
Distributed Renewables: A Key Driver of Power System Transformation

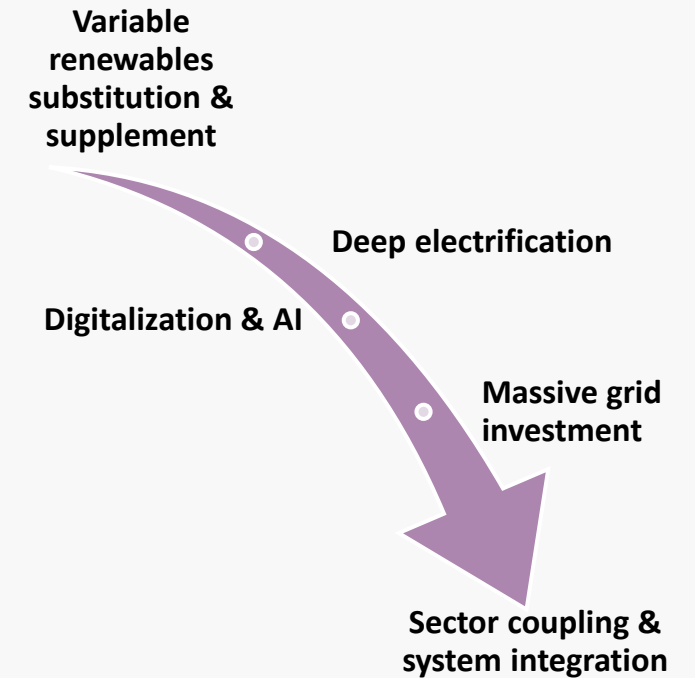
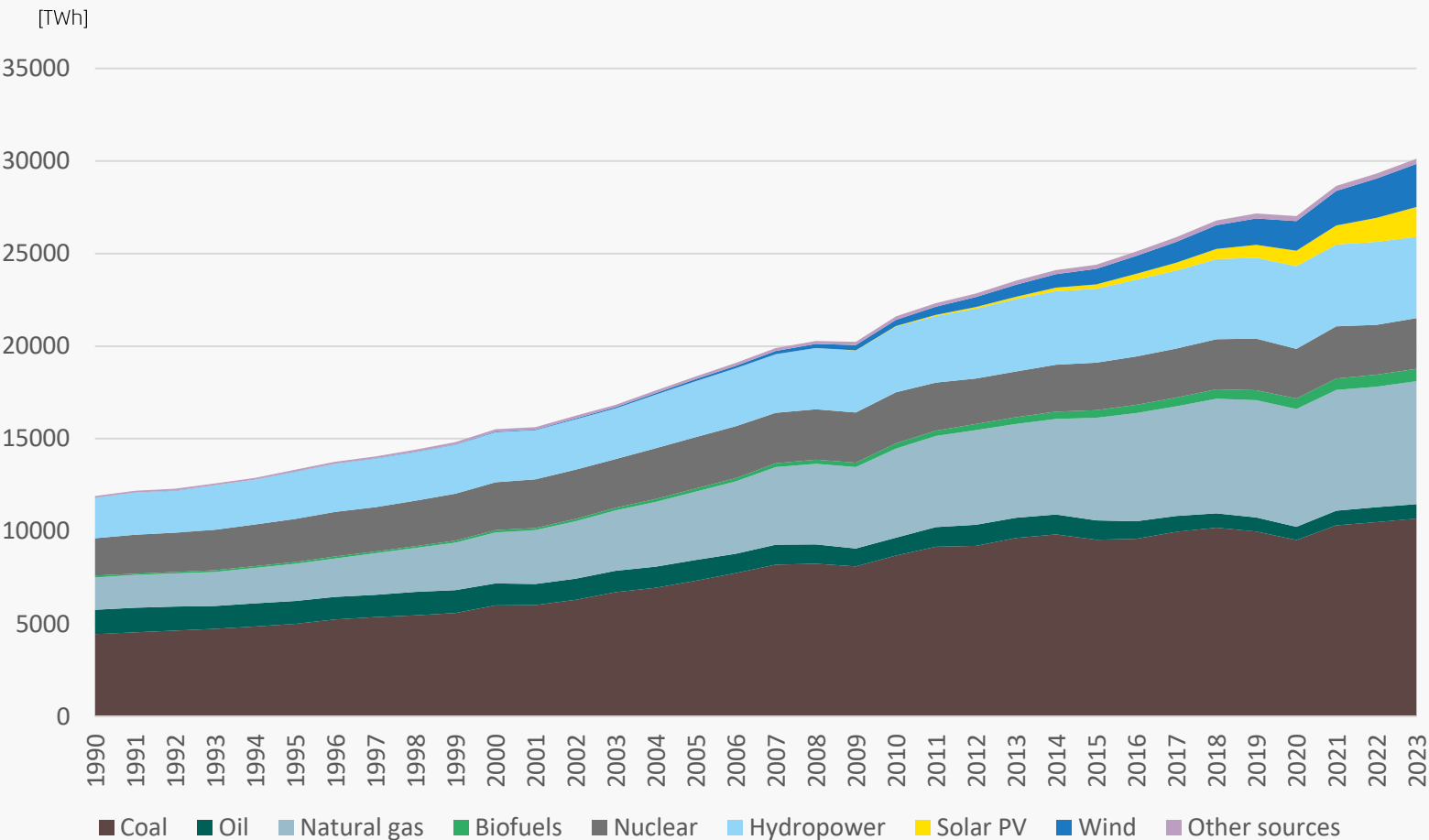
分布式可再生能源： 电力系统转型的重要驱动力

Agora Energy China

Nov. 06, 2025

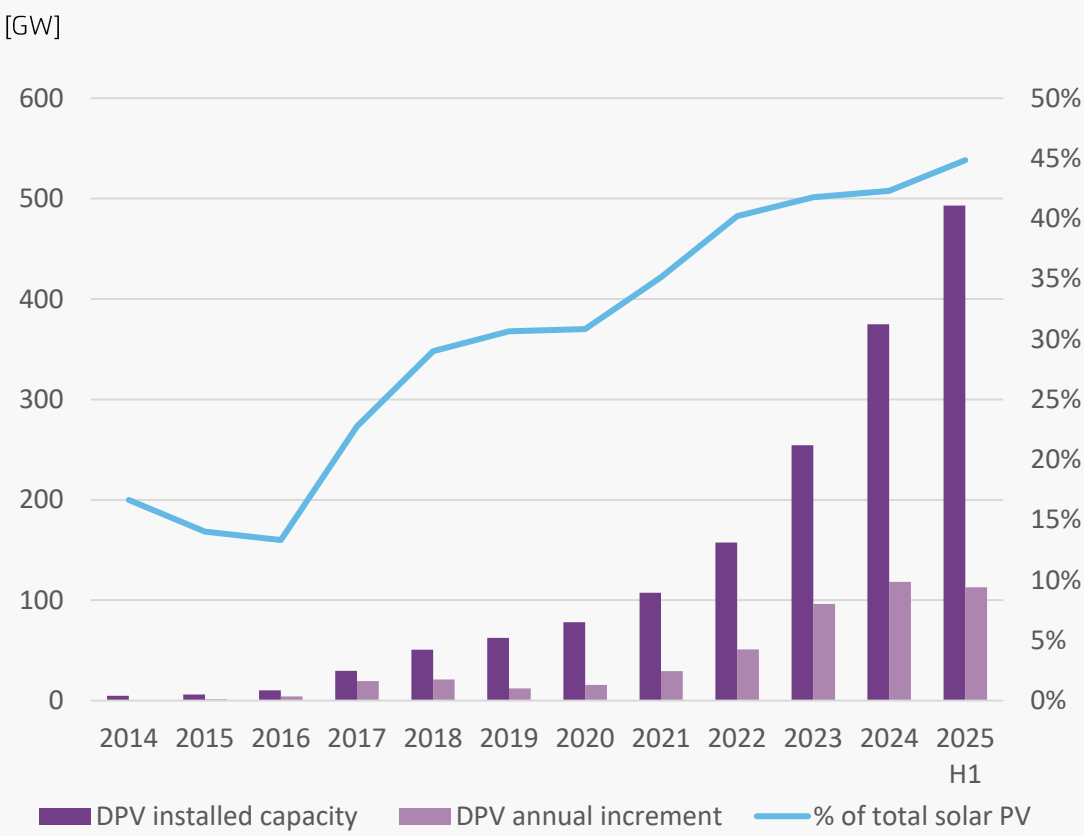
Renewables, Electrification, and Digitalization Driving Global Power System Transformation 可再生能源、电气化与数字化驱动全球电力系统转型

World total electricity generation by source, 1990-2023



Distributed Renewables Usher in a Holistic Transformation of China's Power System 分布式可再生能源驱动中国电力系统深度转型

Distributed Solar PV as the renewable driving force in China



Structural imbalance

Power generation vs grid investment

Technical bottlenecks

VRE integration vs system flexibility & adequacy

Institutional barriers

Old one-way planning vs new bidirectional market-based system

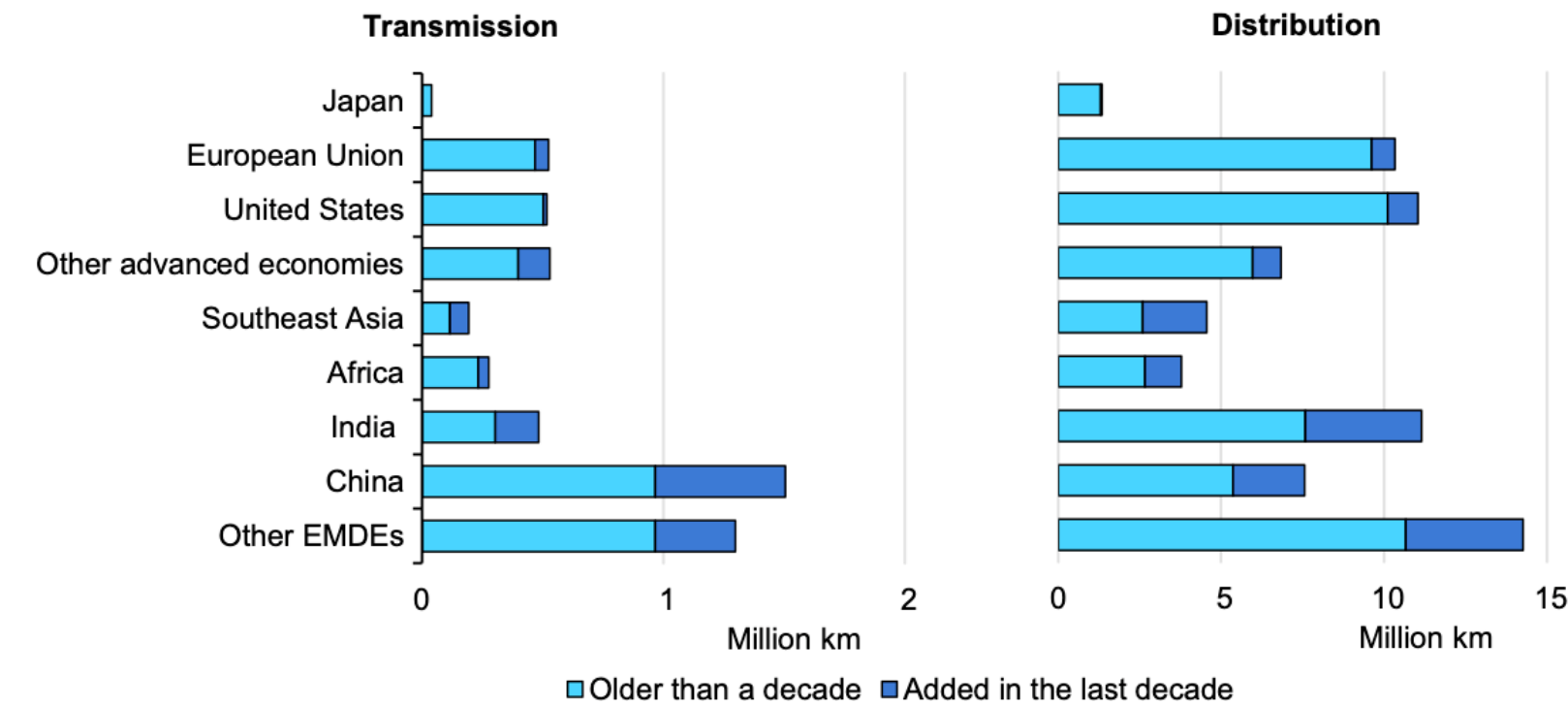
Incomplete market reform

Ineffective price signals and insufficient investment incentives

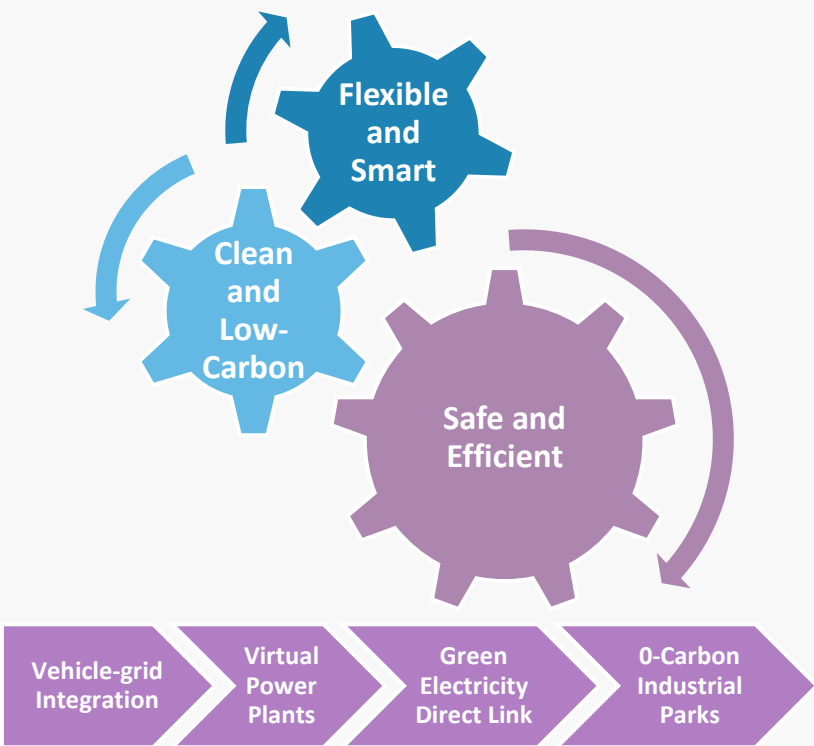
...Whereas Distribution Grids Stand as Both the Stress Point and the Catalyst for Change 配网面临压力但也是改革的突破口

China’s distribution grid expansion lags transmission development

Electricity transmission and distribution lengths by age and country/region, 2021

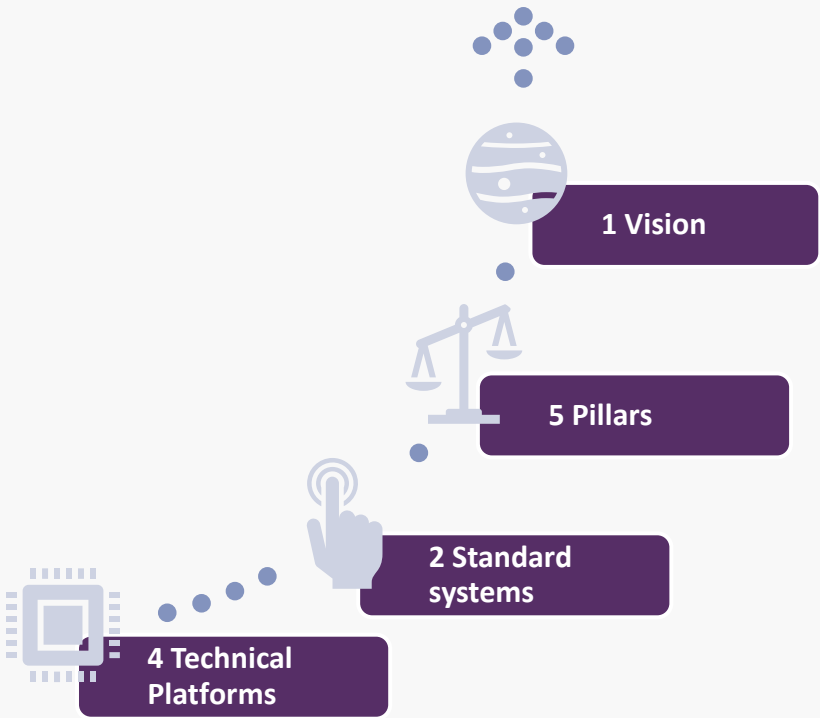
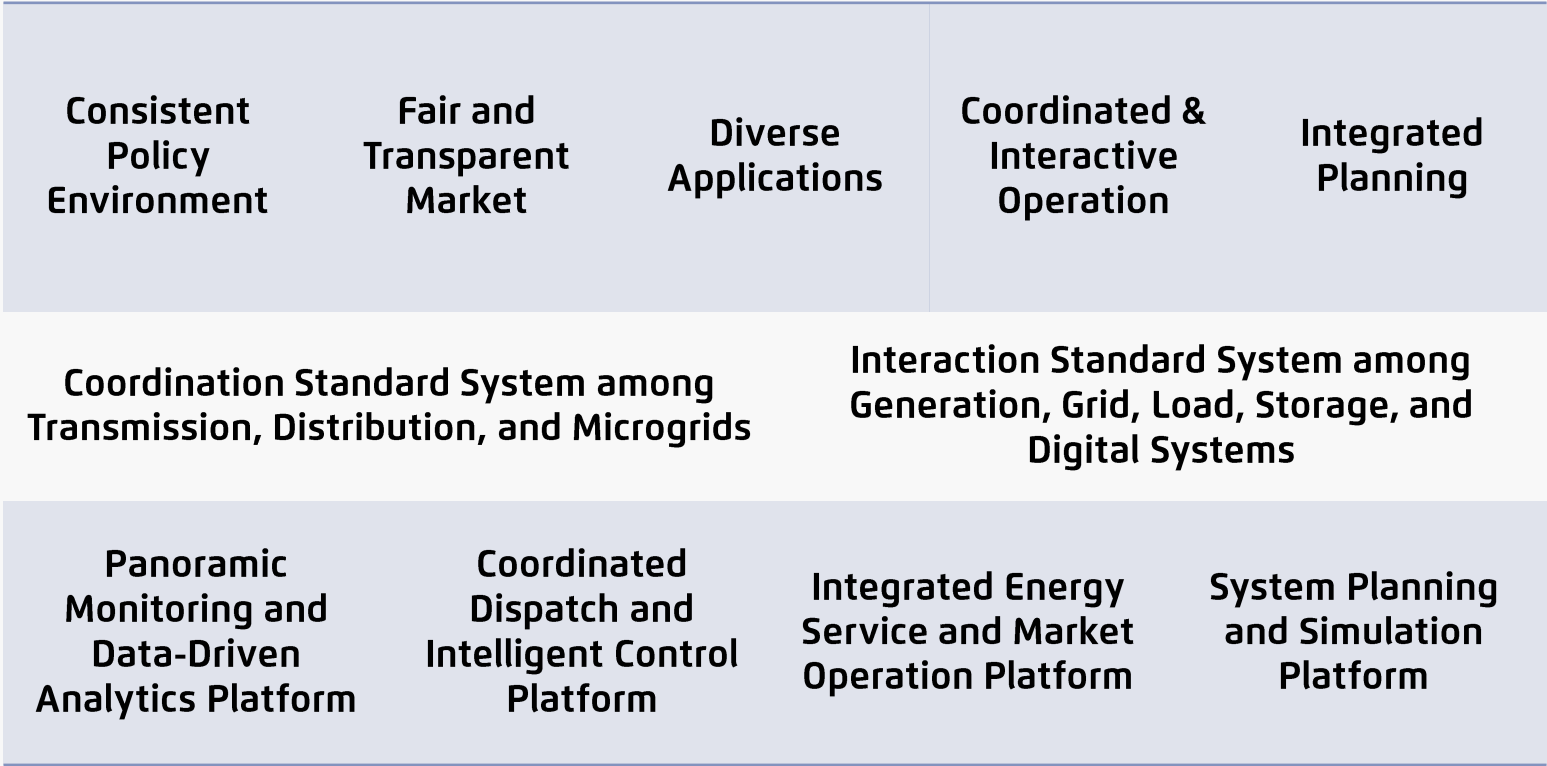


New Distribution System envisioned by NEA (2024)



Reimagining a Distributed Renewables–Centered Power Future for China and Beyond 对以分布式可再生能源为中心的电力系统的想象力

Building a Green and Inclusive Ecosystem



博众智合能源转型
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If you have any questions, please feel free to email me.

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