



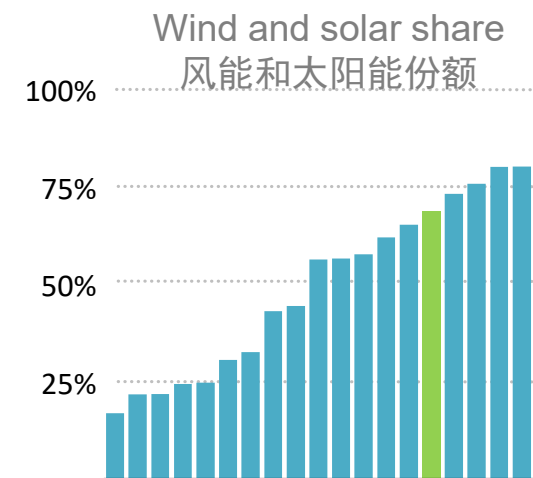
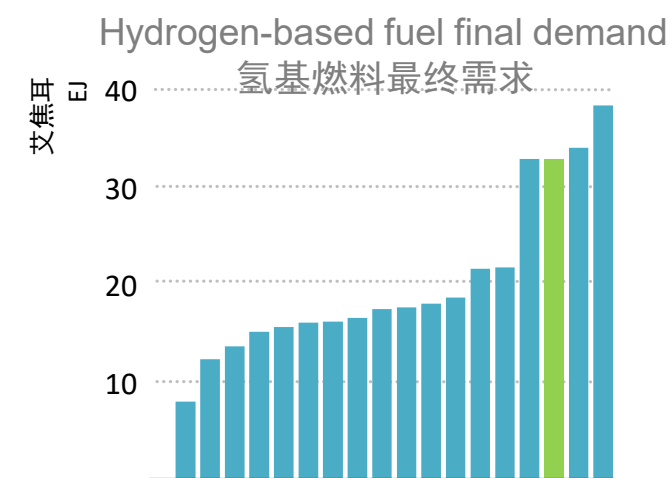
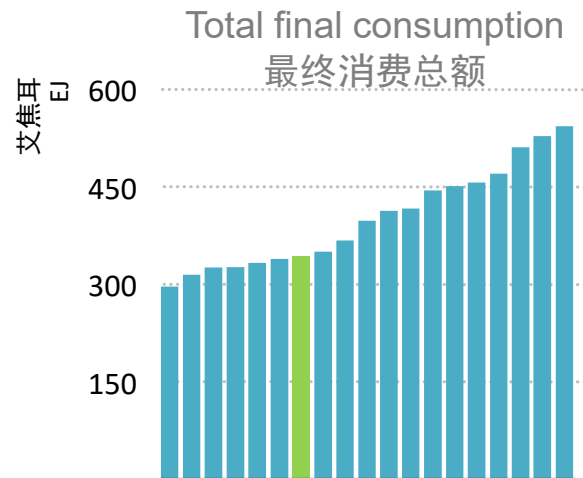
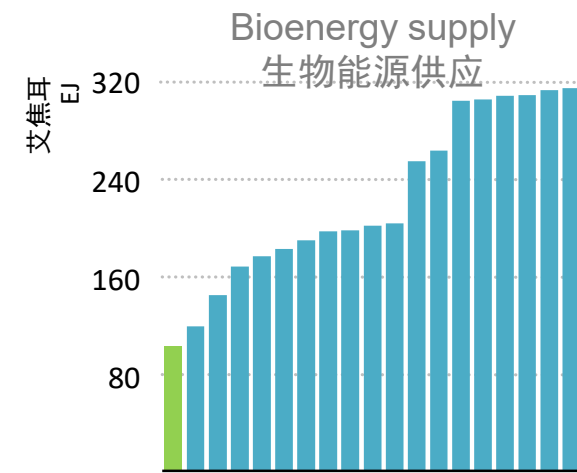
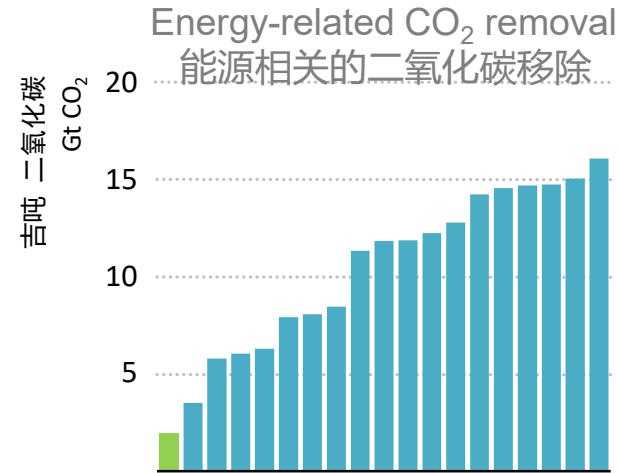
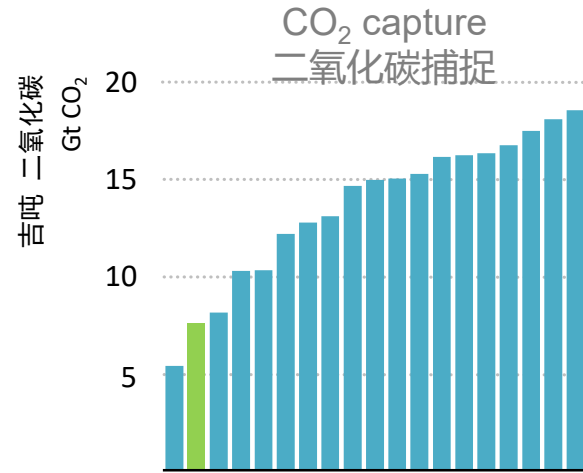
Net Zero by 2050: a Roadmap for the Global Energy Sector

全球能源行业2050净零排放路线图

China launch, 8 June 2021
中国发布会, 2021年6月8日

The IEA's NZE in 2050 compared with IPCC net-zero scenarios

与政府间气候变化专门委员会净零情景相比，国际能源署的2050净零排放



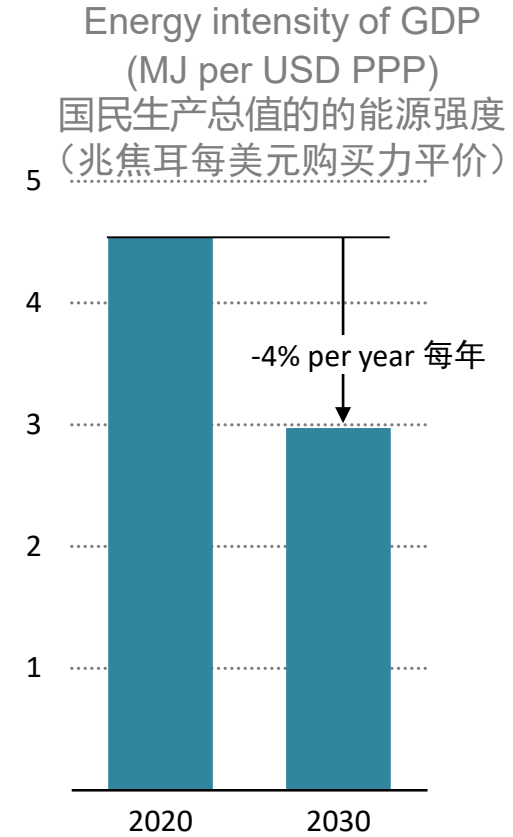
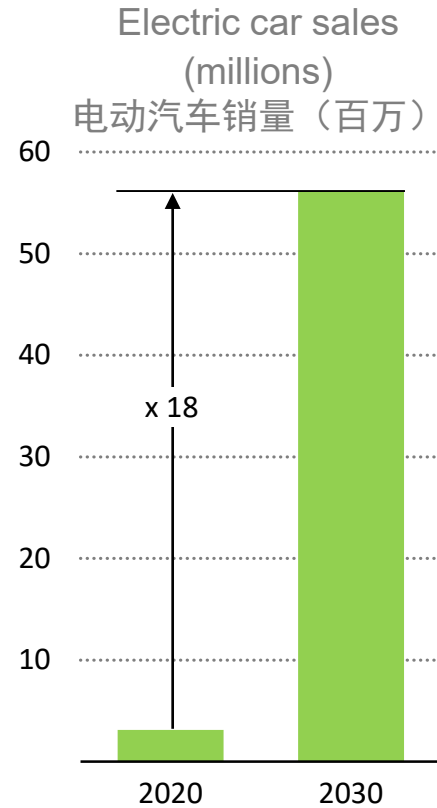
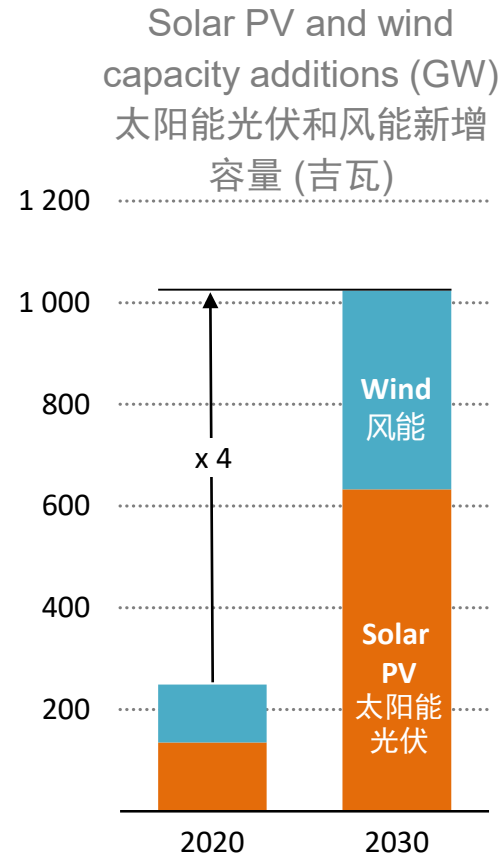
- Scenarios assessed by IPCC
政府间气候变化专门委员会评估的情景
- IEA NZE scenario
国际能源署的净零排放

The IEA NZE scenario uses more renewables, energy efficiency, and hydrogen – and less CO₂ capture, negative emissions and bioenergy – than IPCC scenarios of a comparable ambition

与政府间气候变化专门委员会的净零排放情景相比，国际能源署的相似情景使用更多的可再生能源、能源效率和氢——以及更少的二氧化碳捕捉、负排放和生物能源

Make the 2020s the decade of massive clean energy expansion

让 2020 年代成为清洁能源大规模扩张的十年

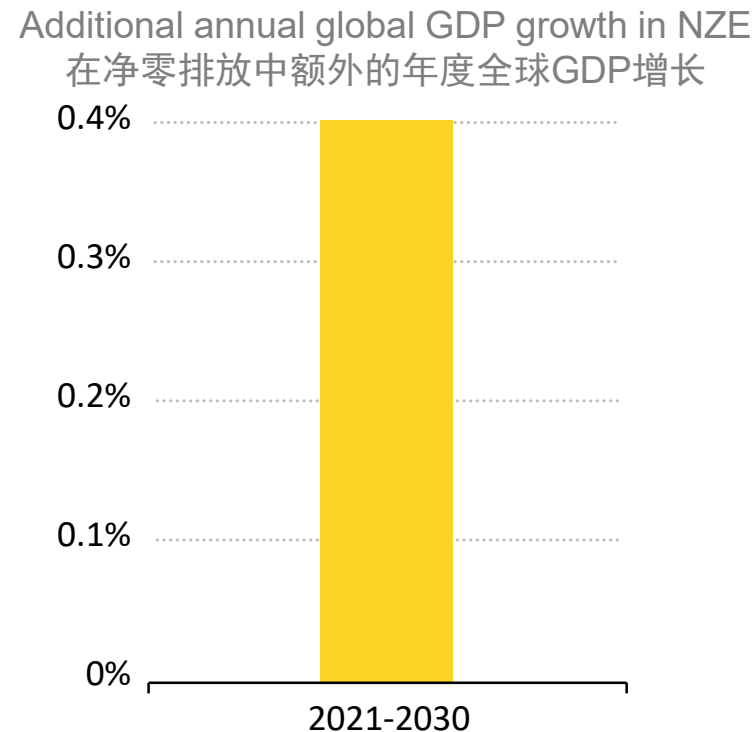
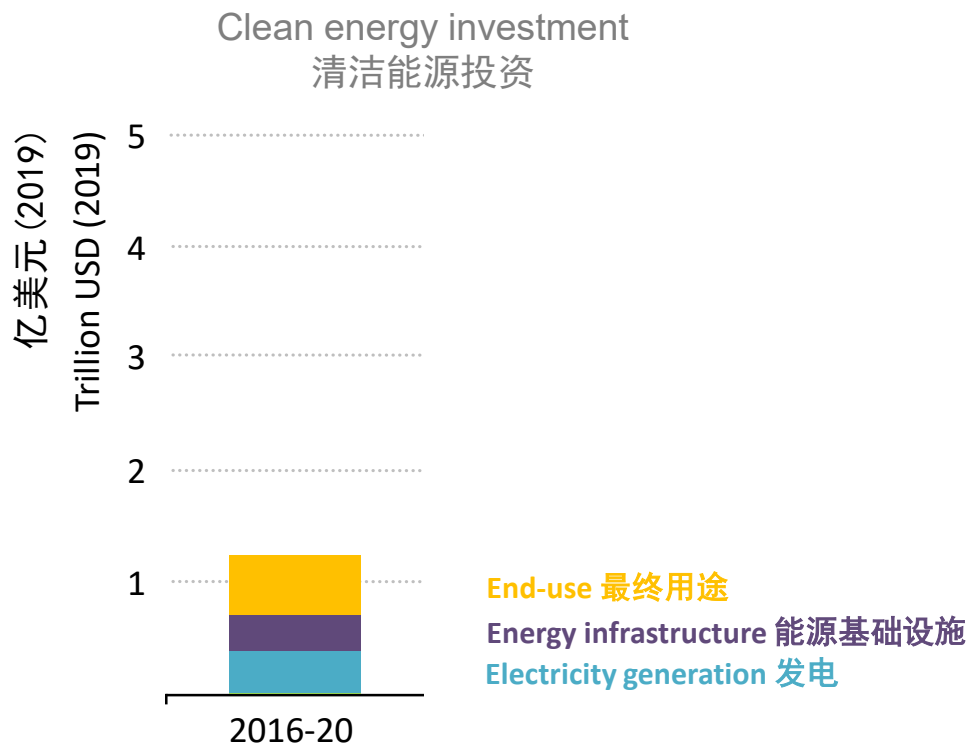


Technologies for achieving the necessary deep cuts in global emissions by 2030 exist, but staying on the narrow path to net-zero requires their immediate and massive deployment.

要在2030年前实现必要的全球排放大幅削减，其所需的技术已经存在，但想要走在通往净零的必经之路上，需要立即大规模部署这些技术。

Drive a historic surge in clean energy investment

推动清洁能源投资的历史性激增

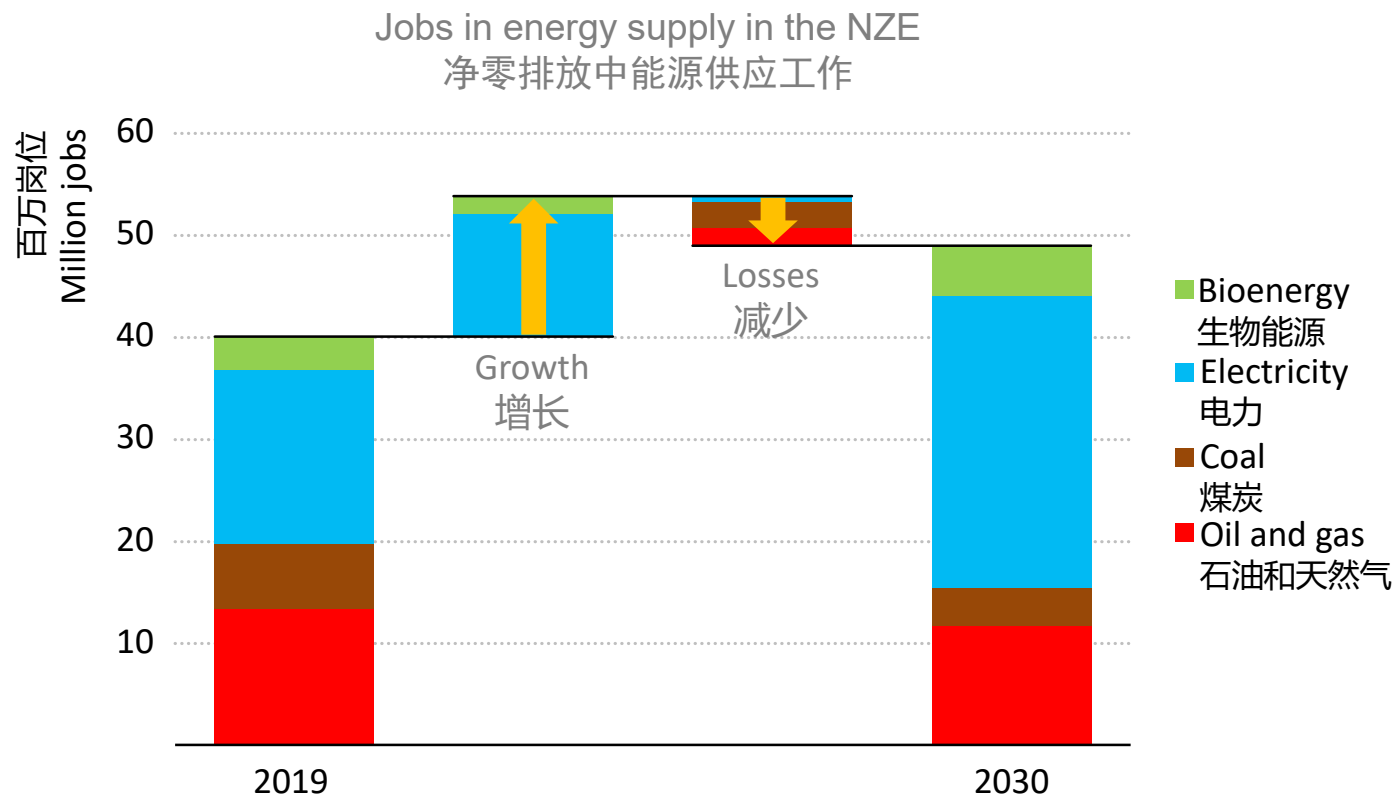


Annual clean energy investment more than triples by 2030 in the NZE scenario, driving an average 0.4% per year increase in global GDP to 2030 & speeding the recovery from the COVID-19 shock

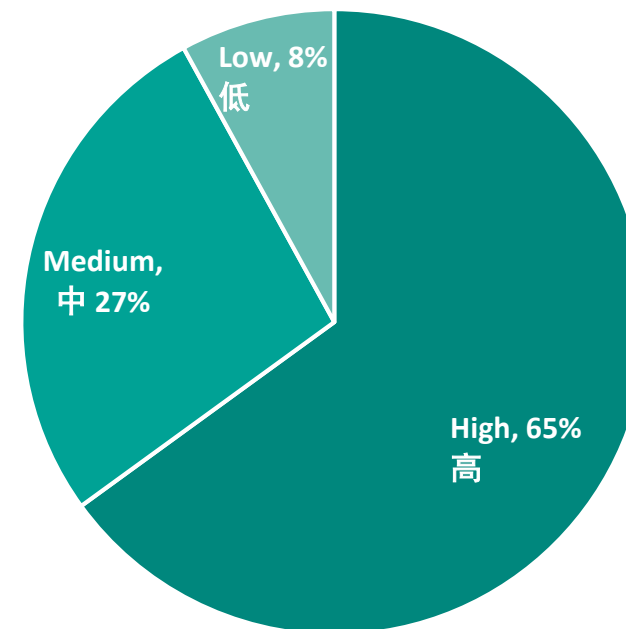
2030年前在净零排放情景下，年度清洁能源投资将增加两倍以上，驱动全球GDP从现到2030年平均每年增长0.4%，并加速从新冠肺炎疫情冲击中复苏

Clean energy jobs will grow strongly but must be spread widely

清洁能源工作将强劲增长，但必须被广泛推广



Skill level of new workers in the NZE, 2030
净零排放中2030年新工人技能水平



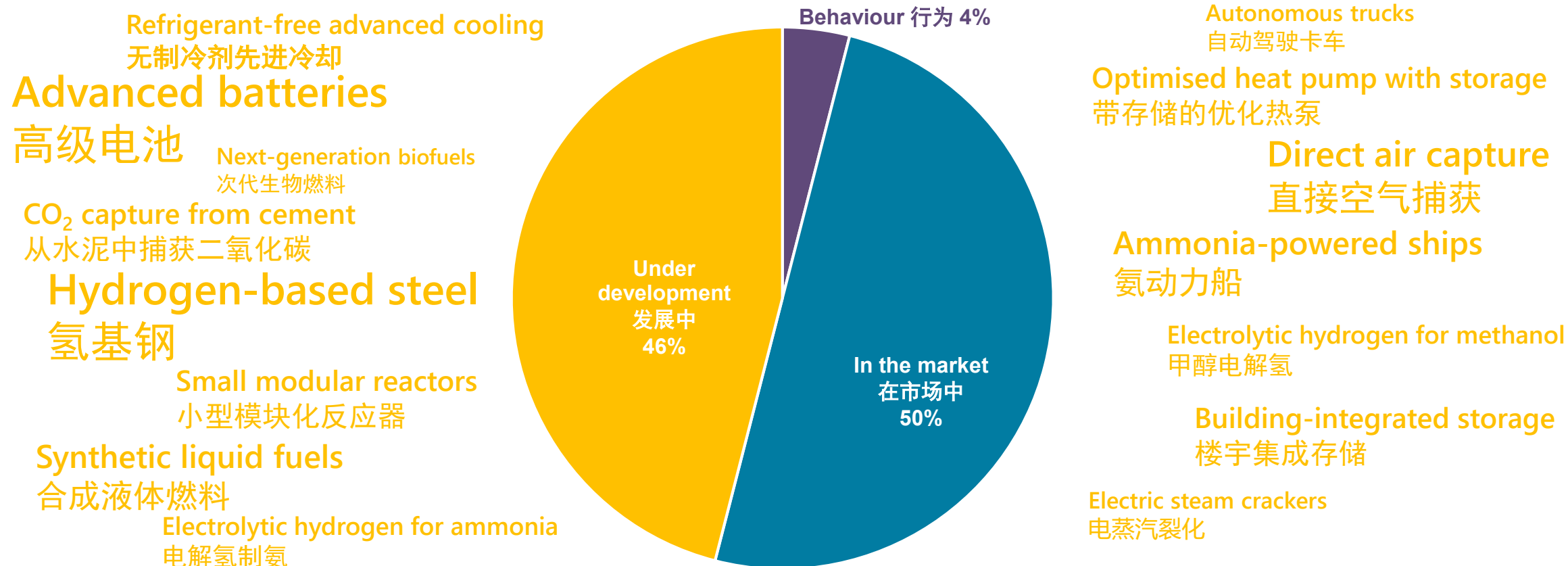
By 2030 there are 14 million jobs created in global energy supply, and a further 16 million in clean energy end-uses; but inclusive policies are needed to support reskilling & diversification in fossil-fuel dependent communities

到 2030 年，全球能源供应将创造 1400 万个工作岗位，清洁能源终端用途将再创造 1600 万个工作岗位；但依赖化石燃料群体的技能再培训和多样化需要具有包容性的政策支持

Prepare for the next phase of the transition by boosting innovation

通过促进创新为下一阶段的转型做好准备

CO₂ savings by technology maturity in 2050, NZE scenario
净零排放情境下，2050年技术成熟带来的二氧化碳减排量



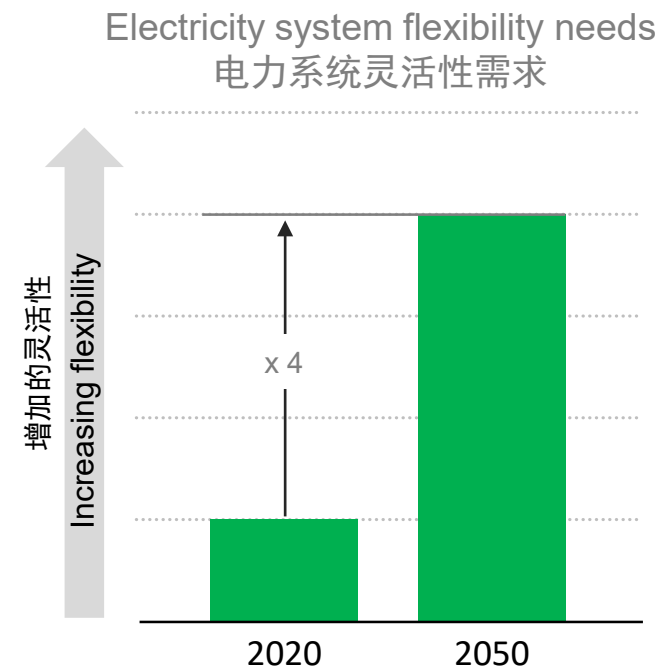
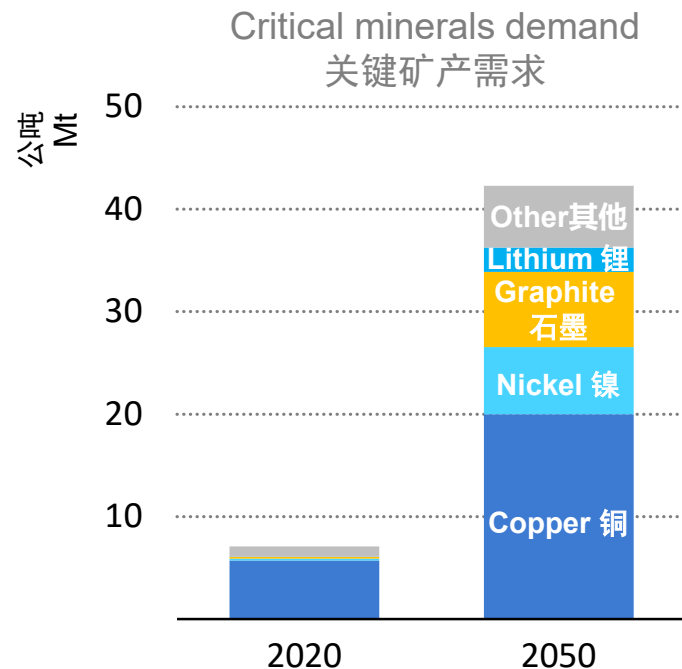
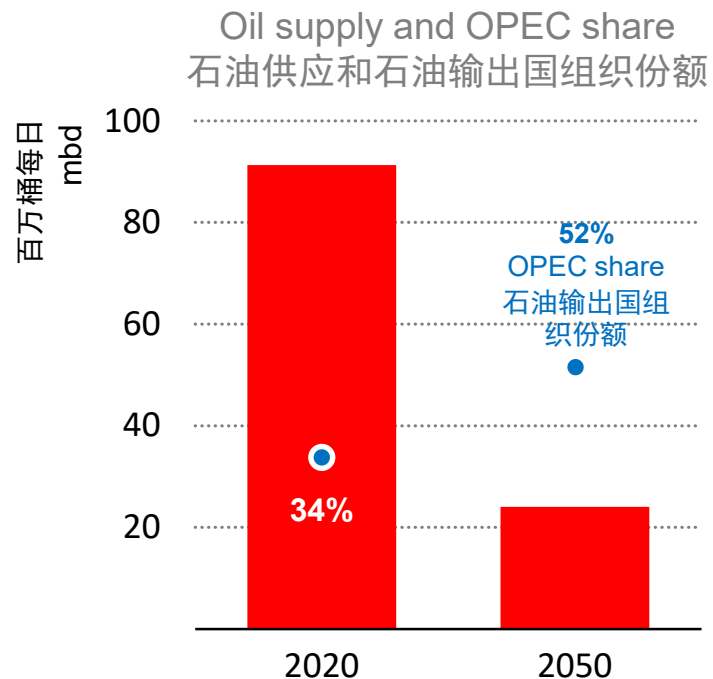
Unlocking the next generation of low-carbon technologies requires more clean energy R&D and \$90 billion in demonstrations by 2030; without greater international co-operation, global CO₂ will not fall to net-zero by 2050.

要想开启下一代低碳技术，就需要在2030年前进行更多的清洁能源研发和900亿美元的示范；

如果没有更广泛的国际合作，到2050年全球二氧化碳排放量不会降至净零。

Address emerging energy security risks now

现在就应对新出现的能源安全风险

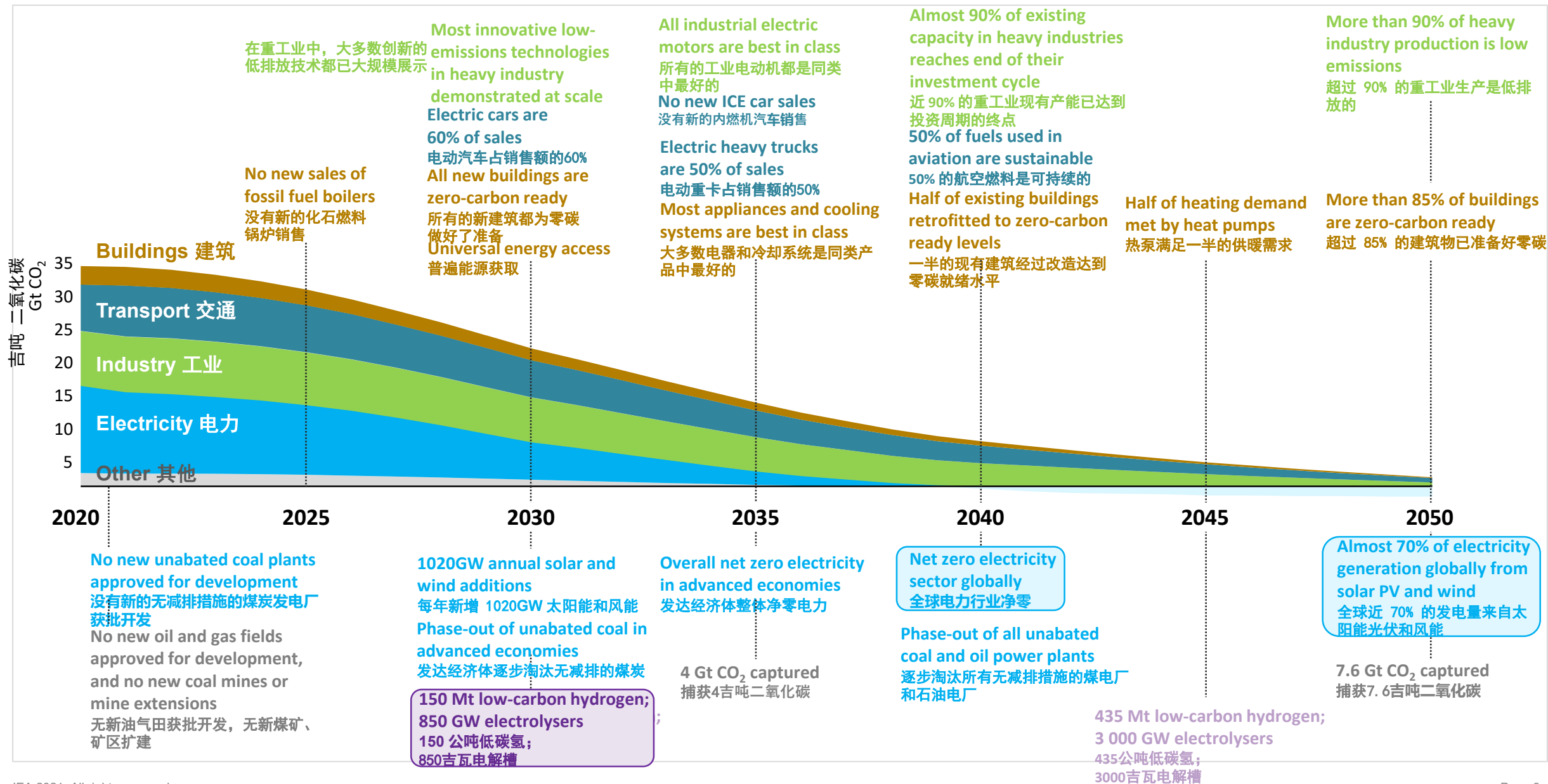


New energy security concerns emerge, and old ones remain; governments need to proactively plan for energy security risks related to market concentration, critical minerals and electricity systems.

**新能源安全问题层出不穷，旧问题仍然存在；
各国政府需要积极为与市场集中度、关键矿产和电力系统相关的能源安全风险作准备。**

Set near-term milestones to get on track for long-term targets

为长期目标设定近期里程碑



iea