Clean energy to help fill Western Australia's growing supply gap

FRONTIER ENERGY LTD

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OTCQB: FRHYF
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Artist impression of solar facility

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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.

Poised to become one of Australia's largest standalone renewable energy projects

Waroona Renewable Energy Project snapshot

Location

- 120km south of Perth near Waroona, WA
- Close to existing infrastructure essential for renewables, including grid terminal, and skilled workforce in nearby communities

Grid

- Frontier has two grid connections (one approved ETAC and one ETAC in progress) - future capacity potential of +1GW
- Located on the largest transmission line in WA (330kV) – unconstrained and surrounded by major industrial consumers

Approvals

- Majority of permits and approvals in place

Site

- 868ha of freehold land – 100% controlled (no native title)
    - *Previously used for agriculture, largely cleared*

Production strategy and growth opportunities

- Stage One – 120MW solar/80MW Battery – DFS February 2024
    - *Ability to accelerate future expansion opportunities*

Perfectly positioned for the renewable energy transition

BUILDING A SCALEABLE RENEWABLE ENERGY HUB

Stage One - 120MW Solar / 80MW Battery – DFS Feb 2024

+1GW of energy potential & large renewables hub (incl hydrogen)

Strongest ever market conditions for renewable energy deployment

Strong financial position Fully funded until FID

CAPITAL STRUCTURE

445m
Shares on issue

$134m
At $0.30/ share
Market Cap

~$12m
Dec 23
Cash

Clean energy transition is driving energy prices higher

Current status of the renewable energy transition

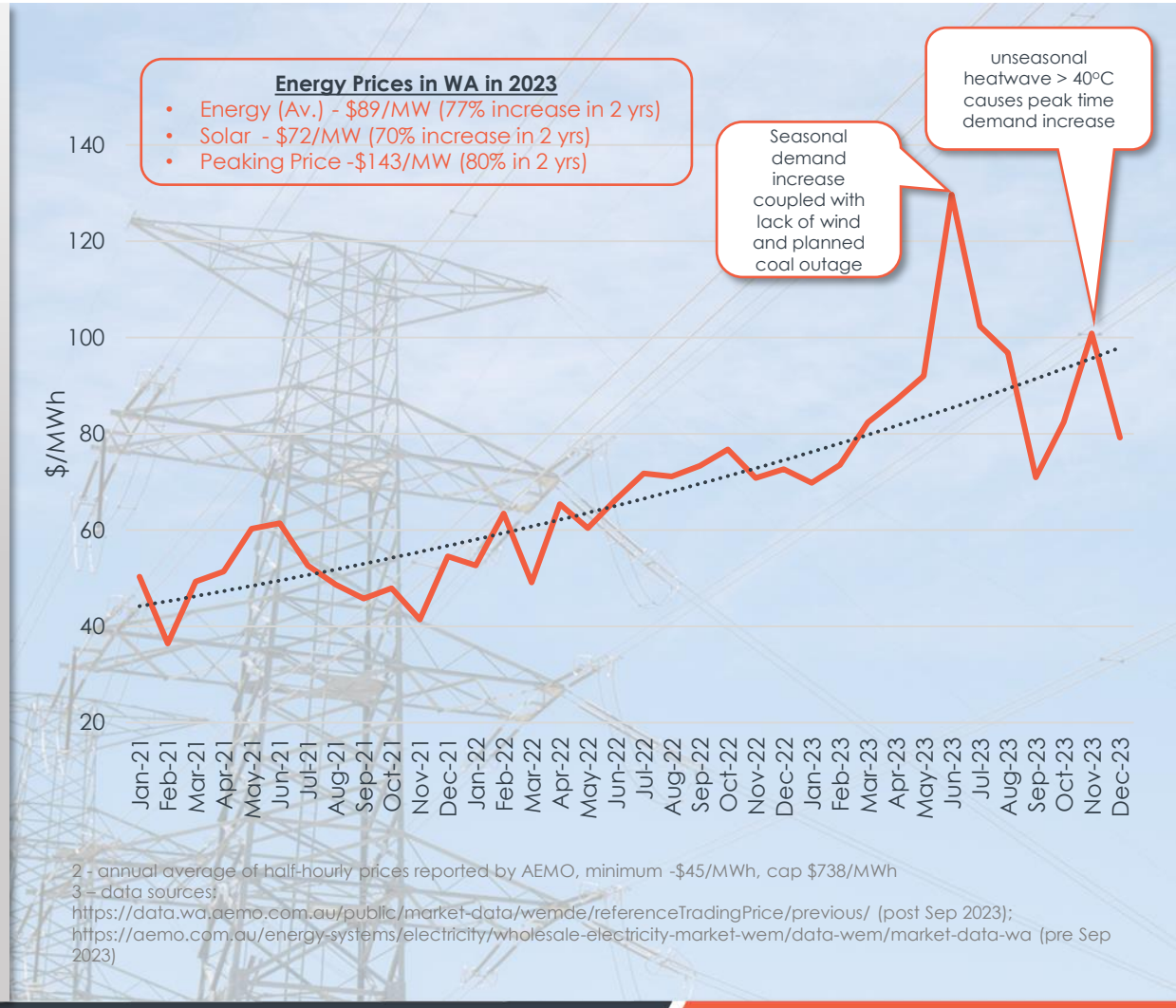
- The world is rapidly transitioning towards renewable energy solutions
- Australia and WA had ~35% of electricity generated by renewables in 2023[1], short of the 2030 target of 82%
- This transition is also seeing an increase in electricity consumption
    - *AEMO forecasts WA's electricity demand will increase between 78% and 220% over the next decade*

Transition is already seeing a significant increase in WA electricity prices

- Increasing month-to-month price volatility
    - *Correlated with relatively minor changes to supply drastically affect pricing*

1- source: https://opennem.org.au/energy

Monthly WA Wholesale Electricity Price[2,3]



2 - annual average of half-hourly prices reported by AEMO, minimum -$45/MWh, cap $738/MWh
3 – data sources:
https://data.wa.aemo.com.au/public/market-data/wemde/referenceTradingPrice/previous/ (post Sep 2023);
https://aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/data-wem/market-data-wa (pre Sep 2023)

Frontier's strategic advantages overcome key challenges in the clean energy transition

Key issues	How is this evident in WA?	Frontier's Advantage
Grids need modifications for renewables • Originally designed for fossil fuel assets, not renewables	• Limited grid connections, transmission capacity, and competing land uses in areas suitable for renewables	**Location in the largest capacity section of the grid with two grid connections accessible and large landholding**
Demand / Supply mismatch • The roll out for new energy consuming products (e.g. EVs) results in increasing demand • Phase out of fossil fuel generators	• WA electricity prices most expensive in Australia - $84/MW compared to Victoria at $26/MW [1] • Closure of the State owned coalfired power stations by 2029	**FID ready in 2024, targeting production by 2026/27, at a time when deficit is forecast to worsen**
Renewable electricity supply is intermittent • Peak renewable supply does not typically coincide with peak electricity demand	• Multiple stand-alone batteries are planned	**Ability to integrate 80MW battery into 120MWdc solar farm**

1 – https://aemo.com.au/energy-systems/major-publications/quarterly-energy-dynamics-qed
2 - https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo

Frontier's key advantage – grid connections at a central node

Frontier's high quality, unconstrained connection onto the SWIS enables uncurtailed renewable energy sales

- The SWIS is the major electricity network in WA
  - *Peak operating demand - 4GW (NEM – 30GW)*
- WA Government plans to expand the grid, however most upgrades will not occur until post 2030
  - *Excluding approvals, permitting and development etc which can take a further +6 yrs*

Frontier can access two grid connections on the largest line (330kV) – unconstrained and surrounded by major industrial consumers

- An independent report[1] highlighted that before 2030, only Landwehr Terminal (Project location) can accommodate new large-scale renewable generation of 250MW or greater

AEMO's 2023 ESOO report[2] forecasts a decade of deficits

- Major capacity deficit forecast: > 1.0GW by 2027 & 4.0GW by 2032
- AEMO forecasts demand increase of 78% to 220% over 10 years

How will the gap be filled?

- Reliance on Batteries, to be charged with excess PV solar
- New utility scale renewable generation falls significantly short of replacing Collie

Major new project developments (2024 – 2027)[2]	Size
Wind generation	256MW
Solar generation	220MW
New Generation pre 2027	**476MW – intermittent**
Collie Closure 2029	**-1,200MW – firm**
Batteries	1,335MW – 4 hour discharge

1 – ASX - 2 November 2023; 2 - https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo

Adding a battery enables revenue uplift through arbitrage

Opportunity to increase received electricity price, while minimising risk of curtailment

Electricity price follows supply and demand

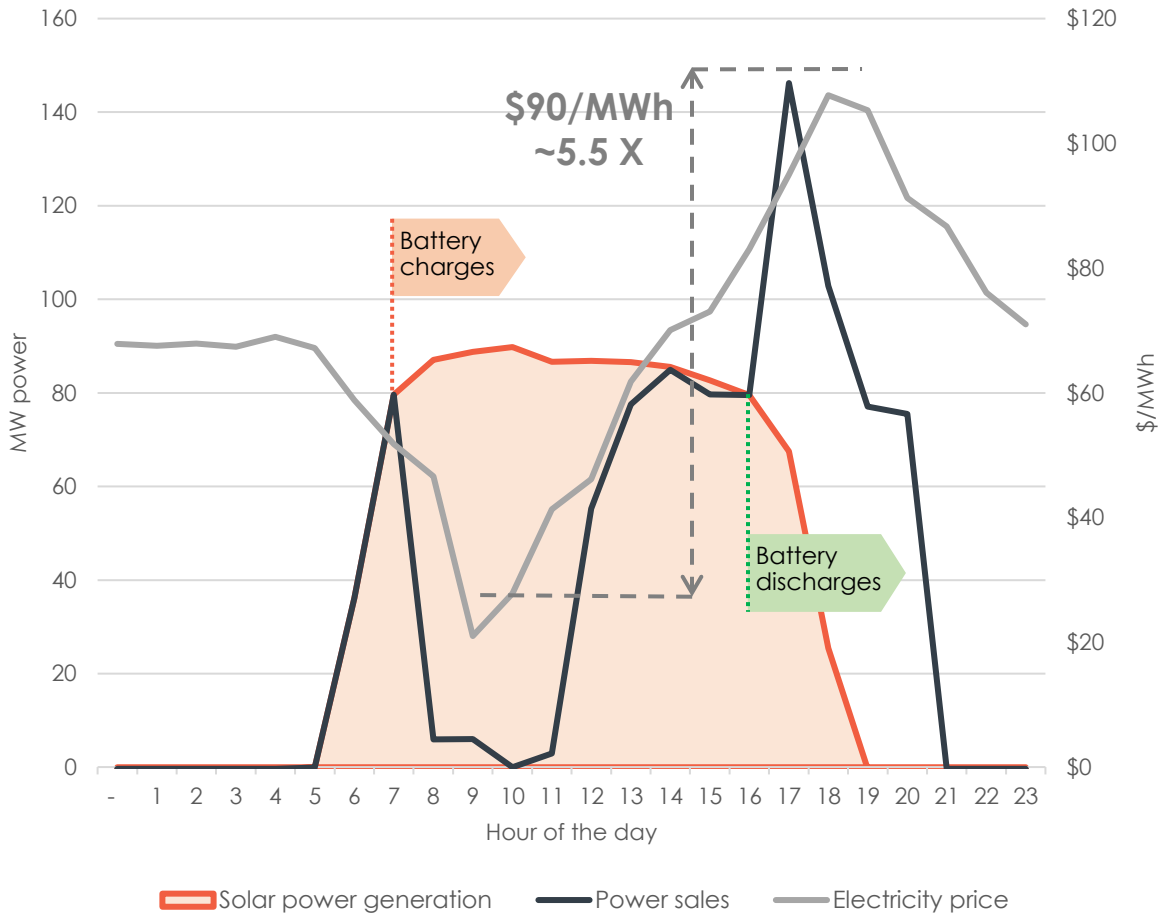
- WA has the most sunlight hours in the country and one of the highest installation rates of rooftop solar (PV) at 38%[1]
  - *Expected to increase to ~ 50% by 2030*
- Price dips during the day, when solar generation peaks
- In the afternoon / evening, demand increases while solar generation declines, causing price to rise sharply

Battery allows for revenue uplift and reduces curtailment risk

- The integration of a battery allows electricity sales to be 'shifted'- i.e. electricity is stored in low price periods and sold in high price periods
- 80MW battery sized to enable substantial shift of electricity sales
  - *Solar energy sales – early morning shoulder period*
  - *Battery charge – morning to midday*
  - *Battery discharge combined with solar sales – early evening (during peak electricity demand)*

1 - https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo/2023/

Electricity revenue uplift example – January 2023



WA's Reserve Capacity underpins battery development

Unique to WA and a major driver in development strategy

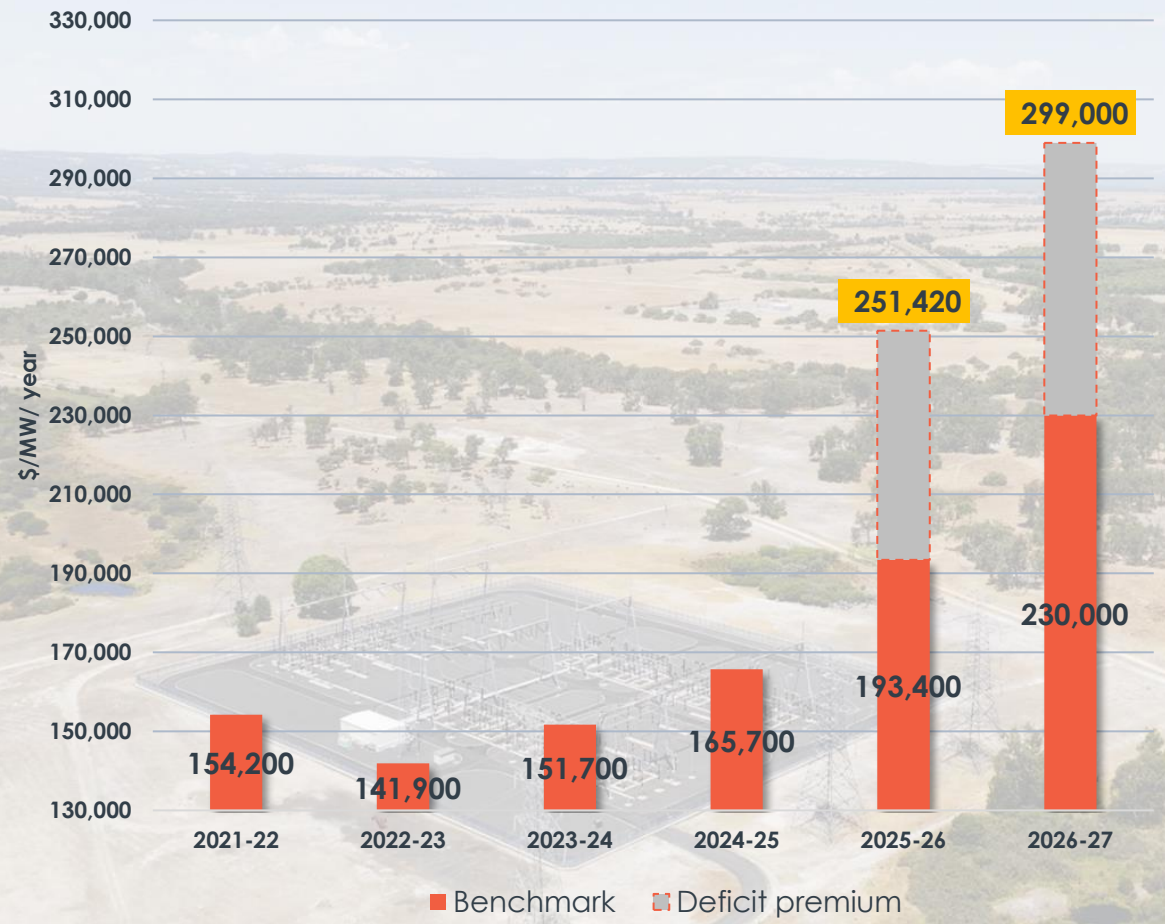
Reserve Capacity Mechanism (RCM)

- RCM is unique to WA, not available in the Eastern States / NEM
- Under the RCM, generators receive annual payments per MW, based on a benchmark reserve capacity price (BRCP) determined by the Regulator
  - *New generators can lock in the BRCP for five years*
- BRCPs have increased strongly over the last five years
  - *When the market is in deficit, an additional 30% is paid*
  - *AMEO forecasts deficits for the next decade*

Battery the new reference technology

- In Dec 2023[2], the WA Government selected a 4-hour battery with a 330kV connection as the future benchmark technology
  - *This means a 4-hour battery at Waroona may qualify for 100% of the BRCP*
- Potential to extend lock in period from 5 years to 10 years
  - *Provides a fixed guaranteed income*

Benchmark Reserve Capacity Payment[1]

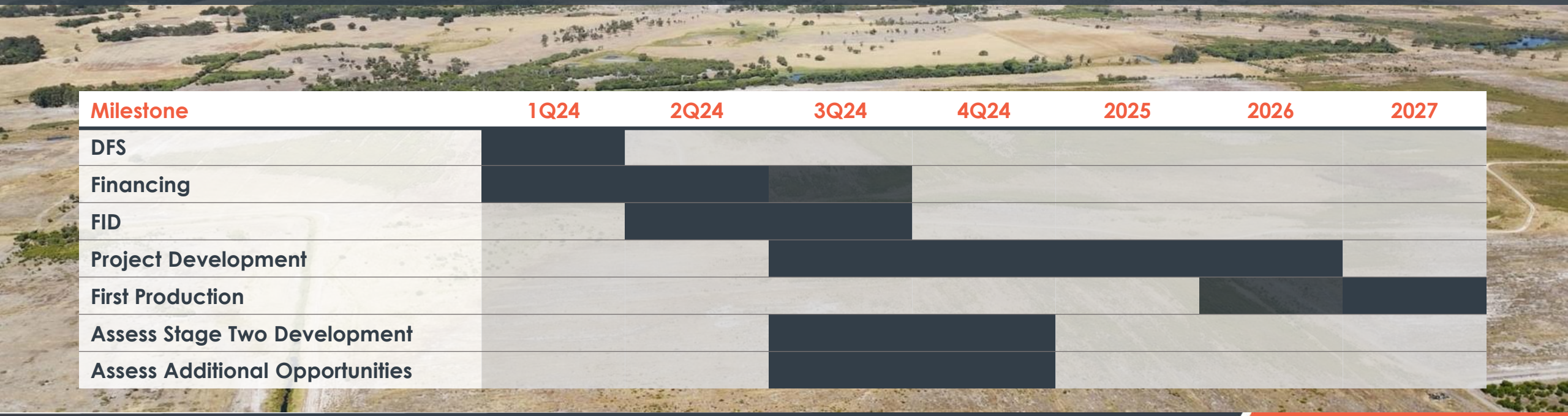


1 - https://www.erawa.com.au/cproot/23833/2/2024-benchmark-reserve-capacity-price-for-the-202627-capacity-year.PDF
2 - https://www.wa.gov.au/media/43698/download?inline

Frontier's Path to Production

BUILDING A SCALEABLE RENEWABLE ENERGY HUB

- Near term contributor to WA renewable energy strategy
- Strongest ever market conditions for renewable energy and hydrogen deployment
- Growth potential of +1GW of renewable energy in an unconstrained section of the grid
- Major news flow as we progress multiple development opportunities throughout 2024



Milestone	1Q24	2Q24	3Q24	4Q24	2025	2026	2027
DFS							
Financing							
FID							
Project Development							
First Production							
Assess Stage Two Development							
Assess Additional Opportunities							

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Appendix 1 – Renewable and battery projects for the SWIS

WA renewable energy projects with announced development plans[1] – 476MW new generation capacity so far announced, while 1,200MW to be closed by 2029. 1,335MW battery storage is planned to firm up renewables

Project	Forecast production	Size	Owner
Wind			
Flat Rocks Wind Farm Stage 1	FY2024	76MW	Enel
Flat Rocks Wind Farm Stage 2	FY2026	~100MW	Water Corp
King Rocks Wind Farm	FY2026	~150MW	Synergy
Total wind		**256MW**	
Battery			
Neoen Battery Stage 1	FY2025	200MW/800MWh	Neoen
Collie Big Battery	FY2026	500MW/2000MWh	Synergy
Kwinana Big Battery Stage 2	FY2025	200MW/800MWh	Synergy
Neoen Muchea BESS		200MW/400MWh	Neoen
Alinta Wagerup BESS2	FY2025	100MW/200MWh	Alinta
Total Battery		**1,200MW/4,800**	
Mixed technology			
Cunderdin Solar Farm and BESS	FY2024	100MW - 55MW/220MWh	GPG (Naturgy)
Waroona - Stage 1 Solar Farm and BESS	**FY2026**	**120MW - 80MW/320MW**	**Frontier**
Mixed Total		**220MW – 135/540MW**	
Total New Energy Development projects by 2027		**476MW (wind and solar) + 1,335/5,340 (battery)**	
Collie Closure	**2029**	**-1,200MW**	

1 - https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo/2023/

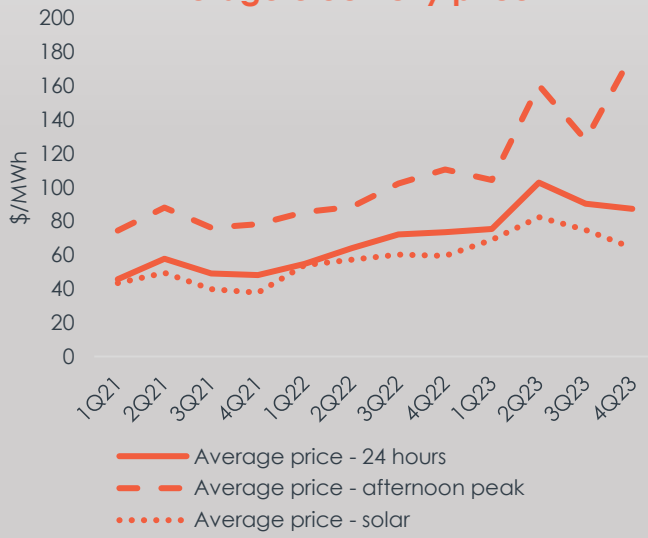
Appendix 2 – WA electricity prices are rising

Participants in the WA electricity market can receive revenue from three main sources

Wholesale Market Sales[1] (WEM)

- Over the last year the average price increased by 35% to $89/MWh
- Solar period price[2] increased by 26% to $72/MWh
- Afternoon peak energy price (4pm – 9pm) increased 48% to $143/MWh

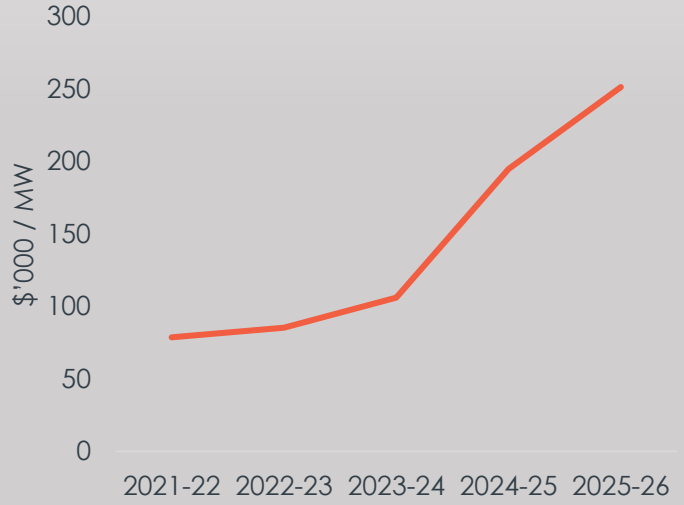
Average electricity price



Reserve Capacity (RCP)

- Unique to WA as generators are paid for electricity generation capacity
- Benchmark RCP is A$230,000/MW[3] for 2026/27
  - *Can be locked in for 5 years, potentially 10*
  - *1.3X multiple applies when forecast market deficit*

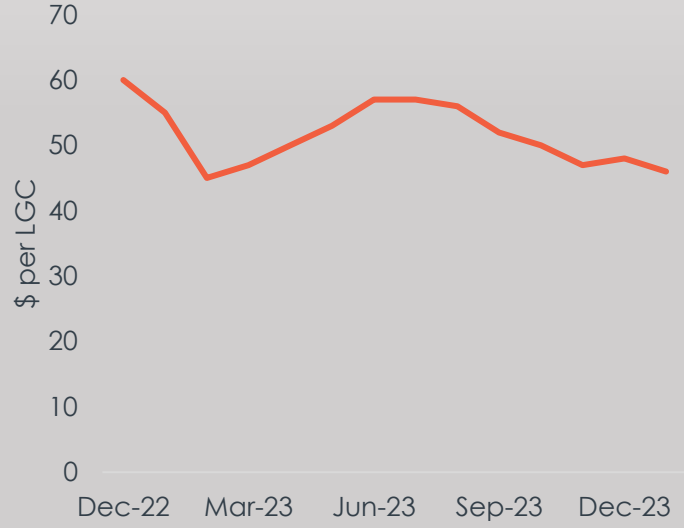
Reserve Capacity Price - Actuals



Large Generation Certificates

- One LGC per MWh of eligible electricity generated (renewable energy)
- Current spot price ~$46 per LGC
- LGC system expires in 2030
  - *To be replaced by Guarantee of Origin certificates*

LGC Price[4]



1 – source: AEMO; negative prices have been limited to -$45/MWh, positive cap $738/MWh
2 – WEM price during half hours of solar radiation
3 - https://www.erawa.com.au/cproot/23833/2/2024-benchmark-reserve-capacity-price-for-the-202627-capacity-year.PDF
4 - https://www.demandmanager.com.au/certificate-prices/

Appendix 3 - Stage One – 120MW Solar/80MW Battery

Superior and stable returns, increased funding optionality and lower development risk compared to alternatives. Frontier continues to assess opportunities, including in hydrogen, for future expansion

	Solar (only)	Solar/BESS	Hydrogen
Market (price) Risk	**High** • Large rooftop solar (PV) penetration means risk of low solar price / curtailment • Limited reserve capacity (10% or ~$4m)	**Low** • Reserve capacity – 100% ($24m + $4m) locked in • Battery provides opportunity to 'shift' energy generated at low price periods to peak periods • WA peak energy prices at all time highs	**High** • Hydrogen market still in its infancy • Currently requires the development of our own offtake (e.g. a dual fuel peaking power plant)
Technical Risk	**Low** • Mature and well-established technology	**Low/medium** • Industry is rapidly maturing in WA • High efficiency to store and release solar electricity (~85%)	**High** • Largest electrolyser in Australia currently 10MW, whereas 'right size' for WREP would be ~72MW • Relatively low efficiency to convert solar electricity to H_2 and back into usable energy
Funding Risk	**High** • Lowest capital investment; however, • Without a Power Purchase Agreement (PPA), debt leverage likely to be limited	**Low** • Medium capital investment • High debt leverage potential due to substantial fixed Reserve Capacity Payments	**High** • Largest capital investment, as investment in own offtake (e.g. peaking power plant) is required • Large Government support required to attract debt
Overall assessment / Comments	• **Lowest capital and technical risk, however revenue not maximised due to low Reserve Capacity Payment and curtailment risk** • No PPA = minimal fixed returns, lowering fundability	• **Best economic returns and technical risk** • ~40- 50% fixed income (RCP) = increased leverage • Arbitrage exposure to energy price upside • DFS – February 2024	• **Future market with excellent potential however still in its infancy** • Existing infrastructure and Stage One development gives FHE major advantage to be first mover in the future