Press release

The ambiguity of the energy transition policy on Indonesia's electricity supply plan

JAKARTA, 28 March 2023 - Indonesia’s current power status shows that the country derives half of its electricity from coal-fired power plants (CFPP). The overwhelming additions of capital-intensive fossil fuels have contributed to poor financial returns and heavy debt burdens on the state electricity company, Perusahaan Listrik Negara (PLN). Oversupply is a significant issue that developed as a combination of overestimating future demand, over-constructing large fossil fuel-fired generators, and market barriers that prevent the full utilisation of this existing capacity. Key power sector policies and announcements reveal that exemptions and existing, planned projects may not set Indonesia on the most straightforward path to achieving an effective, efficient, and timely energy transition. The proposed capacity additions stated in PLN’s Electricity Supply Business Plan (RUPTL) 2021-2030 could either prolong the use of fossil fuels or potentially deviate essential resources towards unproven “new” technologies rather than renewable energy (RE).

The Centre for Research on Energy and Clean Air (CREA) and Trend Asia have published a joint report examining the ambiguities in Indonesia’s energy transition policy, in particular in the power sector. The report found an estimated 33% of the 58 GW of total installed fossil fuel capacity in Indonesia was more than what was needed to meet peak demand and maintain a 15% reserve margin in 2021. This oversupply exceeds the national electricity reserve margin standard of 30-35% and amounts to an estimated IDR 16 trillion (USD 1.2 billion) for fixed operating and maintenance costs to keep this excess capacity in working condition. This shows that existing overcapacity on the grid should encourage Indonesia to avoid new coal construction while devoting much-needed capital to grid improvements and zero-carbon technologies to preserve the security of supply.

In the last five years, between 2017 to 2021, over 12 gigawatts (GW) of fossil fuel capacity have been commissioned, increasing the country’s operating coal fleet by 30%. Meanwhile, non-fossil fuel development lags far behind; only 1.6 GW of RE capacity was added, mostly from hydro and geothermal. Solar and wind only account for less than 1% of capacity additions.

The report also finds that Indonesia currently has many new technologies proposed to be applied in fossil energy plants, both in coal and gas-fired power plants, including coal-to-gas plant conversion, biomass cofiring, ammonia cofiring, carbon capture usage and storage (CCUS) technology, and clean coal technology (CCT). These technologies have been and
will be implemented in several plants with a total capacity of around 42.1 GW, of which 20.3 GW are already in operation, 8.6 GW are under construction and permitting, and 13.2 GW are in the planning process. Implementing these technologies can potentially be a false solution as coal is still the primary fuel used in the process, thus potentially reneging on the government's promise to retire CFPP early. It contradicts Indonesia's commitment to phase out and no longer invest in CFPPs and the 2060 net zero emission (NZE) target.

The energy transition consists of leaving fossil fuels and driving the deployment of renewable energy, not maintaining the age of fossil power plants through technologies that are not necessarily feasible or proven to reduce emissions. The Energy Transition Mechanism (ETM) and Just Energy Transition Partnership (JETP) scheme currently being offered to Indonesia will be excellent opportunities to accelerate the transition, in particular to support the financing of the early retirement of CFPPs and to boost the development of RE-based power plants such as solar and wind.

CREA and Trend Asia have also provided recommendations, which include but are not limited to:

- cancel all new fossil fuel power plants in the pipeline;
- reevaluate fossil fuel projects that are subject to PPA renewals;
- expedite timeline for phase out of coal power plants, while scaling up deployment for new solar and wind technologies;
- disclose long-term power purchase agreements (PPAs) and plant-level retirement plans to the public;
- reevaluate fossil fuel based capacity, and its share in the energy mix;
- completely avoid fossil gas and false solutions in power sector and energy transition initiatives;
- integrate sub-national electricity grids and improve grid management.

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Note to editors
The report related to the press release can be found here:

All CREA publications can be found here:
energyandcleanair.org/publications
About CREA

The Centre for Research on Energy and Clean Air (CREA) is an independent research organisation focused on revealing the trends, causes, and health impacts, as well as the solutions to air pollution.

www.energyandcleanair.org

About Trend Asia

Trend Asia is an independent civil society organization that acts as an accelerator of energy transformation and sustainable development in Asia.

https://trendasia.org