

## RESEARCH NOTE

# Indonesian Energy Policy at a Crossroads

SEPTEMBER 20, 2023

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Despite recent reports that some investors and businesses are considering divestments from coal and other fossil fuel businesses over concerns about exposure to climate change risks, global demand for coal as a source of energy is still at record levels. In fact, China, India and Southeast Asian countries together are expected to account for 3 out of every 4 tonnes of coal consumed worldwide in 2023.<sup>1</sup> Indonesia is a unique case, but is a model for the types of policy challenges faced by Southeast Asian governments.

Asian states are among the largest consumers of coal, an abundant source of cheap and storable energy, as demand for coal-powered electricity increases alongside economic and industrial growth. Concurrently, coal is the most carbon intensive fuel source<sup>2</sup> as it produces almost 2.3x the amount of carbon dioxide per kWh of electricity generated compared to natural gas products.<sup>3</sup> Coal contributes to localized environmental externalities with principal emissions from combustion including sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and other particulates. These emissions contribute to climate change and increases in respiratory illnesses, smog, and lung disease.<sup>4</sup> Research in *The Lancet* found that with 2.0°C of additional future global warming, relative to 2018, certain regions in Indonesia could experience an estimated 17–20 percent increase in all-cause mortality. The report estimates that 5 hours of each day may become too dangerous for work. Climate change may become a drag on economic activity unless action is taken to mitigate the effects of extreme weather on local populations and worker health.<sup>5</sup>

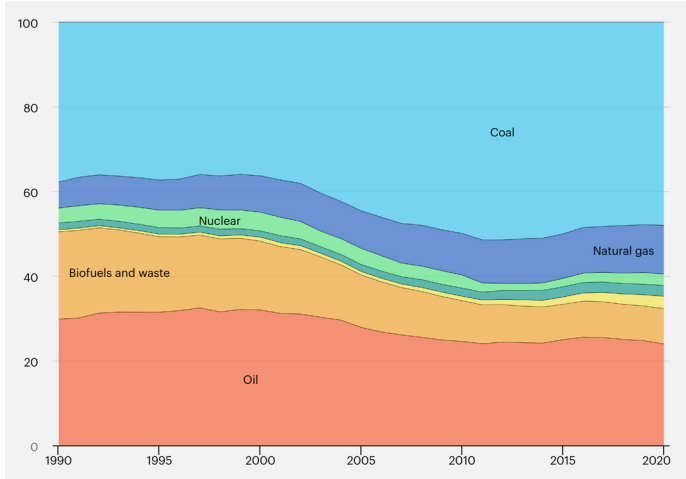
Combine this long-term climate challenge with recent energy market oscillations triggered by the COVID-19 pandemic and the conflict in Ukraine, and the Asia-Pacific faces a policy challenge: balancing the energy security offered by cheap coal against the need to mitigate against the dangers of climate change with green energy alternatives. In this context, coal also has a geopolitical aspect, providing Indonesia and many other Asian countries with a domestic supply of low-cost storable en-

ergy that not only underpins their industrial strategy but also insulates them from volatile global markets and from domestic political pressures associated with more costly alternative fuels.

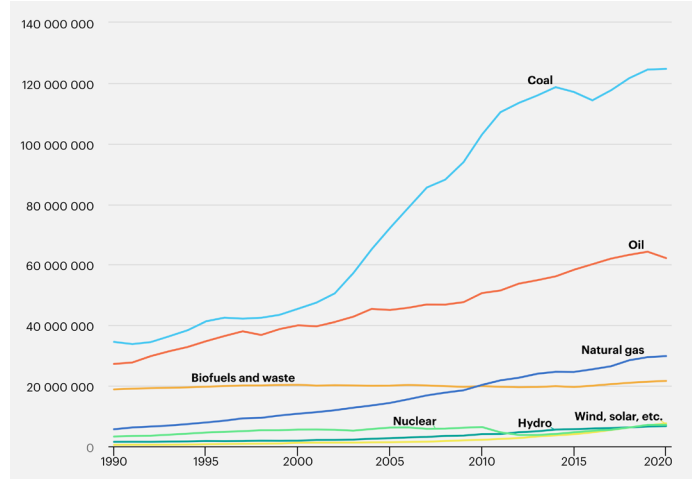
Many Southeast Asian countries have committed to decarbonizing by 2050 and have published their Nationally Determined Contributions for the Paris climate agreements (an action plan to cut emissions and adapt to climate impacts).<sup>6</sup> However, many of these declarations still lack concrete implementation plans, especially around financing an expensive shift from coal to less carbon-intensive energy sources. Building renewable energy sources could cost considerably more than expanding existing coal infrastructure. In 2021, Indonesian Finance Minister Sri Mulyani said that a phaseout of coal power and transition to renewable energy sources would require between \$30 billion and \$53 billion.<sup>7</sup> In June 2023, a report estimated that ASEAN member countries would require total investment of \$159 billion for the power sector between 2021 and 2030.<sup>8</sup> Financing has become a key sticking point in global climate discussions for ASEAN, especially balancing the costs of expensive green energy policies with ASEAN nations' continued developmental goals.<sup>9</sup>

Cheaper bridging fuels that limit carbon emissions, like natural gas, are also in limited supply. The COVID-19 pandemic and conflict in Ukraine brought about three years of wild swings in economic activity, energy use and greenhouse gas emissions. Currently, U.S. sanctions on Russian gas exports, European countries seeking new gas suppliers as a substitute for Russian gas exports, and global growth in energy demand have jointly increased access barriers to natural gas products. These events have brought about near-term fiscal pressures on government finances and present a secular policy challenge to governments whereby global energy markets and trade present critical threats to domestic agendas and international affairs.

In response to this challenge, countries like Indonesia see coal as part of their energy



Total Energy Supply by Source, Asia-Pacific Region, as a percentage<sup>10</sup>  
Source: IEA



Total Energy Supply by Source, Asia-Pacific Region, by capacity<sup>11</sup>  
Source: IEA

security and industrial policies. Coal is a domestically available and abundant resource that represents over 40 percent of energy supplies for countries in the Asia-Pacific region (diagrams above).

Indonesia’s domestic market obligation system requires coal mining companies to supply part of their product to the domestic market, with much of this coal eventually delivered to coal-fired power plants.<sup>12</sup> This regulation includes a cap on the prices that suppliers can charge, reducing the cost of coal for energy. It functions as a consumption subsidy, keeping electricity prices stable and protecting the finances of government-owned electricity distribution company Perusahaan Listrik Negeri from sudden changes in coal prices. More

than 60 percent of Indonesia’s electricity is supplied by a glut of cheap coal-powered electricity, allowing businesses to expand and protecting jobs in domestic coal mining and energy industries.<sup>13</sup> Recently passed regulations to ban coal plants also includes an exception for new coal plants to be built for matters of strategic importance such as industrialization and EV battery production.<sup>14</sup> Consequently, the policy distorts domestic energy markets and locks out renewable energy projects from Indonesia.

Indonesia, like other ASEAN countries, will eventually need to finance a green energy transition while pursuing continued economic growth. However, the allure of cheap energy makes it unlikely that coal will ever be out of its foreseeable future. Coal will remain king.

1 <https://www.iea.org/news/global-coal-demand-set-to-remain-at-record-levels-in-2023>

2 <https://www.iea.org/fuels-and-technologies/coal>

3 <https://www.eia.gov/tools/faqs/faq.php?id=74&t=11>

4 <https://www.eia.gov/energyexplained/coal/coal-and-the-environment.php>

5 [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(21\)00279-5/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00279-5/fulltext)

6 <https://unfccc.int/NDCREG>

7 <https://www.reuters.com/world/asia-pacific/indonesia-could-phase-out-coal-by-2040-with-financial-help-minister-2021-11-02/>

8 <https://aseanenergy.org/mobilising-finance-to-support-aseans-low-carbon-energy-transition-challenges-and-policy-options/>

9 <https://asean.org/wp-content/uploads/2023/09/ASEAN-JS-on-Climate-Change-to-the-UNFCCC-COP28.pdf>

10 <https://www.iea.org/regions/asia-pacific>

11 Ibid.

12 <https://doi.org/10.1787/5a3efe65-en>

13 <https://www.iea.org/reports/enhancing-indonesias-power-system/executive-summary>