
Indonesia's Power Goals: What's next after universal electrification?

The world's fourth-most populous country is rapidly reaching universal electrification, with almost 99% of its more than 270 million people considered electrified. Electrifying almost all of the remote and rural regions of a nation that spans some 17,000 islands across 5,000 km is a tremendous achievement. However, the sector is not without its problems. A major outage hit the greater Jakarta area in mid-2019, affecting over 30 million people and paralyzing the economy, while shorter blackouts are a common occurrence. Additionally, rural areas are still disproportionately reliant on a series of small diesel power plants, and renewable energy as a whole lags in the mix.

New Ambitious Goals Beyond the Electrification ratio

The Government considers a household electrified if it is serviced by the state-owned utility (PLN), non-state electricity firms, or the government's solar-powered energy saving lamps program. While Indonesia is projected to reach 100% in 2020, that doesn't mean 100% of the nation's households enjoy 24-hour electricity that can power a modern lifestyle. Access to electricity that runs only for part of the day or that comes from a 20-watt solar lamp are counted the same as households connected to the grid. Reaching 100% electrification under this minimal definition is still an achievement, but it is clear that the Government has more work to do. Tracking consumption at higher levels, and well beyond a 20-watt lamp, would be a good start.

Aim for Higher Non-residential Electricity Consumption

Electricity consumption in Indonesia grew 20% between 2015 and 2019 to 1,084 kWh per capita. While impressive, this still falls short of their 1,200 kWh target, and the ASEAN regional average of 1,500 kWh per capita.

Consumption is an important factor to contextualizing the electrification rate, because while "all" of Jakarta and West Papua is electrified, in practice Jakarta uses almost 11 times as much electricity per capita. This is a crucial distinction, because higher levels of consumption are linked to greater uses in productive activities that drive economic growth. The Government has taken several measures to encourage greater consumption by improving the quality of access, but there needs to be an emphasis on improving quality in areas that will allow for firm growth and job creation, rather than just subsidizing household connections or lamps.

Enhance Power Reliability

Despite near-universal electrification, power outages are very common in Indonesia. Even in West Java -- home of Jakarta, 60% of the country's manufacturing capacity, and over 100 million people -- outages are common, including the mid-2019 blackout that cut power to 10s of millions, bringing the economy to a grinding halt. Disasters like this, or even those smaller in scope, are simply untenable for a country with significant development aspirations. Reliability and affordability of electricity services is fundamental to firm growth and job creation, and Indonesia will be unable to compete globally without them. While some modernization efforts have been made to reduce losses, the challenge is also growing due to surging demand and historically high population growth. Reallocation of

capital and PLN's investment focus from generation-centric to a system approach would allow a greater investment for a flexible and modernized T&D to enable penetration of deflationary renewables.

More Aggressively Exploit Low-Cost Renewable Energy

In 2019, Indonesia added 376 MW in power capacity from renewable energy, now totaling 5,885 MW. This is dwarfed by the more than 2,000 MW of coal power added in the same time frame. Indonesia has abundant renewable energy potential, yet deployment of renewable energy faces various barriers:

- Grid integration of variable renewable energy (VRE) is challenging given the highly fragmented nature of Indonesia's grid.
- Project finance opportunities for renewable energy in Indonesia are limited as local banks do not allocate sufficient resources to this segment.
- Continuous revision of the Ministerial Decrees on feed-in tariff pricing and limitation on renewable energy tariffs has caused hesitation from most developers and investors.

If Indonesia is serious about its push for renewables, the government needs to focus on long-term cost competitiveness over quick wins through policy incentives and making a bold statement on its preference for renewable energy.

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