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In this week"s Caixin energy wrap, key developments in China"s climate and energy landscape are highlighted, including milestones and shifts in policy, industry updates, and specific projects that reflect the country"s commitment to green energy.

What"s new: China has achieved a significant milestone where its installed capacity for wind and solar power has surpassed that of coal for the first time. As of the end of June, China"s grid-connected wind and solar capacity stood at 1,180 gigawatts (GW), which is 38.4% of the country"s overall installed power capacity. In contrast, coal power"s capacity was 1,170 GW, representing 38.1% of the total [para. 1][para. 3].

Why it matters: This achievement is a testament to China"s rapid development of wind and solar farms. The International Energy Agency (IEA) predicts that China will meet its 2030 wind and solar capacity goals within this year or next, far earlier than planned. A recent analysis indicates that China is constructing almost twice as much wind and solar capacity as the rest of the world combined [para. 5][para. 6].

What"s new: China is planning a pivotal shift in its climate policy to put a primary focus on carbon emissions. This involves transitioning from current targets based on overall energy consumption and energy used per GDP unit to new targets, specifically carbon emissions and carbon intensity [para. 10][para. 12][para. 14].

Why it matters: This change is anticipated to boost economic development by removing constraints on energy consumption and encouraging the use of renewable energy sources. Moreover, a carbon emissions-based system will oversee all sectors such as transportation and construction, unlike the current setup that mainly targets the energy sector [para. 16].

What"s new: A fully green virtual power plant (VPP), China"s first, has commenced operations in Ningbo, Zhejiang province. Operated by China General Nuclear Power Corp. (CGN), the plant integrates distributed photovoltaic (solar) systems, an energy storage system, and charging piles, supplying 80% of the industrial park"s electricity needs [para. 18].

Why it matters: VPPs aggregate electricity from various sources, improving efficiency and reducing costs. This advancement underscores China"s innovation in integrating renewable energy technologies into practical, large-scale applications [para. 20].

What"s new: Beijing has issued a plan to ensure that data centers increasingly use renewable electricity, raising the proportion by 10% annually through to 2025. New data centers in key national computing hubs must ensure that more than 80% of their total electricity usage is green by 2025 [para. 24][para. 26].

Why it matters: The plan is crucial as data centers consumed 270 terawatt-hours (TWh) of electricity in 2022, about 3% of the national total, a figure expected to reach nearly 400 TWh by 2030. This strategy supports China"s broader goal of sustainable energy consumption [para. 30].

What"s new: Yan Gang from the Chinese Academy of Environmental Planning emphasized that Chinese steelmakers must accurately gauge their carbon emissions at every production phase and improve the quality of their emissions data to prepare for the national carbon market [para. 32].

Why it matters: China"s national carbon market currently covers power companies and has yet to expand to other industries such as steel, which face complex emission tracking challenges. Better emissions data management will be vital for including more industries in the market and advancing China"s carbon reduction goals [para. 34][para. 36].