

# Energy Security and Path to Carbon Neutrality in the Coal Value Chain

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### The 'Coal Hard Reality' Is Settling Across The European Media

Swedish parliament passes new energy target, easing way for new nuclear power

EU split over subsidies for coal plants as Poland seeks extension

First coal mine in decades approved - a year after UK lobbied to 'consign coal to history'

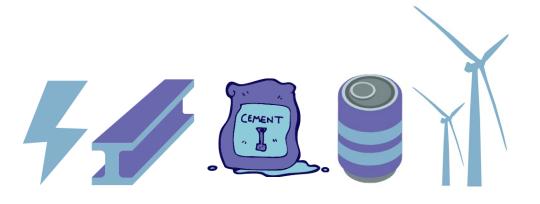
In Germany, a wind farm is dismantled to make way for expanded lignite coal mine

Coal rush! Energy crisis fires global hunt for polluting fuel Energy giants return to fossil fuels like coal as Europe braces for winter

UK doubles coal imports to head off winter energy crisis Poland to delay coal phaseout and open more mines amid energy crisis

## **Evolving Coal's** Three Key Principles

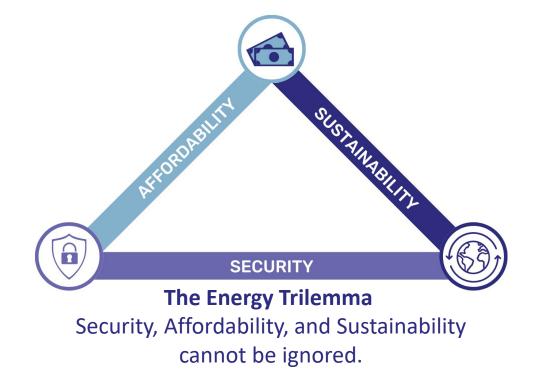
#### Principle 1 Understanding Coal's Total Contribution



Coal's contributes beyond power generation.

Coal is critical for allied industries, including cement, steel, aluminium, critical minerals, and agriculture.

#### Principle 2 Energy Trilemma Is Central



For coal-dependent countries to successfully address their Energy Trilemma, a balanced, realistic, and integrated approach, that includes coal abatement technologies is necessary

#### Principle 3 Balancing Development and Decarbonisation



**Development** and **Decarbonisation** are **not** mutually exclusive.

**Coal for Energy Security** 

#### Japan-Leading Energy Security Strategy



At the G7, Japan won endorsements for its balanced national strategy that includes coal abatement technologies, alongside hydrogen and nuclear

#### Australia – All Energy Options Needed



Australia's Former Chief Scientist, said Australia should keep all options open, including coal, until reliable alternatives are in place

#### South Africa – Relies on Coal



South Africa is the leading coal-consuming and producing country in Africa.

South Africa recognises the importance of coal to both current and future energy needs, together with the importance of abatement technology

#### Malaysia - Coal Becoming More Significant



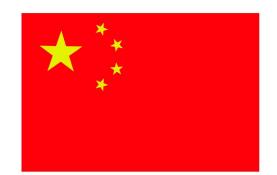
Malaysia has witnessed a growing importance of coal for energy due to security and cost concerns

#### India - Coal Will Remain Significant



Coal is expected to continue generating 55% of the country's electricity by 2030

#### **China - Continues to Increase Coal Capacity**



China approved nearly 40GW of global coal plant projects in 2022

### **Global Coal Abatement Projects**

#### Japan Is Successfully Implementing Coal Abatement Technologies



Japan's investment in clean coal technologies , notably HELE, is bearing fruit for power generation and beyond combustion applications

#### ASEAN Is Embracing Coal Abatement Technologies



The ASEAN is embracing coal abatement technologies like biomass co-firing. A technology that can lead up to 76% carbon emission reduction in the region compared to coal alone

#### India Continues to Grow Abated Coal Power



India has a total of 1,320 MW of ultrasupercritical plants in operation, and 17,800 MW under construction.

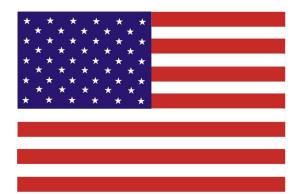
#### **China is Increasing Abated Coal Plant Capacity**



China has a total of over 277,000 MW of ultrasupercritical plants operating and more than 53,000 MW under construction

## **Embracing Methane Capture and Utilisation**

#### United States - Methane Project is Reducing Emissions



The Mountaineer Methane Capture and Utilisation Project in the United States, capturing methane from coal mine to produce electricity

#### Canada - Innovative Project Generates Electricity



The Athabasca Oil Sands Methane Capture and Utilisation Project captures methane from oil sands operations for electricity generation

**Creating A United Industry** 

#### A United Coal Value Chain = Long term Success and Sustainability



The coal industry must continue to **involve** participants across the entire coal value chain.

This is an **<u>ongoing journey</u>** involving <u>information</u> <u>dissemination</u>, <u>advocacy</u>, and <u>enlistment</u>

#### **Time To Own The Narrative**



The coal industry missed its first opportunity to own the narrative and we have all had a front row seat to see what this has meant.

Let's not miss this next opportunity to transition and transform to an abated coal technologies and solutions future

## **Future Coal Vision**

- Responsible Coal Stewardship
- Global Alliance for Sustainable Coal
- Pro-investment in abated coal technologies and solutions

- Complementary and Inclusive
  International &
  Domestic Coal
  Policies
- Sovereignty respected Choose Energy Mix

- Fact-based
- Agnostic
- Innovative
- Unified
- Collaborative
- Pragmatic
- Realistic

'Future Coal' believes in a shared goal which advances the global community development and decarbonisation goals



#### Close

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