



Leer South: Arch's next world-class High-Vol A longwall mine

February 14, 2019

Forward-looking information

This presentation contains “forward-looking statements” – that is, statements related to future, not past, events. Forward-looking statements address our expected future business and financial performance including our financial projections and often contain words such as “believes”, “could”, “should”, “expects”, “anticipates”, “intends”, “plans”, “believes”, “seeks”, or “will.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain and depend upon important estimates and assumptions concerning our financial and operating results, including with respect to our coal pricing expectations, many of which are subject to change. No representations or warranties are made by us as to the accuracy of any such forward-looking statements. The inclusion of this information should not be regarded as an indication that we consider it to be necessarily predictive of actual future results. The information contained herein reflect numerous estimates and assumptions with respect to coal market conditions, general economic conditions, weather conditions, natural gas prices, competition in our industry, production capacity, availability of surety bonds, and matters other matters specific to our business, all of which are difficult to predict and many of which are beyond our control. Uncertainties arise from changes in the demand for and pricing of our coal by the domestic electric generation industry; from legislation and regulations relating to the Clean Air Act and other environmental initiatives; from operational, geological, permit, labor and weather-related factors; from fluctuations in the amount of cash we generate from operations; from future integration of acquired businesses; and from numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive or regulatory nature. There is significant risk that our current estimates and assumptions may not be accurate and that our actual results will vary significantly from our anticipated results. Readers are cautioned not to rely on the forward-looking statements contained herein. We do not undertake to update our forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. For a description of some of the risks and uncertainties that may affect our future results, you should see the risk factors described from time to time in the reports we file with the Securities and Exchange Commission.

This presentation includes certain non-GAAP financial measures, including, Free Cash Flow, Adjusted EBITDA, Adjusted EBITDA and cash costs per ton. These non-GAAP financial measures are not measures of financial performance in accordance with generally accepted accounting principles and may exclude items that are significant in understanding and assessing our financial results. Therefore, these measures should not be considered in isolation or as an alternative to net income from operations, cash flows from operations, earnings per fully-diluted share or other measures of profitability, liquidity or performance under generally accepted accounting principles. You should be aware that our presentation of these measures may not be comparable to similarly-titled measures used by other companies. A reconciliation of these financial measures to the most comparable measures presented in accordance with generally accepted accounting principles has been included at the end of this presentation.

Leer South promises to drive significant new value for Arch's shareholders

Project

- Expected to be among the largest, lowest-cost and highest-margin U.S. coking coal mines
- Projected to be nearly identical in virtually every respect to Arch's flagship Leer longwall mine
- Cements Arch's position as the premier global producer of High-Vol A coal, with an incremental 3 million tons per annum
- Based on current market conditions, would capture a cash margin of around \$90 per ton on seaborne coking shipments
- Will augment Arch's already advantageous product quality mix and further lower its cost structure
- Could fully recover its \$360 million to \$390 million capital investment in 18 months at current market conditions

Market

- Can help satisfy projected need for ~ 76 million tons of new coking coal productive capacity by 2025, based on 1.5 percent annual seaborne demand growth and 2 percent annual depletion rate
- Will principally serve the 300-million-metric-ton-per-year seaborne coking coal markets
- Will help satisfy growing, global need for high-quality coking coals in the face of reserve degradation and depletion in all major supply regions

Capital Priorities

- 2019 Leer South capital requirements can be funded with internally generated cash without limiting Arch's proven and highly successful capital return program, given current projections
- Arch remains committed to continuing its capital return program, which has returned \$640 million to shareholders since inception, while maintaining ample liquidity and an industry-leading balance sheet
- Growth of high-margin tons from Leer South and a robust capital return program will allow Arch to generate long-term, sustainable returns for its shareholders



Project Overview



Leer South will be nearly identical to Arch's world-class Leer mine

	Leer	Leer South
<i>Mine life</i>	10 Years	20 Years
<i>Mining technique</i>	Longwall	Longwall
<i>Seam</i>	Lower Kittanning	Lower Kittanning
<i>Seam thickness</i>	~ 62 inches ¹	~ 65 inches
<i>Average panel length</i>	~ 6,700 feet	~ 9,000 feet
<i>Annual met output</i>	3 million tons	3 million tons
<i>Product quality</i>	High-Vol A	High-Vol A
<i>Projected cash cost</i>	Low-\$50s	Low-\$50s
<i>Export facilities</i>	Baltimore / DTA	Baltimore / DTA

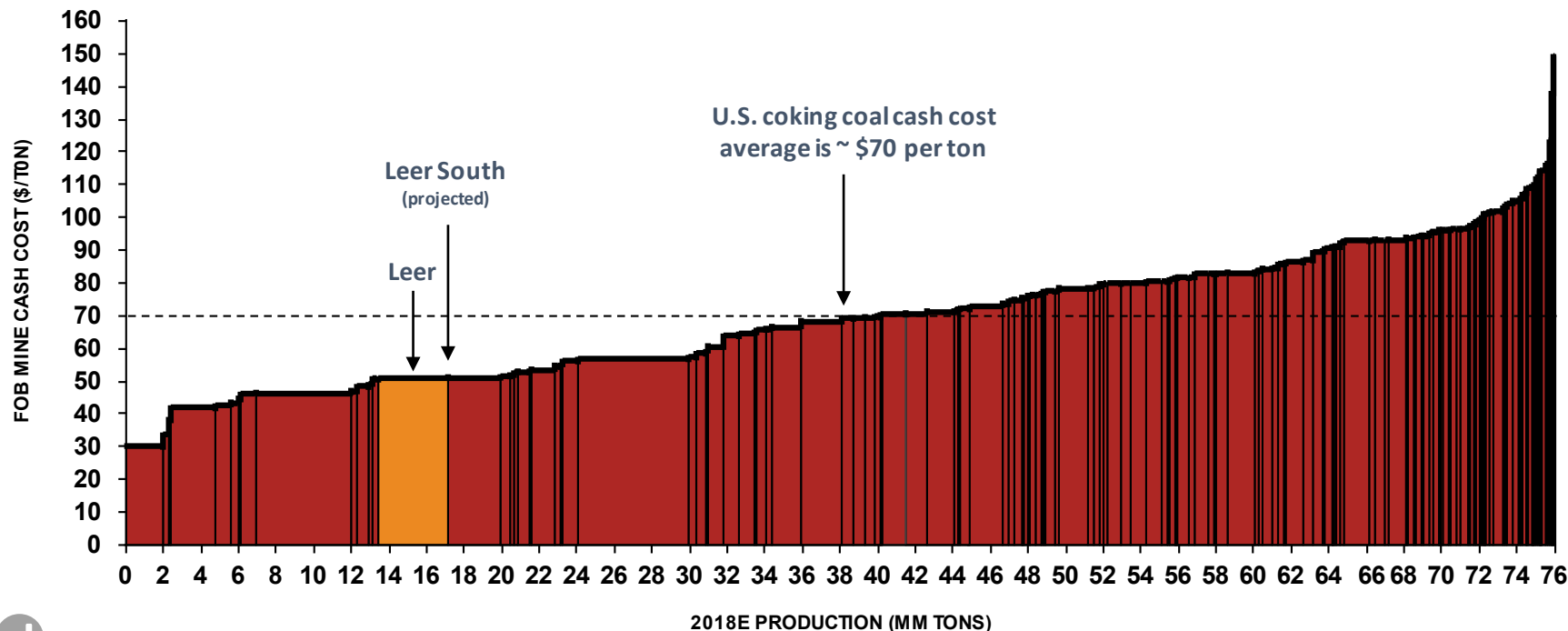


¹ Reflects Leer mine's average seam thickness to date; starting in 2020 and thereafter, the average seam thickness at Leer will expand to more than 72 inches

Note: Excluding the reserves in the mine plans for Leer, Sentinel and Leer South, Arch will still have ~ 150 million tons of undeveloped reserves in the Tygart Valley reserve block.

Leer South is projected to join the Leer mine at the very low end of the U.S. cost curve – a competitive advantage amplified still further by its high-quality, High-Vol A output

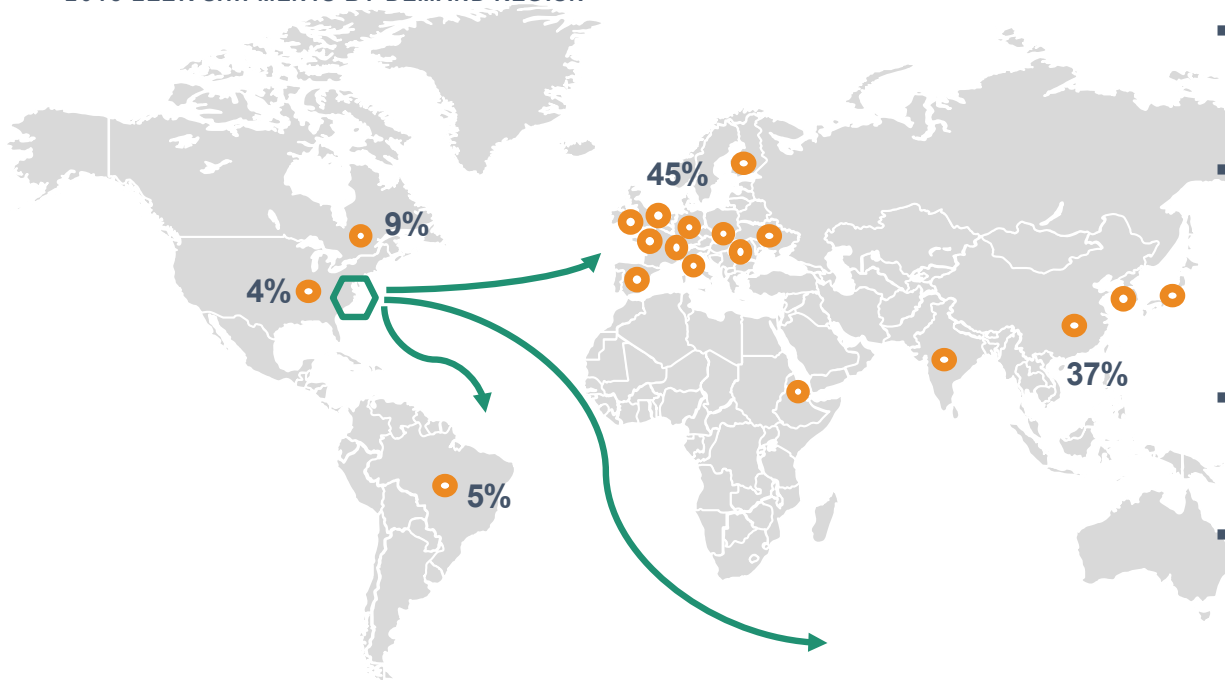
COAL PRODUCTION FROM IDENTIFIED MET MINES IN THE U.S.



Source: Internal

Arch has identified significant, unsatisfied demand for Leer-brand products across its geographically diverse customer and potential customer base

2018 LEER SHIPMENTS BY DEMAND REGION



- Arch plans to capitalize on strong, global demand for Leer-brand High-Vol A coals
- High-Vol A and equivalent coals total less than 25 million tons per annum globally; provide unique advantages in coke blends; and earn an expanding premium in the marketplace
- Arch currently rationalizes Leer-brand shipments to its existing, geographically diverse customer base
- Leer South will facilitate still greater penetration in global seaborne markets



Map reflects Arch's 2018 coking coal shipments YTD from the Leer mine, as well as Leer's historical global customer base

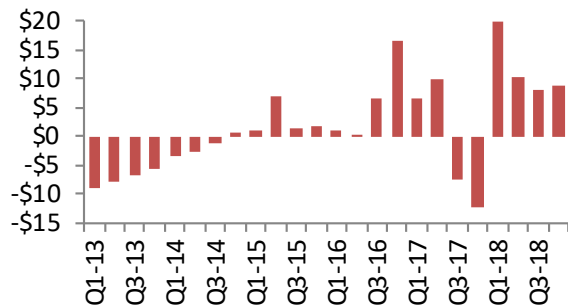


Coal Market Overview

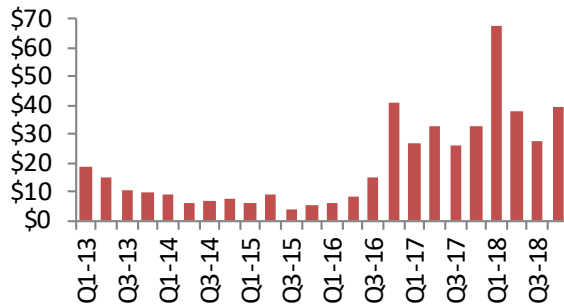


U.S. High-Vol A coal is earning an expanding premium in the marketplace

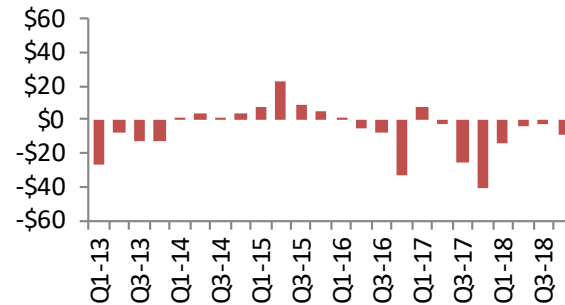
SPREAD BETWEEN U.S. HVA AND U.S. LV
(QUARTERLY AVERAGE, IN \$ PER TON)



SPREAD BETWEEN U.S. HVA AND U.S. HVB
(QUARTERLY AVERAGE, IN \$ PER TON)



SPREAD BETWEEN U.S. HVA AND PREMIUM HCC
(QUARTERLY AVERAGE, IN \$ PER TON)



U.S. High-Vol A versus U.S. Low-Vol

- U.S. High-Vol A has traded at a premium to U.S. Low-Vol in 14 of the past 24 quarters, including each of the last four, and achieved an average premium of nearly \$12 per metric ton in 2018

U.S. High-Vol A versus U.S. High-Vol B

- The premium that U.S. High-Vol A has achieved relative to U.S. High-Vol B has increased markedly in recent years, averaging nearly \$43 per metric ton in 2018 versus just \$6 per ton in 2015

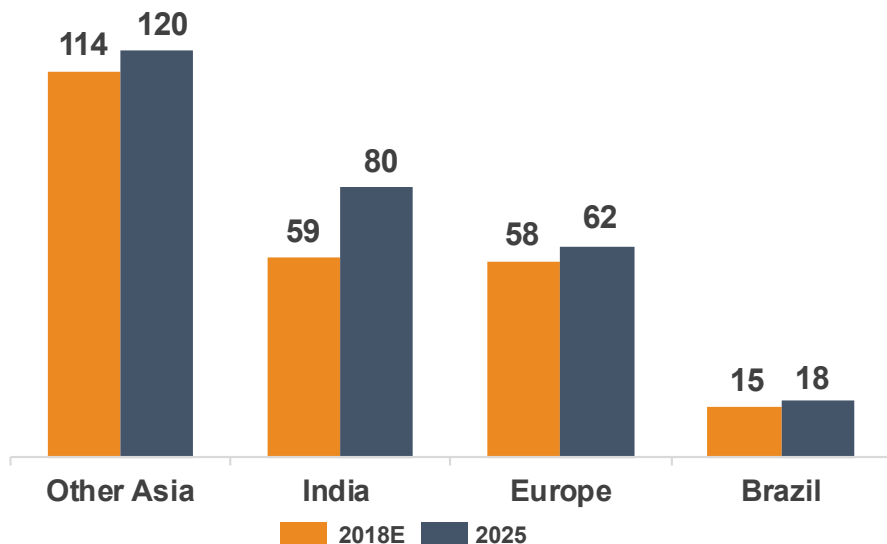
U.S. High-Vol A versus Australian Premium Hard Coking Coal

- U.S. High-Vol A has earned a premium over Australian Premium Hard Coking Coal in 11 of the past 24 quarters, with the Aussie product achieving a modest, \$6 per metric ton higher price on average over that timeframe



Solid demand growth is forecast for key coking coal import regions, and an increasing number of global steel mills are looking to add High-Vol A coals to their coke blends

GLOBAL METALLURGICAL COAL IMPORTS
(MILLION METRIC TONS)



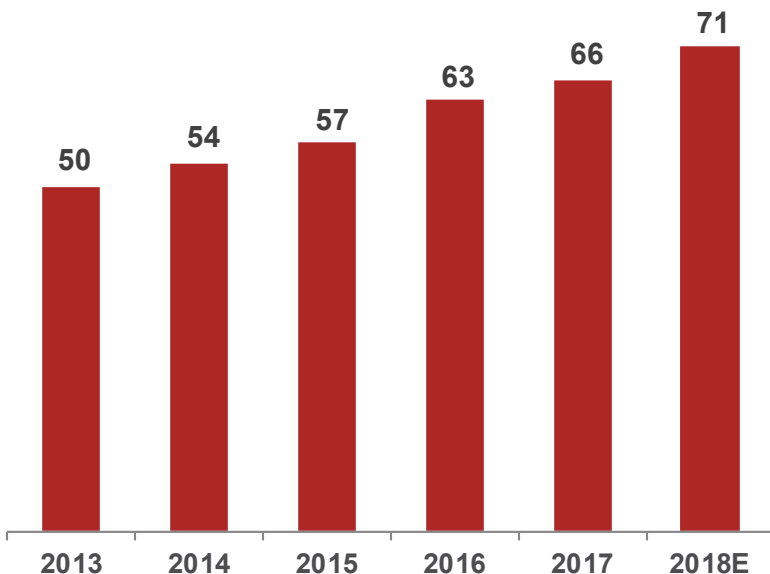
- India and Other Asia represent a significant opportunity for the seaborne market – both directly and as a sink for Australian output
- India has doubled its steel production in the past 10 years and is on track to become the world's largest importer of coking coal in the near future
- European coking coal demand will be driven by continuing pressures on indigenous metallurgical coal reserves and production, as well as modest demand growth
- We expect Chinese imports to remain sizeable but stable as declining blast furnace and BOF production is counter-balanced by coking coal cost pressures and quality degradation



Source: Consensus based on CRU, Wood Mackenzie, and internal forecasts

India is on track to become the world's largest importer of coking coal in the near future

INDIAN HOT METAL PRODUCTION
(IN MILLIONS OF METRIC TONS)

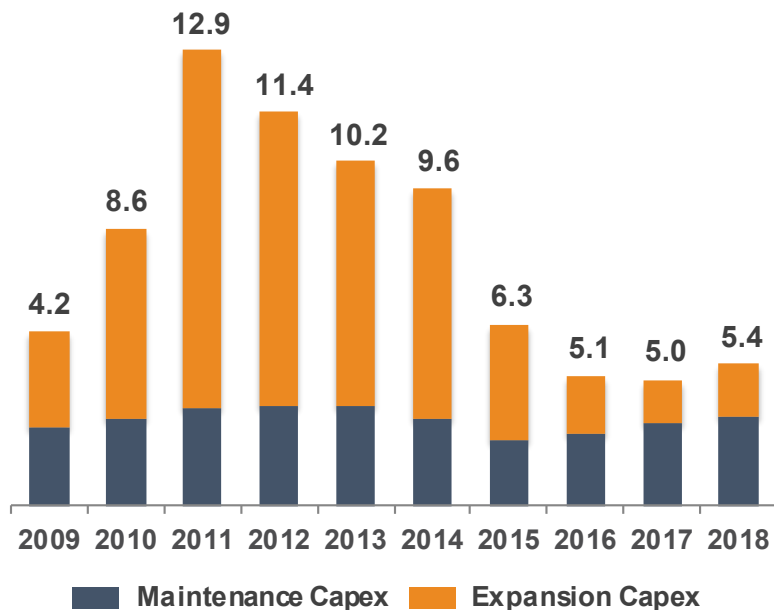


- Indian steel output is up ~ 40 percent in the past five years
- Indian steel producers plan to add 42 million tons of hot metal capacity by 2023 – increasing installed base by 50 percent
- The Indian government is targeting 300 million tons of steel mill capacity by 2030
- Tata expects steel production to reach 150 million tons by 2025, which could boost coking coal requirements by 30 million tons or more
- Given poor quality of indigenous coals, nearly all of that total will need to be imported



Capital spending at Australian coking coal mines remains muted

INVESTMENT IN AUSTRALIAN COKING COAL MINES
(IN BILLIONS OF DOLLARS)

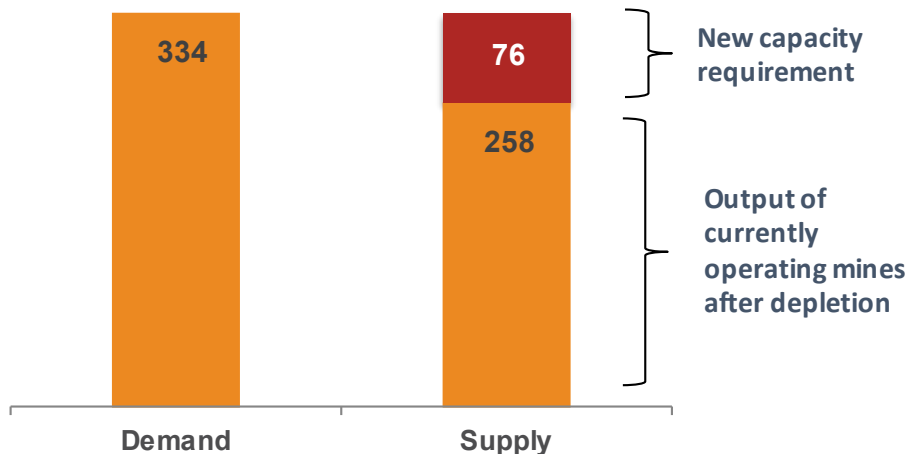


- Australian producers supplied roughly 60 percent of all coking coal in the seaborne market in 2018
- Australian expansion capex fell from a peak of \$8.5 billion in 2011 to an average of \$1.2 billion annually over the past three years
- Based on current expansion plans, that trend appears likely to extend into 2019



Industry consultants project that 76 million tons of global coking coal capacity must be added by 2025 to meet growing seaborne demand

PROJECTED 2025 SEABORNE COKING COAL SUPPLY AND DEMAND
(IN MILLIONS OF METRIC TONS)



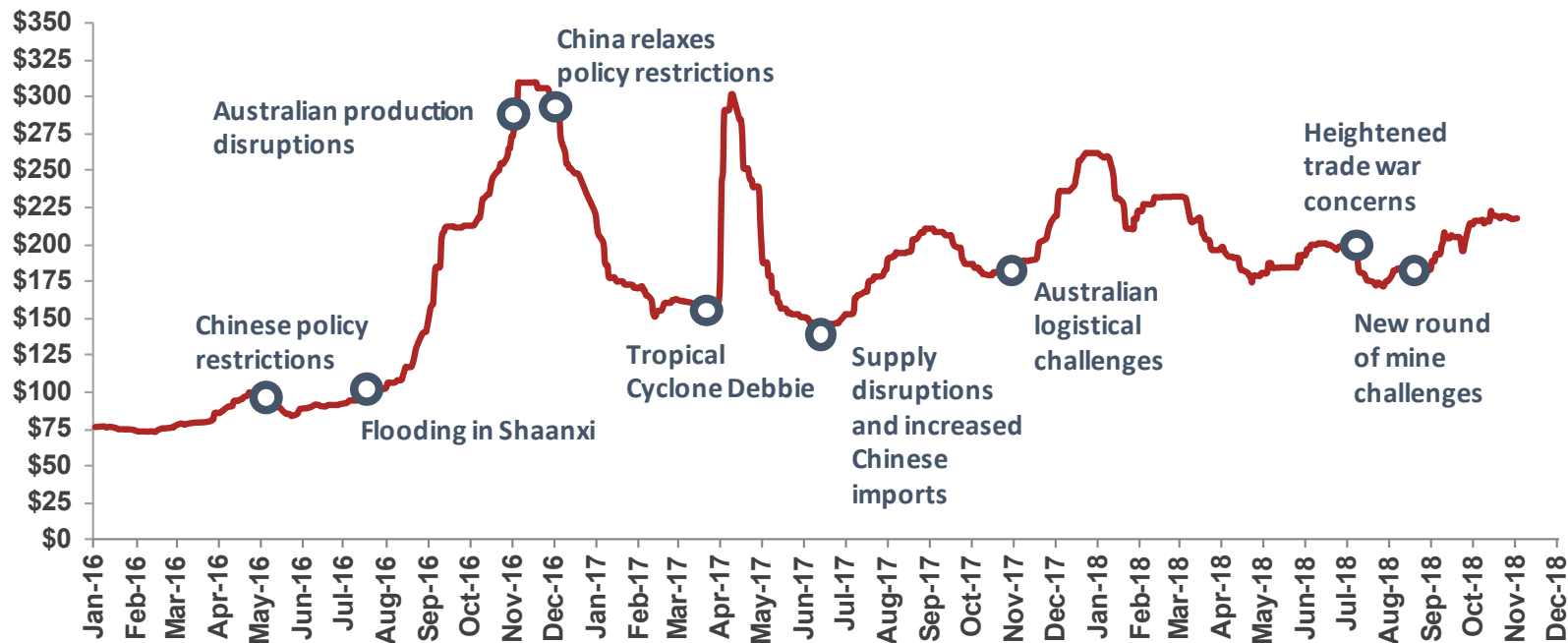
- The consensus estimate is for 1.5 percent annual seaborne demand growth through 2025 – increasing from 300 million metric tons currently to 334 million tons in 2025
- Wood Mackenzie projects that depletion will reduce annual output by 2 percent per year, or 42 million tons by 2025
- That leaves a gap of 76 million tons that must be filled with mine expansions and new capacity by 2025
- Australian producers are unlikely to fill the gap given subdued pipeline of development projects and ongoing logistics issues
- Likewise, North America is a mature asset base with few quality development projects



Ongoing volatility in coking coal prices suggests a well-balanced market with limited potential for near-term to intermediate-term supply response

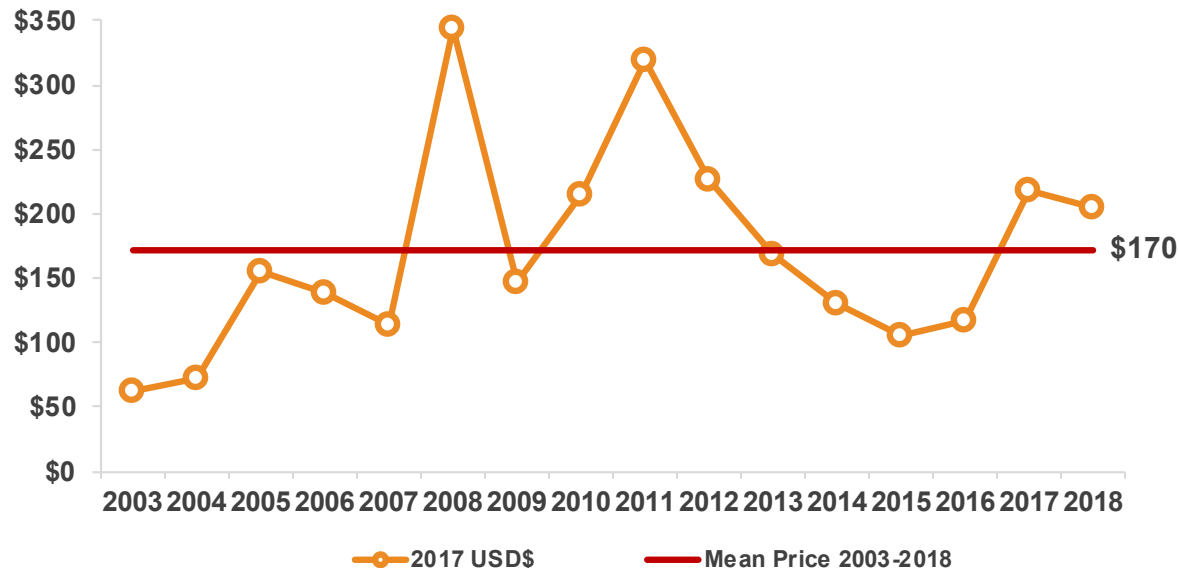
HISTORICAL HARD COKING COAL BENCHMARK PRICES

(\$ PER METRIC TON)



Global hard coking coal prices have averaged ~ \$170 per metric ton over the past 16 years – and the global cost curve is shifting up and to the right

ANNUAL AVERAGE HARD COKING COAL PRICE
(\$ PER METRIC TON)

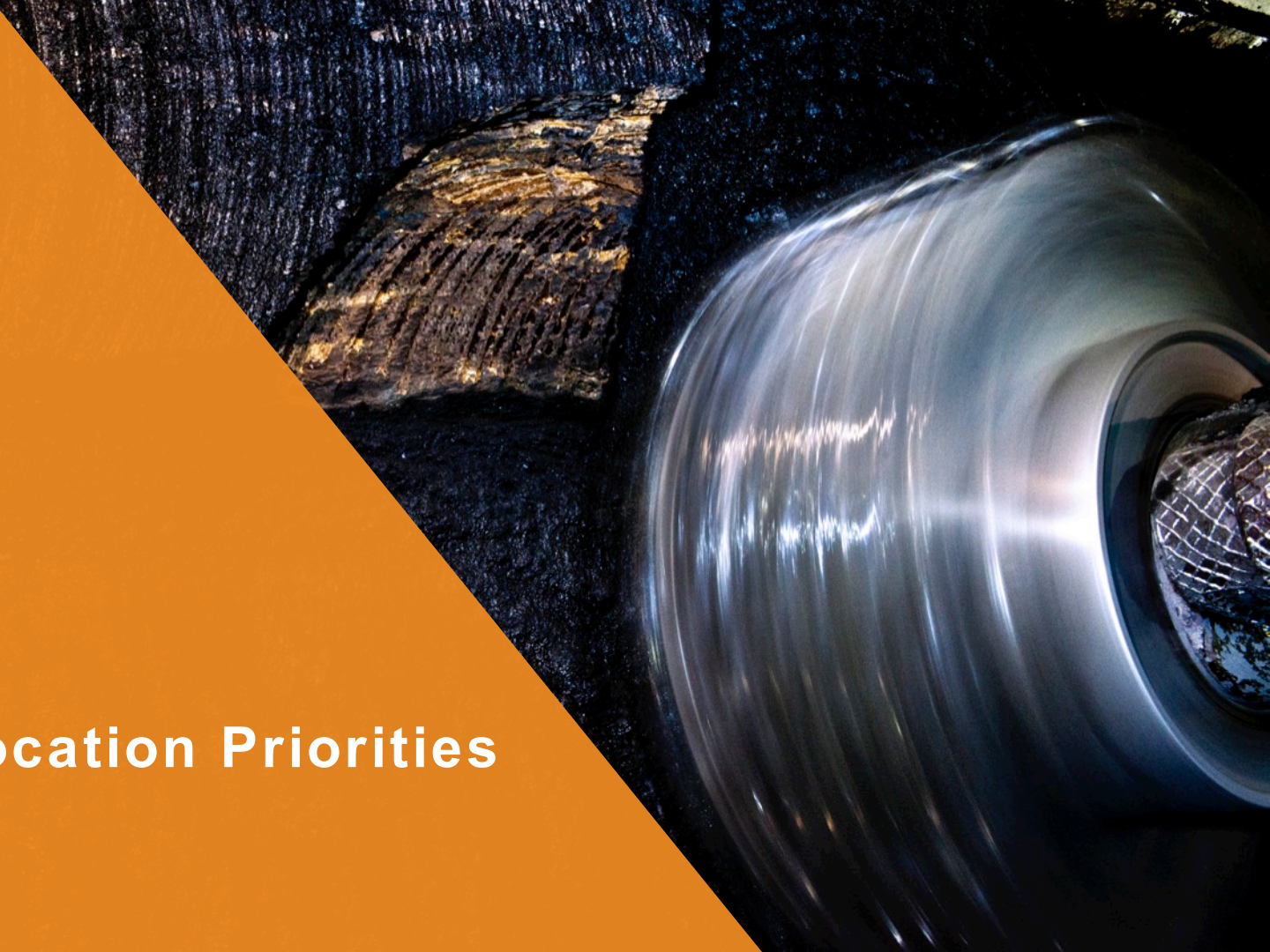


- The average price of coking coal FOB the vessel in Queensland, Australia has averaged ~ \$170 per metric ton on an inflation-adjusted basis since China entered the market 16 years ago
- We expect volatility to continue, but with an upward bias as mining costs increase over time due to reserve degradation and depletion

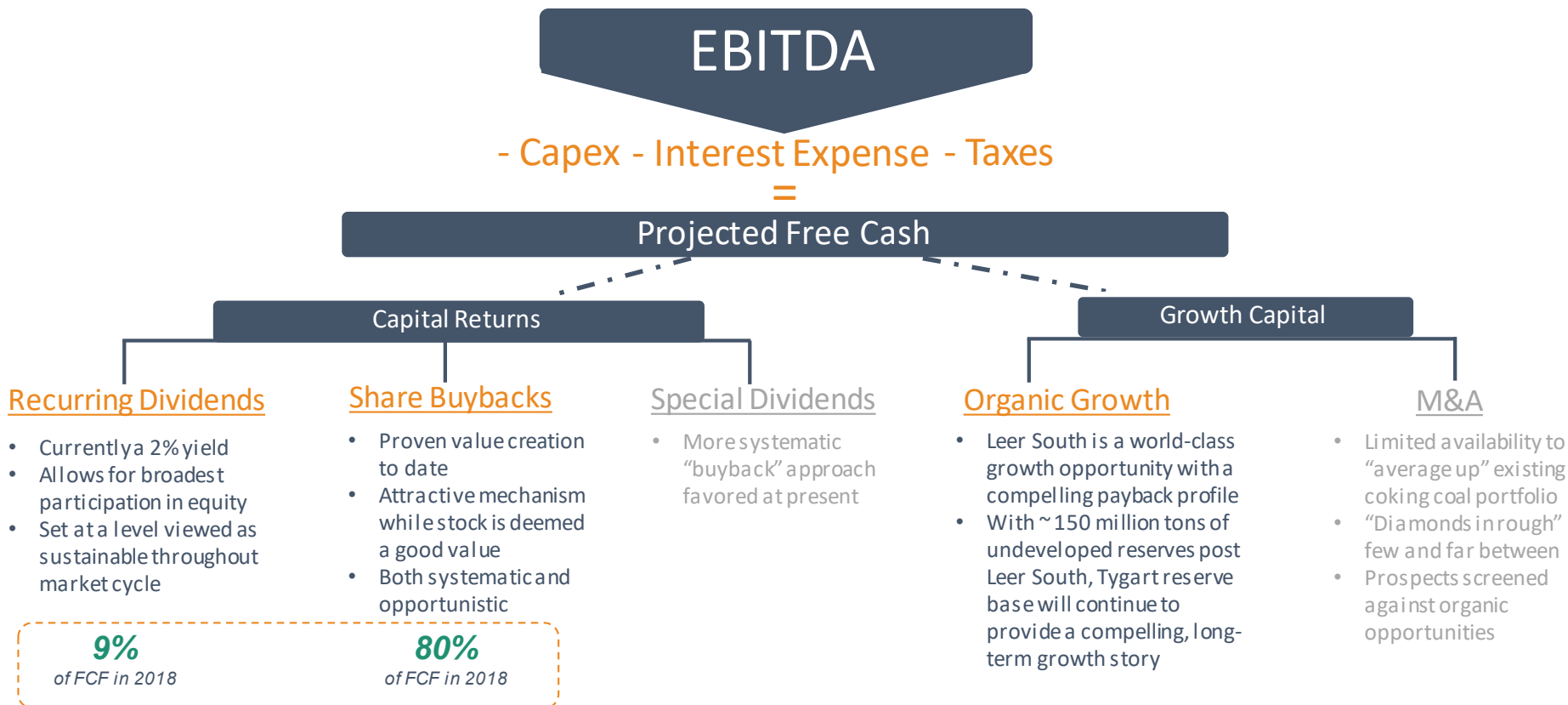




Capital Allocation Priorities

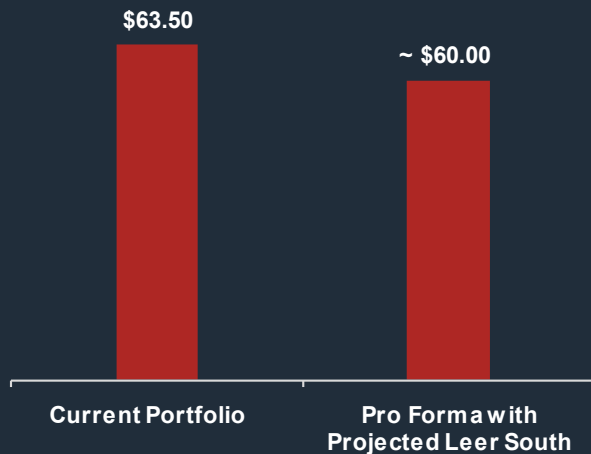


Arch continuously evaluates which avenues provide the best risk-adjusted returns

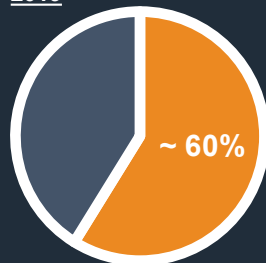


Leer South will lower the average cost, increase the average quality, and expand the average operating margin of Arch's coking coal portfolio

PROJECTED 2019 COKING COAL COSTS
(IN DOLLARS PER TON, AT THE MIDPOINT OF GUIDANCE)

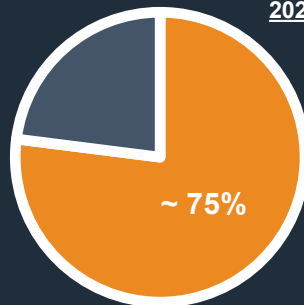


2019



High-Vol A

2022



~ 9.0 million tons

PROJECTED PAYBACK FOR LEER SOUTH
AT VARIOUS MARKET PRICES

Price*	Payback
\$225	15 months
\$200	18 months
\$175	24 months
\$150	30 months
\$125	48 months

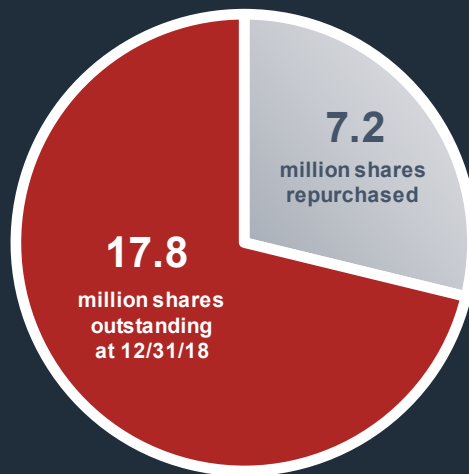
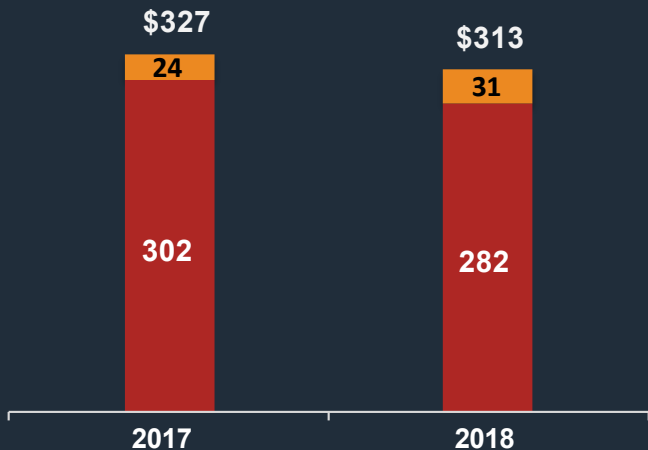
* High-Vol A price per metric ton, FOB vessel, U.S. East Coast



Source: Internal

Arch has returned \$640 million of capital to shareholders since May 2017

CAPITAL RETURNED TO SHAREHOLDERS
VIA SHARE BUYBACKS AND DIVIDENDS
(IN MILLIONS)



Arch has bought back 29% of its total shares outstanding since May 2017

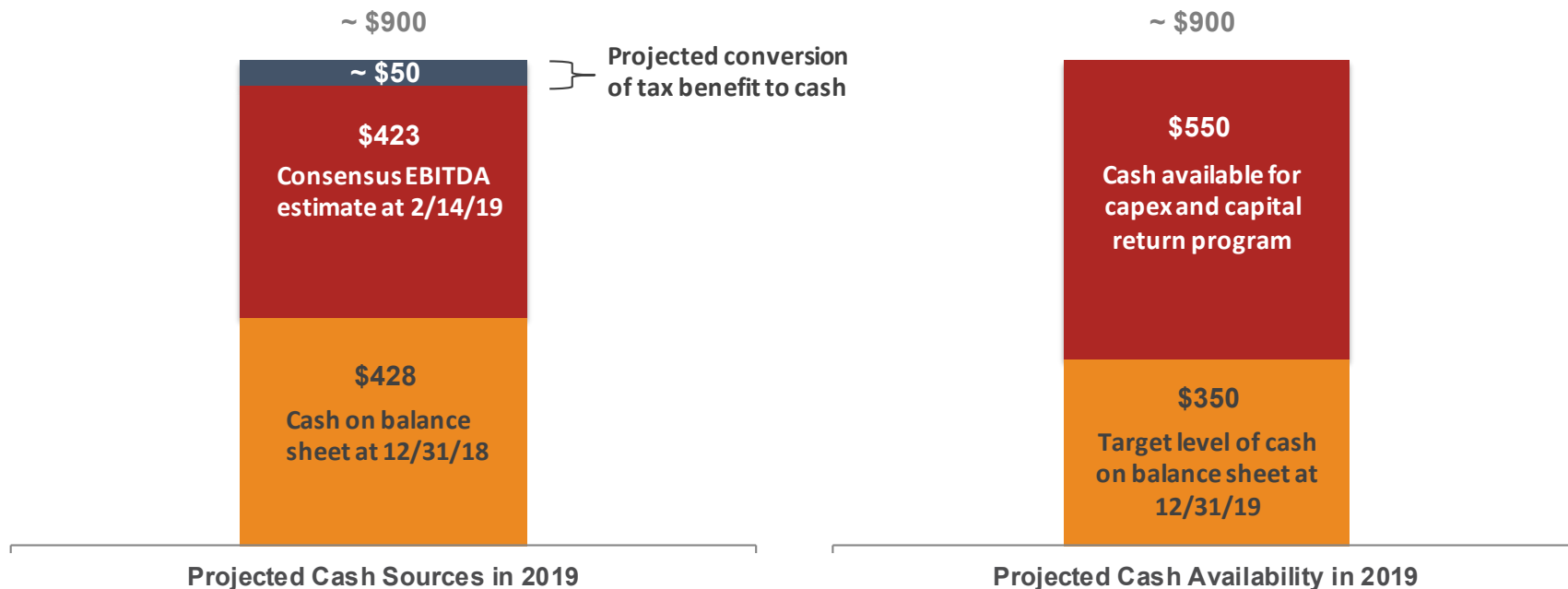
\$640 million

returned to shareholders since capital return program's inception in May 2017



Based on current estimates, Arch would have around \$550 million of capital available to fund its capex needs and capital return program in 2019

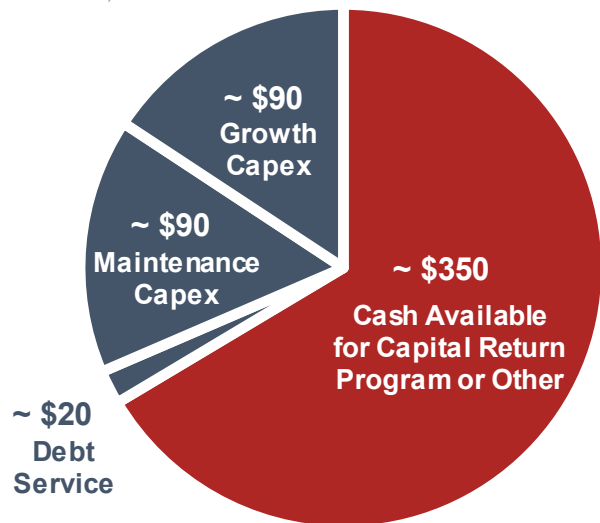
PROJECTED SOURCES OF CASH AND CASH AVAILABILITY IN 2019
(IN MILLIONS)



Source: IR Insight (analyst estimates) and internal projections

Based on current estimates and projected needs, Arch would have \$350 million of available cash to fund its capital return program, should it opt to do so

PROJECTED 2019 CASH AVAILABILITY AND POTENTIAL USES
(IN MILLIONS)



~ \$550 million
Total projected cash available for capex
and capital return program

- Even with the Leer South capex, Arch would have \$350 million of discretionary cash availability in 2019 based on current analyst expectations and projected capex needs
- Arch returned an average of \$320 million of cash to shareholders in 2017 and 2018 under its capital return program
- Arch is projected to be in an excellent position to match or exceed that level in 2019 should it opt to do so

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