning there is less reliance on traditional funding solutions

Grant Funding

Multiple initiatives set up by both Australian and State government to assist in development

ARENA
$2bn funding available

Collie transition fund
$200m funding available

Debt Financing

Government backed debt financed solutions available provides more competitive terms compared to traditional banks

CEFC
$4.5bn funding available

Rewiring the Nation
$8.6bn funding available

Project Partner

Strong interest from multiple major groups for project equity
Linked to offtake partnership

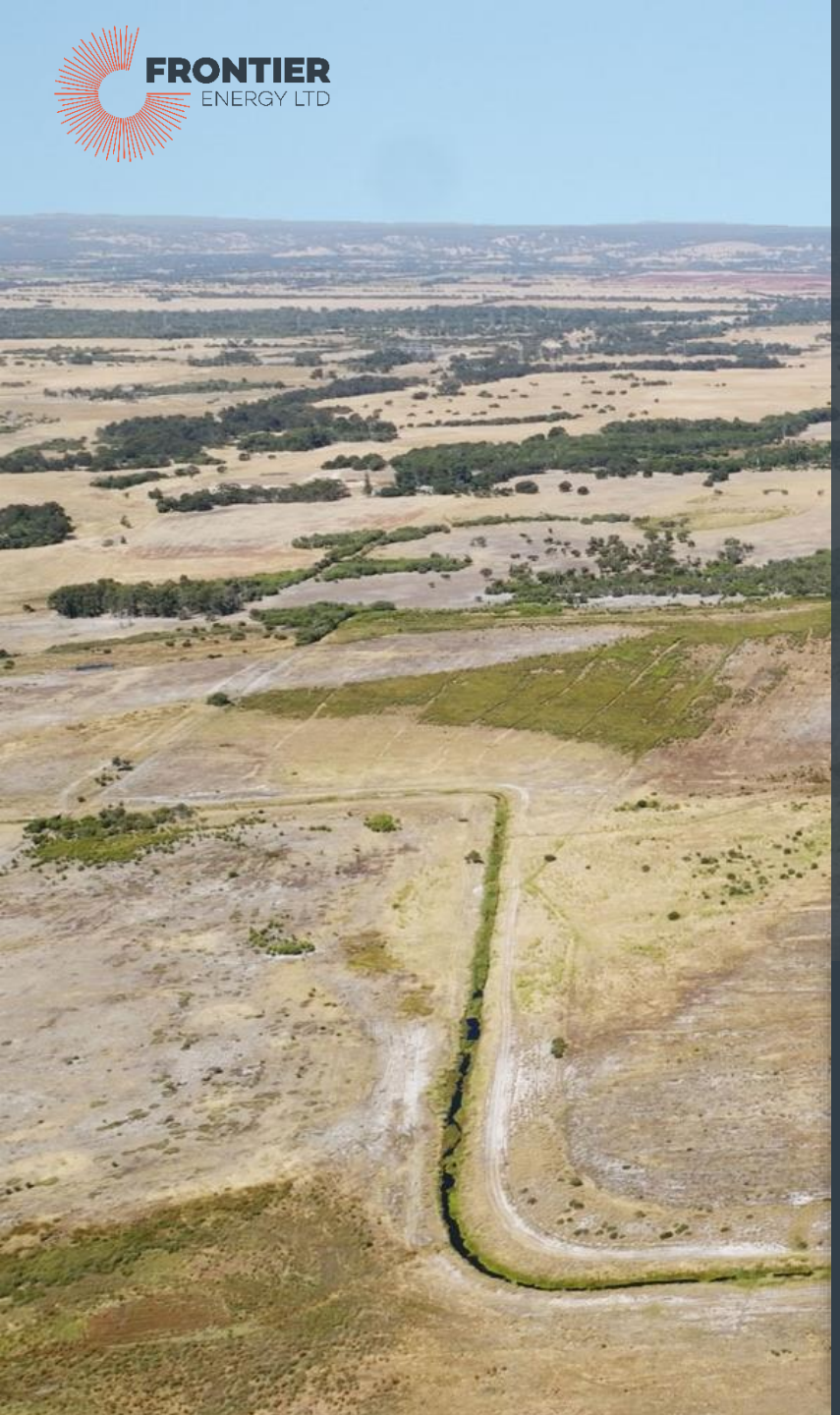
Initial Equity investment and future contribution

Expansion of the Project for hydrogen export

Why is Frontier ahead of its peers – existing infrastructure access

The biggest advantage Bristol Springs has compared to other green hydrogen developers is access to existing infrastructure. If this infrastructure was not in place, initial capital would be +$1bn (increased scale) whilst also adding +5 years to first production

Infrastructure	Frontier's position	If Frontier didn't have this infrastructure in place what is required?	Cost to build or replicate this infrastructure	Additional time and other considerations
Water access 	Signed agreement with Sate-owned, Water Corporation. *Sufficient for 150MW electrolyser*	Desalination Plant or depletion of our natural resources (e.g new bores)	**$100m - $1bn (size dependent)**	2-5yrs (min.) Environmental studies Approvals
Landwehr Terminal 	Access granted to one of only two available connection points *WHE.TSXV has the other connection*	Would not have access excess energy sales, reserve capacity, LGC or ability to acquire power in off peak	**+$50m to develop a new bay or $100m - $500m for the development of a new terminal**	3-5yrs (min.) Requires studies to be completed by Western Power
Freehold land 	Control 868Ha of freehold land *No native title*	Own sufficient freehold and potential other land for over 1GW *No native title*	**No identical opportunities in WA** **Currently no tenement system in place**	+5yrs Requires Permits and Approvals
Delivery to market…now 	DBNGP - 0.5km from the Project *Can take up to 9% H2 imminently* Peaking Plant (Landwehr Terminal) *WA Government target 1% H2 on the WA network*	Export requires a min. of 10X Stage One forecast	**$100m - $1bn (size and location dependent on end user)**	+5yrs Requires Permits and Approvals



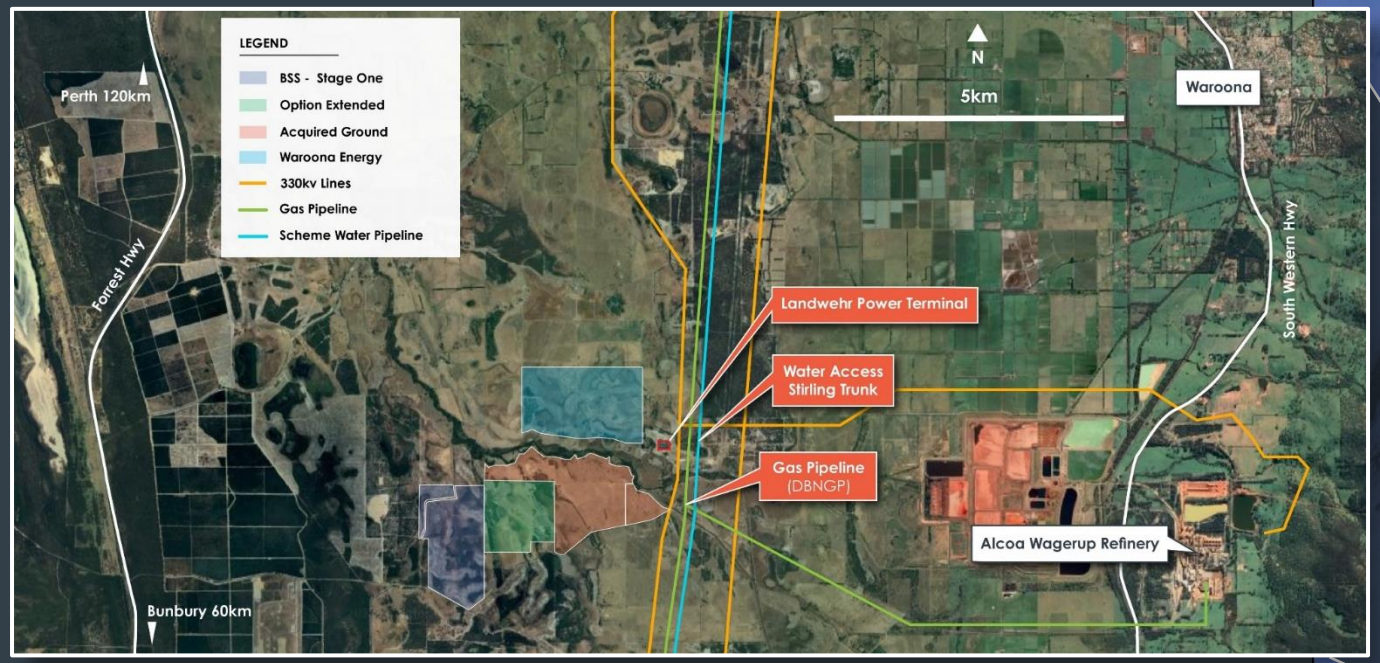
Frontier's Path to Production

BUILDING A SCALEABLE RENEWABLE ENERGY HUB IN SW WA

- Leading the pack for commercial green hydrogen production in WA
- Grid-firming & energy security support to the SWIS as the State transitions from coal
- Strategically located near major infrastructure and industry
- Major job creation within a new industry
- Key contributor to Australia's hydrogen production strategy

Major milestones through 2023

Definitive Feasibility Study → Offtake negotiations → Project Financing → Commence Construction



Bristol Springs Hydrogen Project

Existing surrounding infrastructure puts Frontier in a class of its own

120km from Perth and surrounded by world class, existing infrastructure (with access & availability) that provides a major advantage for green hydrogen production and distribution/consumption

Landwehr Terminal / SWIS (330kv Lines) – secured access to a bay - no further access available to third parties on existing infrastructure

Water access (~9L for 1kg of hydrogen) – binding offtake with the Water Corporation secured (avoids desalination – major cost, time and approvals)

Gas pipeline (DBNGP) – conduit for Stage One production (H2 target 9%)

Local skilled workforce[1] – 8km to Waroona, 50km to Collie, 60km to Bunbury Population - Waroona (5k), Collie (9k) Bunbury (46k) & Perth (2.6m)

1 – City of Perth – WA statistics

DFS outlines Low-Cost Green Hydrogen Production [1]

- The DFS for Stage One green hydrogen production confirmed the potential to be a low-cost, early mover in the green hydrogen industry
- Hydrogen Production - 4.9 Mkg pa
  - *Increase by 0.5Mkg pa compared to PFS (4.4Mkg) due to increased load factor (84% vs. 75%) - increased utilisation of the grid in off peak solar conditions*
- Low total unit cost of $2.77 / kg hydrogen (inc. capex). The low cost is driven by:
  - *Low capex due to the Project's ability to access surrounding existing infrastructure; and*
  - *The Project's ability to utilise existing mechanisms for solar revenue (classified as a negative expense in the Study)*
- Low initial capital cost - $242.5m
  - *$157.9m solar and $84.6m hydrogen – 3% difference to PFS*
- Funding - Strong interest from multiple major financial institutions both locally and abroad
  - *Grants and additional funding/incentives likely from Government*
- Near term expansion - 72MW electrolyser
  - *Production capacity to nearly double through increasing the size of the electrolyser without additional solar energy required*

Hydrogen production (pa)	**4.9M ka pa**	
Costs – Direct Operating	Cost (A$m pa)	Unit cost $/kg
Operating costs – Solar	3.2	0.65
Operating costs – Hydrogen	3.5	0.71
Power Purchases from the grid Average Price - $68/MWh	9.5	1.94
Total Operating Costs (Direct)		**3.30**
Capital		
Total Capital Costs $254.2 over a 25 yr life of operation	10.1	2.08
Total cost per kg of Hydrogen produced before solar revenues		**5.38**
Less By Product Revenues (Solar related)		
Excess power sales on the grid Average Price - $30/MWh	(3.3)	(0.67)
LGCs Average Price - $45	(4.7)	(0.96)
Capacity Credit Average Price - $193,000	(4.8)	(0.98)
Total By-Product Revenues		**(2.61)**
Total cost per kg of Hydrogen produced		**2.77**

1 – ASX announcement – 20 March 2023

Where will Stage One hydrogen be consumed?

Currently hydrogen (94Mt 2021) is produced from fossil fuels and consumed for refining and industrial – less than 1% from renewable energy[1]

By 2030, the International Energy Agency has forecast 175Mt of production, with 35% coming from green hydrogen[2]

Example of a transition in renewables[3]
Australian EV new car sales – 0.12% (2016)
Australian EV new car sales – 3.8% (2022)

The market for hydrogen is still in its infancy, however existing infrastructure & government initiatives are providing a pathway for early demand/consumption

Offtake discussions underway for foundation customer

Dampier to Bunbury Natural Gas Pipeline (DBNGP)

- 0.5km from the Project
- Study confirms pipeline can take up to 9% hydrogen, importantly at the Project's location
  - *Stage One contribute <0.5%. No other likely contributors identified at present*
- Lobbying Government to classify hydrogen as a gas which could see it substitute/replace natural gas (DOMGAS)
  - *Decarbonisation of the pipeline*
  - *Arbitrage opportunity for virtual LNG swap*

Peaking Plant

- Connection to the 330KV line to the SWIS
- Government target 1% hydrogen on the WA power network
- Collie coal power station closure by 2029
- A Peaking plant stores gas (hydrogen) which then is turned into electricity during peak demand (ie: 3pm to 9pm)
  - *Provides energy security for the network*
  - *Strong government support for energy storage solutions*
  - *Techno-economic study to assess the peaking plant potential underway*

1 - https://iea.blob.core.windows.net/assets/c5bc75b1-9e4d-460d-9056-6e8e626a11c4/GlobalHydrogenReview2022.pdf 2 - https://www.reuters.com/breakingviews/hydrogen-is-elemental-us-eu-green-compromise-2023-02-10/ 3 - https://www.pv-magazine-australia.com/2022/10/18/australian-ev-market-share-grows-65-in-2022/#:~:text=Up%20to%20September%202022%2C%2026%2C356,of%20EVs%20report%20published%20Friday.

What are the plans for future expansion

Land under the Company's control (868ha) provides a medium term target of +1GW of renewable energy. This equates to around 80,000t pa of green hydrogen production. At this scale, as well as the continued evolution of the market, additional opportunities can be accessed

Refuelling Station

- Long haulage transportation has been identified as a key consumer of hydrogen in the future
  - *Likely +5years away before implementation commences*
- Company in advanced discussions for the development of the first hydrogen refuelling station in Central Perth
- Future plans to develop a hydrogen highway throughout WA
- Project is adjacent to the major road between Perth and South West WA

Export

- Multiple ports within close proximity including Bunbury (60km) and Kwinana (80km)
  - *BP is converting its Kwinana refinery into an "Integrated Energy Hub" their flagship global renewable energy site*
- Hydrogen export requires significant scale which is achievable at the Project through future expansion
- Transportation generally required the conversion of hydrogen into either ammonia methanol or liquefied hydrogen

Sustainability

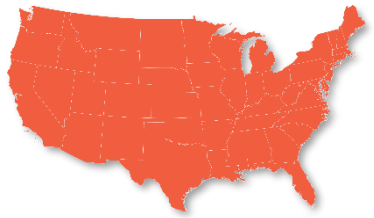
At Frontier, we care for our community, environment, and all stakeholders, by delivering safe, reliable and sustainable clean energy solutions

Frontier is committed to creating long term sustainable value for future generations

- Our solar energy and green hydrogen Project will provide a significant contribution to both the Federal and State decarbonisation strategy
- The Bristol Springs Project will create 300 jobs during construction
    - *Once construction commences the Company is targeting on-going future expansion*
- No clearing of conservation significant flora is required for Stage 1 solar farm development
- We are focused on diversity and inclusion with 44% female representation in the leadership team[1]
- We are on track to deliver our inaugural Sustainability Report in Q2 2023

[1] Leadership team includes Board and Executive Management (a total of nine people)

Government action is fast tracking a global hydrogen industry

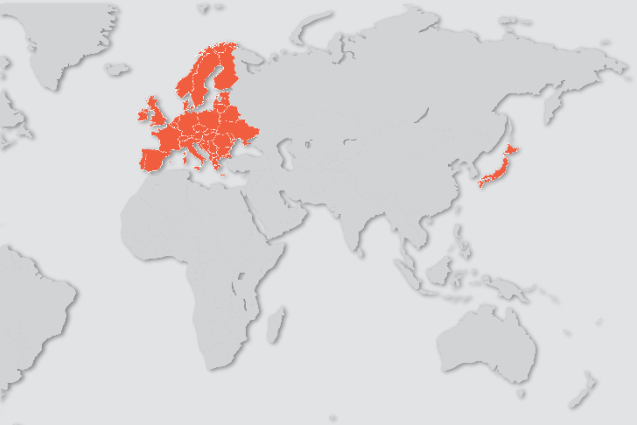


USA – Leading the world in renewable energy following the Inflation Reduction Act (IRA) ($US437 billion)[1]

Changed the game for hydrogen and renewables globally as it super charges the development of these industries in the USA

IRA will provide a tax credit of up to US$3 per kg of hydrogen

Forced other nations to re-examine their commitment to the development of the hydrogen industry as major development relocate to the USA



World leaders in the sectors – Europe and Japan

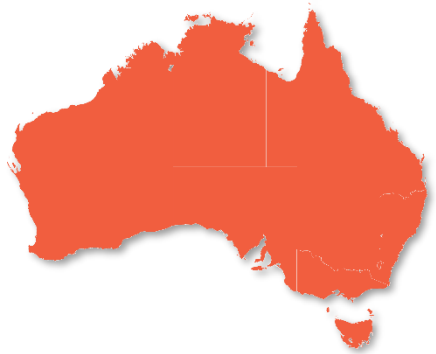
The EU has a requirement to development its hydrogen industry due to its ambitious carbon emission targets (55% reduction by 2030[2]) and requirement for energy diversity following the Ukraine/Russian conflict

The EU has set a target to produce 10Mt and import 10Mt of renewable hydrogen by 2030[2]

Funding solution in place, however being reviewed in response to the IRA

Japan is a world leader in the development of hydrogen-related technologies and policy. It has targeted to become carbon neutural by 2050[3]

Japan has established a 2 Trillion Yen(A$24Bn) green innovation fund[3] to assist meeting its carbon target



Worlds best conditions for renewable energy - Australia

Australia has arguably the best environment for hydrogen production globally, given its excellent conditions for renewable energy (solar and wind) as well as significant land availability

The country aims is to become a leader in hydrogen for both export and domestic decarbonisation targets

Funding is available through Australian Renewable Energy Agency (ARENA) and Clean Energy Finance Corp. (CEFC); however, the Government has acknowledged more funding support is required to match the IRA[4]

1 - https://theicct.org/ira-unlock-green-hydrogen-jan23/ ; 2 - https://climate.ec.europa.eu/eu-action/european-green-deal/2030-climate-target-plan_en 3 - https://green-innovation.nedo.go.jp/en/about/ ; 4 - https://www.dcceew.gov.au/energy/publications/australias-national-hydrogen-strategy

What is Western Australia doing to support industry

Export Target[1]

Match LNG exports - WA is a global leader providing 12% of global supply

Domestic target for Hydrogen [1, 2]

- Targeting the displacement of the diesel industry in WA which imports 6.7Bn L pa
- Government target 10% hydrogen in DBNGP (gas pipeline)
- Hydrogen Target for electricity generation on the SWIS of 1% (90MW electrolyser)
    - *Aim of these targets is to drive local demand and assist emerging hydrogen producers*

Funding Packages[3]

$3.8 billion to assist in replacing coal power energy at Collie (50km from the Project) with new renewable energy developments as well as other funding incentive schemes

Direct support and awareness of the Project from the Government

Awarded Lead Agency Status – additional support from Department of Jobs, Tourism, Science and Innovation (JTSI)

Deputy Premier and Hydrogen Industry Minister Roger Cook:

"The Bristol Springs Project is a fantastic example of a WA firm leading the way to becoming one of the lowest cost producers of Australian-made renewable hydrogen. The McGowan Government is committed to assisting such emerging hydrogen production projects, as we work to establish WA as a significant producer, exporter and user of renewable hydrogen".[4]

1 – Government of WA – LNG Profile October 2022 & https://www.wa.gov.au/government/publications/western-australian-renewable-hydrogen-strategy-and-roadmap; 2 - https://www.mediastatements.wa.gov.au/Pages/McGowan/2022/12/WA-Government-takes-aim-at-Renewable-Hydrogen-Target.aspx; 3 - https://www.mediastatements.wa.gov.au/Pages/McGowan/2022/06/State-owned-coal-power-stations-to-be-retired-by-2030.aspx ; 3 - https://www.mediastatements.wa.gov.au/Pages/McGowan/2022/06/State-owned-coal-power-stations-to-be-retired-by-2030.aspx ; 4 - https://www.mediastatements.wa.gov.au/Pages/McGowan/2023/03/Landmark-water-supply-agreement-brings-renewable-hydrogen-project-step-closer.aspx

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