



## Global Coal Exit List: A Regional and Country Overview of the Coal Industry

### Africa:

The coal kingdom of this continent is **South Africa**. **19** of the **39 African coal companies** featured on the GCEL are based here. With **38,548 MW** installed coal capacity, South Africa's utility **Eskom** is the **8<sup>th</sup> biggest coal power operator** worldwide. Its plans to develop an additional **9,440 MW** of new coal-fired capacity also make it the biggest expansionist on the continent. Africa's biggest coal producers are **Exxaro** (43 million tons) and **Sasol** (40 million tons). Both are also based in the "rainbow nation".

New coal projects are, however, also cropping up in many other African countries. A total of **44 companies** are planning to build **56,730 MW** of new coal-fired capacity in Africa. **25 of these companies are from overseas**, mainly from China and India, but Japan's Marubeni also plays a prominent role. The most ambitious new-build plans are in Egypt, which would go from zero to 17,240 MW coal-fired capacity. New coal plants are also planned in Malawi, Mozambique, Nigeria, Tanzania, Kenya, Swaziland, Senegal, Botswana, Zimbabwe and Zambia – all countries which have little or no coal-fired capacity up to now.

**41 companies** have plans for **new coal mines** in Africa, 24 of these have their headquarters outside of Africa. The top frontier countries of the new coal mining boom are South Africa's neighbors **Mozambique** (10 new projects) and **Botswana** (6 new projects).

### Australia:

Australia's largest coal plant operator is **AGL Energy** with **5,194 MW** installed coal capacity and an annual coal production of 30 million tons. The country's largest coal miner is **BHP Billiton**, whose combined production from its coal mines in Australia, Colombia and the USA amounted to **77 million tons** last year, making it the world's 21<sup>st</sup> largest coal producer. In Australia, the coal industry is mostly about coal mining. Among the **71 Australian companies** listed in the GCEL, 60 are coal mining or coal exploration companies of which 27 companies are also active in coal mining expansion overseas.

While Australian companies often play an important role in expanding coal mining abroad, Australia is also a prime target for international companies. The GCEL features **32 foreign coal companies** that have operations in Australia. One of the most notable is the Indian company **Adani**, which aims to develop the Carmichael mine in Australia's Galilee Basin, a project that would become Australia's largest coal mine and is opposed by 70% of Australians.

### Bangladesh:

Although Bangladesh is one of the countries hardest hit by climate change, its government is set on pushing the country's coal share of power generation from almost zero to 35%. All in all, **15,960 MW of new coal plants** are planned. The country's largest coal plant developer is the **Bangladesh Power Development Board (BPDB)** with **3,355 MW** of coal power expansion in the works. The foreign players involved are

companies from China, India and Malaysia. Among the most controversial projects is the 1320 MW **Rampal** coal power station, which threatens the unique mangrove ecosystem of the Sundarbans, an UNESCO World Heritage site. Rampal is being developed by the Bangladesh Power Development Board and India's **NTPC**.

### **China:**

While the Chinese government has begun to shift its stance on coal and put coal power projects totaling over 300,000 MW on hold last year, China still holds a singular position in the coal universe. The **world's 6 largest coal plant operators are Chinese utilities** and collectively account for 519,130 MW installed coal capacity, equal to 26% of the world's total. These 6 Chinese utilities also fill ranks 2 to 7 on the GCEL's list of the world's top coal plant developers and collectively aim to build over 150,000 MW of new coal-fired capacity. The Chinese company with the biggest coal power expansion plans (**31,587 MW**) is the **State Power Investment Corporation (SPIC)**.

China's largest coal producer is the **Shenhua Group**, which mines **433 million tons** of coal annually, making it the world's second largest coal miner. All in all, 6 of the world's top 10 coal producers are Chinese companies.

**143 Chinese companies** are featured on the GCEL, more than from any other country. **38 of these companies are engaged in coal operations abroad**, also more than from any other country. What is especially worrying is that Chinese companies are promoting coal operations in many 'frontier' countries like Tanzania, Zimbabwe, Malawi, Mongolia, Morocco, Egypt, Iran, Jamaica and Pakistan that have little or no coal-fired capacity up to now.

### **European Union:**

The largest coal plant operator in Europe is **Germany's RWE** with an installed coal capacity of **20,163 MW**. With an annual production of **91 million tons**, **RWE** is also the world's biggest lignite miner. The biggest EU-based coal producer is **Anglo American**. While headquartered in the UK, its coal mines are in South Africa, Colombia and Australia, where it produces **95 million tons** of coal annually.

Although the coal industry is in decline in Europe, some companies are still intent on expanding their coal operations: **20 companies** from the EU have coal power or mining **expansion plans outside of Europe**. Within the EU the biggest expansions are planned in **Poland**, where 4 companies are planning new coal mines and 5 companies are planning to build **10,845 MW of new coal power capacity**. The biggest among these is **PGE (5,260 MW)**, which makes it the **number one coal power expansionist** in Europe.

The company operating in the highest number of non-European countries is France's **Engie**, which owns coal power plants in Australia, Mongolia, Morocco, Chile, Peru and Brazil.

### **India:**

**Coal India** is the world's largest coal producer. Last year it mined **539 million tons**, accounting for 7% of world coal production. With over 44,000 MW of installed coal capacity, India's **NTPC** is the world's 7<sup>th</sup> largest coal plant operator. **NTPC** is also the company with the largest coal power expansion plans worldwide: **38,372 MW**.

Out of the **95 Indian companies** identified in the GCEL, **18 are active abroad**, mostly in coal mining. Two companies that stand out in terms of their overseas activities are

**Jindal Steel & Power**, which plays a key role for the expansion of coal mining and coal power in several African countries, and the **Adani Group**, which is aggressively pushing forward coal projects in Indonesia and Australia.

#### **Indonesia:**

The country's top coal burner is the state-owned utility **PLN**, whose installed coal capacity is **14,996 MW**, making it the world's 20<sup>th</sup> largest coal plant operator. With an annual coal production of over **86 million tons**, the company **Bumi Resources** is Indonesia's largest coal producer and ranks 19<sup>th</sup> in the world. Almost all of the **47 Indonesian coal companies** the GCEL identifies are only active in-country, and mostly in the mining sector.

The picture would be incomplete, however, without mentioning that Indonesia is a favorite playground for the international coal industry. **52 foreign companies from 13 countries** are operating here and play a key role for the industry's rapid expansion. 18 new coal mines are planned by foreign companies, mainly from Australia and India. And foreign companies are major players in Indonesia's enormous coal power expansion plans, which total 45,870 MW, **the 4<sup>th</sup> largest new-build pipeline** for coal plants worldwide.

#### **Japan:**

Japan's biggest coal plant operator is **J-Power**, also known as "Electric Power Development", with **9,400 MW** installed coal capacity. The biggest Japanese coal miner is **Sumitomo**, whose Australian coal mines produce **40 million tons** annually. According to Sumitomo's webpage, it sees coal as a strategic growth area and wants to begin promoting coal mines and associated infrastructure as a package in other countries. In fact, most of the Japanese companies featured on the GCEL are still on a coal expansion course. Out of **22 companies**, 16 have coal power expansion plans. Most notable among these is **Marubeni**, which wants to develop new coal plants in **9 Asian and African countries**. Marubeni is the world's 26<sup>th</sup> largest coal plant developer.

#### **Latin America and the Caribbean:**

The region currently has **17,909 MW of installed coal capacity**. The largest coal plant fleets are in Mexico (5,351 MW), Chile (5,101 MW) and Brazil (4,355 MW). There are, however, projects totaling **8,427 MW in the pipeline**. These are spread over 7 countries: Chile (2,647 MW), Brazil (1,540 MW), the Dominican Republic (1,070 MW), Venezuela (1,000 MW), Jamaica (1,000 MW), Colombia (850 MW) and Panama (320 MW). Popular movements, especially in Chile and the Dominican Republic are challenging these projects.

The GCEL identifies **14 coal companies** headquartered in Latin America: 5 in Brazil, 5 in Colombia and one each in Peru, Venezuela, Chile and the Dominican Republic. The most prominent foreign companies operating coal plants in Latin America are **AES, Enel and Engie**.

Latin America's main coal producer remains Colombia (90 million tons in 2016), but the country's coal mining sector is completely dominated by foreign companies, most notably **Drummond** from the US and the multinational miners **Glencore, BHP Billiton** and **Anglo American**. Drummond and Glencore have been accused of collaborating with paramilitary groups that operated in Colombia's Cesar region until 2006. But even today community leaders in Cesar must fear death threats and assassinations if they criticize the mining industry.

### Myanmar (Burma):

Myanmar's coal-fired capacity is set to grow from 160 MW to **5,130 MW**. Out of the 9 companies planning new coal plants in Myanmar, **7 are from other Asian countries**. The largest project is the **Tanintharyi power station** with a planned capacity of **2,000 MW**. It is being developed by Marubeni, EGAT and Global Power Synergy, a subsidiary of the Thai company PTT Energy Resources.

### Pakistan:

Pakistan is one of the prime frontier countries for coal power expansion. The country currently has only 190 MW of installed coal capacity, but projects totaling **15,278 MW** are in the pipeline. Most of the new coal plants are planned in the Thar Area in Sindh Province, a region already suffering from extreme water shortage.

The driving force behind this 80-fold coal power expansion is the government-negotiated China-Pakistan Economic Corridor and the contracts it generates for Chinese companies. **Out of the 14 coal companies active in Pakistan, 9 are Chinese.**

### Philippines:

In spite of the Philippines' enormous renewable energy potential, **7 Philippine and 6 foreign companies** are planning to build coal plants totaling **13,769 MW** and almost doubling the country's installed coal capacity. Virtually all of these projects are being challenged by local and national civil society organizations, including the Catholic Church. The largest coal-based utility in the Philippines is the **San Miguel Corporation** with an installed coal capacity of **1,300 MW**. The largest Philippine coal plant developer is, however, **Meralco** which plans to build **2,090 MW** of new coal capacity. Among the most prominent foreign companies planning new coal plants in the Philippines are **AES** from the US, **KEPCO** from South Korea and **Marubeni** from Japan.

### Russia:

The country's number one coal miner is the "Siberian Coal Energy Company" SUEK. In 2016, **SUEK** mined **105 million tons** of coal, which makes it the world's **10<sup>th</sup> biggest coal producer**. The country's biggest utility is **Inter Rao** with **7,960 MW** of installed coal power capacity. Inter Rao is also Russia's largest coal plant developer.

**20 Russian companies** are profiled on the GCEL, but the fact that many Russian companies do not issue annual reports was a serious constraint for our research. It is therefore likely that the GCEL only covers the largest Russian companies operating in the sector.

The GCEL also identifies **7 foreign companies** active in the Russian coal sector. "**Coeclerici Coal and Fuels**" from Italy prides itself on having been the first western company to acquire a thermal coal mine in Russia. The largest foreign player is, however, the **State Grid Corporation of China**, which has entered into a partnership with **Inter Rao** to build the **8,000 MW Erkovetskaya** power plant in Russia's Amur Province. If built, Erkovetskaya would be the **world's biggest coal-fired power station**.

### South Korea:

South Korea's number one coal player is **KEPCO**: The Korea Electric Power Corporation has **27,327 MW** of installed coal fired capacity and aims to build **10,795 MW** of new coal power capacity in South Korea and 6 other Asian and African countries.

This makes it the world's **10<sup>th</sup> largest coal plant developer**. KEPCO is not alone in its endeavor to spread the coal industry beyond Korea's national borders. Out of **8 South Korean companies** listed in the GCEL, **6 are active overseas**, mainly in the coal power area. Only one company is active in the mining sector abroad: **LG International** is exploring new coal fields in Canada, China and Indonesia.

### **Thailand:**

Thailand presently only has around 5,400 MW of installed coal capacity, but Thai companies plan to build an additional **7,900 MW**, an increase of 145%. The most important driver of this expansion is **EGAT**, the country's state-owned utility. Its plans have, however, unleashed widespread protests by civil society organizations throughout the country.

Thailand's largest coal miner is **Banpu**, which produces **51 million tons** of coal annually, and is also developing new coal mines in Australia and Mongolia.

While there are no foreign coal companies operating in Thailand, 8 of the **12 Thai companies** listed in the GCEL also have coal operations abroad. Thai companies aim to build new coal power stations in Myanmar, Cambodia, the Philippines and Vietnam.

### **Turkey:**

Turkey is the country with the **largest coal expansion plans after China and India**. Out of the **34 Turkish companies** listed in the GCEL, **24 want to build new coal plants**. The GCEL also identifies 7 foreign companies involved in new coal power projects in Turkey. If all these plans go ahead, **69,492 MW** would be added to Turkey's installed coal capacity, a 4-fold increase. Many of these projects are highly contested by the affected communities.

**EÜAS** is Turkey's largest utility with an installed coal capacity of **3,159 MW**. With plans to build an additional **5,800 MW**, the company is also Turkey's largest coal plant developer. EÜAS also owns the country's **largest lignite reserve**, the Afşin-Elbistan Basin with 4.8 billion tons of coal, constituting approximately 33% of the country's total lignite resources.

### **United States:**

The largest coal producer in the US is **Peabody Energy** with an annual production of **159 million tons**. Peabody Energy is also the 5<sup>th</sup> largest coal miner worldwide. The largest coal plant operator in the US is **Southern Company** with an installed coal-fired capacity of **19,141 MW**, which makes it the 15<sup>th</sup> largest coal plant operator worldwide. The US-based company with the **largest number of coal power stations overseas** is **AES**, which is active in 12 foreign countries and planning new coal power plants in India and the Philippines.

### **Vietnam:**

While Vietnam currently only has around 13,400 MW installed coal capacity, its new-build pipeline of coal power stations is the 5<sup>th</sup> largest worldwide and amounts to **44,757 MW**. However only about 1/3 of the planned coal capacity will be owned by Vietnamese companies. Most notable here are **EVN** (7,142 MW), **PetroVietnam** (3,600 MW) and **Vinacomin** (3510 MW). Prominent among the foreign players pushing new coal power plants are companies from China, Japan, India, Malaysia, Thailand and South Korea.

Note: All information on the coal power pipeline of individual countries was drawn from CoalSwarm's "Global Coal Plant Tracker", which maps all existing and proposed coal-fired power stations worldwide.