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**PT Adaro Energy  
Indonesia Tbk**  
September 2022

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# Snapshot of Adaro Energy



**Lost-time injury  
frequency rate  
(LTIFR)**  
0.12 in 2021



**Employees**  
~12,000



**Restored Land**  
2,596 Ha



**Countries  
Served**  
13



**2021 Operational  
EBITDA**  
US\$2.1 billion



**Production**  
52.7 million



**2021 Revenue**  
US\$3.99 billion

# Indonesia's leading integrated energy group **adaro**

8 pillars supporting sustainable growth



## Main operating pillars: pit-to-power integration

Thermal and metallurgical coal operations in Indonesia and Australia

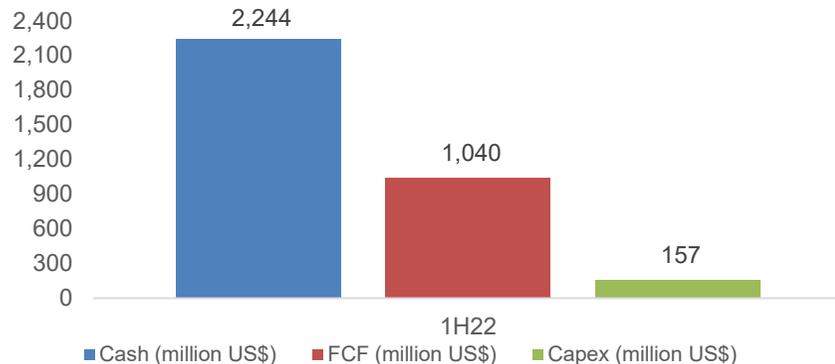
Mining and logistics contractors to support the group's operations  
Operates coal-fired and renewable power plants. Focused on development of green energy sources: hydro, solar, wind.



## Supporting pillars

Develops forest areas for carbon absorption, ecosystem restoration, and manages operational land aspects.

Water treatment, NRW management, and water solution services.  
Investment arm to capture overseas investment opportunities.  
Non-profit foundation coordinating the group's CSR activities.



**Solid financial position and strong liquidity enable the group to capture growth opportunities across the energy ecosystem**

# On track to meet FY22 guidance

provides cash to invest in EV value chain and renewables



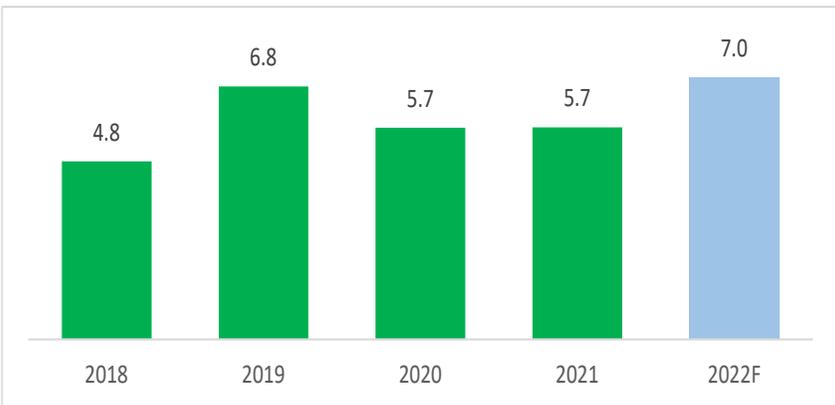
### Coal production (Mt)



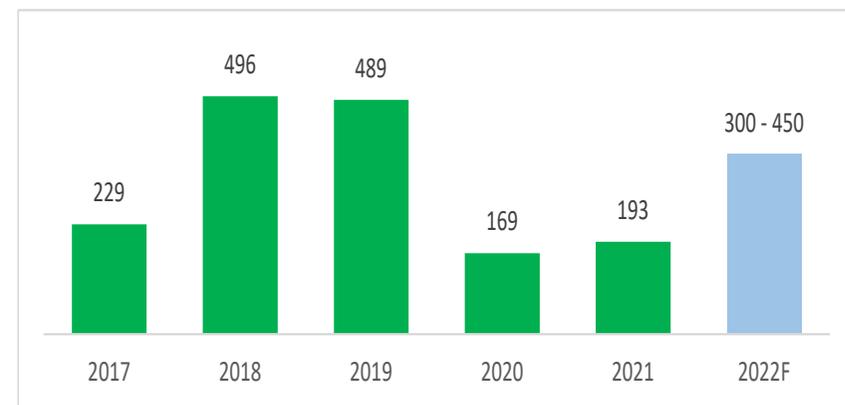
### Consolidated planned strip ratio (bcm/t)



### Kestrel MetCoal Production (Mt)



### Consolidated Capital expenditure (\$m)



# One of Indonesia's largest IPPs

Adaro Power's gross power generation capacity stands at 2,260 MW



## Makmur Sejahtera Wisesa – CFBP

Size / Tech.	2 x 30 MW CFB technology
Shareholders	100% Adaro Power
COD	#1 Jun 2013, #2 Feb 2014
Availability Factor	94% (Avg. up to the end of 1H22)
Adaro Mining Electrification	Current: 11.7 MW Plan: additional 17.9 MW



## Makmur Sejahtera Wisesa – Solar PV

Size	130 kWp + 467 kWp
Shareholder	100% Adaro Power
COD	Q3 2018 (for 130 kWp) & 467 kWp COD 27 December 2021
Project cost	USD 800,000 (approx.)
Electricity produced	191,857 kWh



## Tanjung Power Indonesia – CFBP

Size / Tech.	2 x 100 MW CFB technology
Shareholders	65% AP, 35% Korea EWP
Project cost	USD 545 million
COD	2019
Availability Factor	86% (Avg. up to the end of 1H22)



## Bhimasena Power Indonesia – CFBP

Size / Tech.	2 x 1,000 MW Ultra Super Critical
Shareholders	34% AP, 34% JPower, 32% Itochu
Project cost	USD 4.2 billion
Progress	97.7% as of end of 2Q22

Apart from improving the performance of its already-operated power plants and completing the construction, Adaro Power continues to study renewable power projects such as biomass, wind power, and solar PV to support PLN through unsolicited proposal and tenders. Adaro Power is also in the process of developing captive use power generation projects for the Group's other business units such as IBT (Genset & Solar PV) and AMI (Mini-hydro)

# The value of the Green Economy

investment opportunities in Indonesia are substantial

Value at stake

## Green economy

**\$3T**

Investment in renewable energy  
by 2030

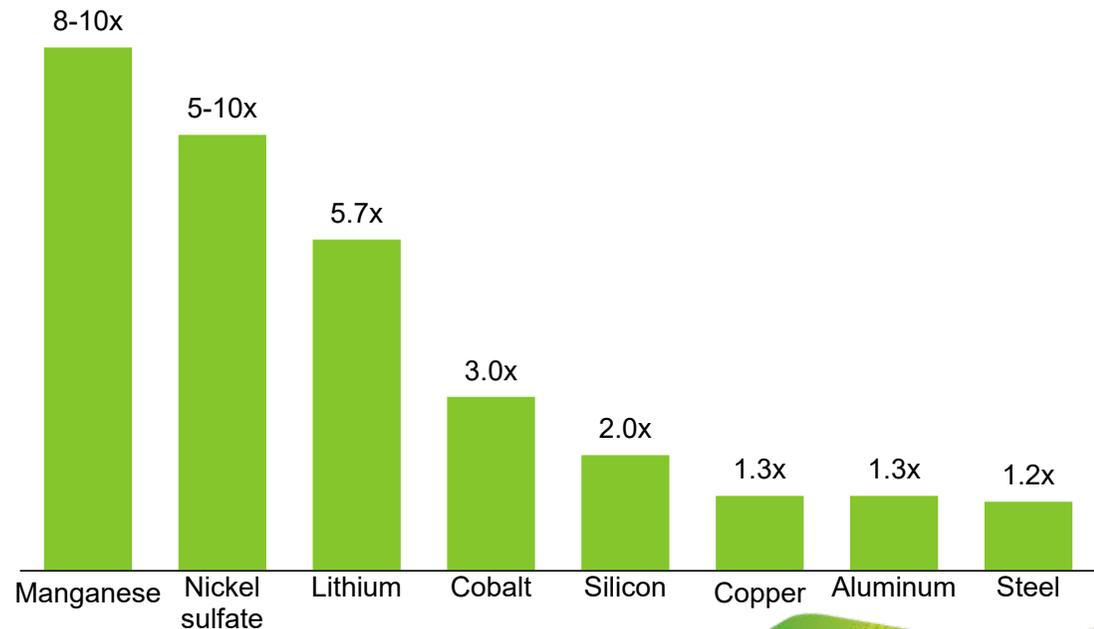
**\$800B**

Global EV sector by 2030

## Growing demand for

## Green minerals

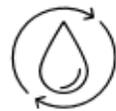
Global demand in 2030  
as multiple of 2020-level



# 25GW of green energy needs by 2030

In Indonesia, before accounting for increased demand for processing green minerals

102GW of installed capacity by 2030



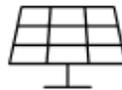
**11.3GW**

Hydropower



**5.8GW**

Geothermal



**4.8GW**

Solar



**2.7GW**

Others (incl Wind, bio-gas/mass & WTE)

**The increased demand for green minerals will drive further need for green energy**

Source: RUPTL 2021-2030

# The Green Economy

Driving demand for Green Minerals

### Electric vehicle



13 **Al**  
Aluminium

28 **Ni**  
Nickel

3 **Li**  
Lithium

**30%** More Aluminium used in electric vehicles than internal combustion engines

**35 kg** Nickel needed in a single car lithium-ion battery pack

**8 kg** Lithium needed in a single car lithium-ion battery pack

### Wind technology



26 **Fe**  
Iron

13 **Al**  
Aluminium

**90 tons** Metallurgical coal needed to produce Steel for each MW of wind power

**120 tons** Steel needed for each MW of wind power

**1 ton** Aluminium in a single wind turbine

### Solar technology



14 **Si**  
Silicon

13 **Al**  
Aluminium

**7 tons** Polysilicon needed for each MW solar PV plant

**4M tons** Aluminium demand from the solar power sector by 2040

# Adaro is well positioned

to capture these opportunities, now and in the future



## Adaro has the necessary skillset...



Strong **balance sheet and financial capabilities**



**Proven track record** in building and operating **large-scale, complex projects**



**Deep experience** and knowledge in Indonesia's **mining** sector



**Strong ownership** and management team with extensive connections

## ...to capture these opportunities

Operating metallurgical coal mine in Indonesia & Australia

Building a **500K tons aluminium smelter**

Building one of the world's largest **green industrial estates** in North Kalimantan, including **plans to build several GW of hydro power & Solar PV plants**

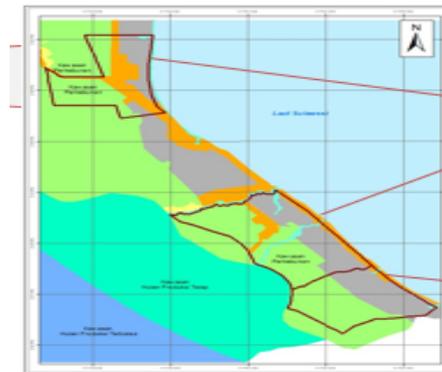
Continue developing **renewable energy projects** within the region, and one of two consortiums to passed pre-qualification of waste-to-energy project in Indonesia

**Adaro will continue to explore opportunities to serve the green mineral needs of the new economy**

# The world's largest Green Industrial Park

Being developed by Adaro in North Kalimantan

- Located in a very strategic location in terms of export & import, and potential supply of mineral sources and smelting industries
- Total area of 16,000 Ha, consists of 2 (two) large overlay area – 11,500 Ha and 4,700 Ha
- Potential development of a large-scale public port to support the industrial logistics
- Huge potential of Hydro Power Plants development to power the industrial estate



## Potential Tenants:

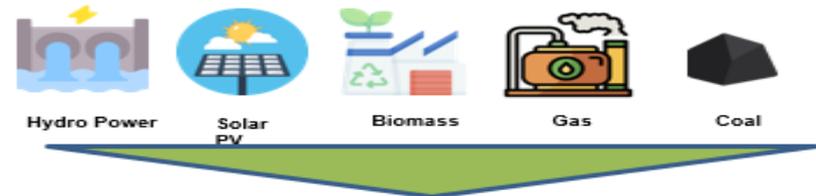
### Green Industry

- Renewable Fuels
  - Battery
  - Electric Vehicle
  - Ternary Cathode
  - Aluminium Smelter
- Powered by renewable power generators e.g. Hydro, Solar PV

### Blue Industry

- Petrochemical
  - Polycrystalline Silicon
  - Steel Production
  - Nickel
- Powered by Coal Fired Power Plant, Gas Plant & Hydro Power

## Potential Power Generators

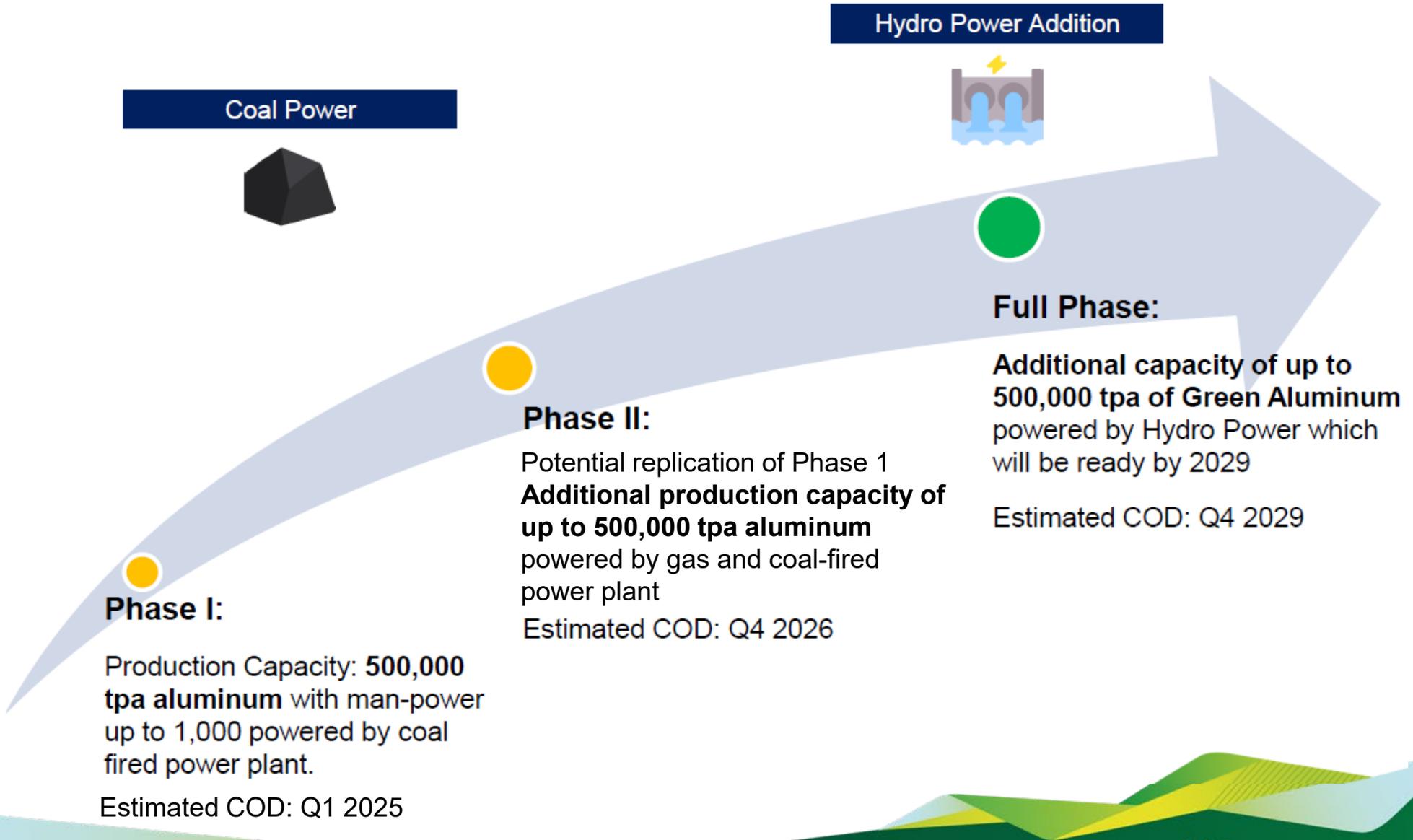


More than 10 GW power potential



# 1<sup>st</sup> Project: Aluminium Smelter

Scope of project is 1.5mt of Aluminium production



# Recently energized captive solar PV

~600 kWp to supply to our mining area



- We have installed **130 kWp PV Rooftop**, and another **468 kWp PV Floating** (so far the biggest installed floating PV in Indonesia)
- The project is expected to generate **156,000 kWh/year** and serves a captive market to **support Adaro Group's mining operation.**
- Environmental impact of this project includes **replacing 33,000 liters of diesel per year**, and **avoiding emission of 98 ton CO<sub>2</sub>/year.**



# Financials That Will Drive the Transition



# Adaro Energy Indonesia's Performance



Continue to deliver consistent results and strong cash flows

OPERATIONAL	1H22	1H21	Change
Production (Mt)	28.01	26.49	6%
Sales (Mt)	27.50	25.78	7%
OB removal (Mbcm)	102.05	115.22	-11%
FINANCIAL (US\$ millions, unless indicated)	1H22	1H21	Change
Net Revenue	3,541	1,563	127%
Core Earnings	1,447	330	338%
Operational EBITDA	2,339	635	269%
Cash	2,244	1,208	86%
Net Debt (Cash)	(770)	305	-352%
Capex	157	74	112%
Free Cash Flow	1,040	324	221%
Operational EBITDA Margin	66.1%	40.6%	2545 bps
Net Debt (Cash) to Equity (x)	(0.14)	0.08	-2153 bps
Net Debt (Cash) to Last 12 months Operational EBITDA (x)	(0.20)	0.29	-4923 bps
Cash from Operations to Capex (x)	8.63	5.38	325 bps

# Adaro Minerals MetCoal Business

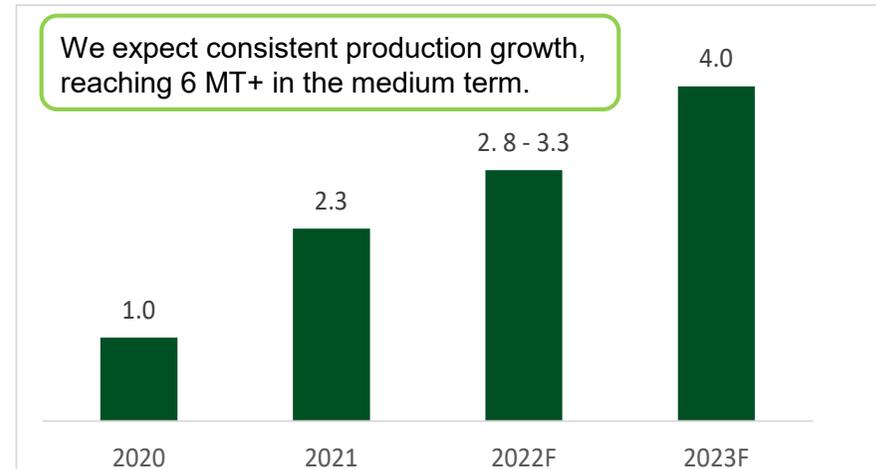


supports the Steel Industry a key component in Wind Turbine and the Solar Industry

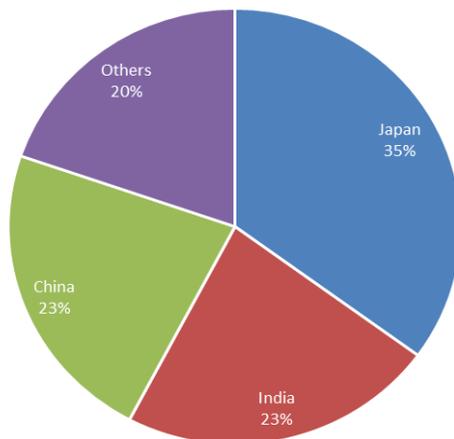
## Adaro Minerals key financial highlights

OPERATIONAL	1H22
Production (Mt)	1.53
Sales (Mt)	1.28
OB removal (Mbcm)	3.50
FINANCIAL (US\$ thousands, unless indicated)	1H22
Net Revenue	436
Core Earnings	207
Total Asset	1,139
Operational EBITDAMargin	66.1%

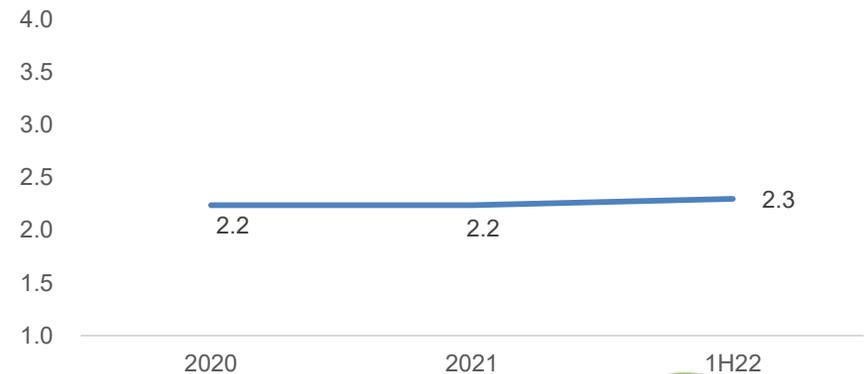
## Adaro Minerals metcoal production (Mt)



## Sales by Destination 1H22



## Adaro Minerals Strip Ratio Remains Very Low



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# Adaro Energy



# Why Adaro



## Solid Foundation

- Integrated energy company with strong footing in the energy industry.

## Value Creation

- Always seek to increase our value-creation capability

## Positioned for Sustainable Growth

- Integrated business model enables us to control cost and manage risks better, ensuring business sustainability.

## Capturing Opportunities in Green Economy

- Well positioned to capture the opportunity through AMI, which will focus on managing and developing our non-coal mineral assets.

## Consistent Dividend Payment and Shareholder Return

- Cumulatively from 2008, we have paid approximately **US\$1.7 billion** in dividends with average payout ratio of **46%**.

## Industry Leading Cost Position

- Cost competitiveness resulted in one of the highest operational EBITDA margins in the sector, reaching **53%** of operational EBITDA margin in 2021.

## Experienced Management Team

- Management has been consistent with strategy execution while also being nimble in reacting to business developments

## Commitment to ESG

- PT Adaro Indonesia received 4<sup>th</sup> PROPER Gold Award
- MSCI maintains our BBB ESG rating to reflect our improved environmental performance.

# Large Coal Reserves and Diverse Portfolio across Indonesia and Australia



**1**  
Adaro Indonesia:  
88.5%  
Existing,  
S Kalimantan  
sub-bituminous  
**Reserves: 731 Mt**  
Resources: 3.3 Bt

**2**  
Balangan Coal  
Companies:  
S Kalimantan  
sub-bituminous  
**Reserves 125Mt**  
Resources: 265 Mt

**3**  
... Adaro Minerals  
Indonesia Tbk (AMI):  
Central and East  
Kalimantan  
Metallurgical coal  
**Reserves: 171 Mt**  
Resources: 980 Mt

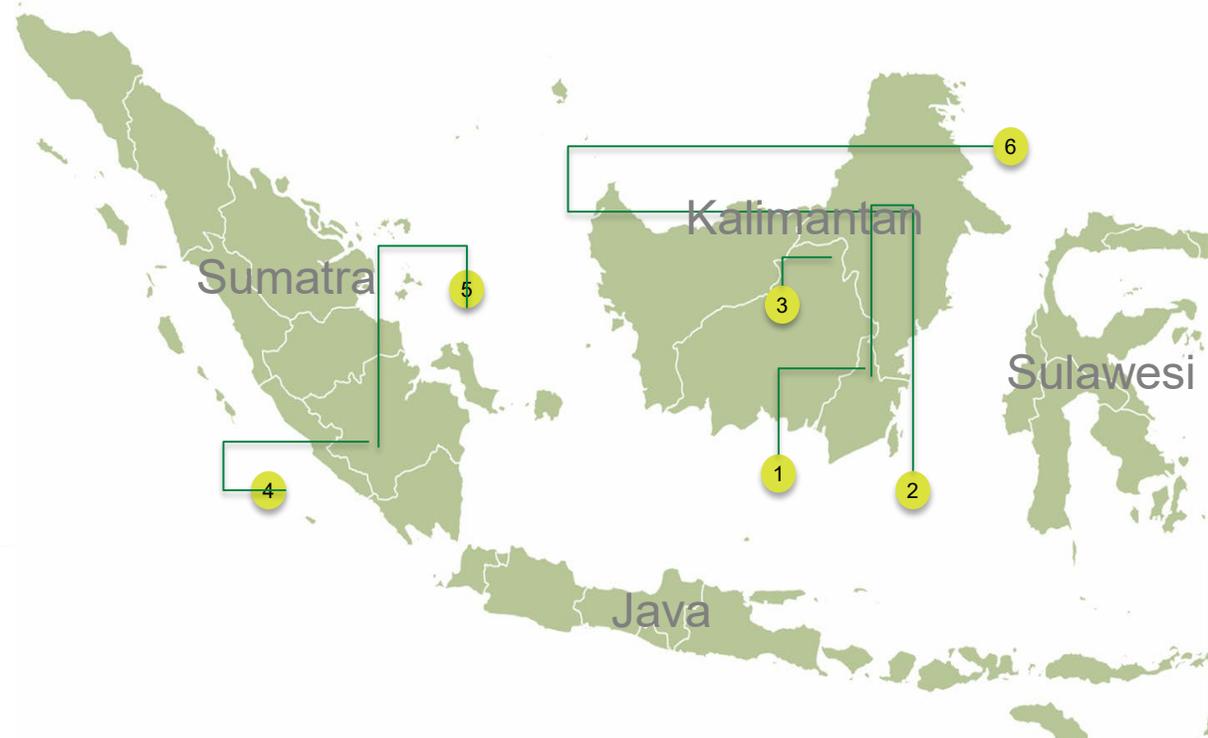
**4**  
MIP: 75% stake  
S Sumatra  
sub-bituminous  
**Reserves 210.2 Mt**  
Resources 305 Mt

AEI has more than **8.5 billion tonnes (Bt) of coal resources** and **1.4 Bt of coal reserves** across thermal and metallurgical coal – providing us with flexibility in the coal market.

**5**  
BEE: 61.04% stake  
S Sumatra  
sub-bituminous  
Geological study phase

**6**  
BEP: 10.22% stake  
with option to acquire  
90%  
E Kalimantan  
sub-bituminous  
Resources 3.3 Bt

**7**  
Kestrel Coal Mine  
48% of 80%  
Queensland, Australia  
Premium HCC  
**Reserves: 190 Mt**  
Resources: 430.5 Mt



Note: Reserves and Resources numbers above are before taking into account AEI's equity ownership

# Integrated Business Model

with control over each part of the supply chain

## ADAROMINING

### THERMAL COAL

<b>Adaro Indonesia (AI)</b> Coal mining, S. Kalimantan	<b>88.5%</b>
<b>Balangan Coal</b> Coal Mining, S. Kalimantan	<b>75%</b>
<b>Mustika Indah Permai (MIP)</b> Coal Mining, S. Sumatra	<b>75%</b>
<b>Bukit Enim Energi (BEE)</b> Coal Mining, S. Sumatra	<b>61%</b>
<b>Bhakti Energi Persada (BEP)</b> Coal mining, E. Kalimantan	<b>10.2%</b>

### METALLURGICAL COAL

<b>PT Adaro Minerals Indonesia Tbk (AMI)</b> Coal mining, C. Kalimantan, E. Kalimantan	<b>83.8%</b>
<b>Kestrel Coal Resources<sup>1</sup></b> Queensland, Australia	<b>48%</b>

1) Kestrel Coal Resources has 80% ownership on Kestrel Coal Mine



## ADAROSERVICES

### MINING SERVICES

<b>Saptaindra Sejati (SIS)</b> Coal mining and hauling contractor	<b>100%</b>
<b>Jasapower Indonesia (JPI)</b> Operator of overburden crusher and conveyor	<b>100%</b>
<b>Adaro Jasabara Indonesia (AJI)</b> Mining services	<b>100%</b>
<b>Adaro Mining Technologies (AMT)</b> Coal research & development	<b>100%</b>

### COAL TRADING

<b>Coaltrade Services International Pte. Ltd (CTI)</b> Coal Trader	<b>90%</b>
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## ADAROLOGISTICS

<b>Maritim Barito Perkasa (MBP)</b> Barging & Shipping	<b>100%</b>
<b>Sarana Daya Mandiri (SDM)</b> Dredging & maintenance in Barito River mouth	<b>51.2%</b>
<b>Indonesia Multi Purpose Terminal (IMPT)</b> Port management & terminal operator	<b>100%</b>
<b>Indonesia Bulk Terminal (IBT)</b> Coal terminal & fuel storage	<b>100%</b>
<b>Puradika Bongkar Muat Makmur (PBMM)</b> Cargo loading & unloading	<b>100%</b>
<b>Harapan Bahtera Internusa (HBI)</b> Shipping administration	<b>100%</b>
<b>Barito Galangan Nusantara (BGN)</b> Maintenance services	<b>100%</b>



## ADAROPOWER

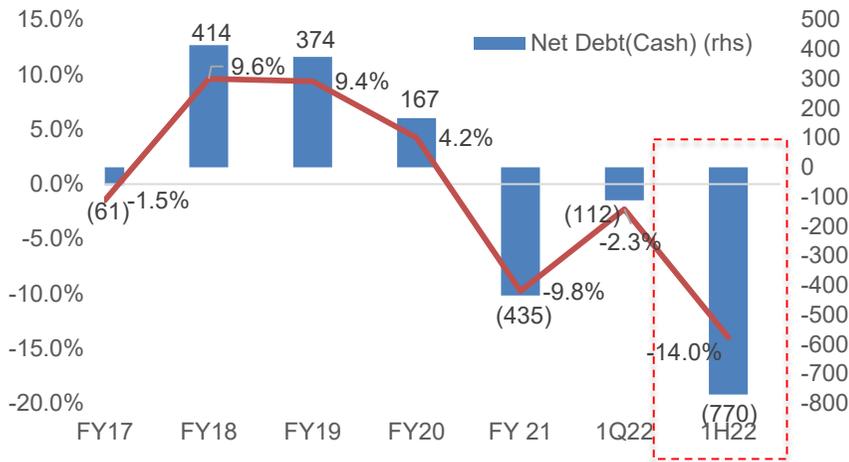
<b>Makmur Sejahtera Wisesa (MSW)</b> Operator of 2x30MW mine-mouth power plant in S. Kalimantan	<b>100%</b>
Operator of Solar PV at AI's mine site in S. Kalimantan	
<b>Tanjung Power Indonesia (TPI)</b> Partner in 2x100MW power plant project in S. Kalimantan	<b>65%</b>
<b>Bhimasena Power Indonesia (BPI)</b> Partner in 2x1000MW power generation project in Central Java	<b>34%</b>



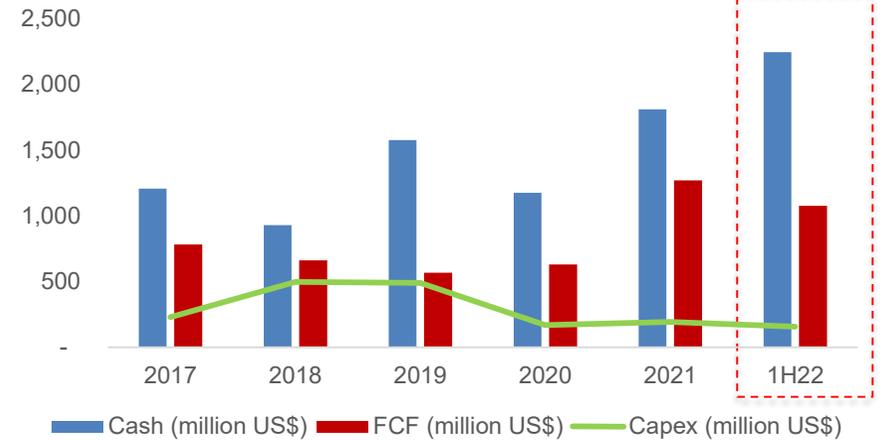
# Solid Financials Backed by Strong Operations



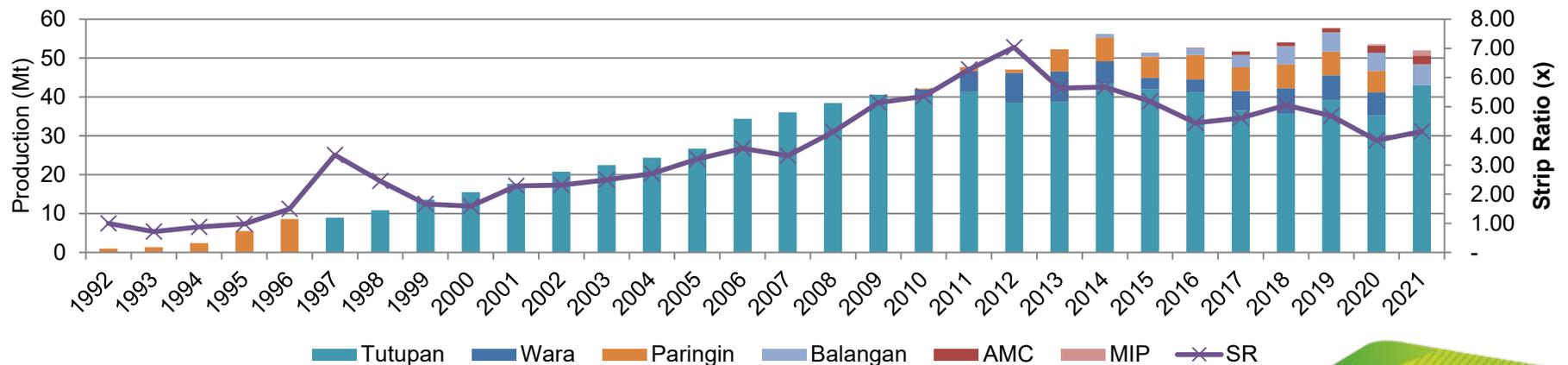
## Financial position continues to improve



## Strong cash balance and free cash flow generation



## Almost three decades of production experience through various coal cycles

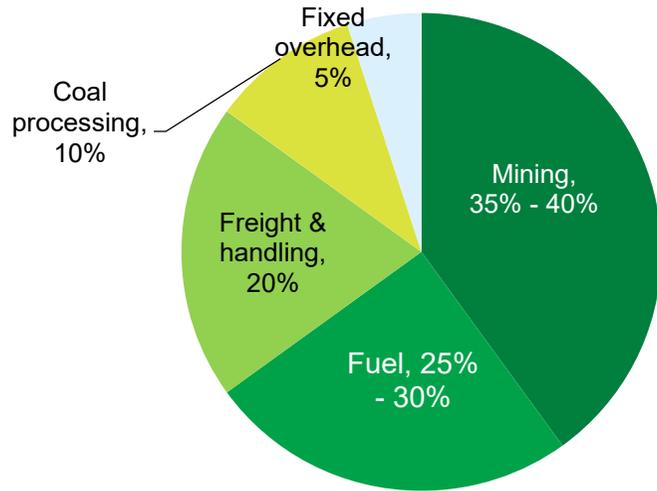


# Industry Leading Efficiency

One of the lowest cost operators in Indonesia



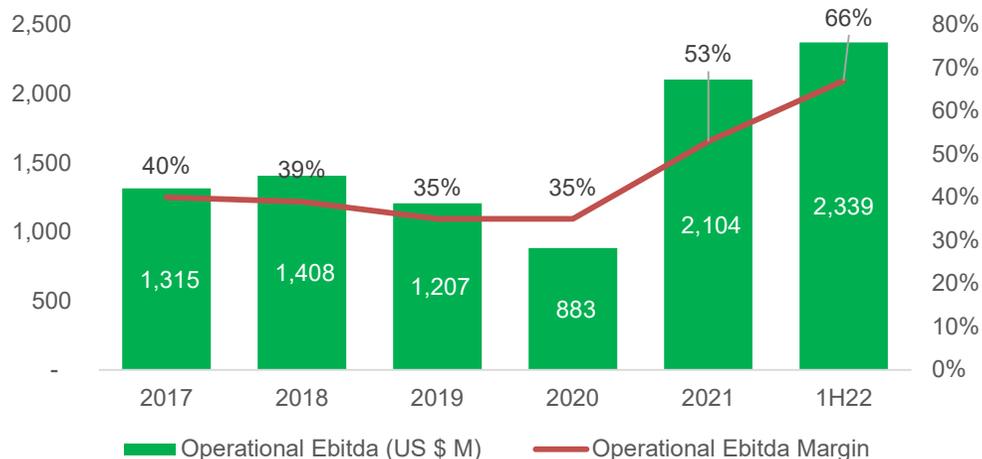
## Adaro's estimated coal cash cost breakdown (1H22)



## Electrification to reduce the usage of diesel gensets



## Strong operational EBITDA generation and healthy operational EBITDA margin

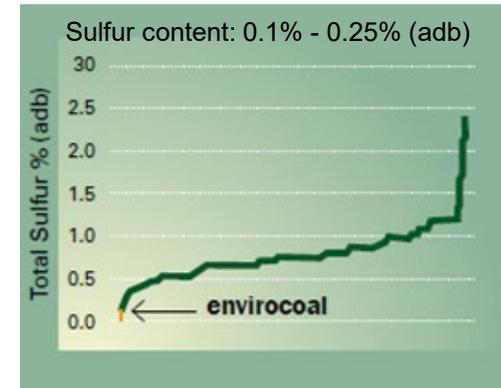
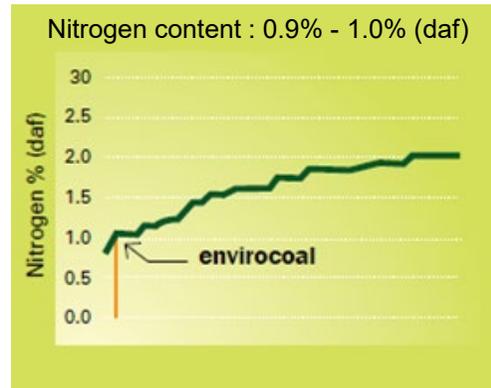
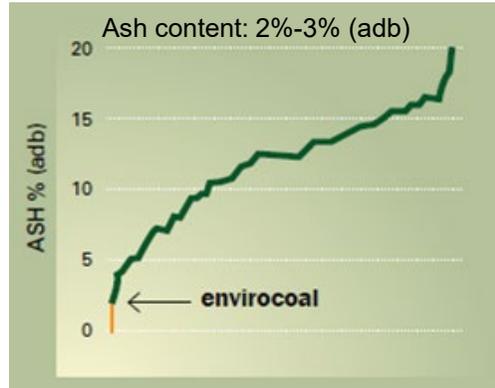


- Consistently delivers on operational EBITDA target and performed in-line with guidance.
- Healthy operational EBITDA margin on the back of better cost control from integrated business model.

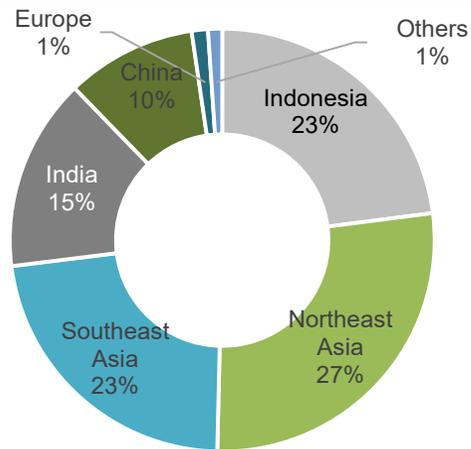
# Well Positioned Product and Strong Customer Base Focused on Asia



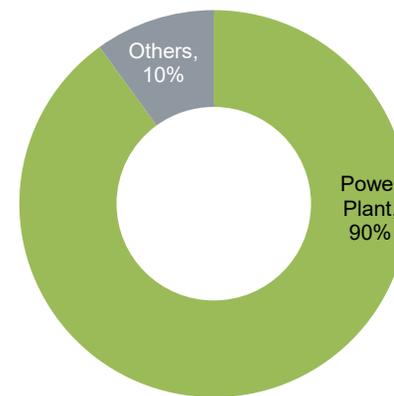
## Envirocoal is among the lowest pollutant content coal in the seaborne market



## Customer geographical breakdown (1H22)



## Customer type by volume (1H22)



\*others include cement, pulp & paper, and industrial



# PT Adaro Minerals Indonesia Tbk (AMI)



# Adaro Minerals Indonesia at a Glance



Indonesia's leading metallurgical coal producer with low **cost**, efficient operation supported by Adaro Group's integrated supply chain network



Five CCoW holders located in Central and East Kalimantan, Indonesia.



Large coal reserves and resources base which supports long-term sustainable growth.  
**Coal reserves: 170.7 Mt. Coal resources: 980 Mt.**



Coal production in 2021 reached 2.3 Mt, and coal production target in 2022 is 2.8 – 3.3 Mt  
**(▲ 22% - 43% y-o-y).**



**Strong demand profile** from blue-chip steel companies. Current customers are located in China, Japan and Indonesia.



Offers coal **supply diversification** for customers in a market dominated by Australia, Canada and the US.



Close proximity to key markets offers customers with more **competitive cost** and shorter transportation time.

# Company Overview - ADMR

- Established in 2007, AMI carries out an integrated mining activities through its subsidiaries, which has one of the largest greenfields area in Central Kalimantan for metallurgical coal.
- The Company's subsidiaries own 5 Coal Contract Of Work ("CCoW") located in East Kalimantan and Central Kalimantan with total area up to 146,579 ha.
- The 5 CCoWs are in the operation and production operation development stages: Maruwai Coal is currently operating and selling metallurgical coal, Lahai Coal is conducting mining optimization, meanwhile Kalteng Coal, Sumber Barito Coal and Juloi Coal are in development phase.

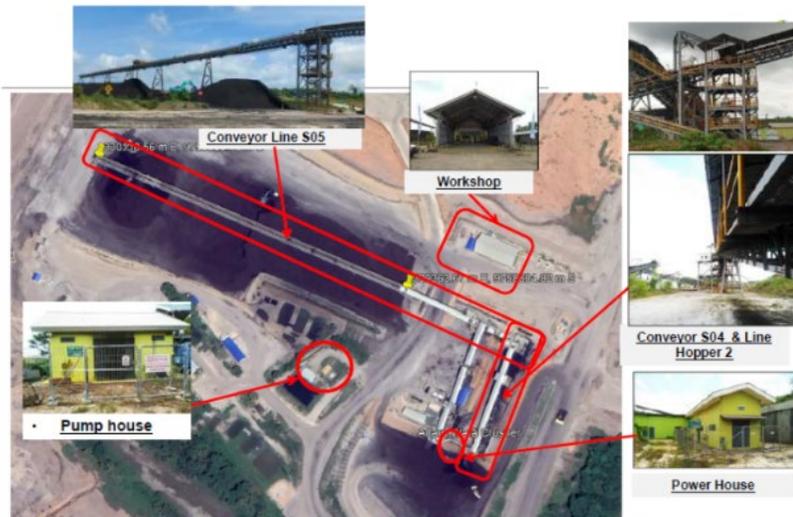
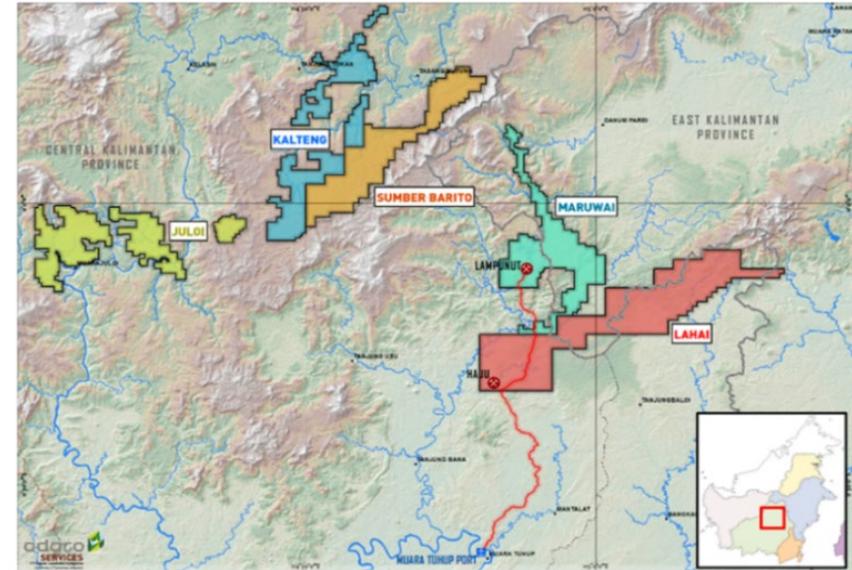


Foto Udara Area Wara Coal Crusher PT. JPI

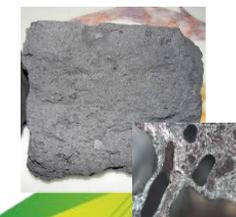
CCoW	STAGE	COALS
Lahai		Green Coal
Maruwai		Hard Coking Coal, Green Coal
Kalteng		Met-Coal
Juloi		Met-Coal
Sumber Barito		Met-Coal

Notes :  Operation

 Production Operation Development



**Metallurgical Coal**



**Cokes**

# Large Coal Resource and Reserves

## Coal Resource

Company / Locality	Total Coal Resources (Mt)	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Compliance Standard
<b>LC - Haju</b> (Green Coal)	4.4	3.8	0.4	0.1	JORC
<b>MC - Lampunut</b> (Metallurgical and Green Coal)	105.4	98.4	6.9	0.2	JORC
<b>JC - Juloi Northwest</b> (Metallurgical)	629.8	-	269.6	360.3	JORC
<b>JC - Bumbun</b> (Metallurgical)	174.5	60.4	57.8	56.4	JORC
<b>KC - Luon</b> (Metallurgical)	50.9	24.7	19.3	6.9	JORC
<b>SBC - Dahlia Arwana</b> (Metallurgical)	15.0	6.5	6.5	2.0	JORC
<b>TOTAL</b>	<b>980.0</b>	<b>193.8</b>	<b>360.5</b>	<b>425.7</b>	

One of the **largest undeveloped** met coal reserves and resources globally

Premium quality hard coking coal with **low ash, low phosphorus, and high vitrinite** content

## Coal Reserves

Company / Locality	Total Coal Reserves (Mt)	Proved (Mt)	Probable (Mt)	Compliance Standard
<b>LC - Haju</b> (Green Coal)	2.3	2.3	0.03	JORC
<b>MC - Lampunut</b> (Metallurgical and Green Coal)	89.6	81.2	8.4	JORC
<b>JC - Bumbun</b> (Metallurgical)	55.5	-	55.5	JORC
<b>KC - Luon</b> (Metallurgical)	17.7	-	17.7	JORC
<b>SBC - Dahlia Arwana</b> (Metallurgical)	5.6	-	5.6	JORC
<b>TOTAL</b>	<b>170.7</b>	<b>83.4</b>	<b>87.2</b>	

**Long reserves life,** based on current production

*\*Coal Reserves and Resources data is as of August 2021 from independent consultant PT Quantus Consultants Indonesia*

# Established Infrastructure to Ensure Operational Excellence

## Lampunut Coal Handling and Processing Plant

### Crushing Plant : 600 tph



- One of the largest CHPPs in Indonesia in terms of capacity
- Reduces ash from 12% ad to 4.5% ad
- Performance test completed in November 2020

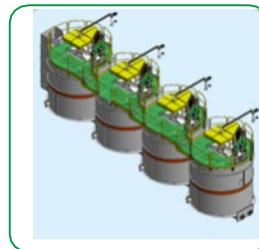
### WASHING – 3 Process Circuit



DMC  
1.4 – 50 mm



Hydrocyclone & Spiral  
0.25 – 1.4 mm

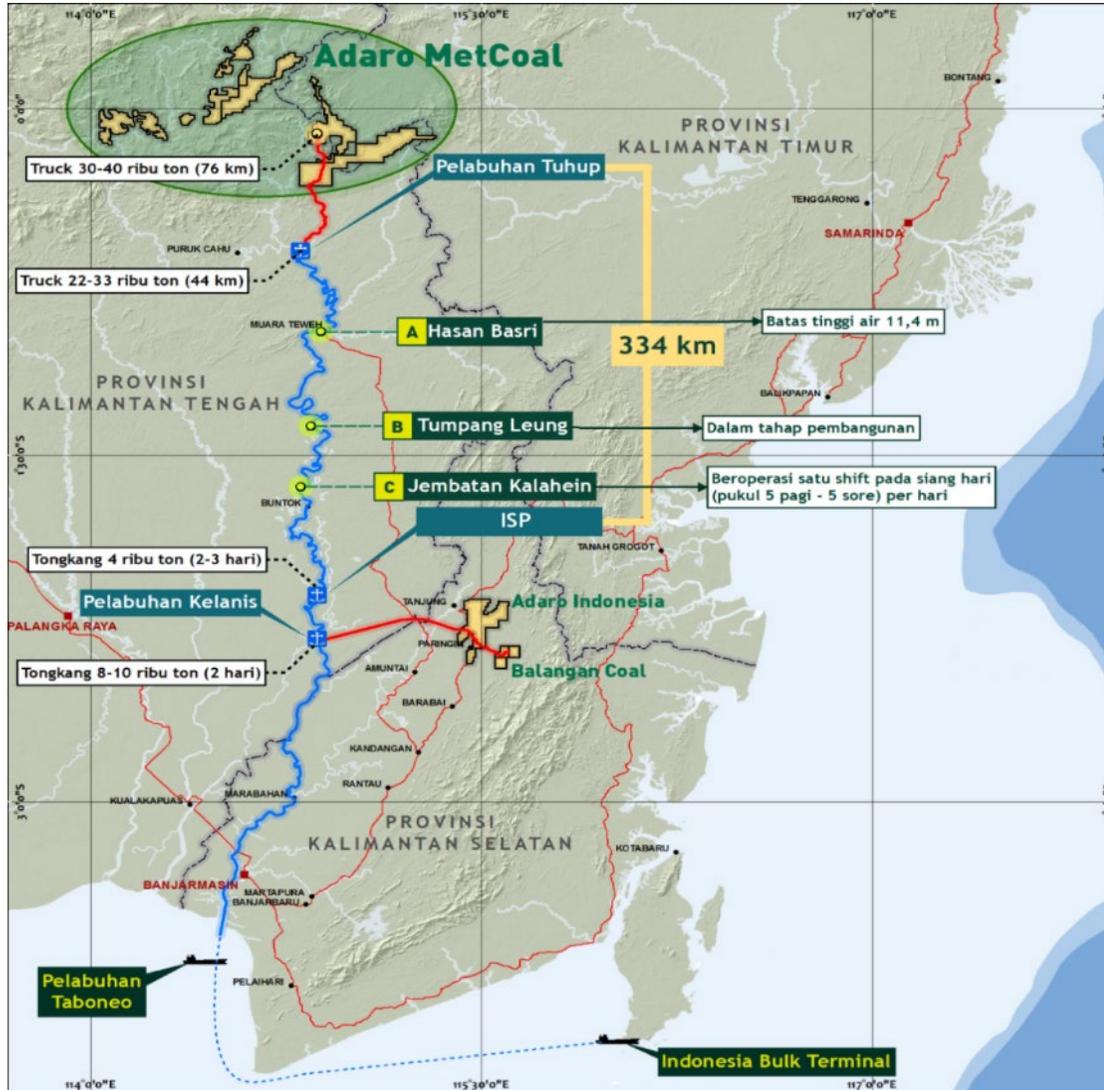


Flotation  
0.25 mm

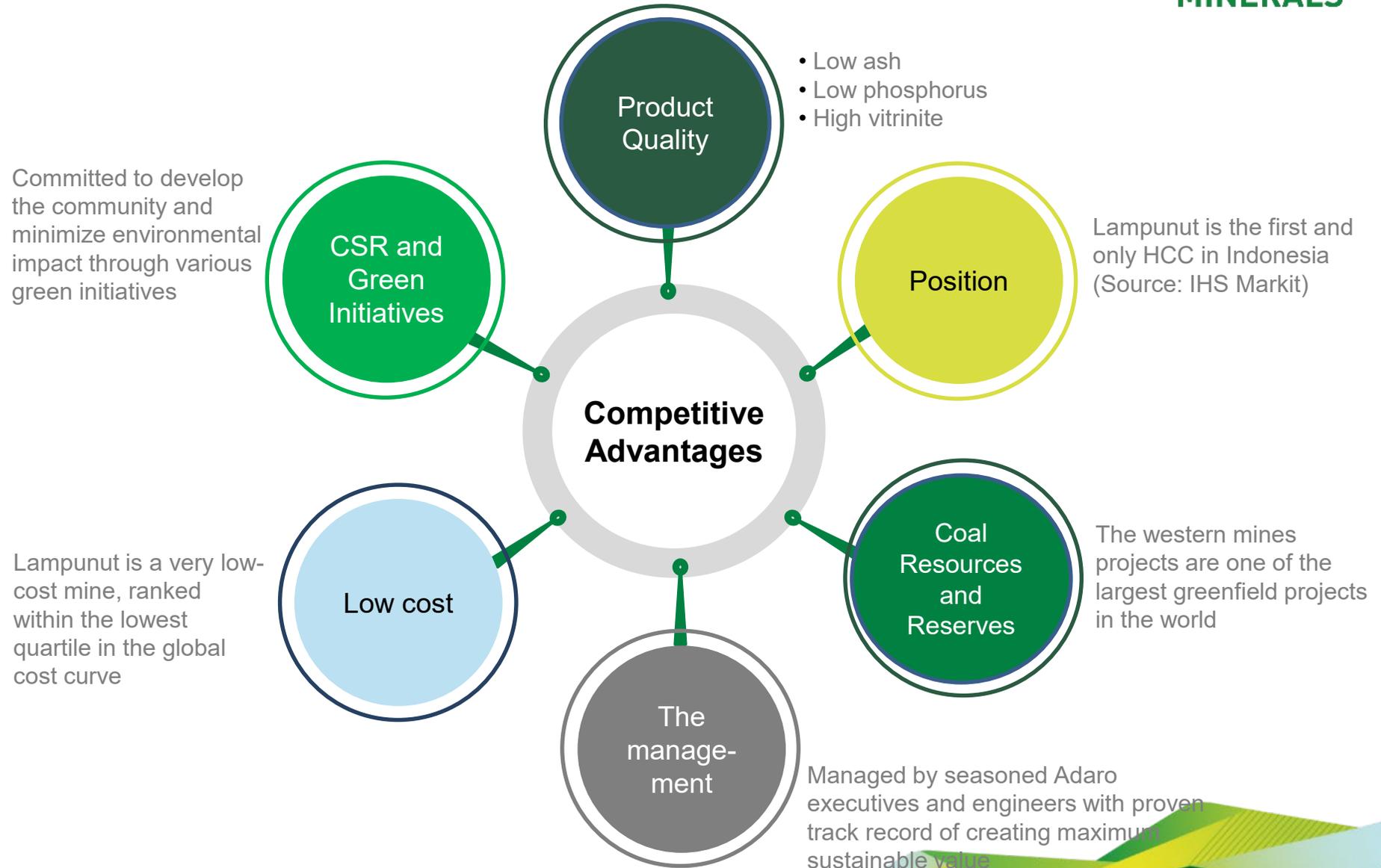
### Washing Plant : 525 tph (max: 550 tph)



# Supply Chain: from Coal Terminal to Vessel Loading Points



# Competitive Advantages



# PT Adaro Indo Aluminium (AIA)



# PT Adaro Indo Aluminium

Leading the Adaro Group's green transformation

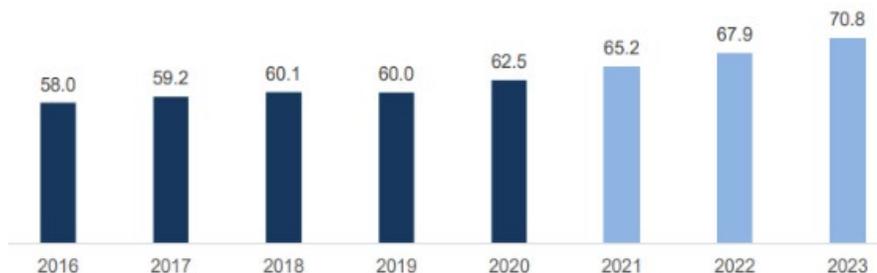


- Increasing revenue contribution from non-coal to balance our business
- Supporting Government's plan on green industry and processing of mineral product
- Looking to partner with reliable and experienced companies
- Development process will be conducted in stages
- Positive LT outlook as aluminum is needed in many industries including automotive
- Reduce aluminum imports, create job opportunities and contribute to state revenue

# Global Demand Outlook

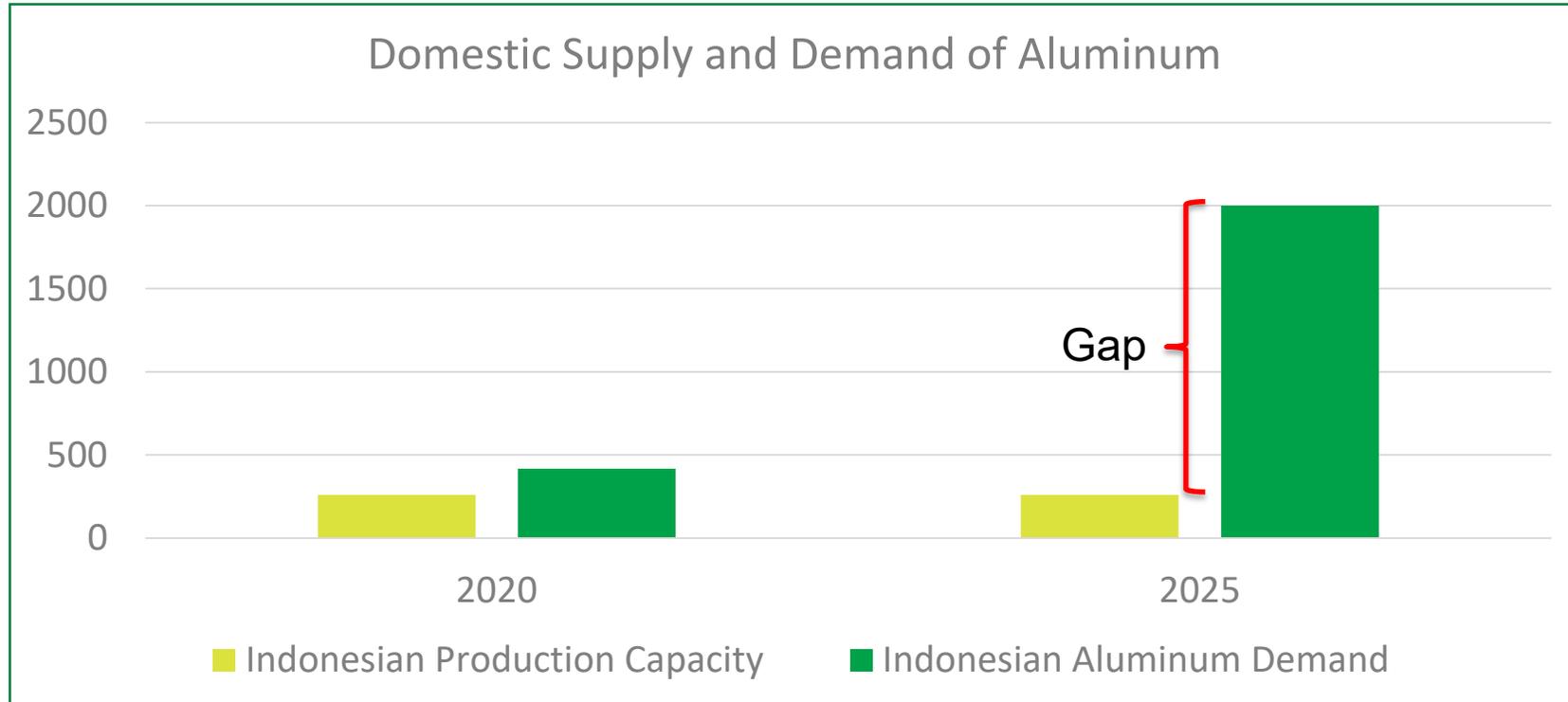
Industry	2018	2040	Remarks
Transportation	25MT	43MT	<ul style="list-style-type: none"> <li>Higher demand for electric vehicle, especially for battery packaging and heat sink.</li> <li>Penetration to reduce vehicle weight and use of gasoline.</li> </ul>
Building and Construction	22MT	29MT	<ul style="list-style-type: none"> <li>Urbanization and growing construction industry.</li> <li>Penetration for building materials.</li> </ul>
Consumer and Industrial	15MT	21MT	<ul style="list-style-type: none"> <li>Increasing demand for consumer and industrial products.</li> </ul>
Packaging	13MT	19MT	<ul style="list-style-type: none"> <li>Increasing demand for tin packaging.</li> <li>Increasing demand for foil and plastic substitution.</li> </ul>
Energy	11MT	16MT	<ul style="list-style-type: none"> <li>Increasing demand for energy sector application, such as solar panel structure.</li> <li>Copper substitute for transmission cable.</li> </ul>

Source: Statista, 2020



- Demand for aluminum is estimated to increase on the back of economic growth in Asia.
- Demand for aluminum will be supported by the increase in transportation sector, in line with the commitment of global citizen and the transportation industry to increase the production of new energy vehicle.

# Domestic Supply and Demand Balance



Source: Pre-Feasibility Study Guiyang Aluminum Magnesium Design & Research Institute Corp. Ltd.

The high gap between supply and demand of aluminum in Indonesia will potentially increase the country's reliance on imported aluminum.

adaro 

# Adaro Water



# Adaro Water

Owns & Operates 1,670 lps of Water Treatment Plants



Also Supports Mining Operations through Slurry Management Business Unit



**1**  
**Dumai Tirta Persada**  
Location : Dumai, Riau  
Size : 450 lps  
Adaro Shares : 49%  
Status : First phase (50 lps) completed



**2**  
**Grenex Tirta Mandiri**  
Location : Bekasi, West Java  
Size : 200 lps  
Adaro Shares : 49%  
Status : Started construction



**3**  
**Drupadi Tirta Gresik**  
Location : Gresik, East Java  
Size : 400 lps  
Adaro Shares : 100%  
Status : In operation since 2012



**4**  
**Adaro Wamco Prima**  
Location : Tanjung, South Kalimantan  
Business services : Mining pump  
Adaro Shares : 60%  
Status : Operation



**5**  
**Drupadi Tirta Intan**  
Location : Banjar, South Kalimantan  
Size : 500 lps  
Adaro Shares : 100%  
Status : In operation since 2012



**6**  
**Adaro Tirta Mentaya**  
Location : Sampit, Central Kalimantan  
Size : 320 lps (contract), 400 lps (capacity)  
Adaro Shares : 90%  
Status : In operation upto 250 lps



Adaro Water is currently in the process to achieve operational excellence through continuous improvement in its operating subsidiaries, including WTPs operations and slurry pumps operations. Meanwhile, on the construction side, Adaro Water continues to ensure that the project can achieve its goals in terms of schedule, budget & quality. From business development perspective, Adaro Water continues to actively seeking for new projects through PPP, non PPP and acquisition.

# Sustainability and Green Initiatives



# Balance of People, Planet and Profit

We strive to balance our responsibilities among the generation of profit, the utilization of planet and employment of people.

Our corporate social responsibility programs focus on five main areas:



Education



Economic development



Health



Environmental enhancement



Socio-cultural Enrichment



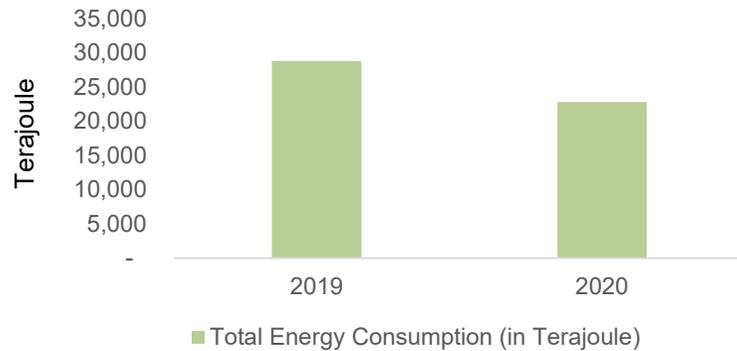
Our environmental programs cover four main areas:

**land, air, water, and biodiversity.**

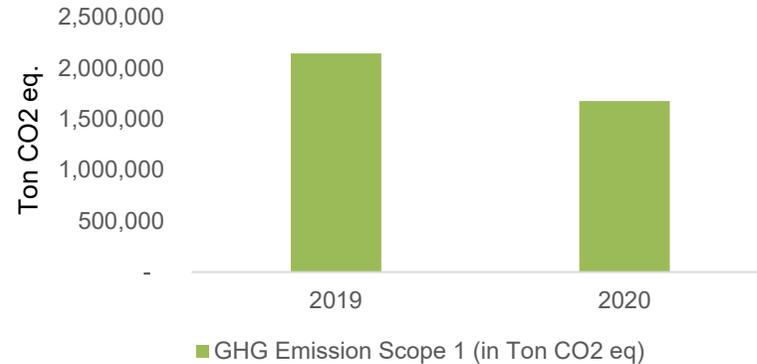
PT Adaro Energy Indonesia Tbk is rated **BBB** on MSCI ESG ratings.

# Improving Environmental Performance

## Reduced total energy consumption by 21% y-o-y



## ...and reduced GHG emission (scope 1) by 22% y-o-y



## Innovative projects to improve efficiency and environmental performance

Fleet Management System reduces queueing time and energy used



Kelanis Smart Inverter Solar Cell reduces diesel usage and CO2 emission



# Ecosystem Restoration and Carbon Capture



Through Adaro Land Pillar, we have subsidiaries which own forest management permits for ecosystem restoration and forest management permits for carbon absorption.

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PT Alam Sukses Lestari holds license to use timber product – ecosystem restoration in natural forest which allows restoration of forest ecosystem to achieve balanced biodiversity.

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PT Hutan Amanah Lestari holds license for utilization of carbon absorption and is one of the largest holders of such license in Indonesia. We expect that once operational, carbon trading will be the main business of this company.



# Reclamation and Rehabilitation

Start



6 months



± 5 Years



# Awards and Recognitions

2012	2013	2014	2015	2016
<p><b>PROPER gold award</b> Ministry of Environment &amp; Forestry</p> <p><b>Aditama gold award</b> <i>For environment excellence in the coal sector</i> Ministry of Energy &amp; mineral resources</p> <p><b>Social empowerment award</b> <i>Won nine awards honoring companies that run CSR programs</i> Ministry of Human Dev</p>	<p><b>PROPER green award</b> Ministry of Environment &amp; Forestry</p> <p><b>Aditama gold award</b> <i>For environmental excellence in the coal sector</i> Ministry of Energy &amp; mineral resources</p> <p><b>Global CSR bronze award</b> <i>For sustainable clean water program</i> Pinnacle Group Global CSR</p>	<p><b>PROPER green award</b> Ministry of Environment &amp; Forestry</p> <p><b>Aditama gold award</b> <i>For environmental excellence in the coal sector</i> Ministry of Energy &amp; mineral resources</p> <p><b>Bronze sustainability award</b> <i>For sustainable investment</i> RobecoSAM</p>	<p><b>PROPER green award</b> Ministry of Environment &amp; Forestry</p> <p><b>Cultural based community empowerment award</b> <i>Awards in several categories</i> Corporate Forum for Community Development &amp; Ministry of Human Dev</p> <p><b>Bakti Husada award</b> <i>For community health development</i> Ministry of Health</p>	<p><b>PROPER green award</b> Ministry of Environment &amp; Forestry</p> <p><b>Global CSR bronze award</b> <i>For community-led sanitation</i> Annual Global CSR &amp; Summit</p> <p><b>Padmamitra award</b> <i>For poverty alleviation</i> Ministry of Social Affairs</p>
2017	2018	2019	2020	2021
<p><b>PROPER green award</b> Ministry of Environment &amp; Forestry</p> <p><b>Aditama gold award</b> <i>For environment excellence in the coal sector</i> Ministry of Energy &amp; mineral resources</p> <p><b>Best of environmental management &amp; safety award</b> Ministry of Energy &amp; mineral resources</p>	<p><b>PROPER green award</b> Ministry of Environment &amp; Forestry</p> <p><b>Aditama gold award</b> <i>For environment excellence in the coal sector</i> Ministry of Energy &amp; mineral resources</p> <p><b>Best of coal mining service business management &amp; safety award</b> Ministry of Energy &amp; mineral resources</p>	<p><b>PROPER gold award</b> Ministry of Environment &amp; Forestry</p> <p><b>Global CSR award, one gold and two silver</b> <i>For early childhood education program, CSR Leadership and environmental excellence in leader program.</i> Annual Global CSR &amp; Summit</p>	<p><b>PROPER gold award</b> Ministry of Environment &amp; Forestry</p> <p><b>MSCI ESG Ratings upgraded to BB</b> MSCI</p> <p><b>Charity and Community Impact</b> Coaltrans Asia</p> <p><b>Best Implementation of Good Mining Practices</b> MoEMR</p>	<p><b>PROPER gold award</b> Ministry of Environment &amp; Forestry</p> <p><b>MSCI ESG Ratings upgraded to BBB</b> MSCI</p> <p><b>Best Environmental Excellence Award - Silver</b> Global CSR Summit &amp; Awards</p> <p><b>Aditama award</b> <i>Good mining practices</i> MoEMR</p>



# Adaro Services and Adaro Logistics



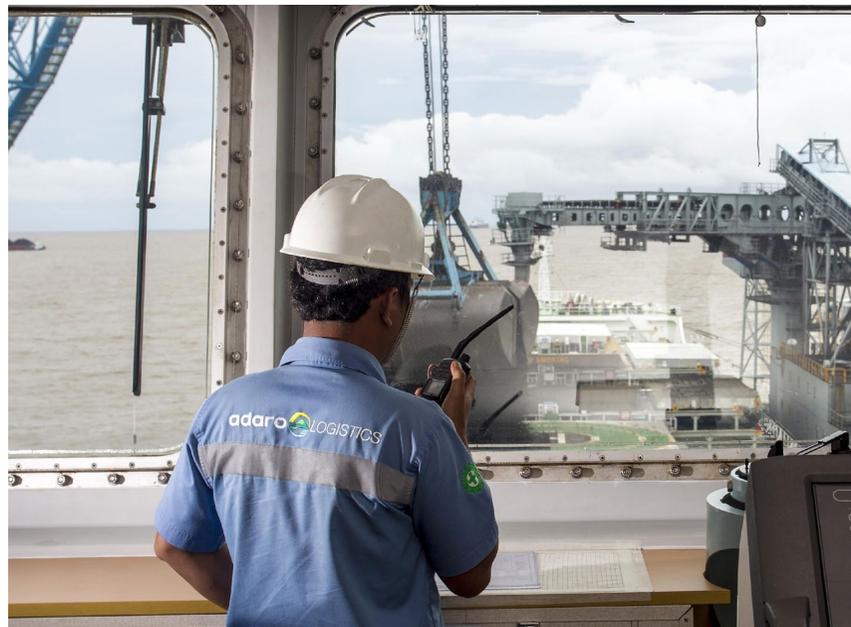
# Ensuring Operational Excellence

Key part of our vertical integration.

Ensures operational excellence, productivity improvement and timely reliable delivery to customers.

Stable earnings profile buffers against the volatility in coal price.

Focus on providing services for companies in the Adaro Group.

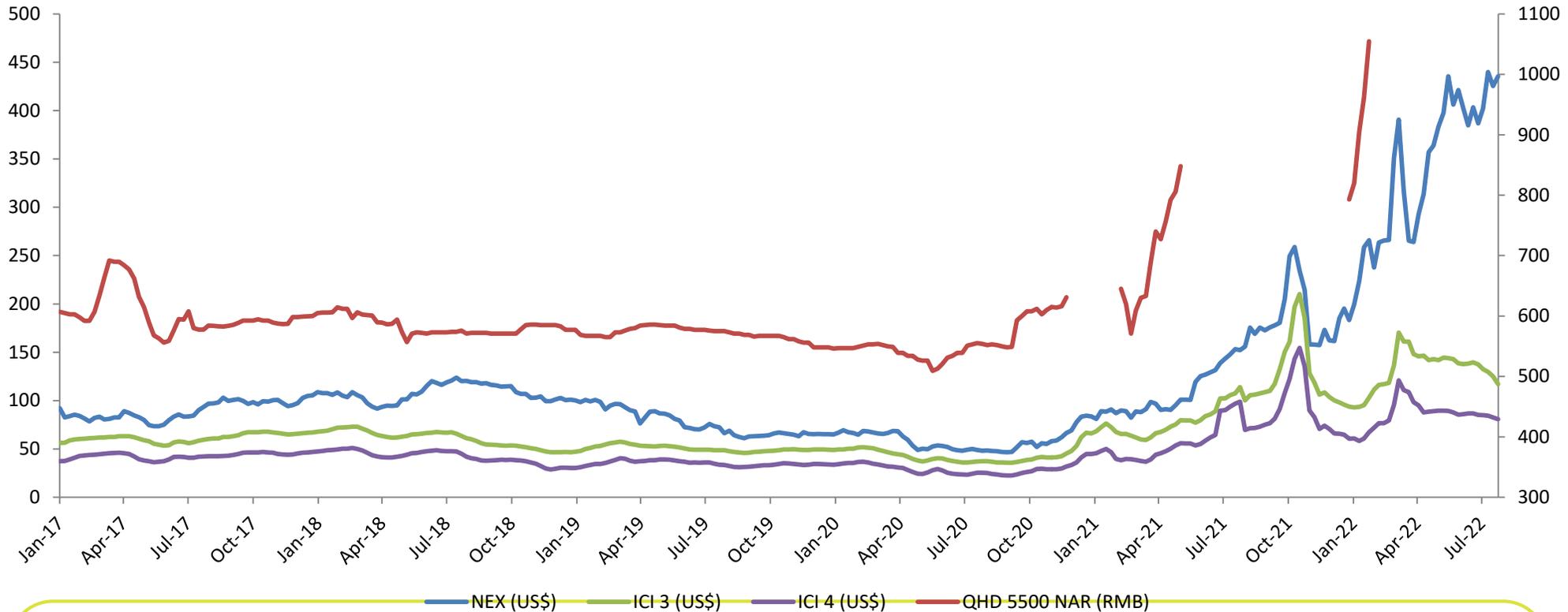


		Units	1H22	1H21	1H22 vs 1H21
SIS	Overburden Removal	Mbcm	84.55	80.46	5%
	Coal Transport to Port	Mt	26.85	19.02	41%
MBP	Coal barging	Mt	25.96	24.55	6%

# Industry Outlook



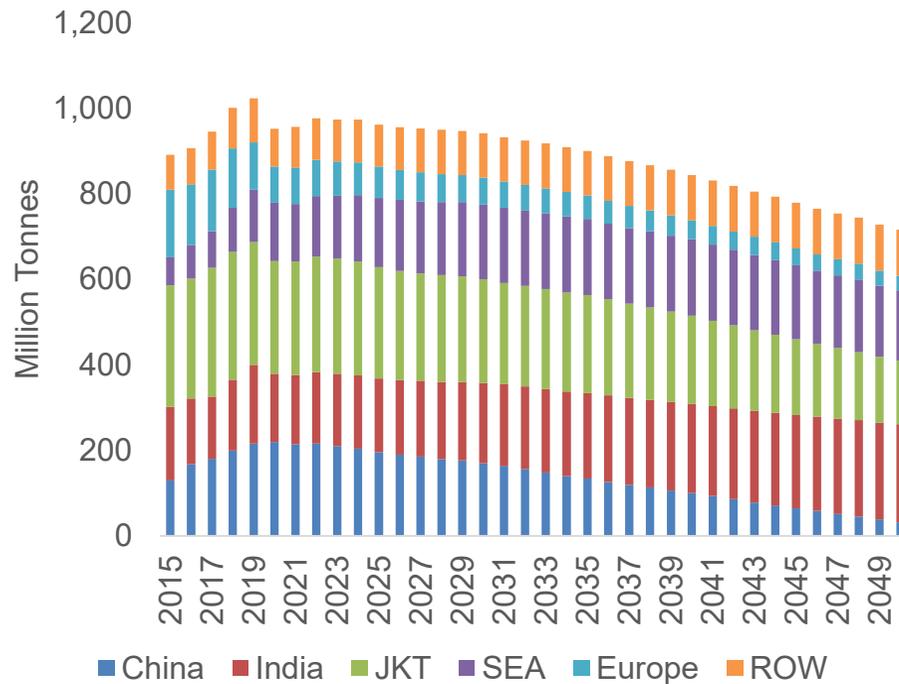
# Prices Remain Near Historical Highs



- Prices have remained volatile at high levels.
- Demand from India and Southeast Asia has supported Indonesian thermal coal imports – due to inclement weather and also supply crunch.
- Australian and Indonesian thermal coal supply has underperformed over the first four months vs last year.
- Prices for benchmark Australian coal and Harga Batu Bara Acuan (HBA) have reached historical highs.

# Long Run Demand Remains Significant

## Global thermal coal imports demand (Mt)



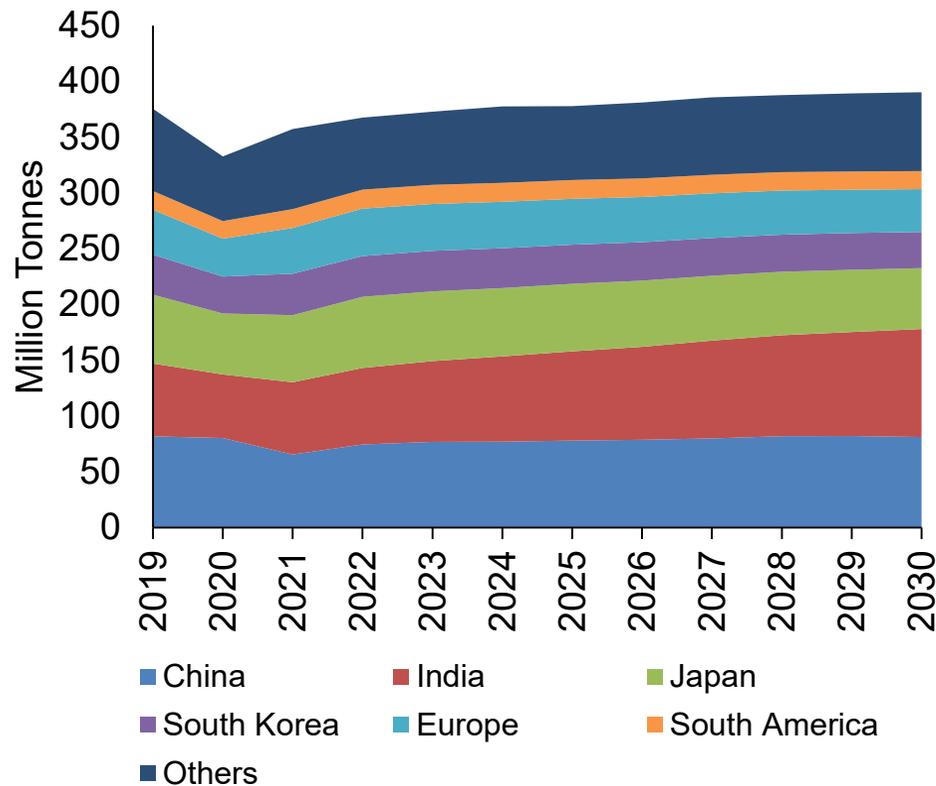
Source: McCloskey by OPIS, a Dow Jones Company  
("McCloskey")



- Coal remains as significant part of energy mix in emerging economies in Asia
- Despite push towards renewable energy, emerging economies in Asia still rely on coal for electricity generation due to its availability and affordability.
- As the world aims to reduce carbon emission, demand for coal will be affected.

# Robust Demand Outlook

## Global metallurgical coal imports demand (Mt)



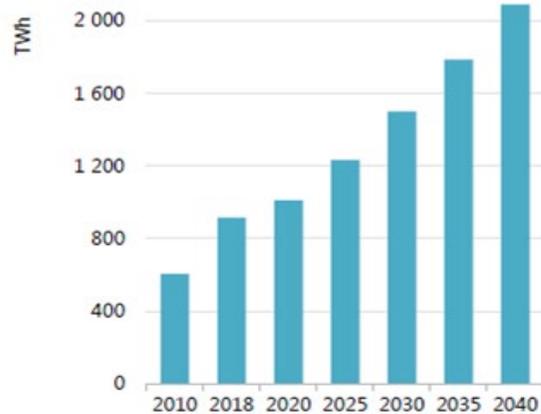
Source: McCloskey

- The long-term demand fundamentals for metallurgical coal remain intact, underpinned by infrastructure growth. Steel production and consumption is forecasted to grow. Met coal demand is expected to reach nearly 400 Mt in 2030.
- India is expected to be the growth driver and China's demand is forecasted to remain stable in the next decade.



# Southeast Asia is A Key Market

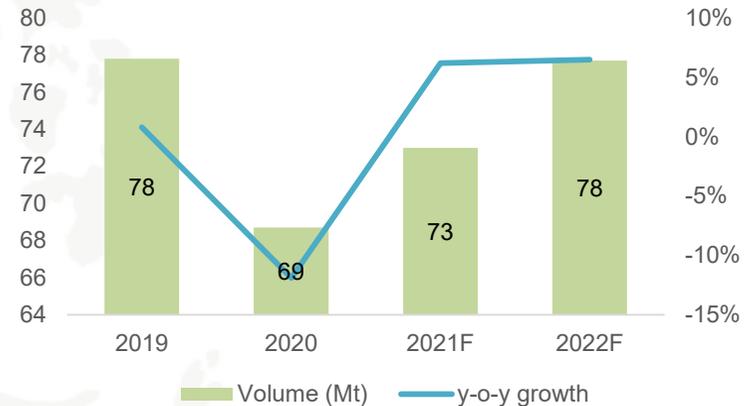
## SEA electricity demand more than double to 2040



Notes: TWh = terawatt-hours

Source: Southeast Asia Energy Outlook 2019, International Energy Agency 2019

## ASEAN (5) steel demand grows moderately in the short-term



ASEAN (5): Indonesia, Malaysia, Philippines, Thailand, Vietnam

Source: Worldsteel Association Short Range Outlook, April 2021

## Overview of Southeast Asia

- The region is home to around 655 million people and 45 million people is still without access to electricity.
- Its growth in electricity demand, at 6% CAGR, has been among the fastest in the world as the region aims for universal access to electricity by 2030.
- Coal has been the fastest growing fuel in SEA's energy mix, nearly 20 GW of coal-fired power plant is under construction (IEA).
- Coal with low pollutant content will be more favoured in the market as many countries try to control emission and new power plants utilize advanced boiler system.

# Regulatory Updates

## Conversion of CCOW to IUPK

- Continuation of AI's CCOW.
- Government Regulation (PP No 15 of 2022) stipulates the changes in the commercial terms: royalty rate, CIT rate, and additional profit sharing with the regional and central government.

	CCOW	IUPK
<b>1</b> Royalty rate	13.5%	14% - 28%
<b>2</b> CIT	45%	22%
<b>3</b> Profit Sharing (from net income)		
- Central Gov't	-	4%
- Regional Gov't	-	6%

- There could be an impact on concession size that we expect to be minor.

## Change in the royalty rate of IUP

- This would impact MIP and Balangan Coal mines, representing approximately 15% of our 2022 production target. The royalty going forward will be based on HBA pricing and could increase to between 7% and 10.5% from 3-5% currently.

# Proposed Regulatory Updates

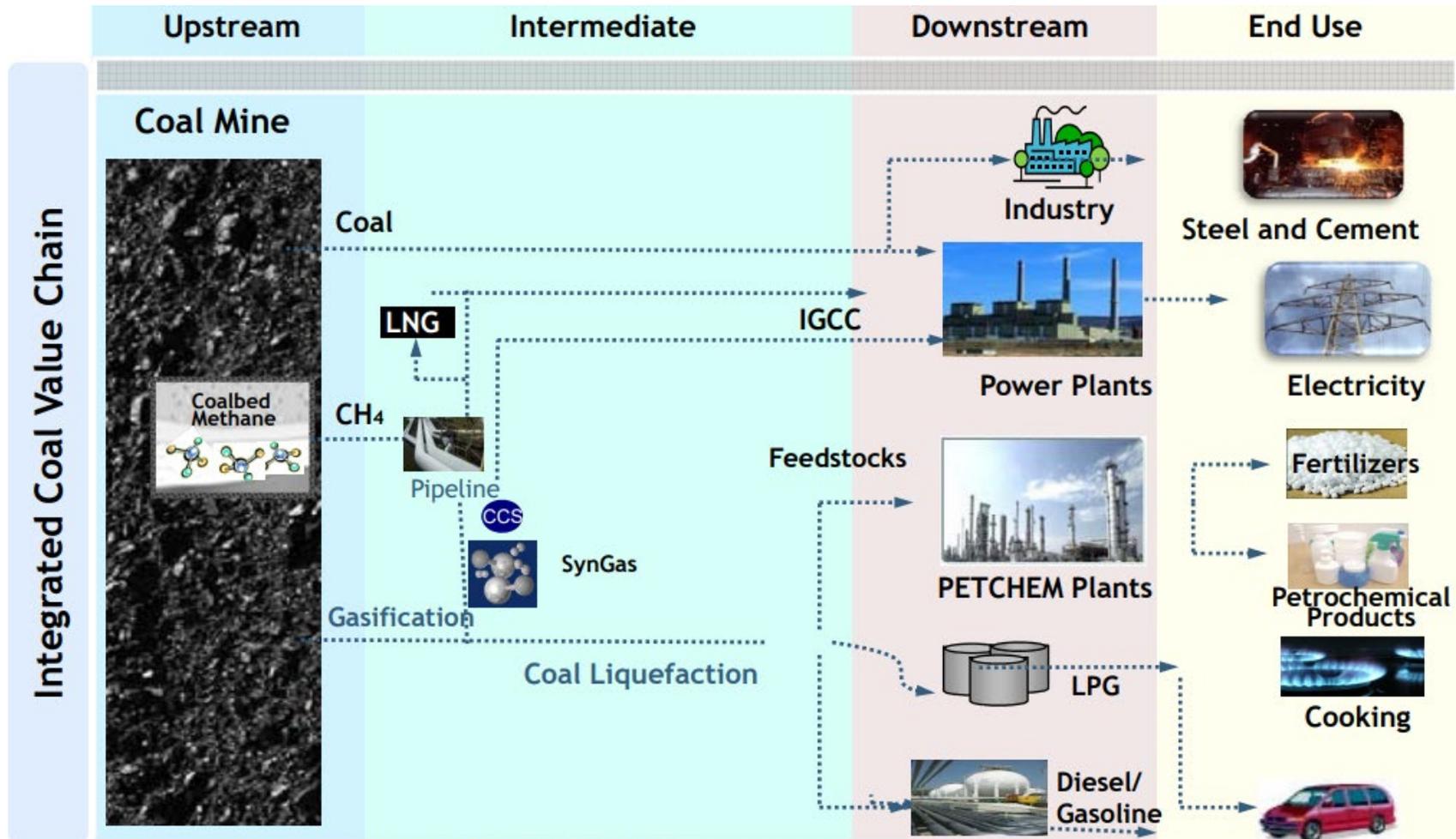
## Public Service Agency or Badan Layanan Umum (BLU)

- The Ministry of Energy and Mineral Resources (ESDM) has applied for a principle permit to form a Coal Special Entity or Public Service Agency (BLU) as a coal fee-collecting institution.
  - The BLU is to maintain availability of coal supply for domestic needs
  - The coal price benchmark for BLU fee and compensation is proposed to be CV-based
  - The price of coal for PLN's electricity generation needs is proposed to be market based, while the BLU is proposed to be tasked with collecting fees from coal companies to cover the difference between the market price and the price for the domestic market obligation (DMO) of US\$ 70 per ton for PLN.
  - BLU is proposed to also cover DMO of non-PLN industries, excluding smelter industry
  - Implementation target is 4Q22
-

# Appendix: Coal 101



# Explaining the Value Chain

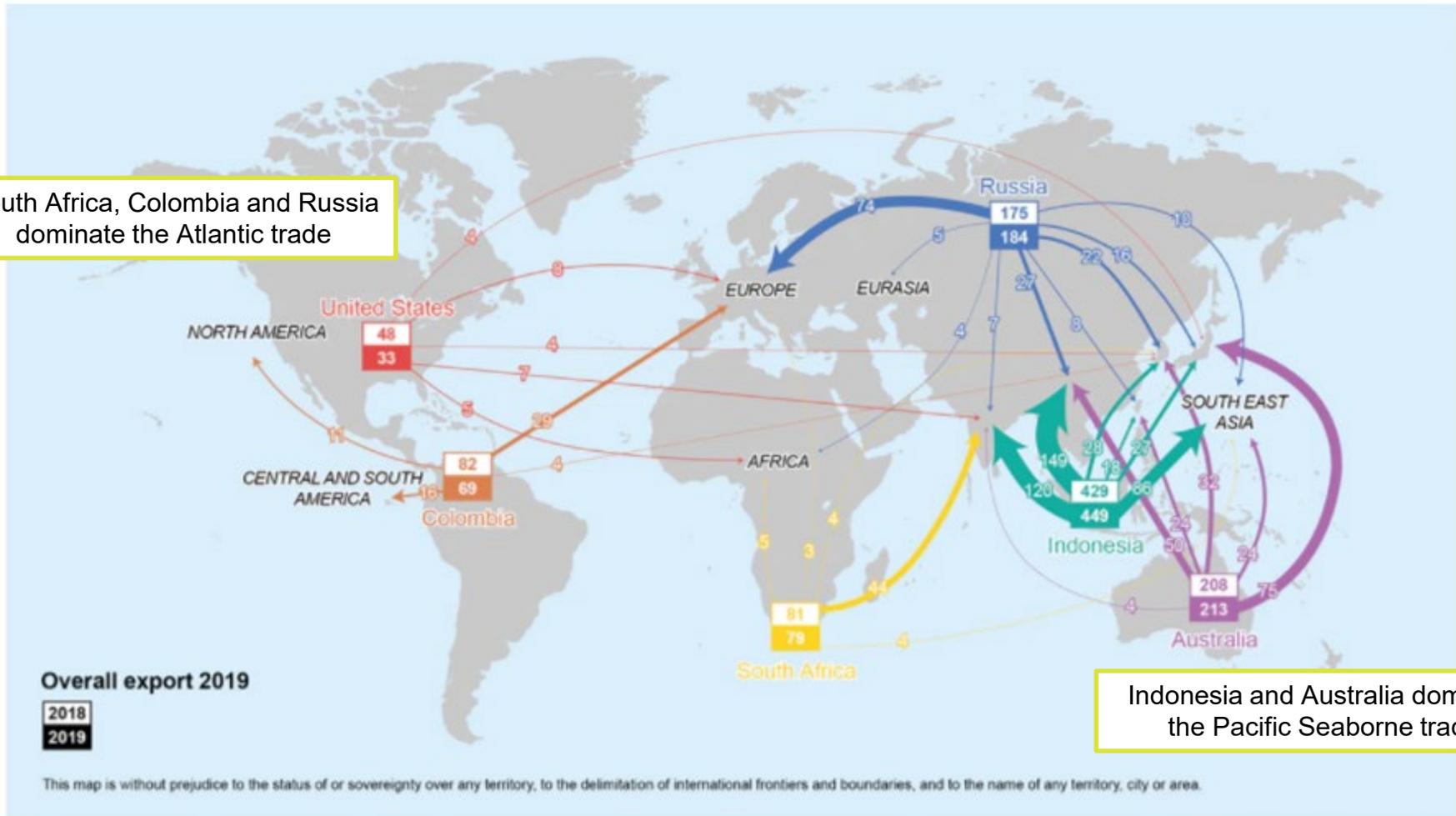


Remark: IGCC = Integrated Gas Combined Cycle

# Seaborne Trade Routes

South Africa, Colombia and Russia dominate the Atlantic trade

Indonesia and Australia dominate the Pacific Seaborne trade



Source: IEA, 2020

# How does pricing work?

Different coal types from different regions have distinct quality.

Indices are used to price different coal quality:

## **Global Coal NEWC Index**

the benchmark price for seaborne thermal coal in the Asia-Pacific region.

## **Indonesia's Harga Batubara Acuan (HBA)**

comprising of: Indonesian Coal Index (ICI), gCN, and Platts 5900.

## **QHD FOB (6,000 kc NAR)**

marker assess the price of Chinese coal that is being shipped into the domestic Chinese markets at the port of Qinhuangdao.

## **RB Index**

a coal price benchmark high CV thermal coal delivered FOB Richards Bay Coal Terminal in South Africa.

## **DES ARA**

coal price benchmark for high CV thermal coal delivered at the ports of Amsterdam / Rotterdam / Antwerp