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SUSTAINABLE ENERGY FOR ALL

CLIMATE POLICY INITIATIVE

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EXECUTIVE SUMMARY

1

Investment in new coal-fired power plants persists globally despite misalignment with a net-zero economy and the falling costs of renewable energy technologies. This knowledge brief highlights the political and economic dynamics underpinning recent investments in coal-fired power in 18 high-impact countries (HICs)[1], defined as the countries with the highest absolute gaps in access to electricity. South Asian HICs Bangladesh, India and Pakistan have received the majority of finance commitments to new coal plants since 2013, and African HICs Madagascar, Mozambique, Malawi, Niger and Tanzania all host active coal plant development.

For the 18 HICs analysed, international public finance has comprised the highest proportion of finance committed to new coal-fired power plants since 2013. This compares to renewable power plants, where nearly 60 percent of finance for new projects has been committed by domestic private investors in the same period. Financial institutions based in China account for 40 percent of the total USD 42 billion in finance committed to coal-fired power plants in HICs between 2013 and 2019. Though Chinese institutions are the largest coal investors in HICs, privately held financial institutions based in the US currently account for 58 percent of all investment in the global coal industry (Urgewald 2021).

Distributed renewable energy generation provides the most efficient path to scale up access to electricity in the near-term.

Countries receiving coal power finance face substantial socio-economic and environmental risks associated with the newly commissioned, carbon-intensive assets. For instance, infrastructure constraints and lower than expected demand in Bangladesh and Pakistan have resulted in underutilization of newly commissioned coal-fired power plants, highlighting the stranded asset risk associated with their construction. Should Sub-Saharan African nations continue to develop new coal-fired power generation capacity, they are likely to face similar challenges and costs. Further, the long development timelines associated with thermal power generators and their supporting infrastructure make it impossible for coal to increase electricity access to meet Sustainable Development Goal 7's (SDG7) target of universal access by 2030. Distributed renewable energy generation provides the most efficient path to scale up access to electricity in the near-term.

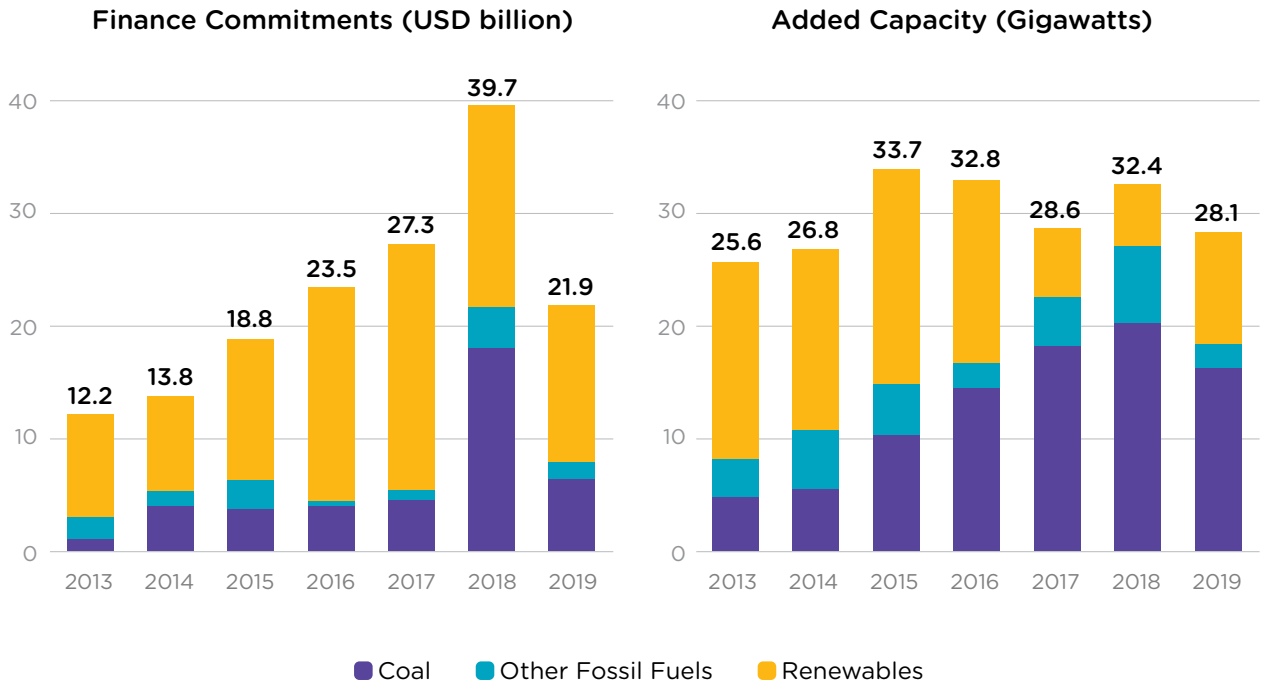
[1] High-impact countries are defined in this analysis as reported in the Tracking SDG 7: The Energy Progress Report. This brief will focus on the 18 HICs in South Asia and Africa, which are: Bangladesh, Pakistan and India in South Asia; Angola, Burkina Faso, Chad, DRC, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Nigeria, South Sudan, Sudan, Uganda and Tanzania in Sub-Saharan Africa. This analysis excludes Myanmar and North Korea given that the unique geopolitical and finance environments in those two countries present challenges to data availability.

INTRODUCTION 2

Coal has played a leading role in electrifying the globe, first among the developed country members of the Organisation for Economic Co-operation and Development and more recently in the developing countries of Asia and Africa. With large and growing populations still lacking access to electricity, parts of South Asia and Sub-Saharan Africa will dictate whether this trend continues at scale. Using the framework developed for SEforALL's *Energizing Finance research series*, this brief aims to summarize the political and economic drivers behind finance commitments for coal projects in 18 high-impact countries (HICs), defined as the countries with the highest absolute gaps in access to electricity.

FIGURE 1

Grid-Connected Generation Capacity in HICs (2013-2019)[2,3]

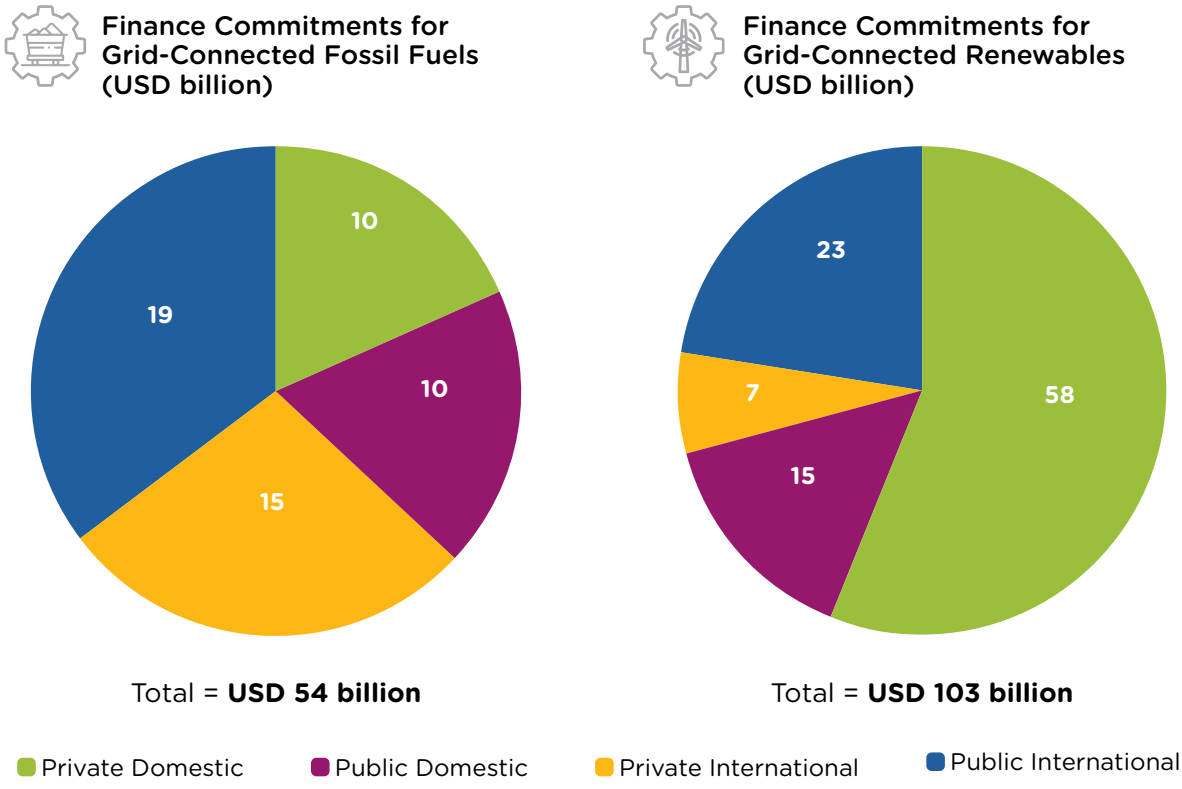


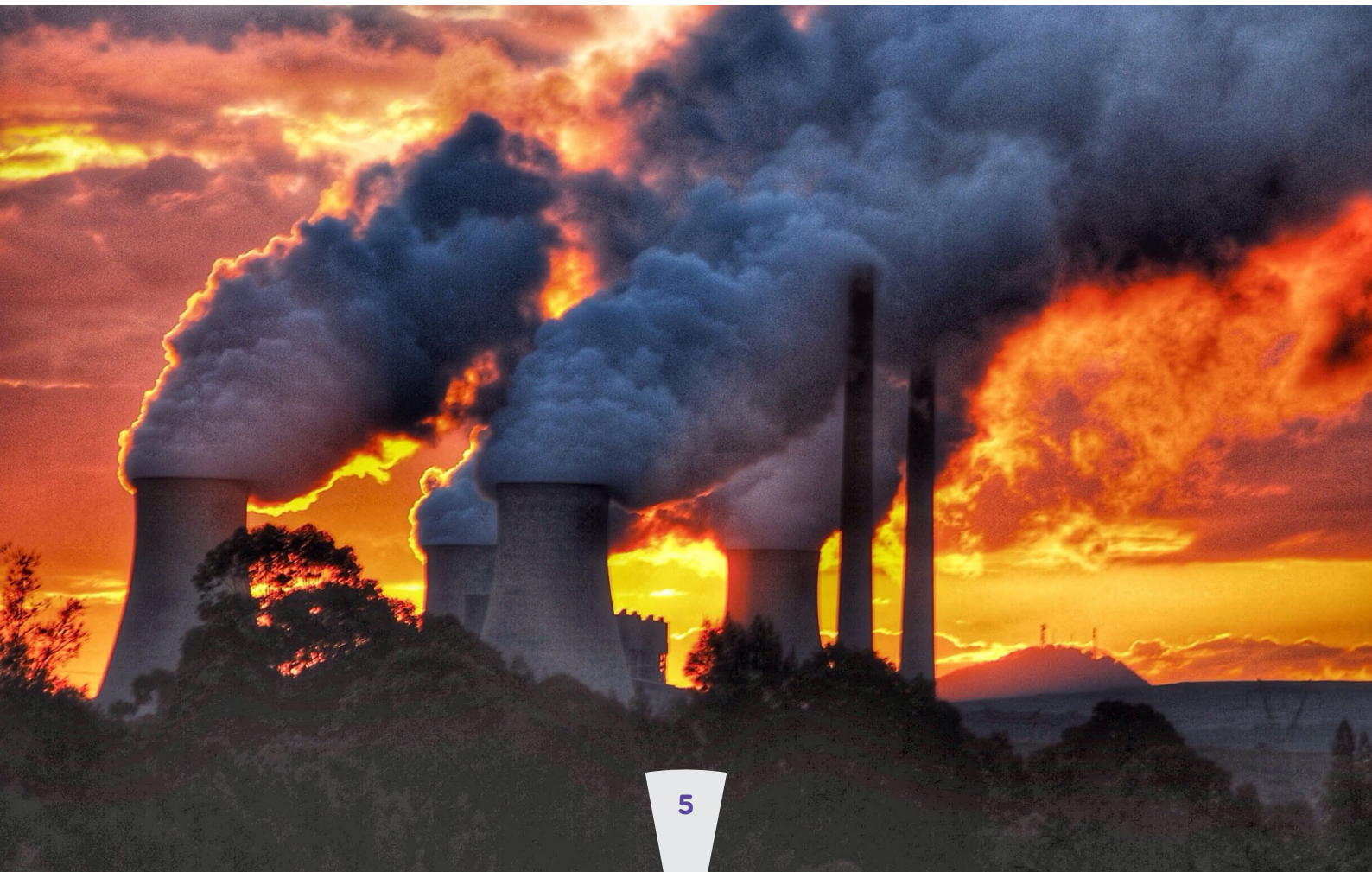
[2] Note: Finance commitments to grid-connected renewables include solar, wind, hydro, geothermal, biofuels and biomass. Grid-connected fossil fuel figures exclude investments in off-grid diesel generation, which comprises a substantial proportion of electricity investment in HICs with limited or unreliable grid access.

[3] Finance commitments per CPI data; added capacity per BNEF. Timeframe from 2013 to 2019 corresponds with SEforALL's aforementioned Energizing Finance research series.

FIGURE 2

Sources of Finance for Grid-Connected Fossil Fuels and Renewables (2013-2019)





COAL FINANCING IN HICs

3

The recent downward trend of global investment in coal-fired power plants shown in the IEA's *World Energy Investment 2021* report reflects both the growing sentiment that new coal power generation capacity is misaligned with achieving a net-zero economy by 2050, and the diminishing economic case for coal versus alternative generation sources (IEA 2021).[4] However, this broad trend does not necessarily hold in the context of South Asian and Sub-Saharan African HICs. Despite geopolitical, environmental, technological, public policy and economic headwinds facing coal, several major funders continue to finance additional coal generation capacity in these HICs.

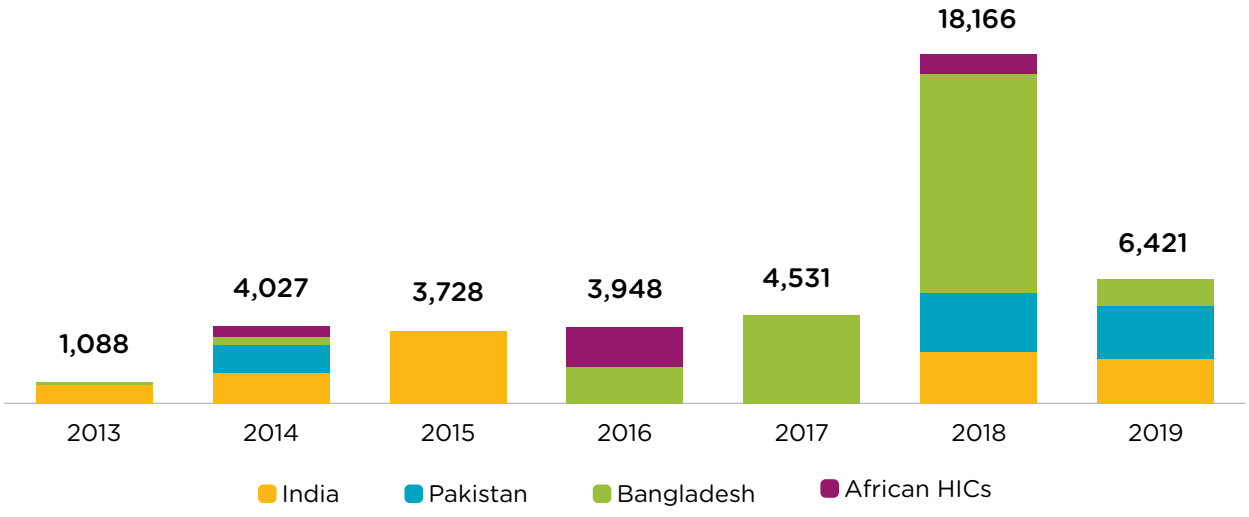
3.1 RECIPIENTS OF COAL FINANCE IN KEY REGIONS

Coal finance is concentrated in a small group of countries. Global demand for new coal-fired power plants is becoming increasingly concentrated as sources of finance for new plants tightens and more countries announce their respective exits from coal. However, as of 2021 new coal-fired power plants are under active development in eight of the 18 HICs assessed in this analysis. These are Bangladesh, India, Pakistan, Madagascar, Malawi, Mozambique, Niger and Tanzania.[5]

Of these eight HICs, India is expanding new coal-fired power generation capacity at by far the greatest scale and is home to 87 percent of the total coal generation pipeline currently under active development in HICs (Table 1) (Global Energy Monitor 2021a).[6] India has also signaled its intention to further exploit its coal resources by auctioning off 67 coal mine blocks to the private sector as part of an effort to liberalize its coal mining industry (India Ministry of Coal 2021). Nevertheless, new finance commitments to coal plants in India have slowed in recent years, representing only 20 percent of such commitments among HICs in the three years from 2017-2019 on average, compared to 45 percent in the three years from 2014-2016. Since 2016, Chinese financial institutions have committed USD 14 billion to finance coal plants in Bangladesh, Pakistan and Kenya, driving the uptick of coal finance to HICs outside of India (Figure 3).

FIGURE 3

Finance Commitments for Grid-Connected Coal in HICs (USD million)[7]



[4] The IEA (2021) showed that global spending on coal-fired power plants has dropped 80 percent over the past five years.
[5] Projects under active development include all projects that have been announced, but not yet cancelled, shelved, or comissioned.
[6] Calculated on a nameplate capacity basis. Includes projects in the pre-permit, permitted and construction phases as defined by Global Energy Monitor.
[7] Annual figures reflect finance commitments at the time they were made in order to reflect the landscape of finance as it was in specific years, and therefore include projects that have subsequently been cancelled.

The dynamics of coal finance in India are complex, unique and relatively well-documented in the broader literature.[8] Therefore, this brief instead focuses on the less well-publicized dynamics driving supply and demand for coal finance in other South Asian nations, and in Sub-Saharan Africa.

Policy environments are informing current flows of finance to coal. Whether a country's national policy environment is hospitable to coal-fired power plant development is a fundamental determinant of its demand for new coal finance. As shown in Table 1, Pakistan and Bangladesh made explicit policy statements in 2020 to end approvals for new coal projects. However, both countries are proceeding to complete a significant number of coal projects that were already under construction. Meanwhile, several African HICs include coal in their plans for future power system development.[9]

Prior to Bangladesh's announcement in 2020 that it would cancel 84 percent of its 33-gigawatt (GW) pipeline of new coal plants, it was set to increase its total coal-fired generation capacity 63-fold over the current installed capacity (IEEFA 2020a). Had the pipeline been commissioned in its entirety, it would have emitted 115 MtCO2 per year in aggregate, more than 50 percent more than the 75 MtCO2 of conditional power sector emissions by 2030 reflected in Bangladesh's Intended Nationally Determined Contribution (INDC) under the Paris Agreement.[10]

Pakistan, which rapidly commissioned its 5-GW operating fleet of coal-fired power plants from 2016 to 2019, also announced in 2020 that it would cancel an estimated 70 percent of its 6-GW coal plant pipeline (Global Energy Monitor 2021a). New projects beginning construction in Pakistan peaked at just under 3 GW in 2016 and have since declined to zero in 2020 as the government announced the cancellation of its coal power plant pipeline at the end of the year.[11] Though Pakistan's announcement lacks detail and still includes plans to use its domestic coal reserves via conversion into synthetic gas and diesel, it nevertheless represents a positive step towards decarbonization (IEEFA 2021a).

African HICs, which together host 2.7 percent of coal generation capacity under active development among all HICs, tend to remain quiet on specific plans to exclude coal from their electricity mix. Rather, the overarching policy environments in African HICs tend to remain largely hospitable to coal, despite the challenging economics, limited access to finance, infrastructure constraints and public opposition, which have all limited coal development to date. In lieu of explicit government plans regarding coal's future, de facto exclusion of new coal-fired power plants can be inferred based on an absence of government approvals for new projects. Colour ratings in Table 1 indicate the level of policy support for new coal-fired power plants among HICs, where, based on stated policy positions, red is likely, yellow is moderate and green is unlikely to pursue new coal plant development in the future.[12]

[8] See Brookings (2018 & 2019), Montrone et. al (2021), Oskarsson (2021), Overseas Development Institute (2018), and CEEW (2021) [9] Projects under active development include all projects that have been announced, but not yet cancelled, shelved, or comissioned.
[9] See Cholibois (2020), Malawi National Energy Policy (2018), Integrated Master Plan Mozambique Power System Development (2018); Energy Mix Report (2019), and Tanzanian Power System Master Plan (2016).
[10] See Market Forces (2015) and Bangladesh Intended Nationally Determined Contributions (2015)
[11] See Global Energy Monitor (2021a) and IEEFA (2020b)
[12] Projects under development are those that have been announced, are conducting pre-permitting work, or have been permitted but have not yet begun construction. Projects under construction have commenced physical work and are therefore more likely to ultimately commence operations.

TABLE 1

Policy Position in HICs with Coal Power Plants Under Development

Region	Country	Cool Capacity Development	Policy Environment	Rating
Africa	**Madagascar**	60MW under development	No explicit policy statements. Interviews conducted by Cholibois (2020) indicated that the Presidency remains willing to grant coal concessions to foreign investors.	
	Malawi	400MW under development	National Energy Policy: Government will "promote coal as a fuel for power generation" and "encourage the private sector to take a leading role in the coal industry subject to regulatory and licensing requirements" (Government of Malawi 2018).	
	Mozambique	800MW under development	Power System Master Plan: "It is necessary to facilitate development of coal and natural gas for future growth of industrial field" (Republic of Mozambique 2018).	
	Niger	200MW under development	Support among government officials, including the President, citing need for coal to increase energy supply (Energy Mix Report 2019).	
	Tanzania	420MW under development	Power System Master Plan: "The system expansion plan considered all energy resources available within the country which includes hydro, natural gas, coal, solar, wind and geothermal" (Republic of Tanzania 2016).	
South Asia	**India**	36,635MW under development 23,358MW under development	National Electricity Plan: "Government of India is promoting supercritical technology for coal-based power plants." (Government of India 2018). Announcement in 2020 by Power Minister that coal would increasingly be replaced by renewable energy (Reuters 2020).	
	Pakistan	3,300MW under development	Announcement in 2020 by Prime Minister Imran Khan that no new coal power generation capacity would be approved (IEEFA 2020b).	
	Bangladesh	4,094MW under development	Announcement in 2020 by Energy Ministry`that no new coal power generation capacity would be approved (Power Technology 2021)"	

Source: Global Energy Monitor 2021a

Economic considerations are critical in determining flows of coal finance. Unlike the South Asian HICs, coal does not play a material role in the electricity generation mix of African HICs.[13] The absence of coal-fired power plants obviates the need for costly coal supply chains and other supporting infrastructure. These ancillary investments serve as incremental costs that must be incurred to operate coal plants, further challenging the economics for new coal-fired generation. Consequently, the economic case for renewable energy as a viable alternative to coal is reinforced as the marginal cost of fuel is essentially free, technology can frequently be deployed in a modular fashion and decentralized solutions can be deployed locally without the need for costly, long distance transmission infrastructure.[14]

Prospective funders of a new coal-fired power plant in, say, China or India would capitalize on a robust supply chain, supporting infrastructure and technical expertise developed over the course of decades. Conversely, building the *first* coal plant in a HIC such as Uganda would not only require investment in the plant itself, but also in ancillary infrastructure to enable the plant to operate over its multi-decade lifespan. Depending on individual country characteristics, such investments could include coal mines, railways to deliver coal overland or ports to import coal by sea, and training a workforce with the technical expertise to undertake ongoing plant operation and maintenance.

For countries lacking domestic coal resources, reliance on imported coal raises energy security concerns and exposes essential power systems and services to long-term fuel price volatility. Meanwhile, although availability of locally sourced coal may reduce the total operating cost of a coal-fired generator and offer some degree of energy security, coal mining exposes a country's population not only to significant adverse health and safety risks in the short-term, but also to employment in a declining industry, which is likely to lead to skill obsolescence in the medium- to long-term as coal assets are increasingly stranded (Hendryx et al. 2020). Further, a country building its first coal plant must ensure that transmission and distribution infrastructure is sufficient to reliably deliver electricity from a large, centralized generator to a diffuse population. Investment in robust *distribution* infrastructure at the local level is crucial regardless of the fuel source used to generate electricity. However, the centralized nature of coal plants makes them acutely reliant on the large-scale *transmission* infrastructure that delivers electricity long distances at high voltage.

Before a country can introduce coal into its electricity generation mix, it must first weigh and resolve each of these issues from scratch. The significant up-front costs of developing a country's first coal plant helps explain the very high failure rate of proposed coal projects in HICs without existing coal infrastructure. Of the 20 GW of coal projects that have been planned in African HICs, to date 18.1 GW have been shelved or cancelled, leaving only 1.9 GW still under development across the five African countries shown in Table 1 above (Global Energy Monitor 2021a).

3.2 SOURCES OF COAL FINANCE TO HICs

Finance for the global coal industry is increasingly drying up as many funders pull out. The spectrum of public and private institutions that finance new coal-fired plants is increasingly concentrated as global capital shifts away from coal. With the African Development Bank (AfDB), Asian Infrastructure Investment Bank (AIIB) and Asian Development Bank (ADB) announcing their respective exits from coal over the past two years, seven of the eight largest multilateral development banks (MDBs) have now adopted coal plant exclusion policies.[15]

To date, 80 national and sub-national governments from around the globe have joined the Powering Past Coal Alliance, a coalition of governments and businesses that have committed to halting new coal financing and phasing out existing coal power in OECD countries and the EU by 2030 and in the rest of the world by 2050. However, European and North American countries pulling back from coal-fired power generation has a limited impact on coal power plant development

[13] There are currently two coal-fired power plants in African HICs, one in Niger and another in Madagascar, which powers a nickel mine. Neither power station plays a material role in the grid-connected generation mix.
[14] Electric grid infrastructure consists of a network of transmission and distribution lines. Transmission infrastructure are intended to transport electricity over long distances at high voltage, while distribution infrastructure transports electricity locally at low voltage.
[15] See AfDB (2019), Climate Home News (2021) ADB (2021), World Bank Group (2013), Bankwatch Network (2013), E3G MDB Matrix, and Financial Times (2018). Each of the World Bank Group (WBG), European Investment Bank (EIB), Inter-American Development Bank (IADB), and European Bank for Reconstruction and Development (EBRD) have previously annouced exits from coal. At the time of writing, the Islamic Development Bank (IsDB) had not announced a coal exit policy.

in HICs, as most recently 95 percent of international public finance for coal projects has come from China (65 percent), Japan (23 percent) and South Korea (8 percent) (Global Energy Monitor 2021b). All the more important, therefore, have been South Korea and Japan's respective announcements over the past year that they would stop financing new coal plants overseas (WRI 2021).

In adopting coal exclusion policies for their international financing activities, Japan and South Korea have now joined other developed country governments and their export credit agencies in North America and Europe that have made similar announcements.[16] These were further buttressed in 2021 by G7 members' unified commitment to stop financing coal-fired power plants outside their own borders, by the end of the year (BMU 2021). As a result, China remains the last major government not to have committed to ending finance for overseas coal plants for reasons discussed in greater detail below.

Though less definitive than commitments made by many governments and MDBs, a critical mass of private financiers has also taken steps to curb direct financing of emissions-intensive activity, such as coal-fired electricity generation. Fifty-three financial institutions representing nearly one quarter of global banking assets have joined the UN's Net Zero Banking Alliance, which reflects a commitment to aligning the institutions' loan portfolios with net-zero emissions by 2050. Some of the world's most prominent lenders have now issued commitments to align their investment portfolios with net-zero emissions, including the four largest commercial banks in the US, the three largest banks in the UK, and the nine largest banks in mainland Europe.[17] However, loopholes exist in many such corporate policies, which still enable lending to coal plant developers.

Net-zero commitments were extended and accelerated ahead of COP26 as the UN's Race to Zero campaign broadened its scope to encompass all financial subsectors, with 160 financial institutions representing over USD 70 trillion of combined assets signing onto the Glasgow Financial Alliance for Net Zero (GFANZ). The involvement of such a broad range of financial intermediaries, including banks, insurers, asset managers and other investors, is necessary to map any pathway to a net-zero global economy.

According to the IEA, as of 2020 asset managers and brokerage firms comprised 80 percent of institutional capital invested in publicly traded energy companies (IEA 2020). Launched in 2020, the Net Zero Asset Managers Initiative purportedly commits its 128 signatories to align their collective USD 43 trillion in assets under management with a pathway to net-zero emissions by 2050 or sooner, in an effort to stave off global warming in excess of 1.5 degrees Celsius. As in the case of commercial lenders, however, climate commitments by asset managers to date have left room for continued investment in companies operating in the coal industry.

Another leading indicator of the eventual end of coal finance is the end of coal insurance. Without viable insurance options, the financial risk of coal infrastructure will simply be too great for investors to bear (Insurance Journal 2021). As an industry that revolves around risk assessment, the insurance industry is also theoretically well-equipped to act as a bellwether for an end of reliance on coal more broadly. European and Australian insurers have led the way in halting their support for coal projects, with insurers based in the US beginning to follow suit.[18]

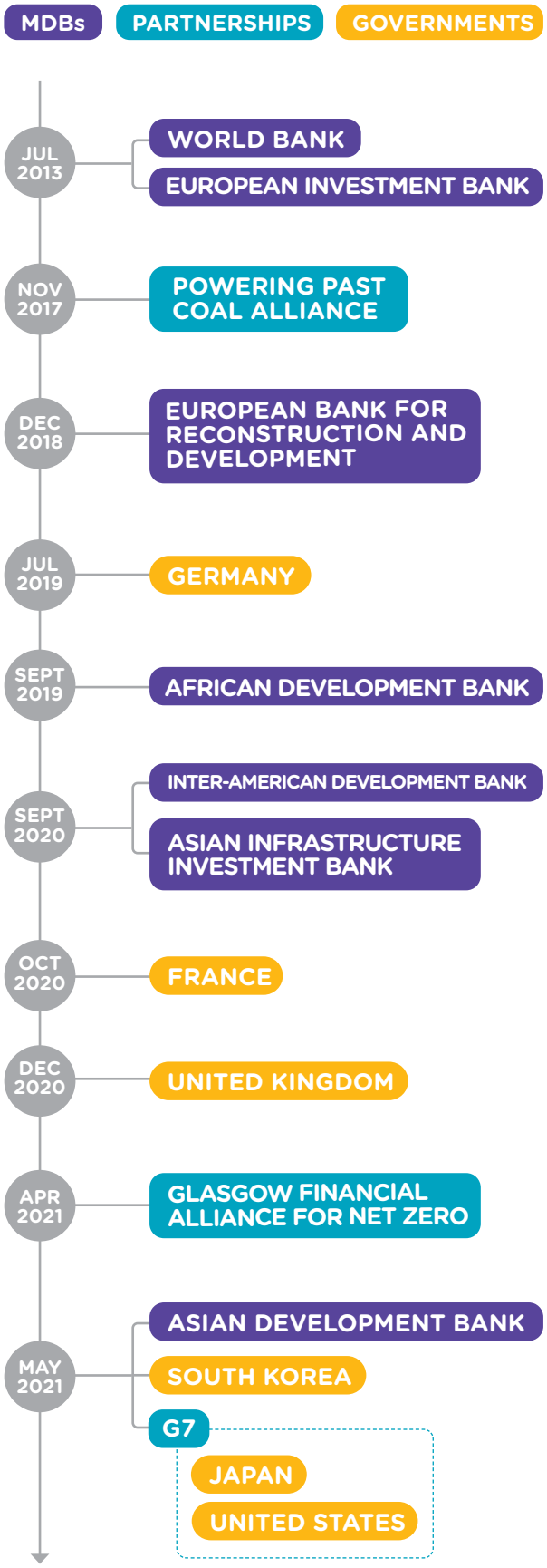
As in the case of direct finance for new coal power plants, Chinese state-owned enterprise Sinosure also lags the market. Sinosure has provided insurance at below-market rates to Chinese financiers of overseas coal plants, including in HICs, as part of a broader trend of Chinese support for overseas coal projects (Energy Foundation China 2018). This trend is outlined in greater detail in the '*Chinese public finance for new coal infrastructure*' section below.

To illustrate the accelerating pace of financiers distancing themselves from coal, Figure 4 highlights some of the key announcements referenced above. The exact scope of a 'coal exit' announcement depends on each individual institution, with some reflecting firm and immediate commitments and others reflecting more limited, long-dated commitments. Nevertheless, the sheer volume of commitments reflects the growing recognition by financiers globally that the coal industry is unsustainable. Figure 4 is limited to reflect only announcements pertaining to international finance for coal-fired power plants. Detail on the specifics of each commitment shown in Figure 4 can be found in Appendix I.

[16] See Financial Times (2015), Washington Post (2013) and IEEFA, Finance is Leaving Thermal Coal tracker
[17] See US Federal Reserve (2021), Scientific American (2021), TheBanks.eu (2020) and Insider (2021)
[18] See IEEFA (2021b); Insurance News (2021); Moodys (2020)

FIGURE 4

Timeline of Coal Finance Exit Announcements



Financial institutions' stated climate goals and business practices are often misaligned. Overall commitments by MDBs, governments and private financial institutions to exit coal are undercut by two notable sources of finance: 1) commercial financial institutions, which account for the majority of global coal finance despite their public messaging, and 2) Chinese state-owned financial institutions, which have accounted for 38 percent of all international finance commitments to coal in HICs since 2013, despite China's re-orientation of its domestic energy policy towards renewables.[19] Though both the commercial finance sector and the Chinese government have acknowledged that continued financing of coal-fired power plants is unsustainable, their lending policies are often inconsistent with demonstrable change.[20]

Commercial financial institutions' continued commitment to coal companies. Of the world's 60 largest commercial and investment banks, 38 have implemented policies to exclude project finance for coal-fired power plants. However, the majority continue to indirectly fund coal projects through corporate finance for project sponsors and other companies that are deeply involved in the coal industry. Only 24 of the world's largest 60 banks have exclusionary policies towards companies developing new coal power plants. From 2016 through 2020 – the five years following the Paris Climate Conference – the 38 banks that exclude direct finance for coal-fired power plants provided over USD 52 billion to the 30 largest coal power plant developers in the world, including those with operations in HICs (RAN 2021). Even banks that have positioned themselves as climate leaders within the commercial lending industry, such as JP Morgan Chase, Barclays and UBS, have funded companies engaged in coal project development as recently as 2020, the most recent year for which data is available (RAN 2021). This type of corporate finance for coal project developers poses a challenge to bottom-up finance tracking methodologies such as that used by SEforALL and CPI in the annual *Energizing Finance: Understanding the Landscape* reports.[21]

[19] See Urgewald (2021) and Chen et al. (2020)
[20] See CFR (2021); RAN (2021); Reclaim Finance
[21] The indirect nature of coal finance obscures the precise source of capital for specific coal power projects as finance secured by corporate parent companies may ultimately be deployed via subsidiaries and partnerships (See CPI 2020). This results in a gap between the dirty finance that can be allocated to specific investors and the total finance invested in coal projects. This omission of project level granularity is problematic in that it shelters financiers from accountability for the emissions they enable.

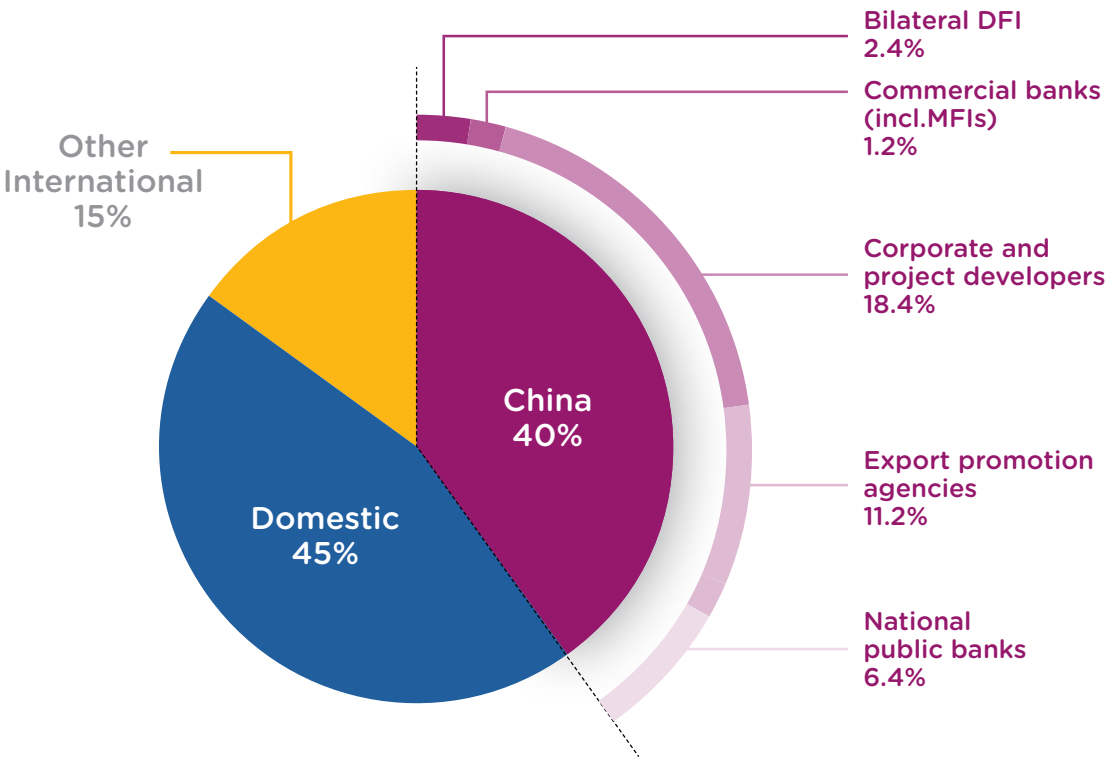
In addition to investments by the world's largest banks, American asset managers Vanguard and BlackRock have combined investments of USD 170 billion in the coal industry, making them by far the largest two coal investors globally despite being signatories to the Net Zero Asset Managers Initiative (Urgewald 2021). To date, Vanguard has not made any specific commitments to exclude coal from its investment portfolio, while BlackRock's policy of not investing in companies that generate more than 25 percent of their revenues from coal production is porous to the point that it has not had a significant impact on BlackRock's broader investment strategy. Until its two largest signatories take tangible steps to curb carbon emissions, it appears that the Net Zero Asset Managers Initiative will remain aspirational.

Chinese state-owned institutions finance an outsized portion of new coal infrastructure in HICs. While commercial financial institutions are the largest source of coal finance globally (Urgewald 2021), the volume of coal finance provided to HICs by commercial lenders pales in comparison to that of the major Chinese state-owned financial institutions, namely the Export Import Bank of China (China Exim), the Industrial and Commercial Bank of China (ICBC) and the China Development Bank (CDB). Through the Belt and Road Initiative (BRI), the influence of Chinese finance in HICs is particularly pronounced. Of total finance commitments to coal-fired power plants in HICs since 2013, 40 percent have originated from financiers in China.

In total, Chinese institutions have committed over USD 16 billion to finance 12.7 GW of coal-fired power plants in five HICs - India, Pakistan, Bangladesh, Kenya and Malawi - with 63 percent of this amount committed via the China-Pakistan Economic Corridor (CPEC). Chinese public and private firms backed a further 36.1 GW of planned coal plants in the HICs through either loans, equity sponsorship, or engineering, procurement and construction (EPC) services. However, these projects are excluded from finance commitment data as they were cancelled or shelved prior to the public release of financing details.

FIGURE 5

Chinese Investments in Coal Plants in HICs (2013-2019)



Before China was investing in foreign coal power plants, it aggressively developed a domestic coal industry from the late 1990s through the 2000s. Following the Paris Climate Conference in 2015, China refocused its domestic energy policy towards renewables. President Xi Jinping went further in 2020, formally pledging that China would reach peak emissions before 2030 and achieve a net-zero economy by 2060 (S&P Global 2020). This policy shift, along with slowing electricity demand growth domestically, has dramatically affected China's coal industry and resulted in surplus capacity along the supply chain for new coal-fired power plants (e.g., EPC services and ongoing supply of coal from Chinese mines). A key driver of Chinese coal finance to HICs has been the government's aim to provide jobs to Chinese coal industry workers by exporting surplus capacity abroad.[22] As a result, along with finance commitments, Chinese-backed coal power projects tend to include large contracts for Chinese EPC companies (Foreign Policy 2019).

Rather than imposing environmental standards of its own, the BRI adheres to the local environmental standards of each country in which BRI projects are implemented, limiting the extent to which improvements to domestic Chinese carbon policies impact finance commitments abroad. Of the Chinese-backed coal-fired power plants in HICs for which details are publicly available, 20 percent of total planned generating capacity has utilized cheaper yet outdated and highly polluting subcritical coal technology.[23] During the same period in which China has been funding coal-fired power plants abroad, only 5 percent of the capacity planned within China's borders has used subcritical technology, with most using modern supercritical and ultra-supercritical designs that are more efficient and less polluting.[24] China has therefore monetized excess subcritical technology while the emissions arising will count against INDCs in the relevant project host countries.[25]

Ultimately, it is the demand for new coal-fired power plants by countries seeking to expand their overall generating capacity that drives Chinese backing of coal plants abroad. However, China does provide a compelling value proposition: along with physical coal technology, China offers technical expertise and attractive financing terms to build and commission new coal plants in a timely and cost-effective manner.[26] Compared to alternative sources of finance from MDBs and other development finance institutions (DFIs), Chinese finance comes at lower cost and with fewer strings attached.[27]

Recent challenges faced by BRI-funded coal projects in South Asia may dissuade China from providing finance for similar projects in the future. Since 2017, 53 percent of the coal capacity China had planned to develop abroad has been shelved or cancelled, while construction has commenced on only 13 percent of planned new capacity additions. Broad economic factors have largely driven this trend, as falling costs of renewables and lower than expected electricity demand growth have reduced BRI countries' demand for new coal plants (see section 4.1) (CREA 2021). As a result, 2020 marked the first year in which renewables accounted for most energy sector investment under the BRI at 57 percent (Green BRI Center 2021).

Internally, China established the BRI International Green Development Coalition (BRIGC) in 2019. In its *Green Development Guidance* report, the BRIGC has discouraged coal-fired power development from being included in BRI investments. Although this guidance is non-binding, it nevertheless represents a recognition by the Chinese government that long-term overseas investment in new infrastructure must take climate impacts into consideration. Should China incorporate BRIGC's guidance into official BRI investment criteria, it would do much to align Chinese investment abroad with both its goals of achieving a net-zero economy at home and with the approach towards international coal investments adopted by neighbouring Japan and South Korea in 2021.

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[22] See Kong (2021) and CFR (2021)
[23] Coal-fired thermal plants may utilize different technologies with varying rates of efficiency. Compared to supercritical and ultra-supercritical coal plants, subcritical plants are less efficient and therefore more heavily polluting.
[24] Chinese backed coal plants in HICs are, on average, 24 percent smaller than those constructed domestically within China, potentially explaining some of the difference in proportion of subcritical technology versus supercritical and ultra-supercritical technologies. Data refers to power plants with planned commissioning since 2017, the earliest year of planned commissioning among South Asian or African HCIs, calculated on a capacity weighted average basis.
[25] See CFR (2021) and Gallagher et al. (2021)
[26] See Gallagher et al. (2021) and Kong (2021)
[27] See Kong (2021) and CREA (2021)

The misalignment of fossil fuels with Sustainable Development Goal 7 (SDG7)

In light of precipitous cost declines, investing in renewable energy has become the most cost-effective way for HICs to provide their populations with first time electricity access in most circumstances. While intermittency of wind and solar energy resources is a challenge, the misalignment of thermal power generation with SDG7's targets to provide universal access to reliable electricity and increase the global share of renewables by 2030 must also be scrutinized.

Understanding the relevant energy access tiers

The World Bank's Multi-Tier Framework approach focuses on the overall quality of electricity access, including availability, reliability, and safety, and categorizes electricity access on a sliding scale from 0-5. Tier 0 represents no access and Tier 5 represents the type of continuous, affordable access available in most OECD countries. Most residents of HICs experience electricity access ranging from Tiers 0-3.

Cost reductions in wind and solar technologies have made renewables the cheapest form of electricity across most of the world in terms of the levelized cost of electricity (LCOE) (BNEF 2021).[28] This trend, paired with the high proportion of HIC residents that remain without grid-connected power, makes investing in distributed renewable energy the only viable pathway to advance from no or limited electricity access (Tiers 0 and 1) to moderate electricity access (Tiers 2 and 3). This is particularly relevant for Sub-Saharan African HICs with relatively low electricity access rates such as Malawi, Mozambique, Nigeria and Ethiopia. However, additional energy storage systems are needed alongside variable renewables to support the continuous, reliable access required for Tiers 4 and 5.

The advancement from moderate to high quality electricity access (Tiers 4 and 5) is therefore where a potential tradeoff between renewable and fossil fuel generation becomes relevant. Improvements in battery storage technologies are making renewables increasingly competitive with fossil fuels as a source of dispatchable power as they allow clean electricity to be deployed even at times of low renewable energy production (i.e., when the wind is calm and the sun has set). For the time being, however, these storage technologies remain uneconomic in most circumstances, leading HICs towards continued reliance on fossil fuels.

To achieve SDG7, power systems must prioritize increased penetration of renewable energy, regardless of the access tier

It is imperative to scale up reliable electricity access as quickly as possible to attain universal energy access by 2030 as stipulated by SDG7. Given the long development timelines of thermal power generators and their supporting infrastructure, it will be impossible to meet this goal by relying on fossil fuel generation projects that are not shovel ready, with all finance secured and regulatory approvals in hand. The median development timeline for electricity sector investments made by the World Bank between 2000 and 2014 was nine years, indicating that past methods of electrification do not meet the needs of HICs today (World Bank 2015).

[28] Levelized Cost of Electricity (LCOE) refers to the net present lifetime cost of new electricity generating infrastructure per unit of electricity generated used to compare the relative costs of generation infrastructure.

Distributed renewable energy solutions have the potential to change the lengthy development cycle paradigm. Not only does deployed renewable energy continue to come down the cost curve, but construction times for new renewable energy plants are also falling. After five consecutive years of efficiency improvements from 2013 to 2018, average construction timelines for renewable power plants fell to under half of those for thermal power (IEA 2019). In addition, distributed renewable power plants can be constructed closer to demand centres at the low-voltage distribution level of power systems, avoiding the need for high-voltage transmission line upgrades, which are costly and time intensive. Conversely, centralized thermal power plants rely on such transmission lines to deliver electricity over long distances to diffuse population centres.

The primary benefit of thermal electricity generation is dispatchability, or the ability to deliver electricity to customers at any time without interruption. However, this dispatchability is moot without reliable fuel supply, cooling water and transmission infrastructure. A shortfall in any of these supply chain links would render thermal power plants unreliable. This is the case in HICs such as Nigeria, whose 12-GW fleet of gas fired power plants fails to deliver reliable electricity due to both unreliable fuel supply and transmission constraints (Energy Central 2020). Despite having total installed generation capacity of 16 GW, Nigeria is only able to dispatch about 4 GW of electricity on most days (USAID 2021). This is also likely to be the case in HICs that are currently developing thermal power generators, as discussed in greater detail below.

Meanwhile, the cost of battery storage technology is expected to fall more than 40 percent from current values by 2030, while advances in new technologies promise improved applications for grid-scale storage. These advances provide a pathway for renewables to increasingly provide the type of continuous electricity supply required for Tier 5 energy access.[29]

This is not to say that investment in transmission infrastructure should be ignored. On the contrary, near-term investment in transmission and distribution infrastructure, irrespective of generation source, is imperative to achieve universal Tier 5 electricity access in the long-term. Rather, when put into context with the time and infrastructure constraints associated with centralized power generation, distributed renewables provide the clearest path to attain SDG7's target of universal access to reliable, affordable and modern energy services by 2030. Further, increased deployment of renewables, combined with continued coal phase out, provide the only path to achieve SDG7's target of substantially increasing the share of renewable energy in the global energy mix by 2030.

Photo: World Bank

[29] See NREL (2021) and CleanTechnica (2021)

RISKS AND OUTCOMES OF CONTINUED COAL FINANCE IN HICs

4

The impetus for pursuing new coal plant development varies from country to country and project to project. However, decisions by policymakers to pursue coal projects are informed by an overestimation of their benefits (Gallagher et al. 2021) and underestimation of the associated costs and risks (United Nations University 2019). Despite a growing body of evidence to the contrary, perceptions persist that coal plants can be built affordably, integrated into grid systems easily, and operated reliably to meet expected electricity demand growth in developing countries (Gallagher et al. 2021).

Coal's financial viability has eroded as renewables represent the cheapest form of new generating capacity in most of the world, and in some contexts the total cost of building new wind and solar has fallen below the marginal cost of operating existing coal plants (BNEF 2020). Meanwhile, difficulties in integrating new coal generation into existing weak grid infrastructure, shutdowns due to cooling water shortages, and slower than expected electricity demand growth have resulted in billions of dollars of financial costs borne by HICs that have invested heavily in coal plants over the past decade, with some plants stranded on commissioning.[30]

4.1 OVERCAPACITY IN BANGLADESH AND PAKISTAN

Amidst overcapacity, stranded coal plants undermine the financial position of the two South Asian HICs assessed here. The announcements by both Pakistan and Bangladesh to transition away from coal have come amidst underuse of their existing coal plants, exacerbated by slowing demand for electricity during the COVID-19 pandemic. In each of financial year (FY) 2018-2019 and FY 2019-2020, Bangladesh has seen coal generating capacity utilization of under 30 percent. This compares to capacity utilization of about 50 percent and 55 percent in China and India, respectively.[31] This is a sign that Bangladesh already has more coal generating capacity than it can use. Though Bangladesh has cancelled its pre-construction coal pipeline, projects currently under construction are set to increase total generating capacity sevenfold from 1.1 GW in 2020 to 7.3 GW by 2025 (Rystad Energy 2020).[32] Should all these projects be commissioned as scheduled, and if power system underutilization remains as forecast, the new assets will be stranded from the day they are commissioned (IEEFA 2021c).

Pakistan finds itself in a similar situation as total thermal power capacity utilization, including 5.0 GW of operating coal capacity, was just 40 percent in FY 2018-2019.[33] Pakistan has invested heavily in coal since 2013 as part of the CPEC, a flagship initiative under China's BRI. In total, 4.6 GW of coal capacity or 10 percent of Pakistan's total electric generation capacity has been commissioned since 2017 as part of the CPEC. Like Bangladesh, Pakistan is expected to complete the 3.3 GW of its coal pipeline that is already under construction.[34]

To ensure that sufficient generating capacity would be developed to meet expected demand growth, both the Pakistani and Bangladeshi governments agreed to issue payments to newly developed coal power plants based on their generating capacity, whether or not the new

[30] See IEEFA (2020c) and IEEFA (2021c)
[31] Ibid
[32] Assumes Payra Phase II project, which is currently in the permitting phase, will also proceed in addition to projects currently under construction.
[33] See IEEFA (2020d) and Global Energy Monitor (2021a)
[34] See IEEFA (2020d) and Global Energy Monitor (2021a)

plants actually generate power. As demand for electricity has fallen short of expectations, newly constructed coal plants lie idle as they are unable to sell electricity to new customers. This has in turn required the Pakistani and Bangladeshi governments to issue capacity payments to the relevant plant owners. The cost of these capacity payments is then passed onto utility customers in the form of tariff increases.

In 2018, Pakistan and Bangladesh reportedly made annual capacity payments of USD 5.3 billion and USD 1.1 billion, respectively, to the operators of idle coal plants.[35] These capacity payments made to idle coal plants represent a missed opportunity to make electricity available to those who need it. By way of contrast, in 2019 finance commitments for residential electricity access amounted to only USD 1.7 billion and USD 1.5 billion in Pakistan and Bangladesh, respectively, and only USD 2.1 billion across all African HICs combined. Further, Pakistani and Bangladeshi capacity payments are expected to grow as electricity demand continues to fall short of the additional generation capacity set to come online.[36] In Pakistan, capacity payments to idle thermal generators are expected to reach USD 10 billion per annum by 2023 (IEEFA 2021d). Meanwhile, Bangladesh has already allocated one third of the Ministry of Power, Energy and Mineral Resources' USD 3.2 billion budget to capacity payments for idle power plants in FY 2020-2021 (New Age Bangladesh 2020).

4.2 RISKS TO COAL DEVELOPMENT IN SUB-SAHARAN AFRICA

With large and growing populations still without access to electricity, African HICs will largely determine the extent to which coal continues to proliferate into new corners of the globe. To date, 91 percent of all planned coal-fired power plants in African HICs tracked by Global Energy Monitor have either been shelved or cancelled, leaving 1.9 GW of capacity under development across Madagascar, Mozambique, Malawi, Niger, and Tanzania. Unlike Bangladesh and Pakistan, these five African HICs are not experiencing issues with overcapacity, as total electricity access rates range from only 11 percent of the population in Malawi to 38 percent in Tanzania. Nevertheless, investments in large-scale, centralized power generation in Africa risks underutilization similar to that seen in South Asia.

Without concurrent investment in supporting infrastructure, coal plants in HICs face operational risks. Bearing challenges such as fragmentation, deterioration, lack of reliability and size limitations, the national grids in these five countries each exhibit shortfalls that may compromise their ability to efficiently absorb the power delivered by the large coal plants currently under development. Indeed, adding coal-fired power plants to the central grid infrastructure will not reach the millions of people without grid connectivity. Access to national grids in HICs remains strikingly low, especially in rural areas where the vast majority of the population is unconnected and long-distance transmission upgrades can be economically infeasible.[37] This issue has already deterred some investment in grid-connected coal plants as transmission risks were cited as a constraint to attracting new coal finance for a 200-MW coal mine-mouth power plant in Mozambique (Mining Weekly 2015).

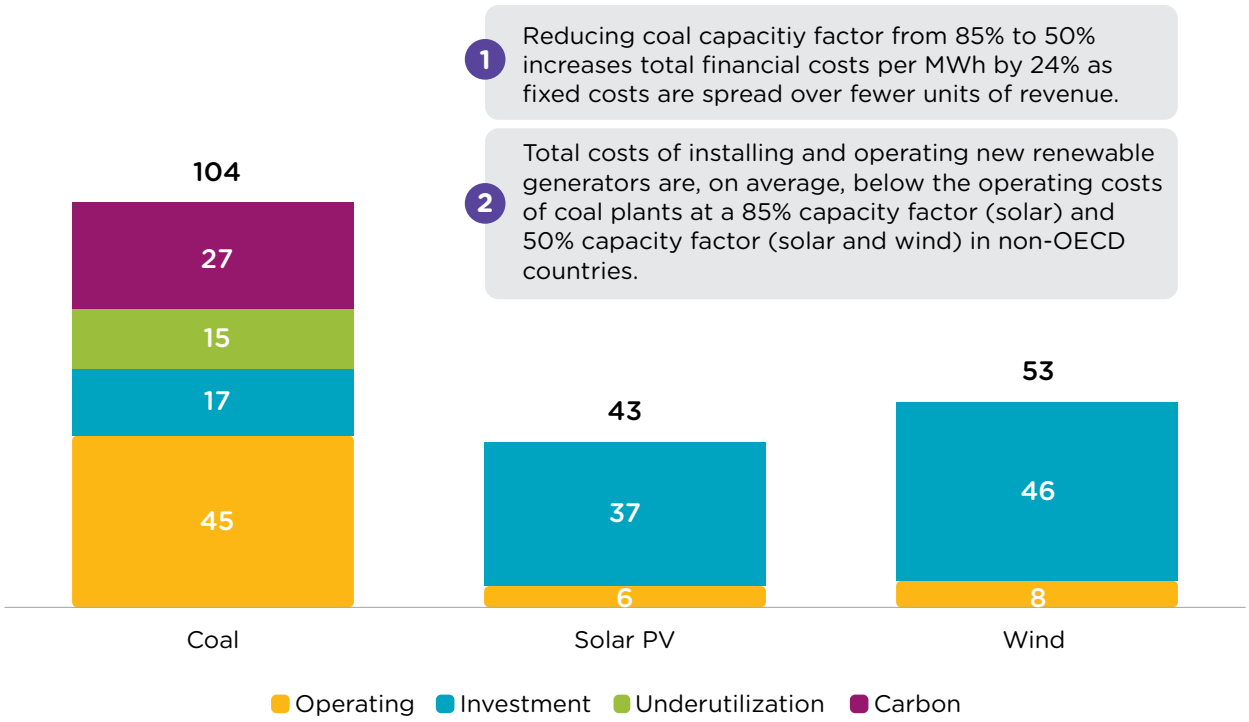
Without sufficient, parallel investment in supporting grid infrastructure, the coal plants still under development risk being stranded on commissioning, preventing them from realizing the benefits of baseload generation that coal-fired power can theoretically provide while leaving financial and environmental costs to bear. Figure 6 highlights the financial costs associated with coal plant underutilization resulting from transmission shortfalls, lower than expected demand, cooling water shortages or even displacement by renewable generation. Together, these factors further strengthen the economic case for renewable energy generation as an alternative to coal.

This has been the experience in Pakistan, which saw no new finance commitments for transmission and distribution infrastructure from 2013 to 2017, and only a combined total of USD 462 million in 2018-2019. Meanwhile, USD 7.3 billion of finance commitments for grid-connected coal plants in Pakistan were made from 2013-2019.

[35] See Scroll.in (2020) and IEEFA (2021e)
[36] See IEEFA (2020d) and IEEFA (2020e)
[37] See World Bank (2018), WRI (2017), UNCDF (2020), RMI (2019), and Netherlands Enterprise Agency (2018)

FIGURE 6

LCOE Comparison - Average Among Non-OECD Nations (USD/MWh)[38]



Kenya's Lamu coal project illustrates wide-ranging risks of coal development

Beyond the operational risks highlighted above, the interplay between grassroots opposition, environmental and geopolitical considerations, and domestic policy decisions can play an outsized role in determining the fate of new coal projects. The series of events that played out in Lamu, Kenya from 2013 through 2020 exemplifies the quandary that financiers risk entering when committing to coal power projects in HICs.

The Kenyan government first began soliciting investors in 2013 to raise USD 2 billion for a new 1 GW coal-fired power plant near the coastal city of Lamu, a UNESCO World Heritage Site (IJ Global 2013). A total of 62 prospective financiers from around the world responded, with a consortium of Kenyan, Chinese and Omani developers (later joined by US-based General Electric) winning the bid[39]. The Industrial and Commercial Bank of China (ICBC) arranged USD 1.5 billion in debt financing, including participation from South Africa's Standard Bank and a partial risk guarantee from the African Development Bank (AfDB)[40]. By the summer of 2017, the high-profile project had political backing from the Kenyan government, financial backing from five investors from four countries and a risk guarantee from a major MDB.

[38] Data per IEA's Projected Costs of Generating Electricity 2020 report. Figures reflect the weighted average of non-OECD countries where data is available, including India, China, and Brazil, with an applied discount rate of 7 percent. Figures shown are rounded to the nearest whole number.
[39] See IJ Global (2014), Power Engineering International (2015), and Capital Business (2018)
[40] See IJ Global (2015 and 2017) Climate Home News (2016) and Business Daily (2016)

Role	Entity	Country	Investment (USD Millions)	Exit Date
Debt	ICBC	China	1,350	Nov-20
	Standard Bank	South Africa	150	Oct-17
	AfDB	MDB	Partial Risk Guarantee	Nov-19
Equity	Gulf Energy	Kenya	500	NA
	Centum Investments			NA
	General Electric	United States		Sep-20
EPC	PowerChina Group	China	NA	Nov-20
Operations	China Huadina		NA	Nov-20

In the four years that financiers spent structuring the Lamu deal, challenges to the plant mounted on multiple fronts. Opposition grew among the local community as construction of the port that was to supply imported coal to the plant had significant impacts on the local ecosystem, hurting Lamu's historic fishing community (350 Africa 2018). International pressure also mounted as the European Union advised the Kenyan government to halt the project and four members of the US Senate sent a letter urging the AfDB to back out of the project[41].

Others in Kenya raised concerns about the project on fiscal grounds. The project was set to increase Kenya's already ballooning indebtedness to foreign interests, namely Chinese financial institutions, by USD 1.5 billion. This was concerning to the Kenyan public given China's track record of taking ownership of distressed infrastructure; particularly as the Port of Mombasa was reportedly simultaneously at risk of falling into Chinese ownership (Foreign Policy 2019).

Standard Bank was the first to back out of the project in the Fall of 2017, citing "various reasons" for its exit (350 Africa 2018). In the summer of 2019, after a multi-year court battle, Kenya's National Environmental Management Authority (NEMA) halted construction of the project pending further environmental review (BBC 2019). AfDB announced its withdrawal shortly after the ruling, followed by General Electric, which then exited the equity partnership. Left as the sole remaining debt provider for a power plant that lacked the requisite boilers and turbines to become operational, ICBC abandoned the project in late 2020 along with EPC and O&M providers PowerChina and China Huadian, all but sealing the fate of the Lamu coal plant (International Center for Sustainable Carbon 2020).

[41] See Foreign Policy (2019) and Oil Chane International (2018)

CONCLUSION AND RECOMMENDATIONS

5

Although both the demand for and supply of coal finance has been falling globally, some countries whose populations lack universal access to reliable electricity still perceive coal as a viable pathway to electrification and the economic growth that follows, despite readily available and increasingly cost-competitive clean alternatives. Likewise, a shrinking but still critical mass of financiers exists to meet residual demand for coal-fired electricity. The experiences of Bangladesh and Pakistan undermine this conventional wisdom, as development of new and, arguably, surplus coal power infrastructure has left both countries under financial stress. To date, at least five African HICs have not heeded the warning signs from South Asia, as governments by and large still aspire to use coal-fired power generation as a means to expand access to electricity.

Turning ambition into action

Despite announcements by MDBs, governments, and commercial financial institutions to exit coal and commit to a net-zero emissions pathway, governments of the world's largest economies have not yet agreed on a timeline to end coal-fired power generation (Climate Home News 2021). Meanwhile, some investors are still willing to fund coal-fired power plants in HICs and globally. Commercial financiers' self-imposed restrictions on finance for new coal power projects tend to be porous, enabling continued financing that undermines their net-zero ambitions. To transform these ambitions to meaningful action, commercial financiers must more rigorously evaluate the downstream effects of their investments and the attendant long-term financial and reputational risks.

Absent meaningful exclusion of coal and other emissions-intensive investments, financial institutions risk shouldering the burden of underperforming and stranded assets as renewable energy generation continues to decline in cost and, with improving storage technologies, becomes more dispatchable.[42]

Commercial financiers must also reckon with increasing shareholder activism, which primarily focuses on board and governance issues (McKinsey 2017). In addition, successful activist campaigns centred on voluntary climate disclosure are shown to have a positive impact on stock valuations (Flammer et al. 2021). Commercial financiers should therefore aim to improve corporate governance through voluntary climate disclosure in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

Meanwhile, China has exerted an outsized influence on coal finance in HICs since reorienting its domestic energy policy towards renewables. To align its investments abroad with its stated commitment to a net-zero economy at home, China must accelerate the recent trend towards eliminating coal power projects from its BRI portfolio. Home to the largest wind and solar technology manufacturers in the world, China is uniquely placed to build on the progress it has made in replacing its export of coal technology with renewables to electrify communities abroad while maintaining and expanding domestic job growth (CSIS 2017). The insurance industry also has a critical role to play in eliminating the market for new coal. Should American and Asian insurers follow the lead of many of their European and Australian counterparts and cease underwriting new coal projects, project level economics will erode such that new coal plants are simply too risky to attract capital.

Considering a finance-based carbon accounting regime

The current geography-based carbon accounting scheme allows nations and their financial institutions to continue financing carbon intensive projects around the world while ostensibly making progress towards Paris Agreement commitments by reducing domestic emissions. A recent study by Urgewald found that investors based in the US provide the majority of all

[42] See NREL (2021) and CleanTechnica (2021)

institutional investment in the global coal industry, including coal power projects, followed by Japan, the UK and Canada (Urgewald 2021). In financing overseas coal projects, these institutions and the countries that host them are also exporting the burden of increased emissions under a geography-based carbon accounting scheme. Meanwhile, HICs that host a disproportionate share of coal-fired power plants contribute relatively little finance towards developing such plants but are liable for the long-term emissions arising from them, enabled by foreign investment.

To ensure that countries are meeting not just the letter of their decarbonization commitments but the spirit as well, finance-based carbon accounting methods should be considered. Such a carbon accounting regime would force policymakers in countries that finance coal projects beyond their borders, namely the US and China, to consider the impact of domestic capital on cross-border emissions, aligning policy solutions with the global nature of the climate crisis while providing a framework for private investors to align their portfolios with the net-zero ambitions they espouse.

A necessary first step is to increase the transparency of financial flows to emissions-intensive assets. To hold capital providers accountable for the emissions they enable, more robust disclosure of the ultimate uses of such capital is required, including when corporate finance is provided to coal project sponsors.

Rethinking electricity investments in the domestic context

South Asian HICs have learned from experience that investment in coal power projects can be a risky endeavour. In aggressively pursuing coal-fired power generation over the past decade, Bangladesh and Pakistan operated under the flawed assumptions that: 1) electricity demand growth would remain high,[43] 2) coal would continue to be the lowest-cost generation source, and 3) transmission and distribution infrastructure could deliver the additional electricity generated.[44] Instead, both countries announced their respective exits from new coal power plant development in 2020.

It is understandable that Pakistan and Bangladesh would have looked to replicate the strategies that have electrified much of the developed world to date. But the countries that brought universal access to electricity to their populations during the 20th century had a limited toolbox of technologies to choose from compared to the policymakers of today. Beyond their precipitous cost declines over the past decade, renewable energy systems can be safely deployed closer to demand centres and built much more rapidly than large-scale coal plants, allowing for better and more flexible capacity planning amidst changing demand dynamics.

Paradigm shift from centralized coal to distributed renewable generation, the least-cost option

Africa has the opportunity to improve on the centralized electric utilitty model developed and implemented through much of the 20th century by structuring its electricity generation infrastructure to meet the unique demands of the 21st century. Distributed renewable energy generation paired with battery storage can act as the cornerstone of a new model for grid infrastructure that sustainably serves and empowers local communities. On a standalone basis, distributed solar plants can provide Tier 2 to 3 energy access to rural populations that need electricity but remain unconnected to central grid infrastructure. While not the end-solution, standalone distributed solar energy can be deployed rapidly to provide reliable daytime electricity for critical infrastructure such as schools and medical centres. With the continuing technological improvements and falling costs of energy storage, local solar plus storage systems increasingly represent the least-cost option when considering system-level transmission and distribution investments needed to connect rural communities with centralized generation (Vibrant Clean Energy 2020). Distributed generation also has the added benefit of democratizing access to electricity while stimulating local economies (IRENA 2015).

Where distributed solar has the unique potential to expand electricity access to new communities in the near-term, technological improvements and price declines look to make large-scale renewable generation paired with energy storage systems the least-cost electricity generation source in the long-run. Investing today in both distributed renewable generation to expand first-time electricity access in the near-term, and smart grid infrastructure to improve access quality in the long-term, provides a clear pathway for HICs to expand access to sustainable energy quickly and affordably.

[43] See IEEFA (2020d and 2020e)
[44] See Gallagher et al. (2021) and IEEFA (2020e)'

APPENDIX I: DETAIL ON COAL FINANCE ANNOUNCEMENTS

6

Entity	Date	Event
FRANCE	Sept. 2015	The French government ends state aid for companies exporting coal technology.
	Nov. 2015	Participant in OECD Arrangement on Officially Supported Export Credits, which agrees to new restrictions on official export credits for coal-fired power plants.
	Oct. 2020	French government ends its financial support for coal developments.
	May 2021	G7 agrees to stop international financing of coal projects by the end of 2021.
GERMANY	Nov. 2015	Participant in OECD Arrangement on Officially Supported Export Credits, which agrees to new restrictions on official export credits for coal-fired power plants.
	July 2019	German state-owned enterprises and financial institutions stop financing all coal-related business activities.
	May 2021	G7 agrees to stop international financing of coal projects by the end of 2021.
JAPAN	July 2020	Japanese government issues vocal renunciation of support for coal-fired power generation both within the country and overseas.
	May 2021	G7 agrees to stop international financing of coal projects by the end of 2021.
SOUTH KOREA	Nov. 2015	Participant in OECD Arrangement on Officially Supported Export Credits, which agrees to new restrictions on official export credits for coal-fired power plants.
	April 2021	Korean government ends all public financing for new overseas coal-fired power plants.
UK	Nov. 2015	Participant in OECD Arrangement on Officially Supported Export Credits, which agrees to new restrictions on official export credits for coal-fired power plants.
	Dec. 2020	Prime Minister Boris Johnson commits to end the UK's overseas fossil fuel financing.
	May 2021	G7 agrees to stop international financing of coal projects by the end of 2021.
US	June 2013	President Barack Obama calls for an end to public finance for new coal plants overseas.
	Nov. 2015	Participant in OECD Arrangement on Officially Supported Export Credits, which agrees to new restrictions on official export credits for coal-fired power plants.
	July 2019	President Donald Trump's administration expresses support for overseas coal-fired power plants.
	May 2021	G7 agrees to stop international financing of coal projects by the end of 2021.

Multilateral Development Banks		
ADB	May 2021	ADB releases draft energy policy, which supports phase-out of coal-fired power plants.
AFDB	Sept. 2019	African Development Bank President Akinwumi Adesina announces plans to stop financing coal-fired power plants in favour of renewables.
AIIB	Sept. 2020	Asian Infrastructure Investment Bank President Jin Liqun announces end of finance for projects that are "functionally related" to coal.
EIB	July 2015	European Investment Bank announces restrictions on finance for coal-fired power plants.
EBRD	Dec. 2018	The European Bank for Reconstruction and Development adopts "no coal, no caveats" policy.
IADB	Sept. 2020	Inter-American Development Bank publishes Environmental and Social Policy Framework, which states that thermal coal mining or coal-fired power generation and associated facilities are inconsistent with IADB commitments.
WBG	July 2015	The World Bank Group announces it will provide financial support for coal-power generation projects only in rare circumstances.

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