

4 October 2023

Contacts:
Axel Dalman

Whitehaven growth plans are a bet on failure of world's climate policies

Key findings

- Market Forces modelling of Whitehaven Coal's cash flows shows the company's proposed new coal mines aren't resilient to even small shifts in coal prices.
- Current industry coal price forecasts are consistent with over 2.5°C of global warming. With just a 10% drop from these prices, in line with implementing existing climate policies, constructing the proposed new mines would not add shareholder value compared to simply running off existing assets.
- Scenarios that factor in stronger government climate policies imply even larger price drops, threatening value destruction.
- **Whitehaven could instead recover billions of dollars for shareholders this decade by simply running down its existing assets.**
- Given the immense risks to long-term coal demand, investors must push for a more responsible strategy of axing growth projects and accelerating capital returns.

Despite [increasing calls from shareholders](#) to preserve capital rather than risk it on new coal mines that are incompatible with global climate goals, Whitehaven is pursuing the development of several large new coal mines that would see the company producing coal past 2050. Given the [increasing risks](#) to demand in Whitehaven's core markets and beyond, management should, at a minimum, be able to prove to shareholders that its assets and plans are financially resilient outside the heady coal markets of the past two years. Yet the company has shared no such analysis with its investors.

To cover this glaring gap, Market Forces has built a model that projects the company's free cash flows (FCF) using many of Whitehaven's own assumptions and data, as well as those of the wider industry.

The purpose of the model is to evaluate shareholder returns under two scenarios: one where the company pursues its aggressive organic production growth plans (the "Expansion" scenario), and one where the

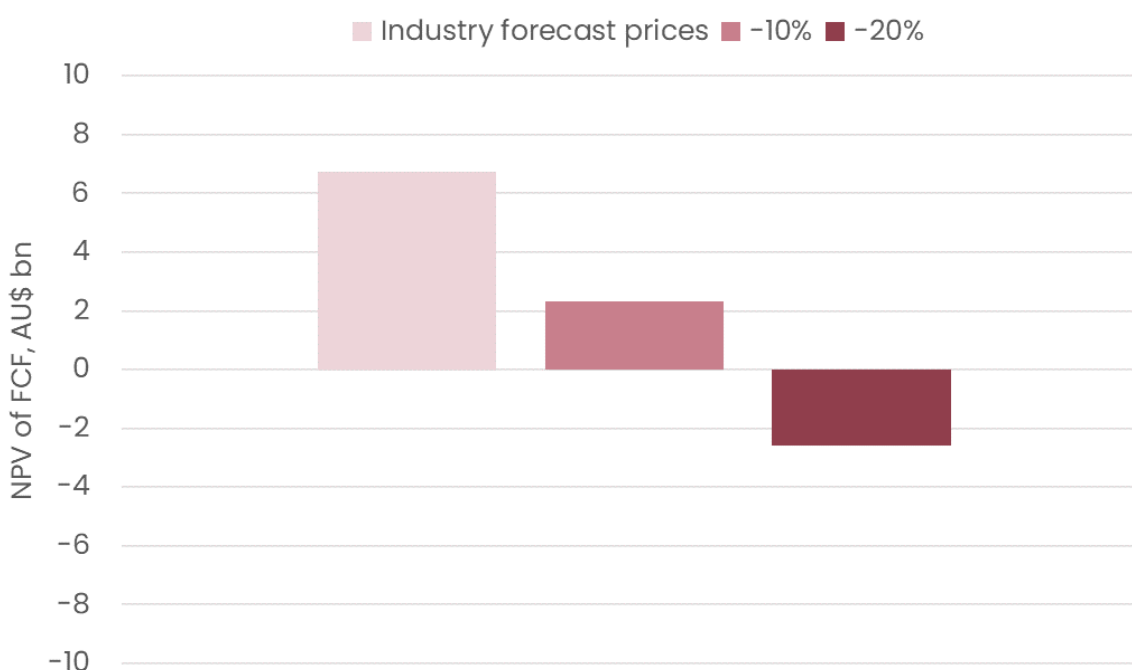
company simply runs down existing assets according to their current approvals (the “Operating” scenario).^{1 2}

Whitehaven isn’t resilient to even small declines in coal prices

Our results show Whitehaven’s growth plans quickly stop making financial sense on a net present value (NPV) basis even under small downward shifts to coal prices, compared to the median industry price forecast as collated by [KPMG](#). These baseline price forecasts are incompatible with existing policies to restrict climate change, let alone the major further policy shifts that must be enacted for countries to meet their commitments to the Paris Agreement’s climate goals, as shown further below. At prices 10-20% lower than this unreasonably optimistic benchmark, the company would barely be able to generate cash to return to shareholders, and would risk actively destroying value.

“Expansion” case value evaporates with small shifts in coal prices

Coal price sensitivity analysis for NPV of FCF, “Expansion” case



Source: Market Forces analysis

FCF is modelled out to 2060 and is presented net of growth capex

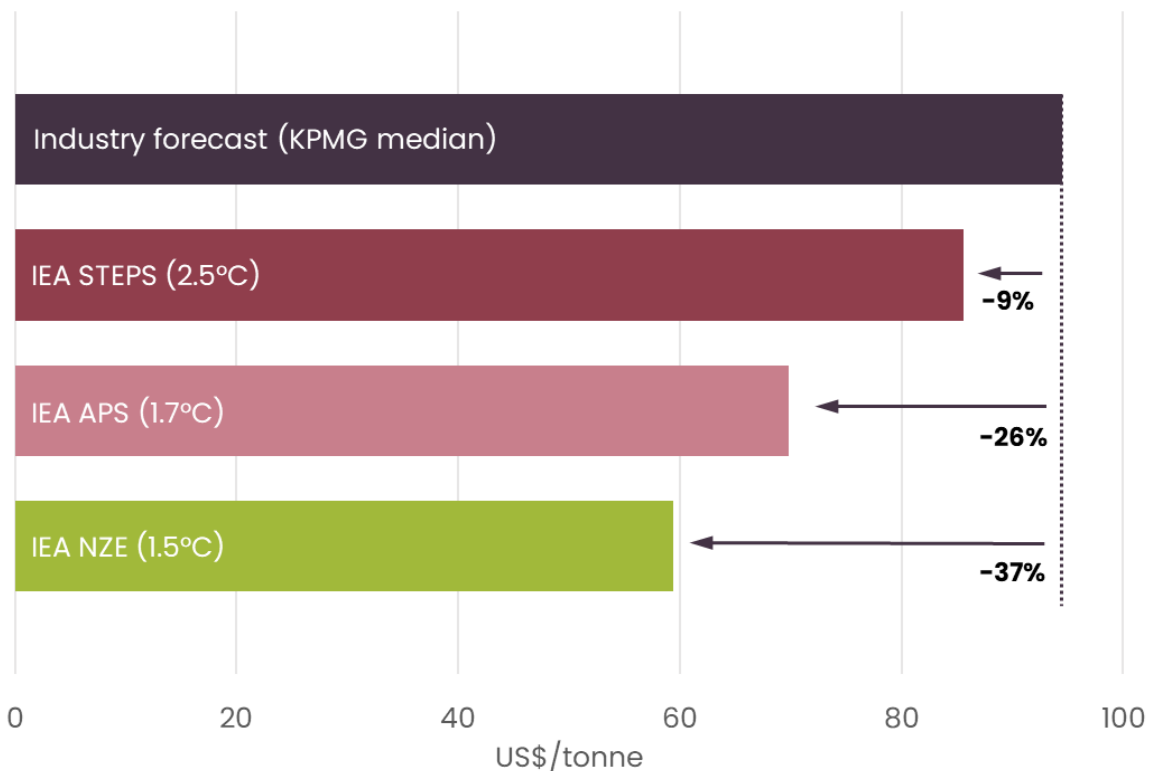
A 10-20% drop in prices is far from a tail risk. Thermal coal prices in the International Energy Agency’s (IEA) Stated Policies Scenario (STEPS), which factors in existing government policies and is consistent with 2.5°C of global warming, are already some 9% below the median industry forecast. This is even more pronounced in IEA scenarios modelling climate policy moving towards alignment with the Paris goals, such as the Announced Pledges Scenario (APS, 50% chance of limiting warming to 1.7°C) and Net Zero Emissions by 2050 scenario (NZE, 50% chance of 1.5°C), where thermal coal prices are in the order of 26% and 37% lower than the KPMG median, respectively. If applied equally to its thermal and metallurgical portfolio, Whitehaven would be loss-making under either scenario.

¹ For a detailed explanation of our methods and data, see our [model methodology](#).

² The model does not incorporate Whitehaven’s proposed acquisition of BHP’s Blackwater and Daulia mines.

IEA scenarios point to major downside risk to pricing

Long-term thermal coal price forecasts (Industry forecast vs IEA)



Source: [KPMG](#), [IEA WEO 2022](#), [IEA NZE 2023](#)

2023 real terms. IEA long-term is the average of the 2030 and 2040 Japan steam coal prices in each scenario; KPMG long-term is an existing figure from the source publication.

Put simply, Whitehaven's growth plans are an active gamble against the successful implementation of not just global climate commitments, but of *climate policies already in place*.

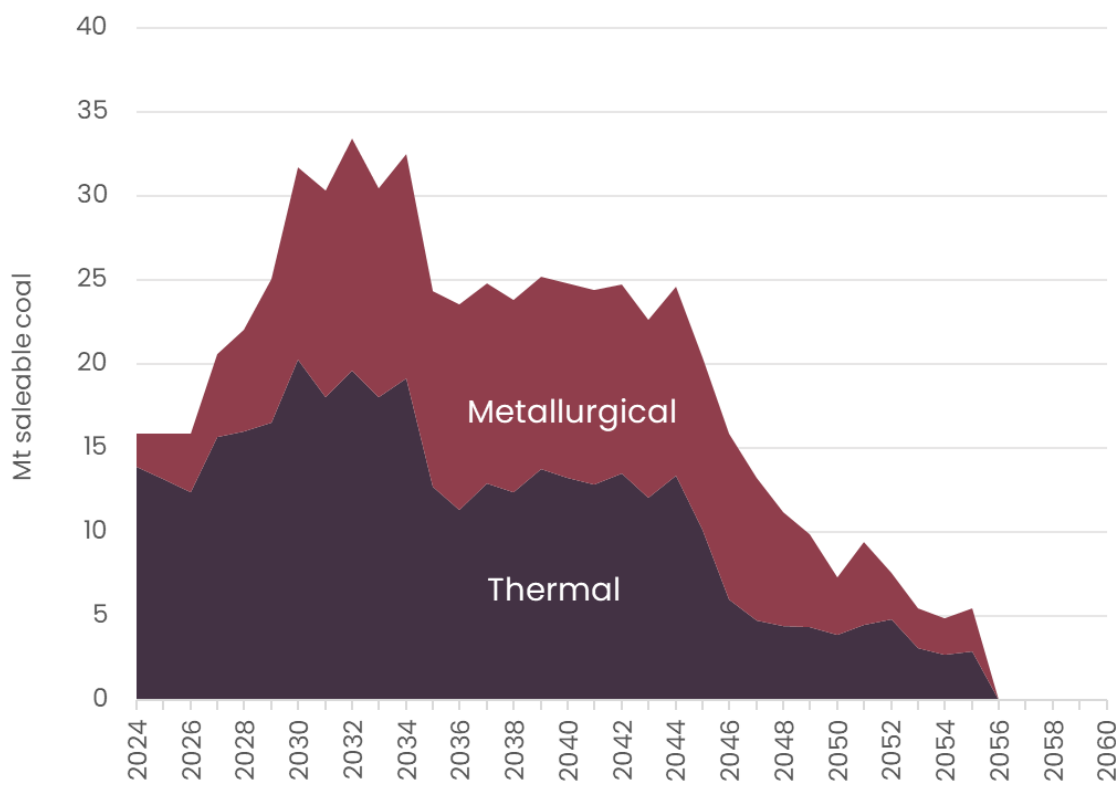
Box: Metallurgical coal growth wouldn't insulate Whitehaven from energy transition

A core pillar of Whitehaven's strategy is to increase the share of metallurgical coal in its sales mix, which was just [6%](#) in FY2023. Under the "Expansion" case, we estimate metallurgical coal would increase to about half of total production by the 2030s. Around half of this met coal production is from Vickery, which would produce lower-quality pulverised coal injection (PCI) and semi-soft coking coal. These fetch up to [35%](#) lower prices than hard coking coal according to Whitehaven.

Regardless, it's important to emphasise that Whitehaven would still be producing at least as much thermal coal in the 2040s as it does today.

Met coal grows, but thermal still Whitehaven's bedrock

Projected coal production, "Expansion" case



Source: Whitehaven environmental impact assessment documentation, Market Forces modelling

Whitehaven [assumes](#) metallurgical coal demand will remain robust out to 2050. This assumption is clearly not supported by any of the [IEA's scenarios](#). Global coking coal production declines 29% by 2050 from 2021 levels even in STEPS (2.5°C), meaning even current policy settings would significantly erode demand. Under APS (1.7°C) and NZE (1.5°C), coking coal production falls 63% and 88%³ respectively. As such, basing the company's strategy on unreasonably optimistic metallurgical coal demand (and by extension, prices) is extremely risky.

Realising growth plans means accepting poor returns now for a long-term gamble

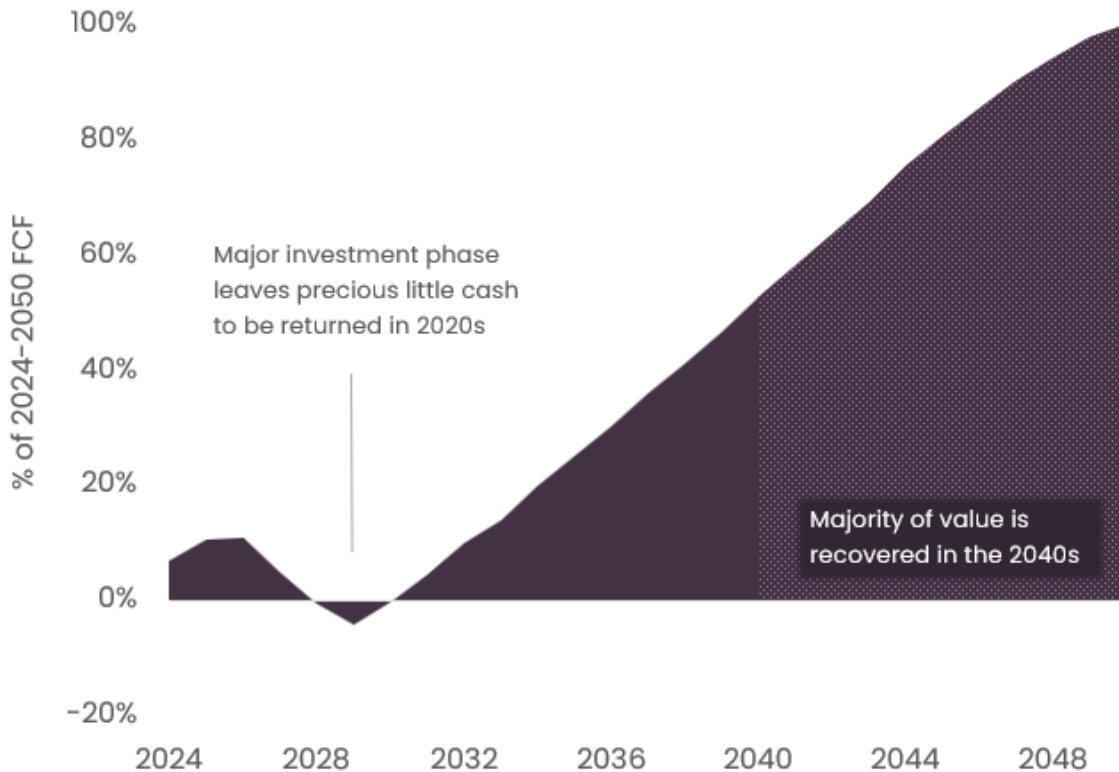
Executing Whitehaven's growth plans would require enormous investments this decade. We estimate capex on Whitehaven's growth projects (Narrabri Stage 3, Vickery and Winchester South) would total A\$4.7b to FY2030, equivalent to the company's entire net operating cash flows over the last five years (i.e., before capex, debt repayments, dividends and buybacks).

Bringing these projects online would therefore mean asking shareholders to accept subpar or non-existent returns over the next several years on the unreasonable hope that coal demand and prices remain supportive into the 2040s, defying already-legislated climate policies. As shown in the chart below, the majority of any hoped-for value from Whitehaven's growth projects accrues 1-2 decades from now. Based on the price sensitivities shown above, this value is only realised if governments fail to enforce existing climate policies and allow warming to escalate even past a catastrophic 2.5°C.

³ Based on the 2022 version of the NZE scenario; the [2023 NZE report](#) does not provide updated figures on coking coal production.

Growth strategy hinges on highly uncertain returns in 2040s

Cumulative undiscounted FCF, "Expansion" case



Source: Market Forces modelling
FCF is net of major growth capex

The hope that value will in fact be realised is reliant on the utter failure of action to address climate change. Whitehaven has itself recognised its major customers and targeted growth markets already have policies and near-term goals in place to cut emissions and coal consumption. It's clear from the company's own analysis that risks to coal demand, and prices, will compound over time. Meanwhile, Whitehaven's production costs have increased 12% per year (CAGR) over the last five years, a fact not yet visible in the bottom line only because of an unprecedented coal price rally. This makes Whitehaven's costly expansion strategy, which hinges on long-term market stability, outright reckless.

Country decarbonisation targets

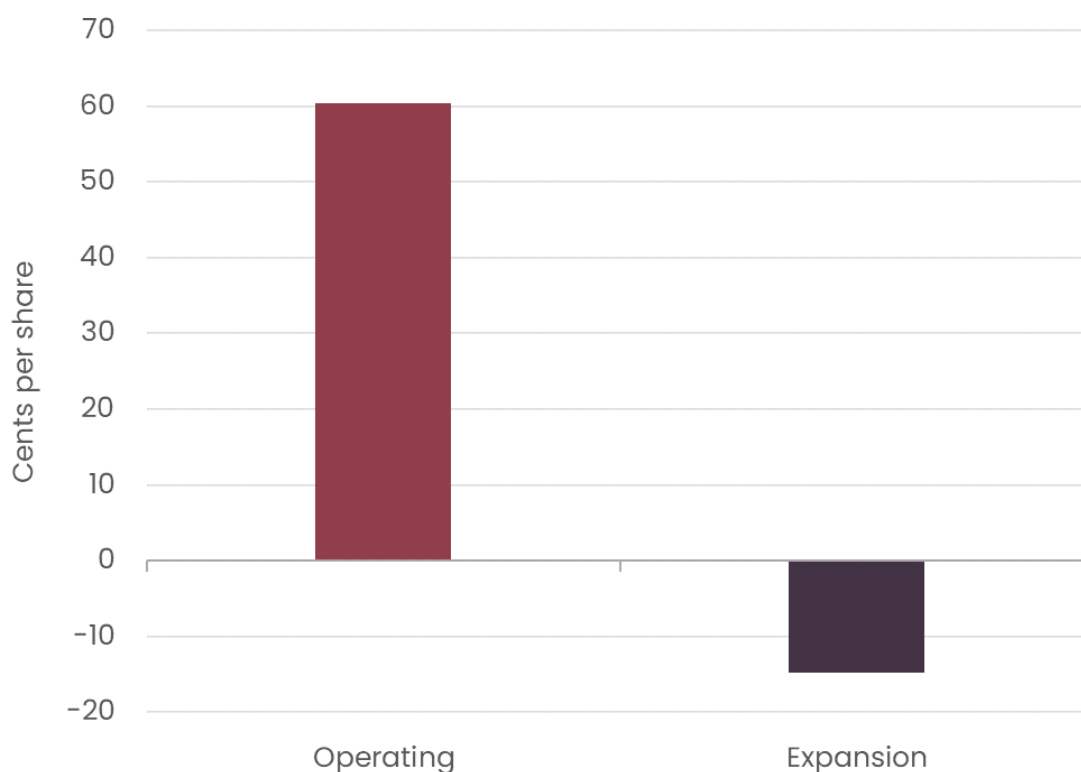
	2030 emissions targets	Share of renewable energy target	Net zero target
Japan	Reduce by 46% below 2013, and 'continue strenuous effort in its challenge' towards a 50% reduction	Increase to 36-38% by 2030, up from 18% in 2019	
South Korea	Reduce by 40% below 2018	Increase to 22% by 2030 and 30.6% in 2036, from 7.5% in 2021	by 2050
Taiwan	Reduce by 23-25% below 2005	Increase to 20% by 2025 and 60-70% by 2050	
Malaysia	Reduce carbon intensity against GDP by 45% below 2005	Increase to 40% by 2035 from 17% in 2021	
India	Reduce by 45% below 2005 emissions intensity of GDP	Achieve -50% share by 2030 from non-fossil fuel sources	by 2070
Indonesia	Reduce by 32% on its own or by 43% with international support from its business-as-usual scenario	Increase to 23% by 2025 and 31% by 2050	by 2060

Source: [Whitehaven Coal](#)

If Whitehaven drops its plans to develop new mines and simply focuses on its existing assets, it could recover over A\$3b in free cash flow for shareholders this decade - around 60¢ per share annually on average - and would generate positive cash flow even under 10-20% drops in coal prices. This is before considering any operating cost reductions from slimming down the organisation into a legacy business.

Focusing on existing assets frees up returns this decade

Annual average FCF per share (2024-2029), Industry forecast prices



Source: Market Forces modelling
FCF is net of major growth capex

Investors must call for a more responsible way forward

Whitehaven stands at a crossroads. With its three growth projects yet to receive final investment decisions, the company can still choose a path forward that is both more financially predictable and less reliant on the utter failure of the Paris climate goals, and the entirely [unacceptable economic, social and environmental outcomes](#) of such a scenario. Shareholders must therefore seize the opportunity at the company's upcoming AGM to request more rigorous planning and disclosure by the company, demonstrating production and capital expenditure plans that are consistent with the pathway to net zero emissions by 2050.

Appendix: Additional sensitivity analysis

NPV (2024-2060) sensitivity analysis, "Expansion case"					
AU\$bn					
Sensitivity	-20%	-10%	0%	+10%	+20%
Coal price	-2.6	2.3	6.7	10.7	14.3
Production cost inflation	8.6	7.7	6.7	5.8	4.6
WACC	8.2	7.4	6.7	6.1	5.6