



# DELIVERING ENERGY TO BUILD THE NATION

November 2016

[www.adaro.com](http://www.adaro.com)

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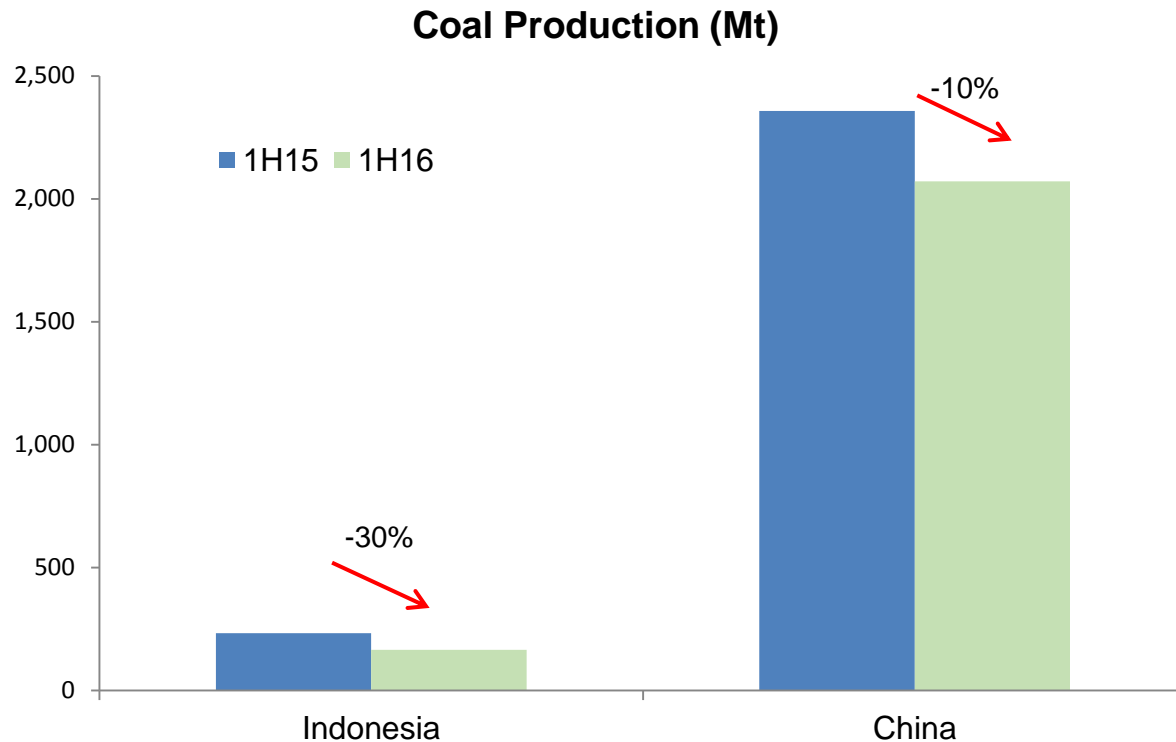
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## Key questions:

- Will supply rationalization stay?
- Can demand catch up with supply?
- How sustainable is the current coal price?
- How has Adaro performed?
- How does Adaro respond to this market development?
- What does the future hold for Adaro?

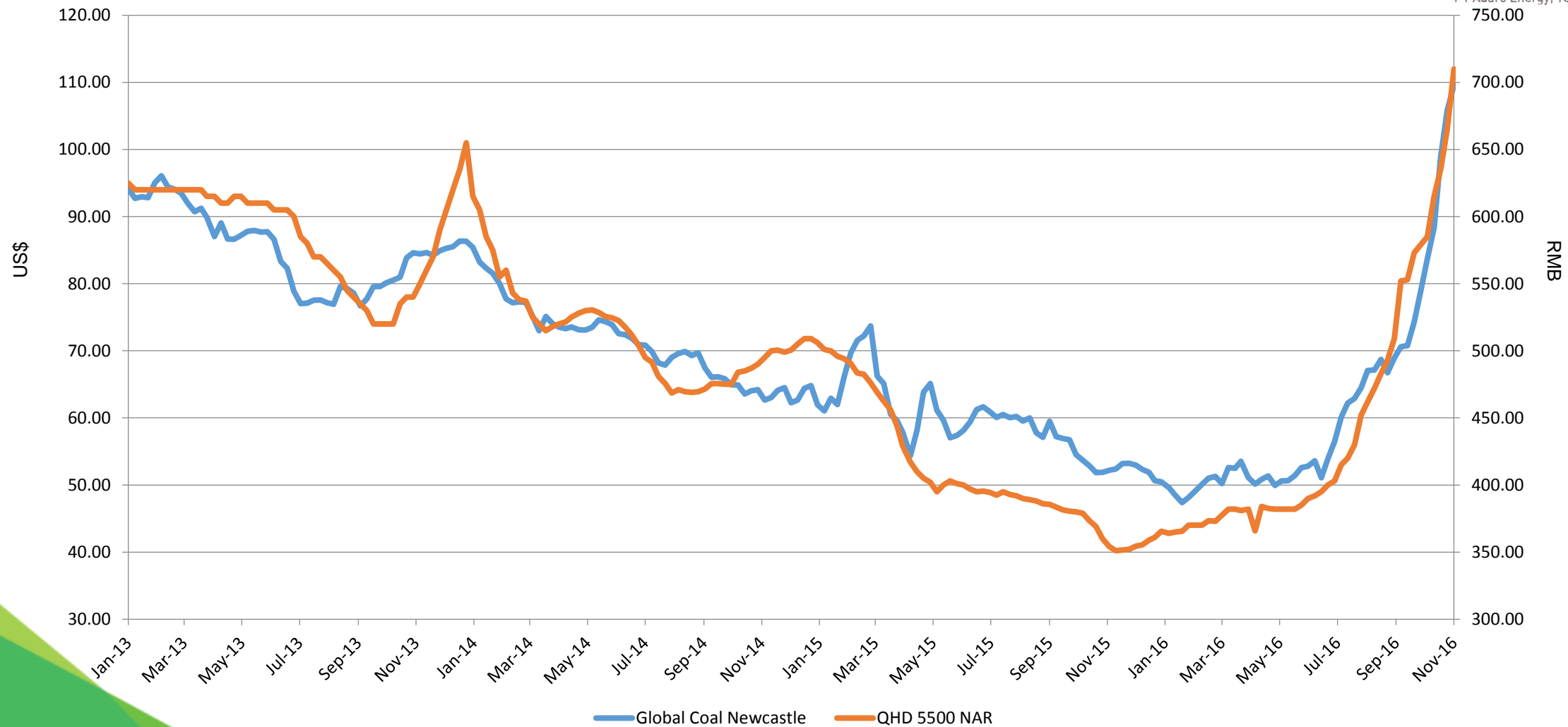
# Supply response is apparent



Source: Adaro's research, IHS Energy, WoodMackenzie

- China coal production declined ~10% in 1H16, due to:
  - Reduction of working days to 276 days from 330 days.
- China is expected to cut up to 1 Bt of excess capacity by 2020.
- China's coal supply cut should continue under government reforms.
- Indonesia coal production from CCoW miners declined ~30% in 1H16, mainly due to:
  - Weaker market.
  - Tighter shipments procedures for coal export (i.e. submission of ET batubara, proof of royalty payment, etc.).

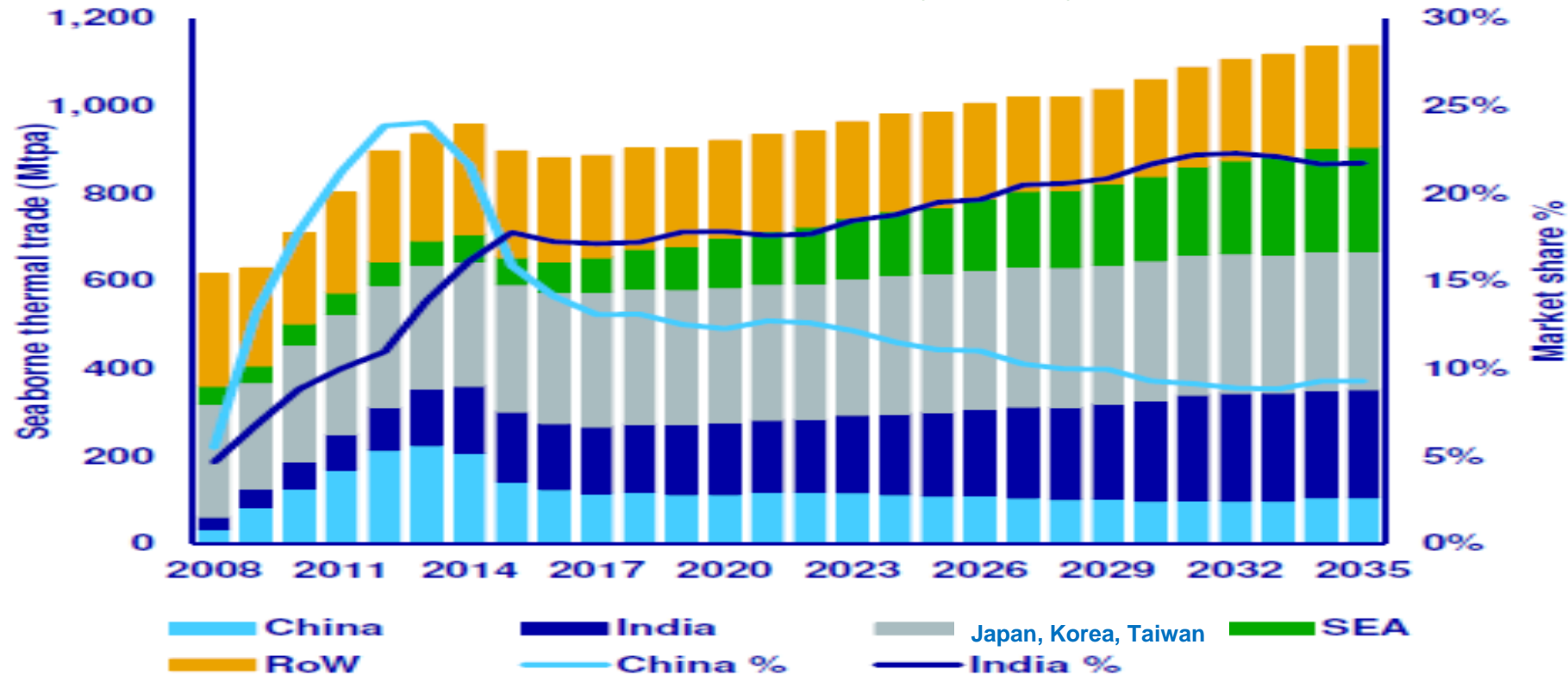
# Is this the turning point for coal price?



- China's supply discipline encourages more imports into the country.
- Supply disruption and seasonal high demand create a tight market.

# Long term coal demand outlook remains robust...

Seaborne coal demand by country (Mt)

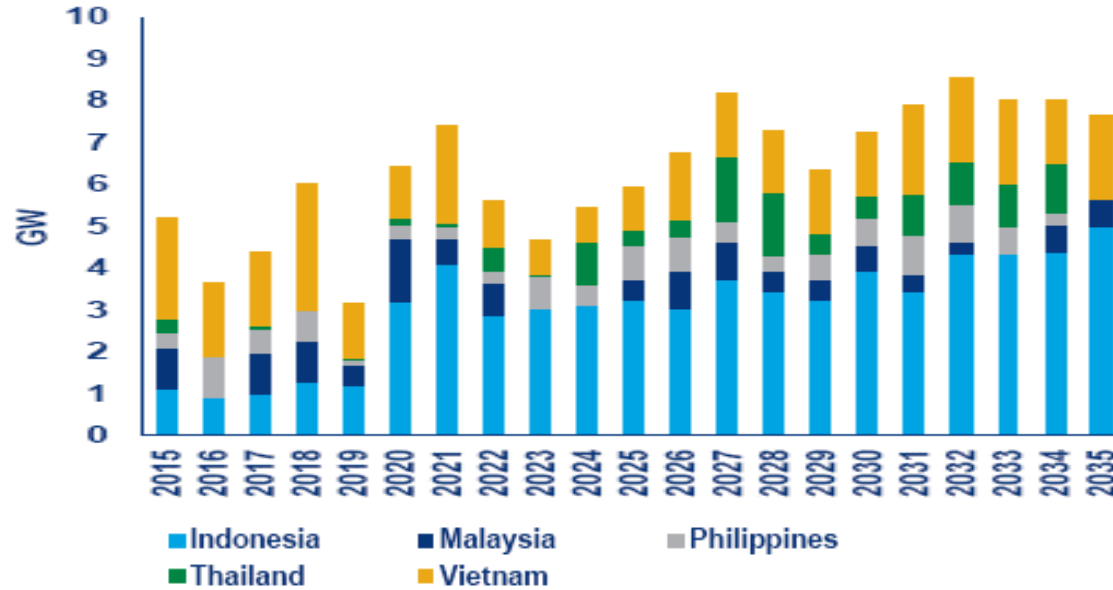


Source: WoodMackenzie

- China's share in seaborne market to decline.
- Increased potential from Southeast Asia, North Asia, and India.
- Electrification in the developing world continues to drive coal demand.

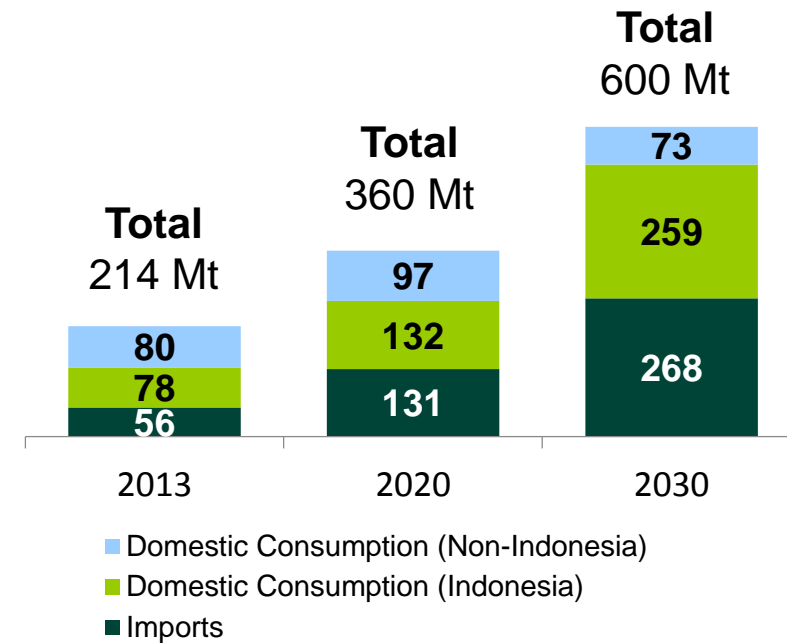
# ...Especially from Southeast Asia

**Coal capacity additions in Southeast Asia per annum**



Source: WoodMackenzie Energy Market Service

**Southeast Asia coal demand**

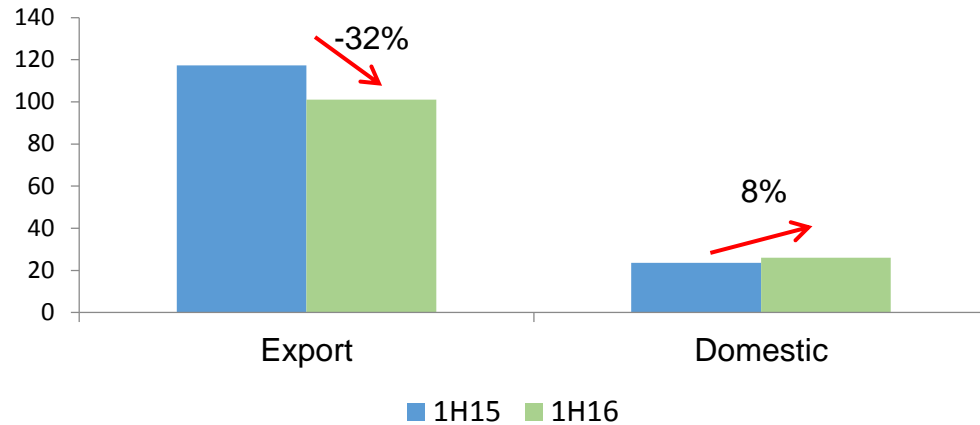


Source: Adaro's Research

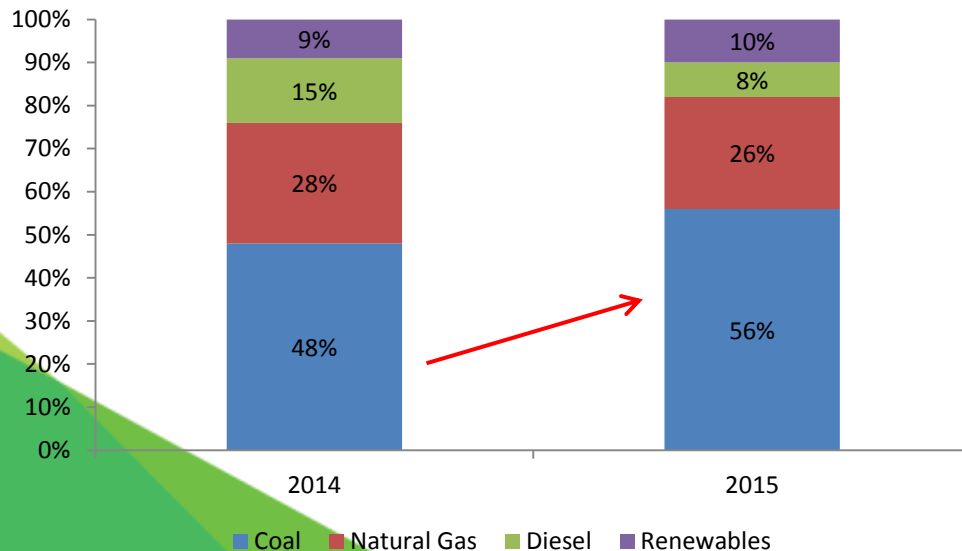
- Coal remains as the fuel of choice for developing economies in Southeast Asia.
- 2016-2017: additional ~10GW in coal fired capacity in SEA.

# Quick look on Indonesia

### Indonesia's Coal Sales (Mt)



### Indonesia's Electricity Generation by Source



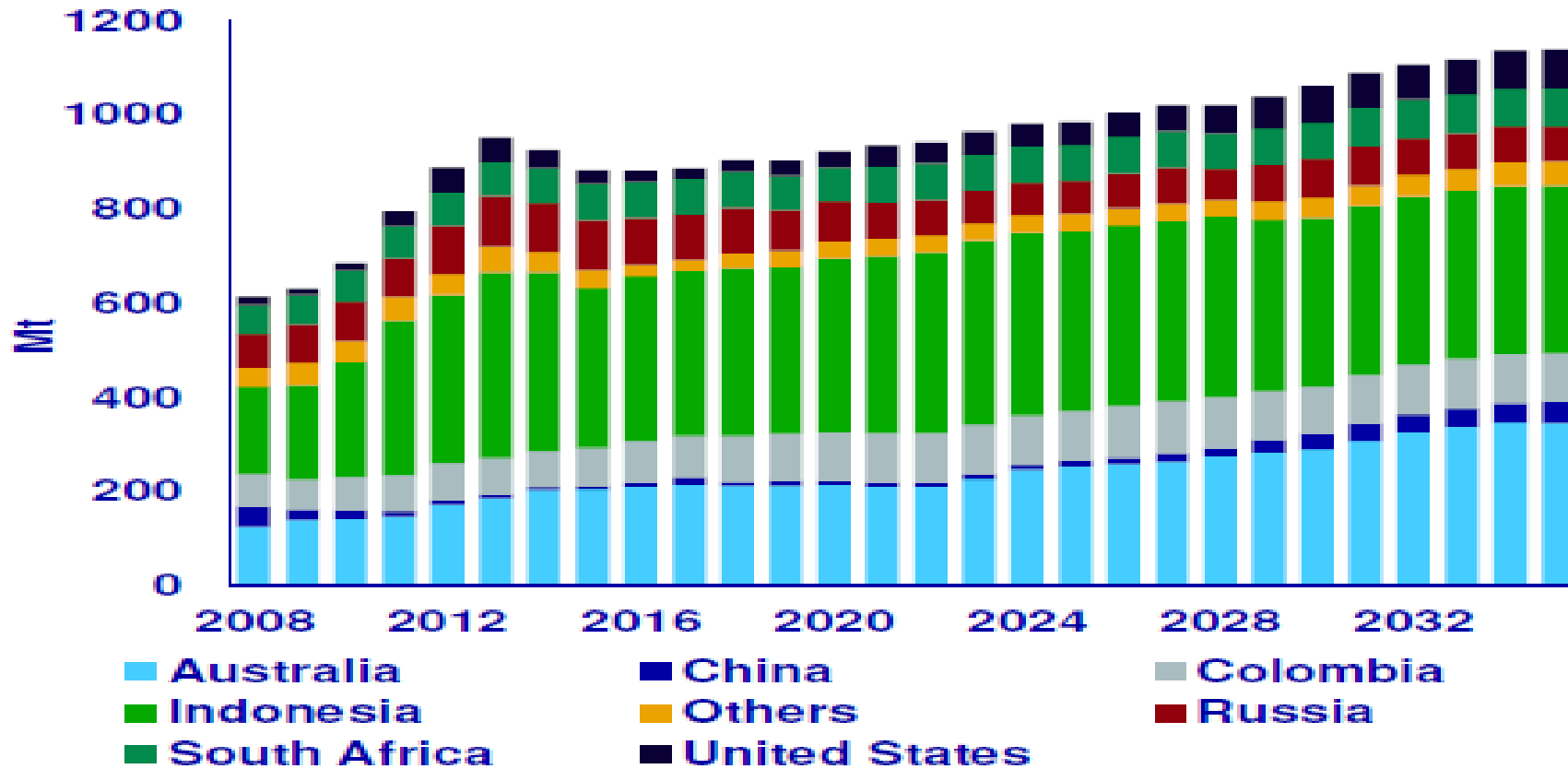
Source: MoEMR, PLN

- While Indonesia's coal production from CCoW miners in 1H16 decreased ~30% y-o-y and its export decreased 32% y-o-y...
- ...domestic coal demand in 1H16 increased ~8% y-o-y.
- It is expected that in FY16 domestic coal demand will grow by ~8% y-o-y to 90 Mt.
- Coal accounted for 56% of Indonesia's electricity generation in 2015.
- Despite expected increase from gas and renewables, coal remains as key energy source for power generation in Indonesia.



# Where will the supply come from?

Seaborne coal supply by country (Mt)

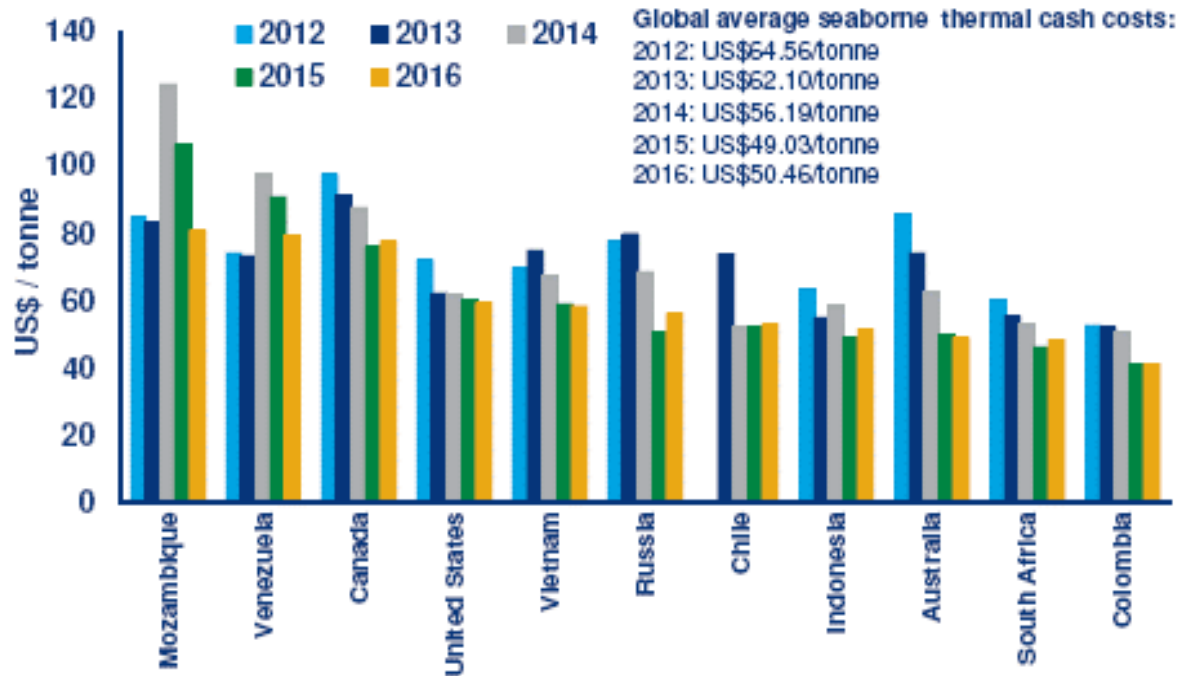


Source: WoodMackenzie Energy Market Service

- Along with the improvement of Indonesia's domestic demand, its share in the seaborne market will fall.
- Higher coal price is required to encourage production from Australia.

# As margins tightens, miners continue to cut cost and capital expenditure...

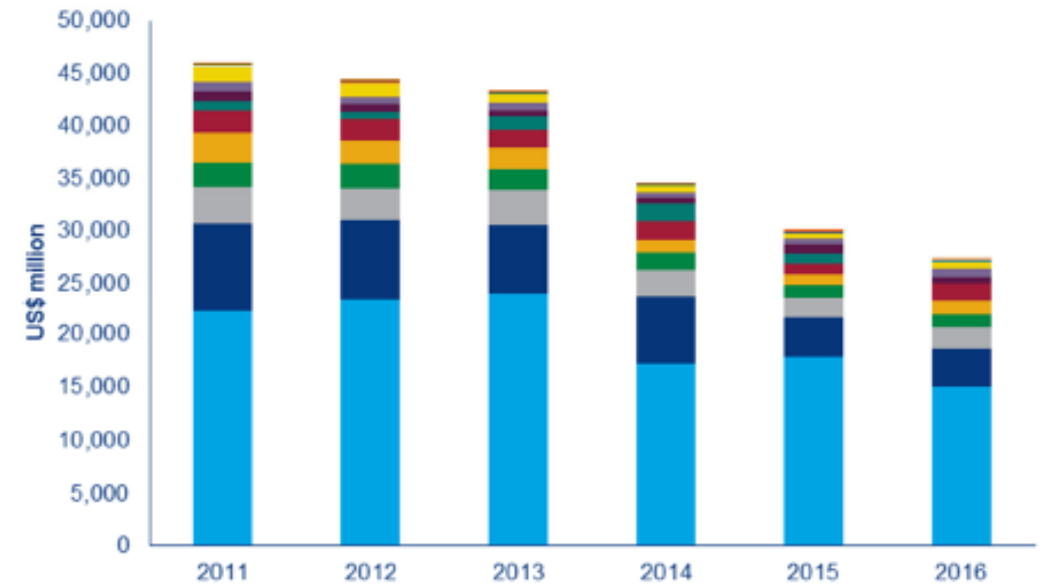
## Seaborne thermal coal cash cost (CV adjusted)



Source: Wood Mackenzie, Dataset: November 2015, "Nominal terms"

Cost reductions are more apparent for countries with costs in local currencies. Thus several coal producers are still able to increase production.

## Capital expenditure of global coal miners



Source: Wood Mackenzie, Dataset: November 2015 \*nominal terms

Global capital spending for coal declined 13% in 2015. In 2016, it is expected that capital expenditure will further decline by 9% to US\$27 billion due to further projects push back.

Indonesia is a major supplier to the global seaborne thermal coal market, but will there be enough coal from Indonesia?

# With significant power projects in the pipeline, Indonesia has to prioritize domestic demand



Source: *Supplying and Financing Coal-Fired Power Plants in the 35 GW Programme – a study by APBI (ICMA) and PwC, 2016*

- A survey on Indonesia's top 15 coal companies shows that Indonesia's reserves are limited and may not be enough to fulfill demand in the long-term.



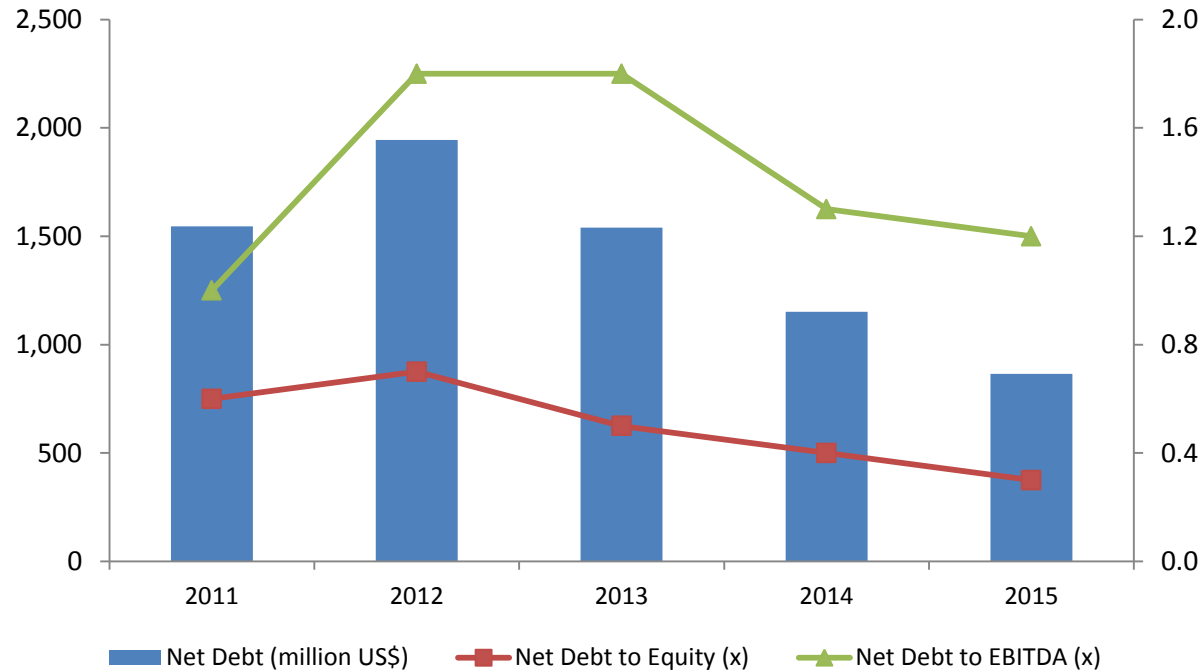
# Adaro Energy's Performance

# Resilient operational and financial results

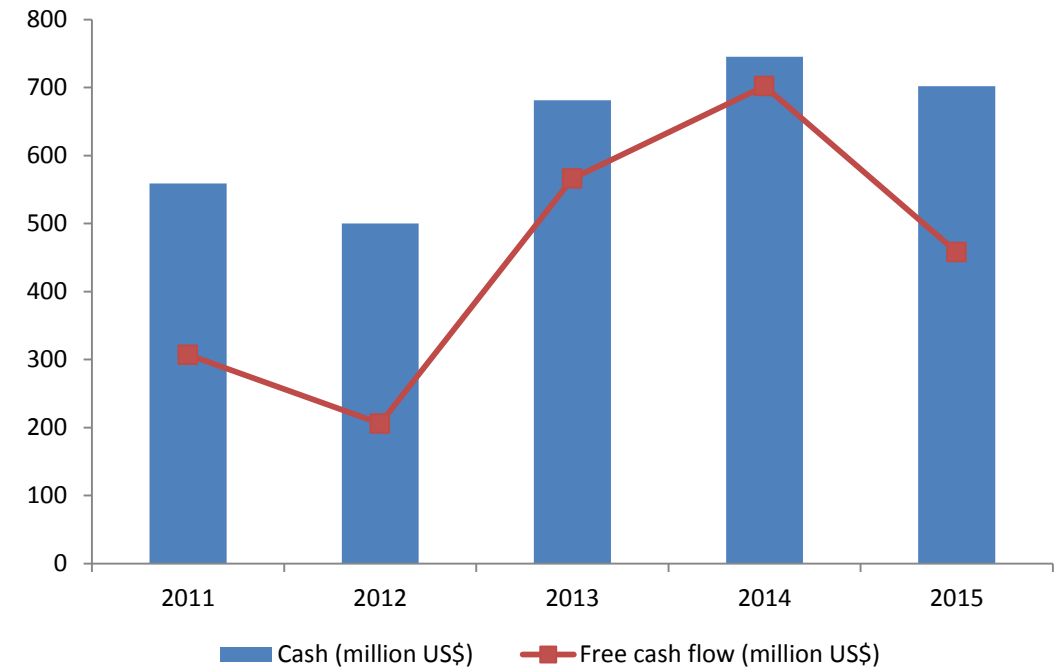
<b>OPERATIONAL</b>	<b>9M 2016</b>	<b>9M 2015</b>	<b>% Change</b>
Production (Mt)	<b>39.33</b>	39.83	-1%
Sales (Mt)	<b>40.45</b>	41.21	-2%
OB removal (Mbcm)	<b>174.78</b>	213.07	-18%
<b>FINANCIAL (US\$ millions, unless indicated)</b>	<b>9M 2016</b>	<b>9M 2015</b>	<b>% Change</b>
Net Revenue	<b>1,778</b>	2,112	-16%
Core Earnings	<b>281</b>	228	23%
Operational EBITDA	<b>625</b>	568	10%
Cash	<b>964</b>	785	23%
Net Debt to Equity (x)	<b>0.14</b>	0.26	-
Net Debt to LTM EBITDA (x)	<b>0.65</b>	1.18	-
Free Cash Flow	<b>352</b>	354	-1%
Cash from Operations to Capex (x)	<b>6.81</b>	7.57	-

# Solid balance sheet and strong cash generation

## Net Debt Position and Leverage Ratios



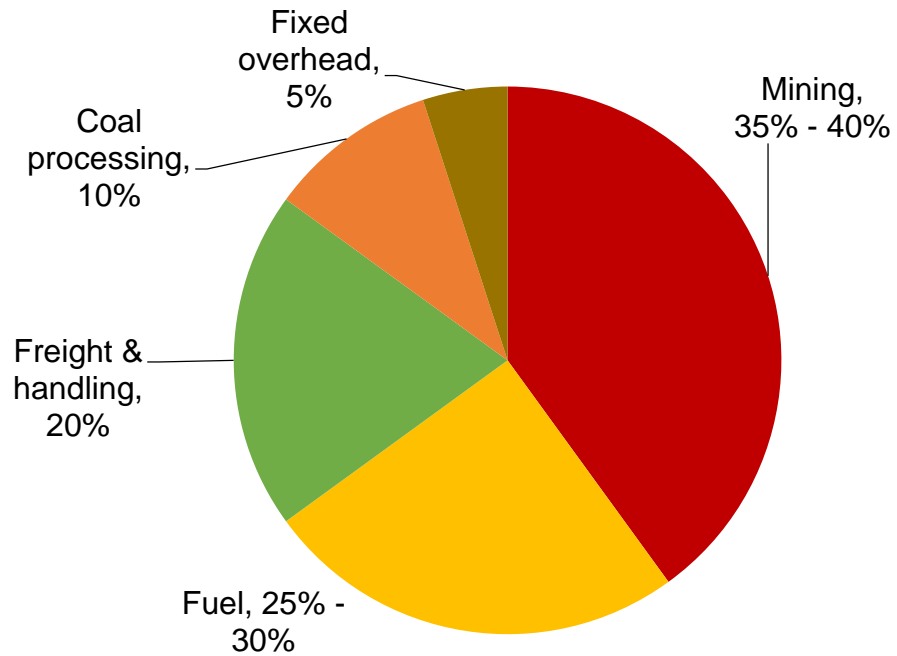
## Cash and Free Cash Flow (million US\$)



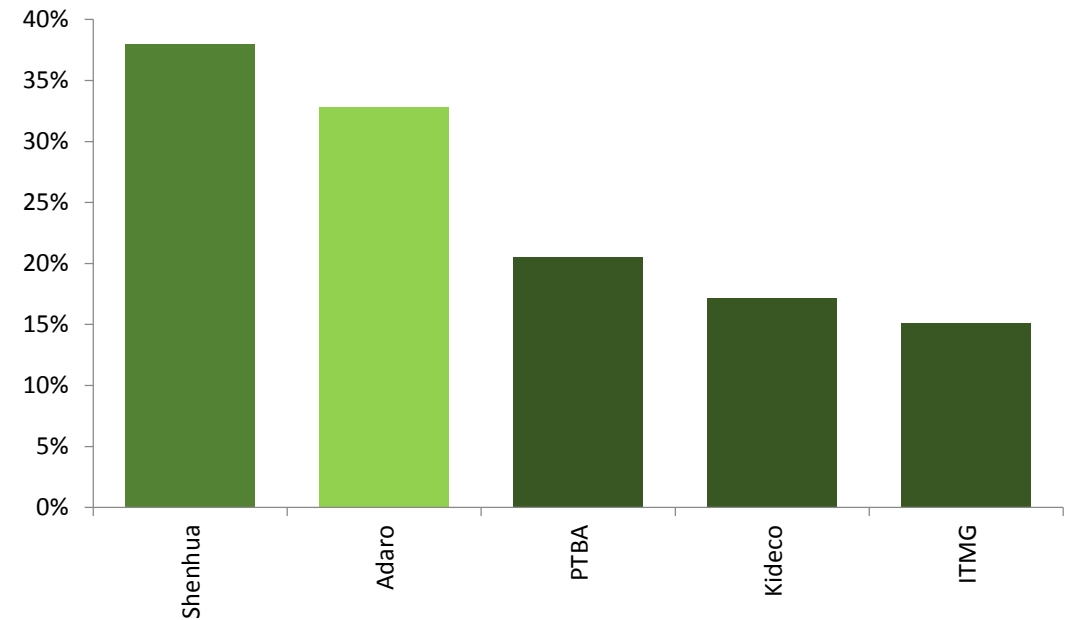
- Focus on deleveraging.
- Healthy balance sheet, strong capital structure and cash preservation.
- Investment grade rating (BBB-) from Japan Credit Rating Agency with a STABLE outlook.

# Cost control – key in delivering strong performance

## Adaro's Estimated Coal Cash Cost Breakdown (9M16)



## Operational EBITDA Margin

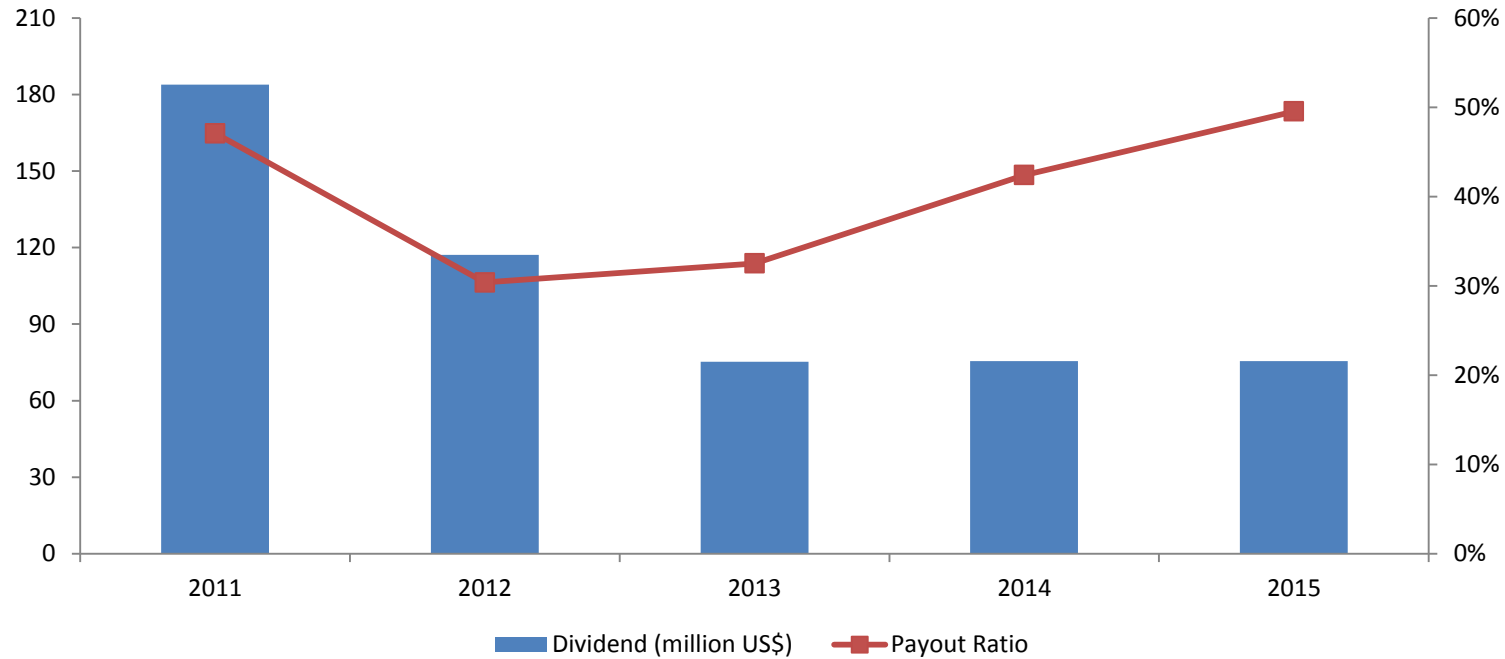


Source: Bloomberg, based on trailing 12M EBITDA

**Adaro has one of the highest operational EBITDA margin among thermal coal peers**



# Delivering return to shareholder



- Adaro has continued to pay dividend through the cyclical downturn.
- Although we have no fix dividend payout ratio, but since our IPO in 2008, our average dividend payout ratio is ~43%.
- In the past three year, we have paid US\$75 million of dividend per year.



# Snapshot of Adaro Energy

# Who is Adaro Energy?



- Among the largest single-concession coal producers in the southern hemisphere.
- Top 5 thermal coal exporter globally.
- Major supplier to Indonesia's domestic markets.
- One of the world's lowest-cost coal producers.
- Envirocoal is an environmentally friendly coal.
- Vertically integrated business model.
- Strong credit profile.
- High visibility of future earnings.
- Reputable and experienced management and controlling shareholders.

<b>Production</b>	<ul style="list-style-type: none"><li>■ 2013A: 52.3 Mt</li><li>■ 2014A: 56.2 Mt</li><li>■ 2015A: 51.5 Mt</li></ul>
<b>Envirocoal</b>	<ul style="list-style-type: none"><li>■ Sub-bituminous, medium calorific value, ultra-low pollutants</li><li>■ Trademark registered in many jurisdictions</li></ul>
<b>Customers</b>	<ul style="list-style-type: none"><li>■ More than 50 customers in 12 countries</li><li>■ Blue-chip power generation utilities</li></ul>
<b>Pricing</b>	<ul style="list-style-type: none"><li>■ Based on fixed negotiation and index-linked</li><li>■ Adjustment for heat content</li></ul>
<b>JORC reserves / resources</b>	<ul style="list-style-type: none"><li>■ Reserves: 1.1 Bt as of YE2015</li><li>■ Resources: 12.8 Bt (includes option to control 7.9 Bt) as of YE2015</li></ul>
<b>Location</b>	<ul style="list-style-type: none"><li>■ South, East and Central Kalimantan, South Sumatra</li></ul>
<b>Credit Rating</b>	<ul style="list-style-type: none"><li>■ BBB- (JCR)</li></ul>

# Business model that creates sustainable value

Three engines of growth integrating pit-to-power



## Adaro Energy (AE)



\*Simplified Corporate Structure



# Adaro Coal Mining





# Diversified Coal Assets Across Indonesia

Deepening Coal Product Portfolio and Set to Capitalize Assets to Support Indonesia's Development

Adaro has more than 12 billion tonnes (Bt) of coal resources (including option to acquire 7.9 Bt) and 1.2 Bt of coal reserves.

1

Adaro Indonesia:  
Existing,  
S Kalimantan  
sub-bituminous  
Resources 4.9Bt  
Reserves 900Mt

2

Balangan:  
S Kalimantan  
sub-bituminous  
Resources 335Mt  
Reserves 186Mt

3

MIP: 75% stake  
S Sumatra  
sub-bituminous  
Resources 288Mt  
Reserves 254 Mt

4

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

5

BEP: 10.22%  
stake with option  
to acquire 90%  
E Kalimantan  
sub-bituminous  
Resources 7.9Bt

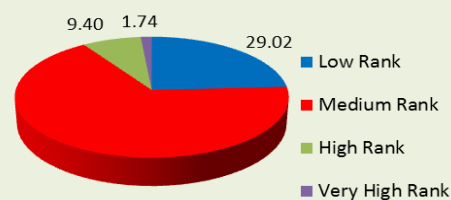
6

IMC: 100%  
C Kalimantan  
Metallurgical coal  
Resources 1.27Bt

## Indonesian Coal

Resources : 124.8 Bt  
Reserves : 28.0 Bt

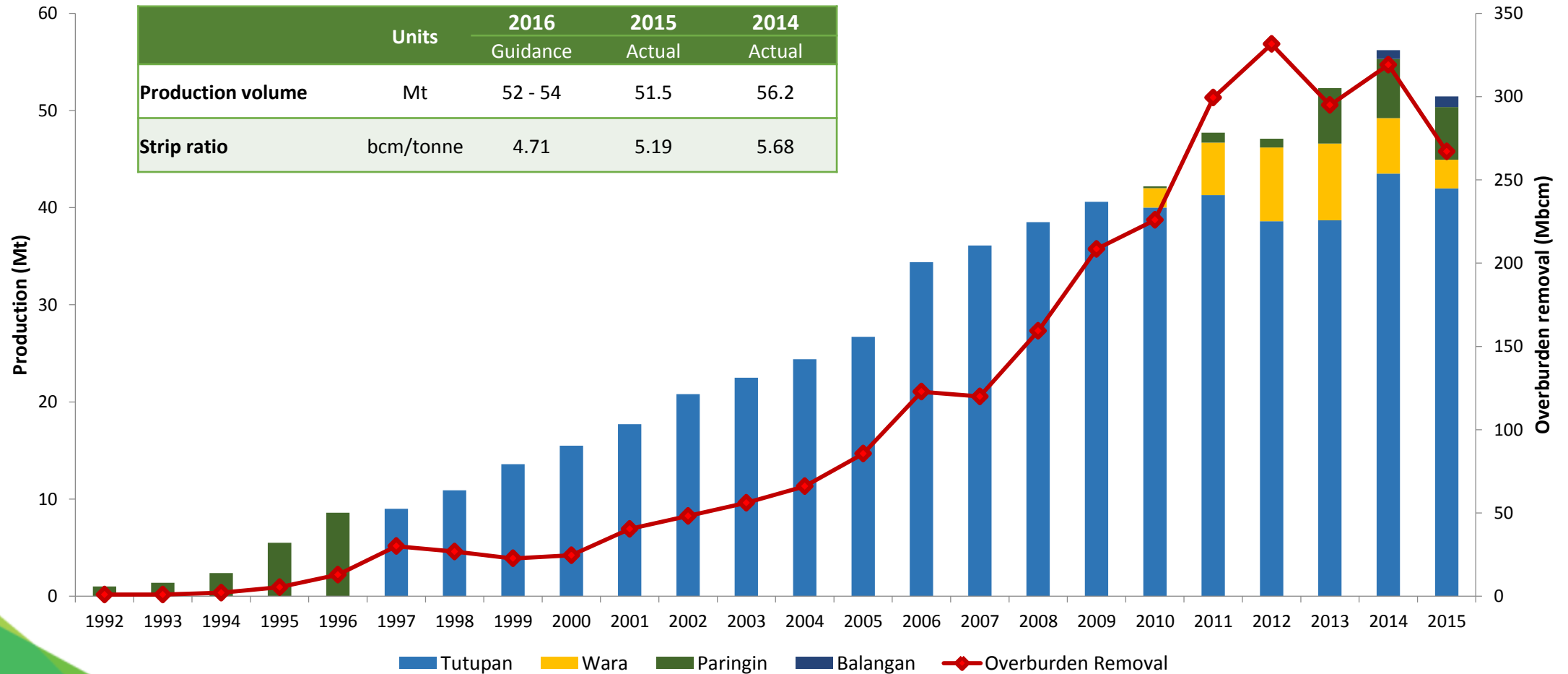
Source: Bureau of Geology, 2015



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

Note on IMC: we have signed the share sale agreement with BHP Billiton to acquire BHP's portion in the project (75%). This transaction will be effective once all the requirements are met.

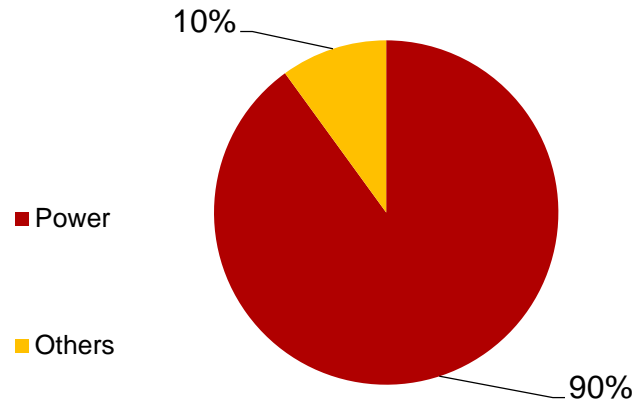
# Over Two Decades of Solid Production Performance



- Produce low to medium heat value coal with low pollutant content, ideal for power generation.
- Control over supply chain ensures timely delivery to customers.

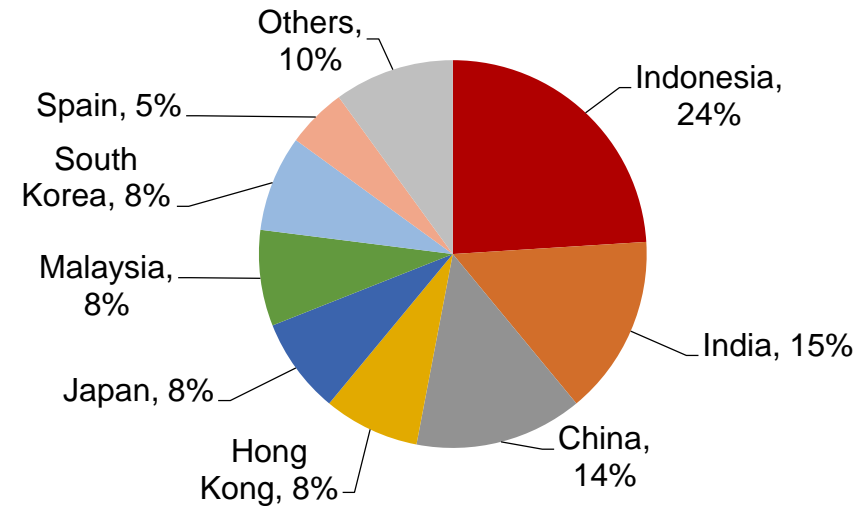
# Strong Customer Base with Focus on Domestic Market

### Customer type by % volume (9M16)



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

### Geographical breakdown of customers (9M16)



\* Others include Philippines, Taiwan, Cambodia, Thailand and Vietnam.

**Most customers are sovereign backed power companies, and with over 50% have had a relationship of more than 10 years**

- Average length of coal supply agreement is 3 to 5 years.
- Many of our contracts are reset annually, with a combination of negotiated, fixed and index-linked pricing.

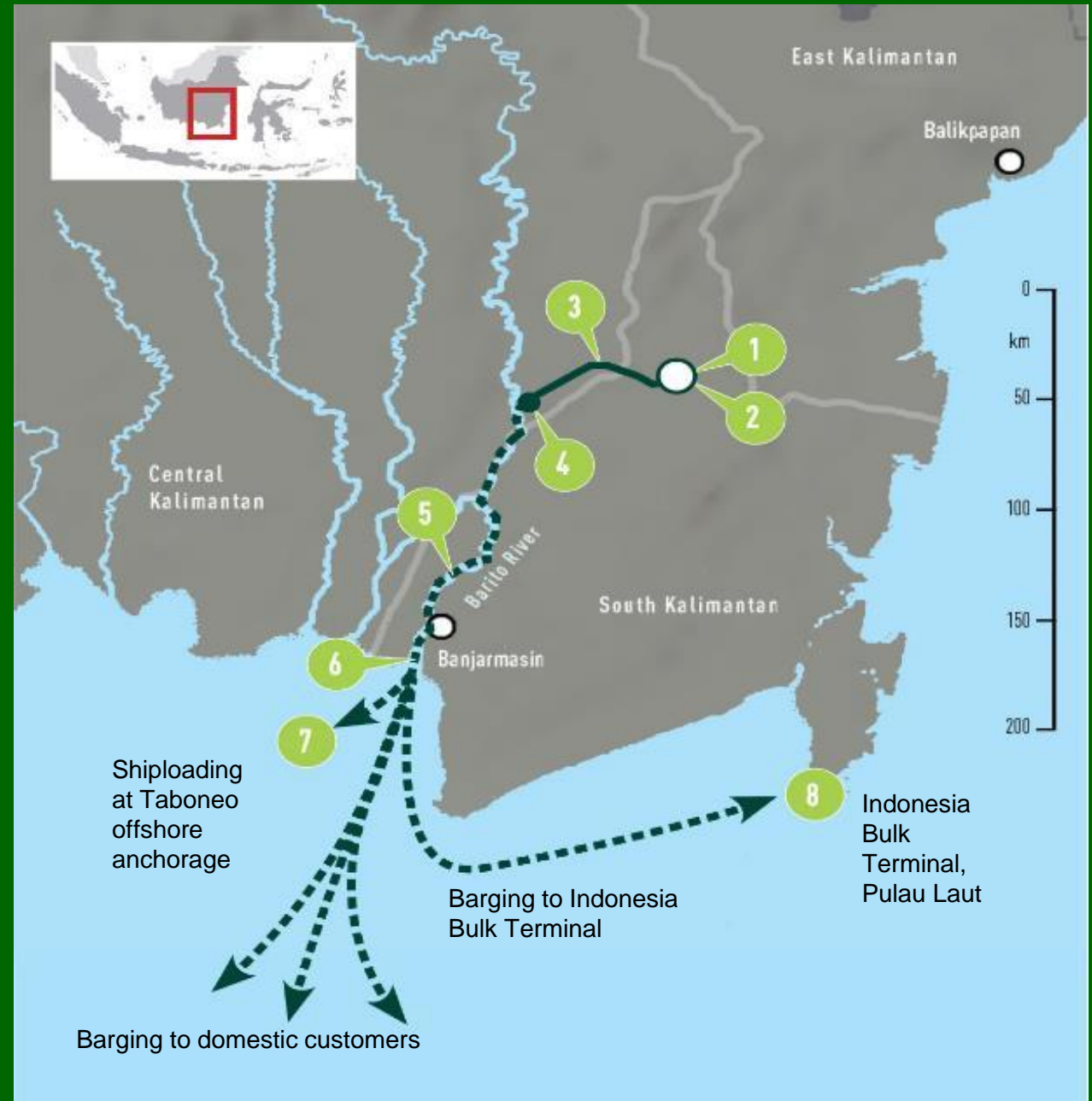
**Strong relationship with many blue-chip investment-grade clients mitigates risk**



# Our Reliable Coal Supply Chain

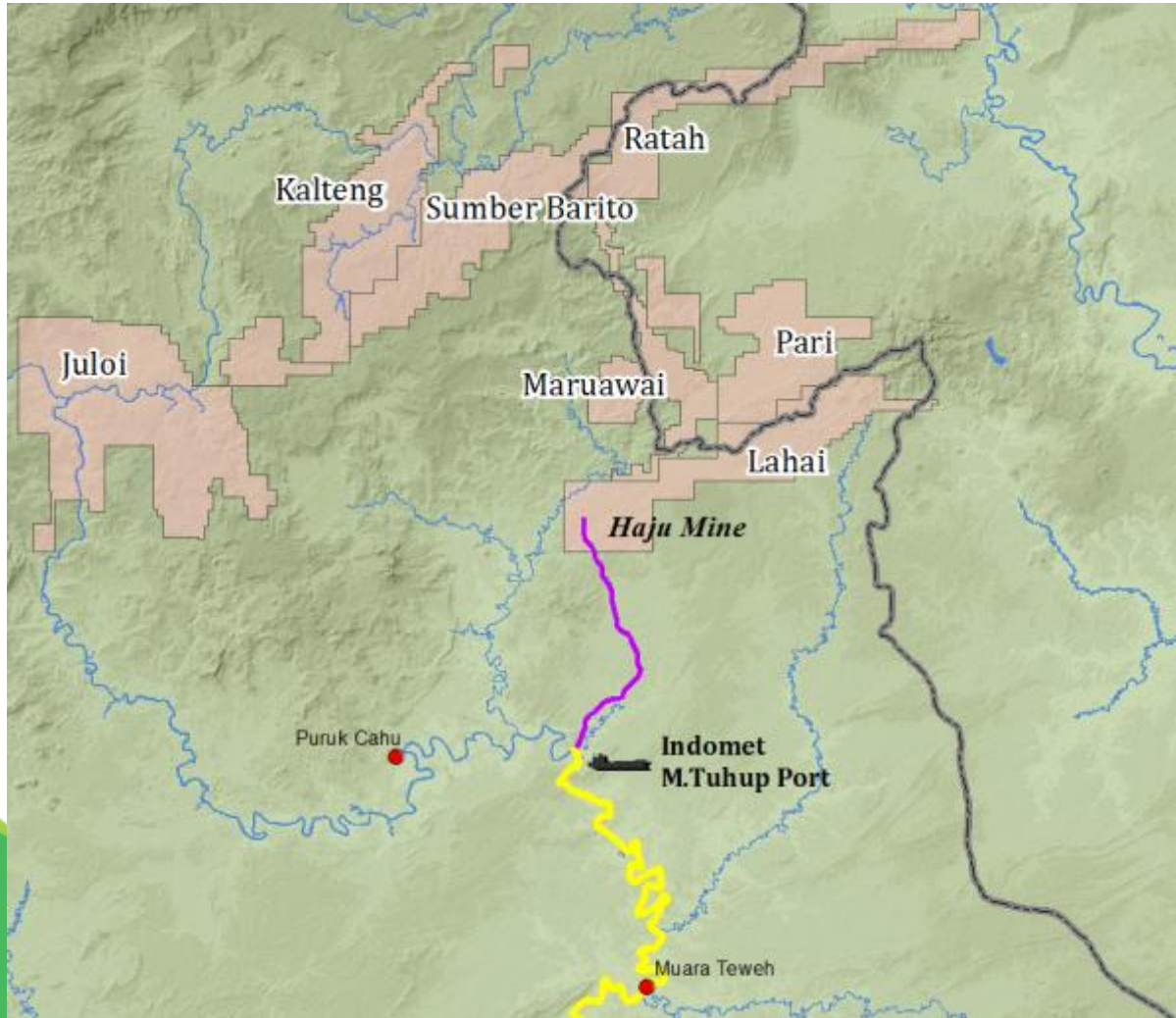
Most of Adaro's coal come from the deposits in South Kalimantan mined by AI. The physical mining and transporting of coal to customers is done by contractors appointed by AI. We tightly control this coal supply chain by using a subsidiary company at each stage as one of the dominant contractors.

- 1** AI mining area, with coal extracted from the Tutupan, Wara & Paringin pits
- 2** AI performs mining activities supported by its contractors (SIS, PAMA and BUMA).
- 3** Coal is trucked along haul road owned by AI to a port on the Barito River.
- 4** AI crushes the coal, stores it when necessary and loads it to barges at Kelanis river terminal
- 5** Coal is barged to the sea by our subsidiary MBP and third-party contractors.
- 6** At the river mouth, our subsidiary, SDM, dredges and maintains a shipping channel
- 7** Shiploading and sea barging by MBP
- 8** Coal terminal and fuel storage by IBT



# Adaro's Metallurgical Coal Asset

*Indomet Coal Project (IMC) in Central and East Kalimantan*



- Adaro Energy completed the acquisition of IMC from BHP Billiton for 7 CCOW's in Central and East Kalimantan.
- The transaction value was \$120 million for 75% of the properties. Adaro now owns 100% of the asset.
- The CCOW's are reported to have metallurgical coal resources of 1.27 billion tonnes.
- First coal production has started at the Haju mine which has a production capacity of 1 million tonnes a year. Coal is mined and hauled to a barge loading site at Muara Tuhup on the Barito river.



# Adaro Mining Services and Logistics



# Ensuring operational excellence

*Strengthens Adaro's Earnings Profile as Contribution to Parent Co Increases*

- Key part of our vertical integration.
- Ensures operational excellence, productivity improvement and timely reliable delivery to customers.
- Non coal mining business contributed 42% of Adaro Energy EBITDA in 2015. This contribution is expected to grow going forward.
- Actively pursue third-party revenue growth from these businesses.



# Highlights of mining services and logistics



Name	Information
<b>PT Saptaindra Sejati (SIS)</b>	<ul style="list-style-type: none"> <li>• One of Indonesia's leading mining contractors.</li> <li>• Owns more than 1,500 heavy equipment.</li> <li>• FY15 overburden removal volume: 151.5 Mbcm.</li> <li>• FY15 coal production volume: 29.5 Mt.</li> </ul>
<b>PT Maritim Barito Perkasa (MBP)</b>	<ul style="list-style-type: none"> <li>• Barging and ship-loading contractor.</li> <li>• 95 sets of tugs and barges with capacity of 514,200 dwt.</li> <li>• Offshore coal loading at Taboneo with capacity up to 165,000 tonnes per day via floating cranes (15,000-20,000tpd), FTU (60,000tpd) and self-loading geared vessels.</li> <li>• FY15 coal transport volume: 31.1 Mt.</li> <li>• FY15 coal loading volume: 35.8 Mt.</li> </ul>
<b>PT Sarana Daya Mandiri (SDM)</b>	<ul style="list-style-type: none"> <li>• SDM dredged the Barito river channel in 2008, increasing capacity to 200Mt per year. It now manages and maintains the channel.</li> <li>• Adaro owns 51.2% of SDM, with the local port authority and local government owning the remaining interest.</li> </ul>
<b>PT Indonesia Bulk Terminal (IBT)</b>	<ul style="list-style-type: none"> <li>• Onshore coal port and fuel facilities in Pulau Laut, South Kalimantan.</li> <li>• Signed strategic partnership with PT Pertamina (Persero) in infrastructure, transportation and fuel supply.</li> </ul>



# Adaro Power



MSW's 2x30 MW mine-mouth power plant in Tanjung, South Kalimantan

# Building our future through Adaro Power



## Indonesia's Additional Electricity Generation Capacity (MW)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Coal-fired	3,027	1,024	3,397	17,175	4,548	1,781	400	700	500	2,250	<b>34,802</b>
Others	1,113	3,463	9,041	4,223	1,325	1,184	2,416	3,698	7,918	11,357	<b>45,738</b>
<b>Total</b>	<b>4,140</b>	<b>4,487</b>	<b>12,438</b>	<b>21,398</b>	<b>5,873</b>	<b>2,965</b>	<b>2,816</b>	<b>4,398</b>	<b>8,418</b>	<b>13,607</b>	<b>80,540</b>

Source: RUPTL 2016 – 2025, PT PLN (Persero)

- Huge potential to tap into as in the next 10 years PLN plans to add **80.5 GW** of electricity generation in Indonesia.
- Indonesia's electrification ratio of 87.5% (2015) lags behind other SEA countries.
- Commercially and financially attractive with solid IRR and low-cost long-term project financing.
- Creates a new captive market and helps meet our domestic market obligation.
- Helps to lessen volatility in Adaro's business model.
- Contributes to the development of Indonesia's energy needs.
- Extending beyond coal to gas and renewables to replicate Indonesia's energy mix.
- Currently operating a 2x30 MW mine-mouth power plant in South Kalimantan.

# Adaro's First IPP: Central Java Power Project



*Reached financial close and has started construction*

	Bhimasena Power Indonesia
<b>Capacity</b>	2x1000 MW
<b>Stake Acquired</b>	34%
<b>Partner(s)</b>	J-Power (34%), Itochu (32%)
<b>Location</b>	Central Java
<b>Development Progress</b>	<ul style="list-style-type: none"> <li>• Signed 25 years PPA with PLN</li> <li>• Total Capex: US\$4.2 billion</li> <li>• Concluded financial closure on June 6<sup>th</sup>, 2016.</li> <li>• Expected COD: 2020</li> <li>• Expected coal requirement: 7 Mtpa</li> </ul>
<b>Financing</b>	Non-recourse project debt financing. Combination of ECA and commercial loan
<b>Expected Debt vs. Equity</b>	80:20

- Indonesia's first largest IPP to use Ultra Super-Critical (USC) boiler technology, which is environmentally friendly, highly efficient and able to burn low CV coal.
- Adaro to become main coal supplier to this project.
- Guaranteed by the Government of Indonesia through Indonesia Infrastructure Guarantee Fund.



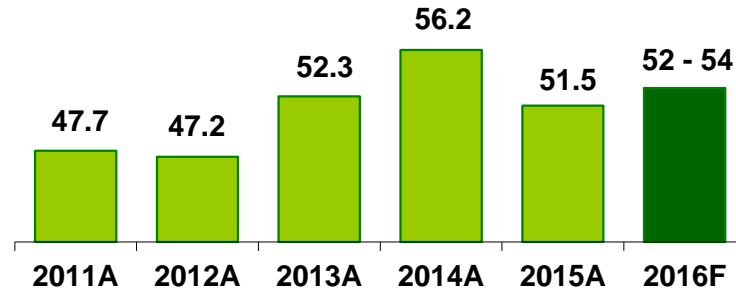
# Pipeline of power project

*Diversify and secure predictable long-term coal demand*

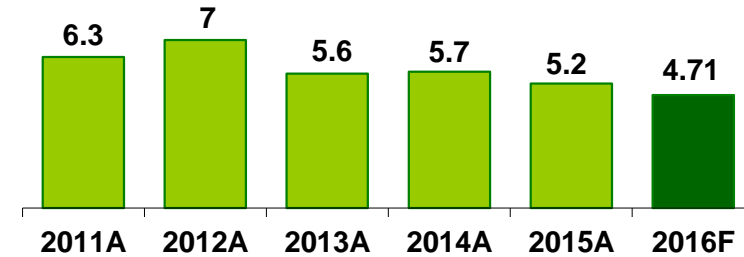
	Tanjung Power Indonesia
<b>Capacity</b>	2x100 MW
<b>Stake Acquired</b>	65%
<b>Partner(s)</b>	Korea EWP (35%)
<b>Location</b>	South Kalimantan
<b>Development Progress</b>	<ul style="list-style-type: none"><li>• Signed PPA with PLN</li><li>• Expected financial close in 2H16</li><li>• Expected coal requirement: 1 Mtpa</li></ul>
<b>Financing</b>	Non-recourse project debt financing. Combination of ECA and commercial loan
<b>Expected Debt vs. Equity</b>	75:25

# 2016 guidance remains unchanged

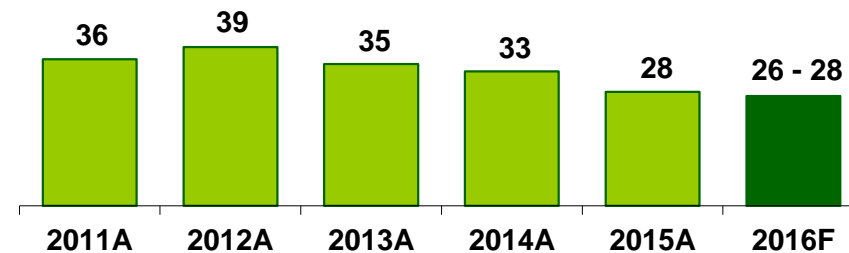
### Coal Production (Mt)



### Consolidated Planned Strip Ratio (bcm/t)



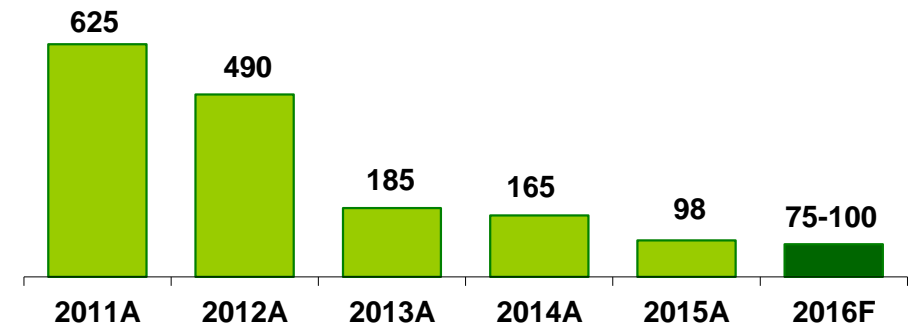
### Coal Cash Cost (ex-royalty, US\$/t)



### Operational EBITDA (US\$ billions)



### Capital Expenditure (US\$ million)



# Conclusions and takeaways

- Coal market is moving in positive direction towards supply and demand balance.
- China's supply rationalization has provided the much-needed support for coal market.
- Indonesia to lessen coal export and focus on the domestic market.
- Long term fundamental for coal remains promising.
  - Indonesia and Southeast Asia will be the main drivers.
- Our resilient business model is geared up to take the opportunity.
  - Multiple opportunities across the value chain.
  - Each engine of growth is expected to grow along with the growth of coal fired power generations in Indonesia and Southeast Asia.
- Adaro's financials is in a better, stronger position than five years ago.
  - Continue to deleverage and preserve cash.

THANK YOU

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