SPS
New Power
Systems

# Developing a New Power System Aligned With the Next Round of Wind and Solar Growth Targets

CCICED

## Focus

- We explored how to reduce reliance on conventional power sources and expand the use of renewables across China's economy.
- We analyzed how market reforms can promote flexibility on the energy demand side and how that can increase renewable energy use.

## Findings

✓ There is still significant untapped potential for China to reduce costs, cut emissions, and improve reliability across its energy system, including through demand-side energy market reform. However, China continues to build large amounts of conventional power, including coal, to complement renewables on the grid.

✓ Several promising energy market reforms are underway across China, including dynamic pricing, virtual power plants, and demand-side resource mobilization. These can in turn deliver power flexibility services (such as power reserves, peak shaving, and congestion management) quickly and at a low cost.

## Recommendations

1 **FOSTER** new, flexible power supply models across China, including through demand-side energy market reforms.

2 **REPLACE** power spot market price limits with modern market power mitigation mechanisms. This will help ensure that virtual power plants are compensated for the full range of energy flexibility services they provide.

3 **STRENGTHEN** China's domestic power system planning and frameworks and support key emerging technologies, such as flexible high-voltage direct current transmission and long-duration energy storage.

4 **STRENGTHEN** energy coordination, advance power–transport, power–heat, and power–hydrogen integration, cultivate new flexible resources, and enhance system flexibility and renewable energy integration.