

# Dragoman Digest

## US utilities delay retirement of coal-fired power plants

*Deferrals may buy some time, but issues remain*

This year, eight **US** utilities have postponed the closure of their coal-fired power plants amid forecast electricity supply shortages. The Midcontinent Independent System Operator, which manages the grid where most of the delayed retirements have been announced, forecasts that the region may face a shortfall of 2.6 GW next year, rising to nearly 11 GW in five years. Last month alone, three electricity generators [delayed](#) the closure of their plants. In a bid to reduce its exposure to volatile spot markets, Omaha Public Power District (OPPD) delayed the closure of two coal-fired units in Nebraska from 2023 to 2026. Ameren extended the life of its Rush Island plant by three years to 2025, saying an earlier closure would risk power outages and instability. CenterPoint also extended the closure of its Indiana plant by two years to 2025 to minimise the volumes of power it had to purchase from the spot market.

Increasing demand for electricity at the same time as clean energy supply chain disruptions and extreme weather has created something of a perfect storm. Restrictions on imported components – aimed at **Chinese** manufacturers – has also driven up the cost of solar panels. While in August President **Biden** [granted](#) a 24-month reprieve from the tariffs to imports from **Cambodia, Malaysia, Thailand** and **Vietnam**, many projects had already been frozen. The US is expected to add 8.7 GW of solar capacity this year – half of last year's levels. While delaying the retirement of coal generation will ease some of the pressure in the short term, a 'wall of closures' still looms. By 2026, 5715 MW of capacity will exit the system. Without resolution of supply chain challenges, US energy markets are on an unstable path.

### Retirement extensions announced to date

Owner and plant	Capacity (MW)	Planned retirement	New retirement
<b>PNM Resources</b> San Juan (NM)	507	2022 (June)	2022 (September)
<b>WEC Energy</b> South Oak Creek (WI)	1,135	2023 & 2024	2024 & 2025
<b>NiSource</b> Schafer (IN)	847	2023 (May)	2025
<b>Ameren</b> Rush Island (MO)	1,242	2022 (September)	2025
<b>CenterPoint</b> Culley Unit 2 (IN)	90	2023	2025
<b>Alliant</b> Edgewater (WI)	410	2022	2025 (June)
<b>OPPD</b> North Omaha (NE)	354	2023	2026
<b>Alliant</b> Columbia	1,130	2024	2026 (June)

Source: Financial Times, 2022

## China trials new approach to bolster energy security

*Policymakers look to large-scale demand response to improve coordination across disparate grid and respond to short-term energy security issues*

In response to extreme weather-driven power issues across Sichuan, Chongqing and Jiangsu, **China's** energy regulators have been considering options to avoid another national energy crisis akin to [October](#) last year. Beijing appears to be edging toward more central management of the country's grid. Demand response, coordinated by regional power load management centres (PLMCs), is emerging as part of Beijing's energy security playbook. Traditionally, China's networks have operated in isolation at the city or district-level. Local policy makers were instructed to establish PLMCs capable of managing at least 5 percent of their region's peak load levels. In August, Tianjin became the first province in China to set up a provincial level PLMC. Five more provinces have since set up their own.

Demand-response regulation also opens up new revenue streams for companies. On August 11, Tianjin's PLMC compensated a local auto parts manufacturer for shifting its production from daytime to night-time. PLMC saved over RMD 30,000 (approximately US\$4,300) in electricity bills and received a RMD 170,000 (approximately US\$24,500) for reducing its load. Tianjin's PLMC alone currently has more than 5.6 GW of dispatchable demand-side energy sources – nearly seven times the capacity of Shenzhen's city-level virtual power plant (VPP) – a less advanced management centre than a PLMC. While use of demand response in China is nascent at this stage, the International Energy Agency has forecast that it could provide as much flexible capacity as batteries over the coming decades because of its high proportion of large-scale industrial end users. Ultimately, the use of PLMCs marks a new era for the regulation of China's electricity markets.

## US flags support for Egypt's sustainable financing vehicle

*Egypt is sharply focused on attracting climate adaptation and resilience financing for developing countries*

After President **Biden's** Special Presidential Envoy for Climate John Kerry visit to Egypt last week, the **US** agreed to [announce](#) support at COP27 for an **Egyptian**-led facility that delivers on energy, water and food security objectives. Egypt's Nexus of Water, Food, and Energy (NWFE) programme, launched in July, aims to attract foreign direct investment in sustainable agriculture and water systems and renewable energy. Under the agreement, nearly US\$10 billion of assistance will be provided to Egypt in the form of grants, 'soft financing' and private sector investment. It is unclear how much the US will tip in although Kerry indicated that the US may support the replacement of 17 Egyptian natural gas-fired power stations with 10 GW of wind and solar. The [World Bank](#), [Canada](#), and the **European Bank** for Reconstruction and Development are also considering investing.

In the lead up to [COP27](#), developed countries have been under pressure to make good on their promise to provide low and middle-income countries with US\$100 billion a year in climate financing. Recently announced mechanisms to assist developing countries include the Group of 7's Partnership for Global Infrastructure Investment (GIIP), and the Just Energy Transition Partnership (JETP), which aims to mobilise [US\\$8.5 billion](#) to accelerate the decarbonisation of **South Africa's** energy system. Many of the priorities of the initiatives announced to date have been influenced by the priorities of developed countries, including national security and clean energy supply chains. Egypt's NWFE is one of the first transition financing mechanisms where the design has been led by a developing country, and is reflective of Cairo's broader COP27 focus to attract financing for adaptation and resilience in developing countries.

## China pushes boundaries in Indonesia's North Natuna Sea

*Beijing shows no signs of stepping down*

**China's** encroachment upon **Indonesia's** exclusive economic zone (EEZ) in the North Natuna Sea is disrupting natural gas and oil exploration activities. Indonesia has an EEZ in the North Natuna Sea, where it has 'exclusive sovereign rights' under a UN Convention to exploit natural resources within the zone. The area has an estimated 46 trillion cubic feet of recoverable natural gas reserves. Foreign ships can sail through but must receive permission to carry out survey activities or exploit the area's natural resources. The North Natuna Sea overlaps with China's "nine-dash line" claim in the South China Sea, which Indonesia has refused to recognise. Tensions over North Natuna have been developing since December 2019, when Chinese fishing vessels entered Indonesian waters.

The **UK's** Harbour Energy has the largest interests in the North Natuna Sea. Harbour Energy has seven producing gas fields and plans to pipe natural gas from Indonesia's Tuna Block across the maritime border into **Vietnam's** offshore Nam Con Song gas pipeline [network](#). In July 2021, a Chinese coast Guard ship approached the site and instructed workers to cease operations. A Chinese survey vessel then spent seven weeks conducting seabed mapping inside the EEZ. The Indonesian government made no official protest. In December 2021, China [instructed](#) Indonesia to stop Harbour Energy's drilling in the Tuna Block area. Though Indonesia did not stop the drilling, there was no political or military pushback. In July, Harbour Energy completed the drilling of one of its exploration wells. It is targeting a final investment decision for the entire block in the first half of 2023, with production scheduled to begin in 2026. China's continual probing may yet complicate Harbour Energy's timeline.



Source: Asia Times

## Chinese solar PV manufacturers report record revenue

*Beijing's dominance over solar production has resulted in the proliferation of crystalline-silicon technology*

**Chinese** solar PV players [reported](#) massive increases in earnings in the first half of 2022 (H1). Shanghai-headquartered Jinko Solar reported the largest increase. Its H1 revenue was US\$4.8 billion, up 112 percent year on year. It delivered nearly 20 GW of solar products globally, up 79 percent compared with the same period last year. Jinko Solar was **India's** largest panel supplier in Q1 – representing [24 percent](#) of imported capacity. ChinT recorded US\$3.4 billion in revenue, up 45 percent. The company completed over 2,700 MW of residential PV installations in the January-June period. China Energy Engineering Corp's revenue was up 55 percent to US\$134 billion. It was contracted in February to construct [4 million bifacial solar](#) PV modules for **Abu-Dhabi's** Al-Dhafra 2,000 MW solar project.

The figures illustrate the exponential growth of China's solar PV industry in the last two decades. Chinese companies did not enter the race until the mid-2000s. Benefiting from an enviable innovation environment, China has since crowded out many other well-performing options, such as thin film technologies (TFTs), with its crystalline-silicon technology. Once all components required for PV's including polysilicon, ingots, wafers, cells, and modules are accounted for, China is estimated to hold over 80 percent of global PV production capacity. Beijing also beats **European** and **US** competitors by more than 20 percent in price, a figure that does not account for government subsidies. China's rapid commercialisation has significantly shortened the innovation timeline for the solar industry. In doing so its cost advantages have arguably 'locked-in' certain technologies.