IEEJ: December © IEEJ 2025

December 19, 2025

Reality of coal power retirement

Ichiro Kutani
Senior Research Director
Director, Energy Security Unit
The Institute of Energy Economics, Japan

While efforts to combat climate change include accelerating the closure of coal-fired power stations, there are also signs that this approach is sometimes reconsidered in light of practical challenges.

In Indonesia, where coal accounts for 69% of the electricity supply, the government committed under the Just Energy Transition Partnership (a G7 initiative supporting the phase-out of coal) to closing the Cirebon 1 coal-fired power plant in 2035 — seven years earlier than originally planned. However, in December 2025, the Chief Economic Minister suggested that the closure policy might be reversed. The Cirebon 1 plant is a 660 MW supercritical coal-fired power plant that began operating in 2012. Reasons for considering this policy shift include the need to increase supply capacity to meet growing electricity demand, the fact that phasing out coal-fired power would raise power generation costs, consequently increasing the government's electricity subsidy burden, and the relatively clean nature of the plant as a high-efficiency coal power plant.

Furthermore, the plant is a private independent power producer (IPP) with a 30-year power purchase agreement with the state-owned electricity company PLN until 2042. If this is the case, private companies are unlikely to abandon a profitable opportunity without compensation for the profits that would have been earned during the seven years of operation. Should an early retirement of seven years occur, Indonesia would not only lose 660MW of stable, affordable, and dispatchable power generation but also incur debt for compensation. Thus, an early retirement was inherently difficult for both the Indonesian government and the private power company to accept.

In eastern Australia, the Australian Energy Market Operator (AEMO) is urging reconsideration of the retirement plan for the Eraring coal-fired power plant in New South Wales. The 720 MW subcritical power station, which began operating in 1981, was scheduled for decommissioning in 2025. However, while solar power generation on the AEMO grid is increasing rapidly, there is a

shortage of load-balancing capacity. Consequently, AEMO recently delayed the shutdown of the Eraring coal-fired power plant by two years, to 2027, stating that its closure would increase the risk of widespread blackouts. AEMO's latest warning indicates that the 2027 shutdown could still pose risks to the stability of the power supply. Although the adoption of decarbonized energy sources, such as solar power, is progressing steadily, investment in grid stabilization measures, which should have been implemented in parallel, has lagged behind. Analysis suggests that these grid investments will not be completed in time for the Eraring coal plant's 2027 shutdown.

Although outdated and inefficient coal-fired power stations should be phased out as soon as possible, this outcome is likely due to the necessary investments to replace the functions previously provided by coal being neglected. Furthermore, it must not be forgotten that investing in these replacement functions will inevitably increase electricity costs. If coal-fired power is to be phased out, the corresponding cost increases must be accepted.

While the two cases discussed raise different points, they both highlight the complexity and difficulty of the energy transition. Saying ‘stop coal-fired power’ is easy, but the reality of energy supply isn't that simple. From the perspective of stable energy supply or economic rationality, it may sometimes be better not to phase out coal-fired power. We must devise a realistic path for the energy transition.

Contact: report@tky.ieej.or.jp