



# World Energy Investment 2024

## 《2024年世界能源投资》

Cecilia Tam, Head of the Energy Investment Unit 国际能源署能源投资部主任

Haneul Kim, Energy Investment Analyst 国际能源署能源投资分析师

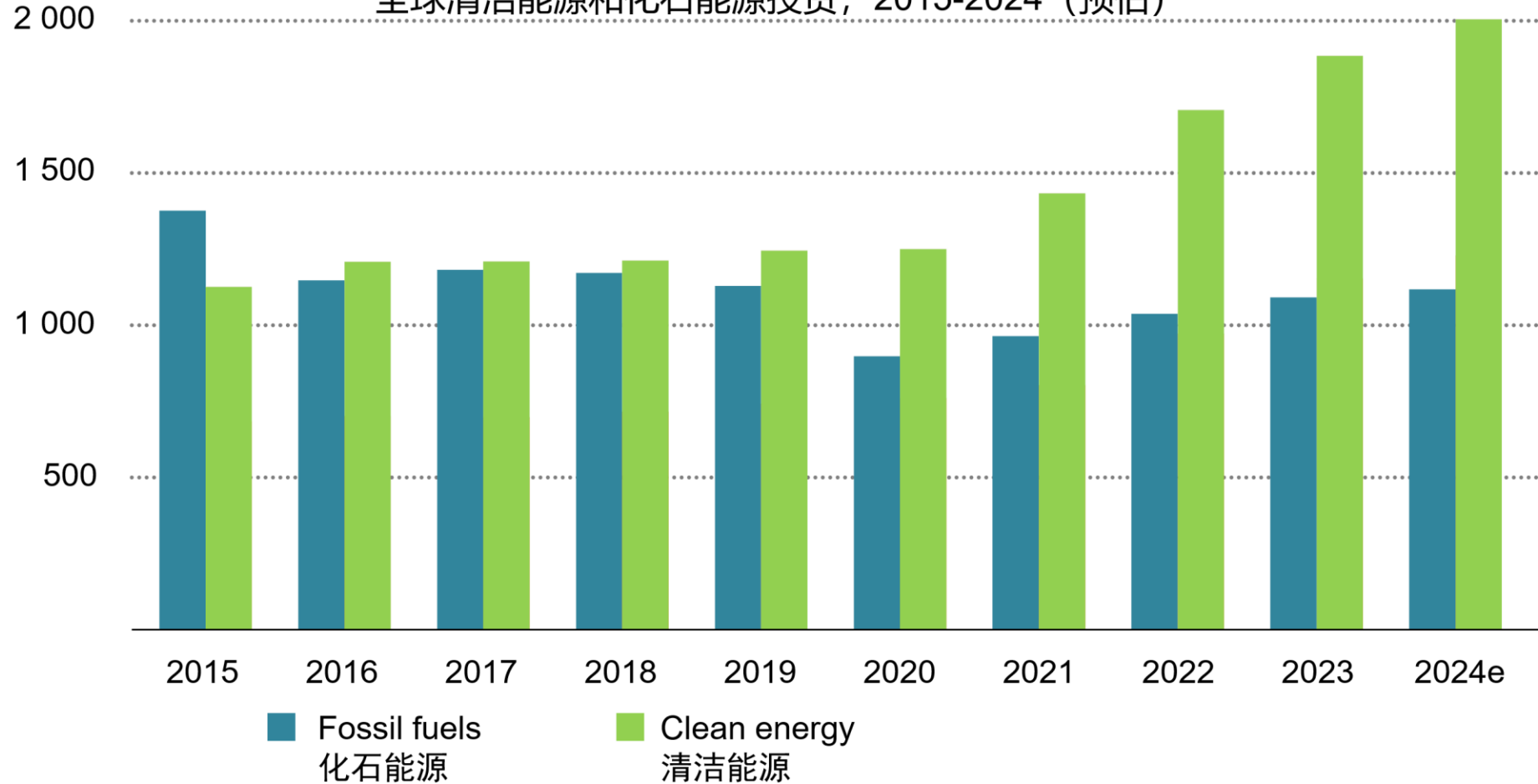
China launch presentation, 18 July 2024 2024年7月18日中国发布会

# Clean energy pushes global energy investment above USD 3 trillion

## 清洁能源推动全球能源投资超过3万亿美元

Global investment in clean energy and fossil fuels, 2015-2024e  
全球清洁能源和化石能源投资, 2015-2024 (预估)

Billion USD  
(2023, MER)



**Total investment in the energy sector is set to top USD 3 trillion in 2024, thanks mainly to strong clean energy growth.**  
**主要得益于清洁能源的强劲增长, 2024年能源行业的投资总额将突破3万亿美元**

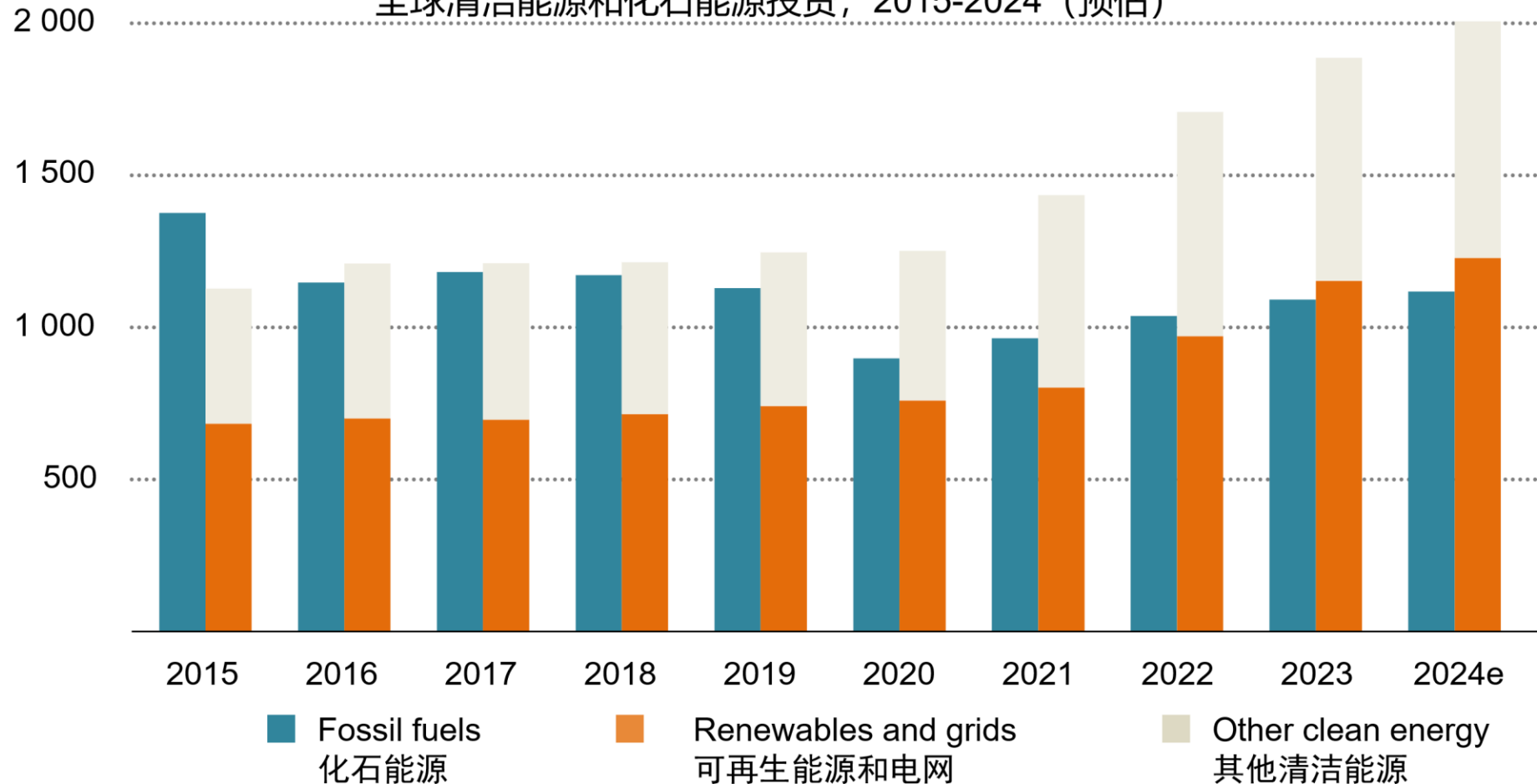
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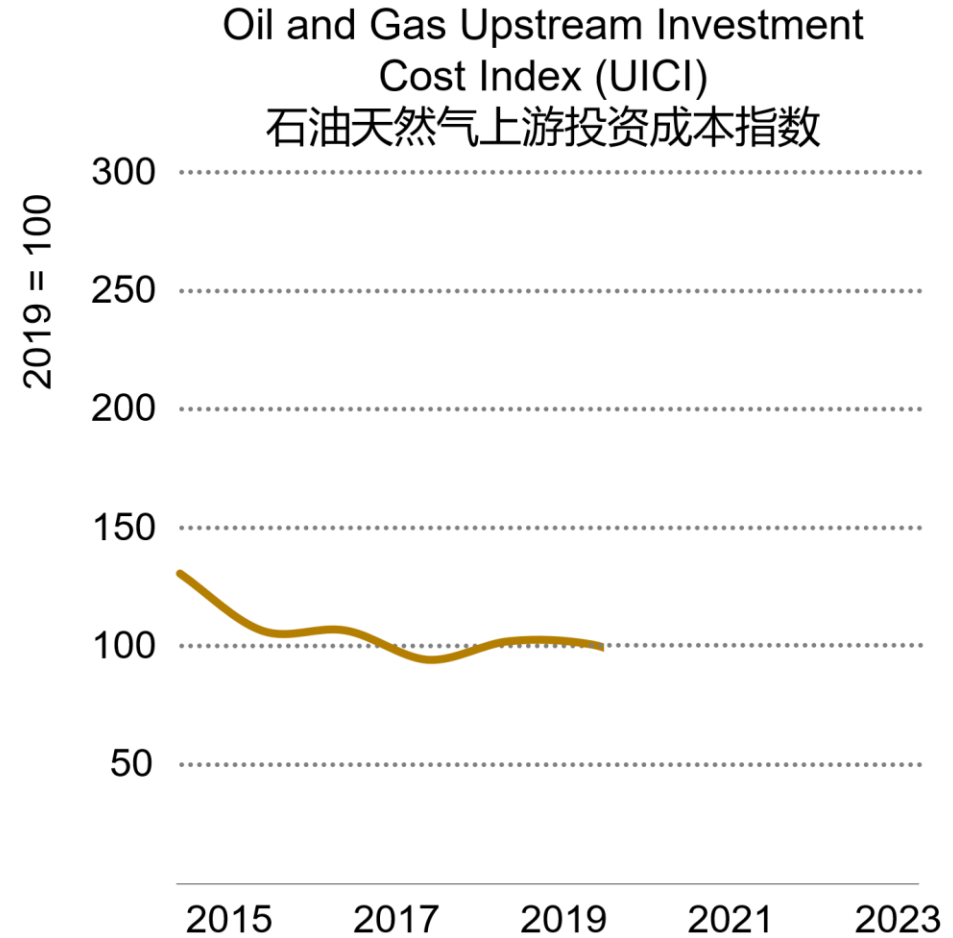
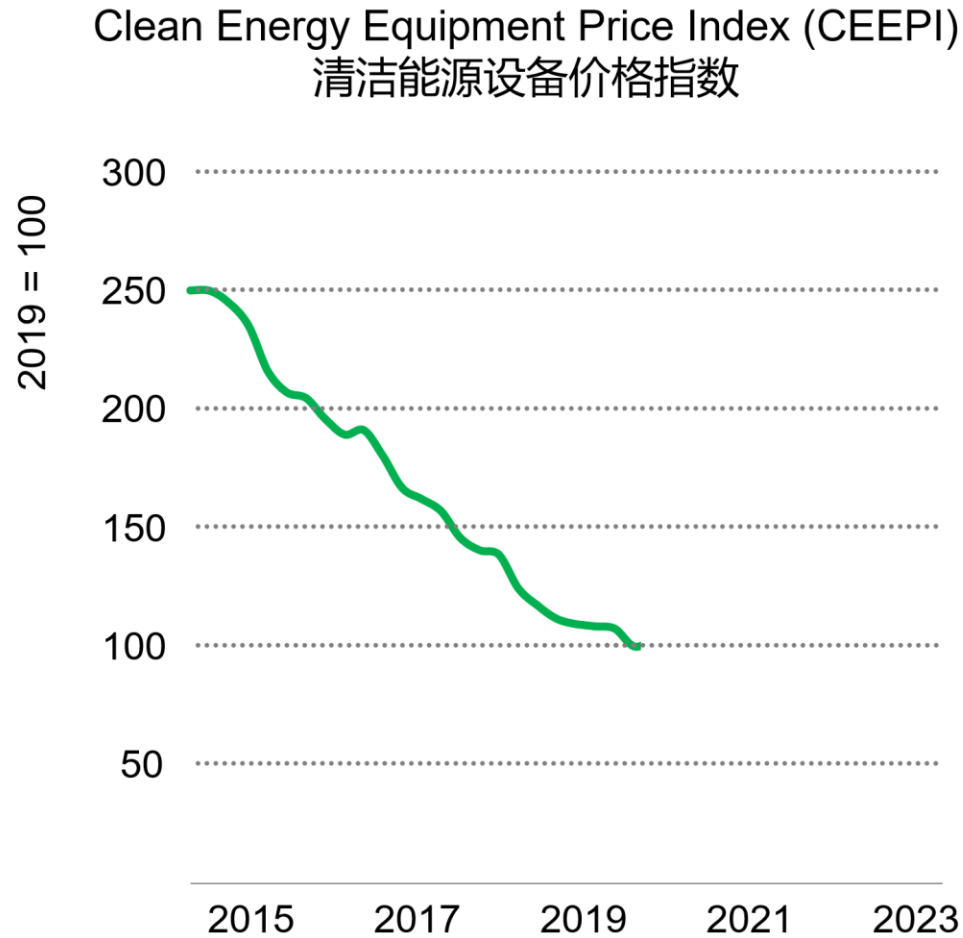
Billion USD  
(2023, MER)



**Spending on renewable power and grids, on its own, is now higher than investment in fossil fuels.**  
**仅可再生能源和电网本身的投资，目前已高于化石能源投资**

# Technology cost pressures are easing, but financing costs are up

技术成本压力正在缓解，但融资成本有所上升

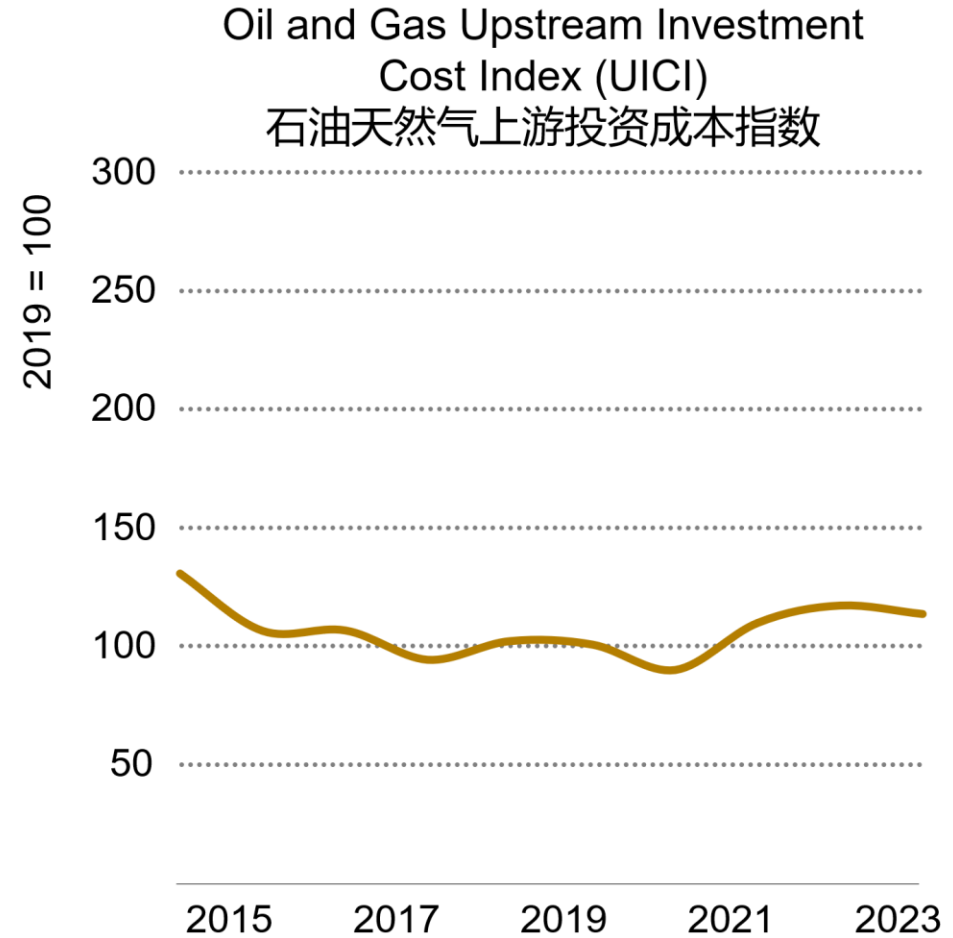
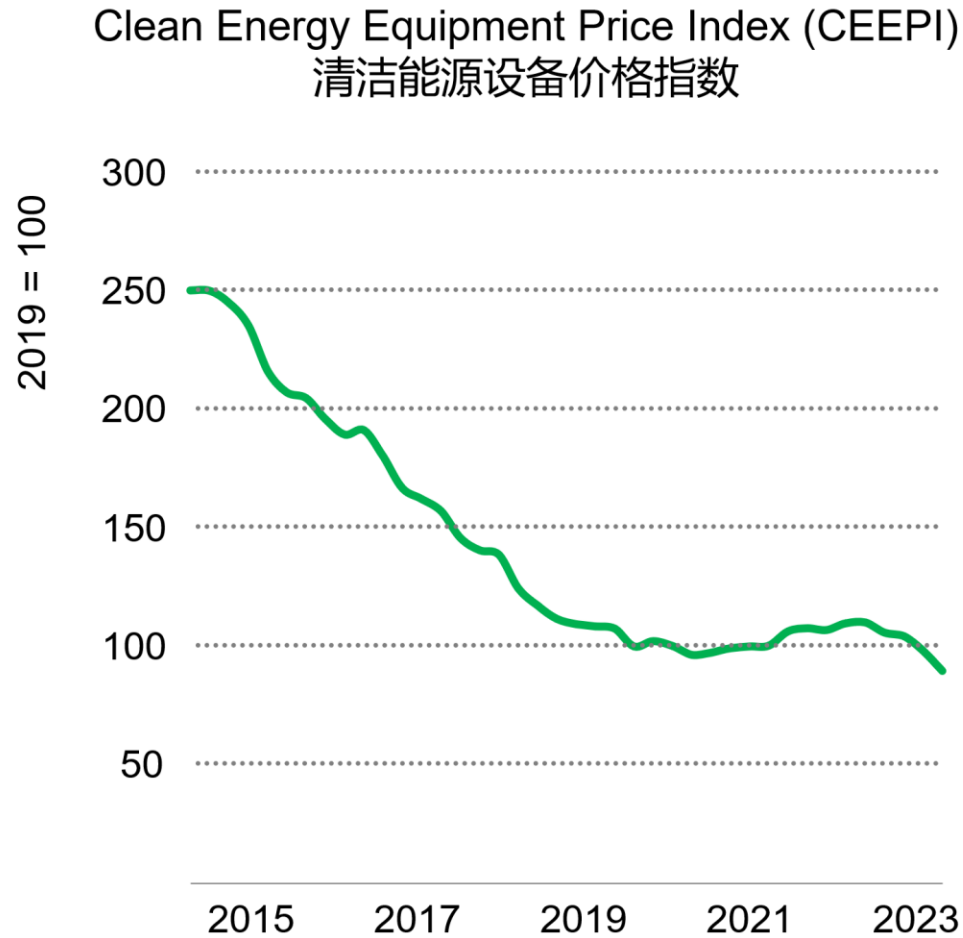


**Supply chain bottlenecks & more expensive mineral, energy & material inputs pushed up costs in 2021-2022: these pressures are easing, but higher interest rates & financing costs provide a headwind for capital-intensive projects.**

**2021-2022年，供应链瓶颈及更高价的矿产、能源和材料投入推高了成本：这些压力正在缓解，但利率和融资成本上升为资本密集型项目带来了不利因素**

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Clean energy

Fossil fuels

USD 2 Trillion

USD 1.1 Trillion

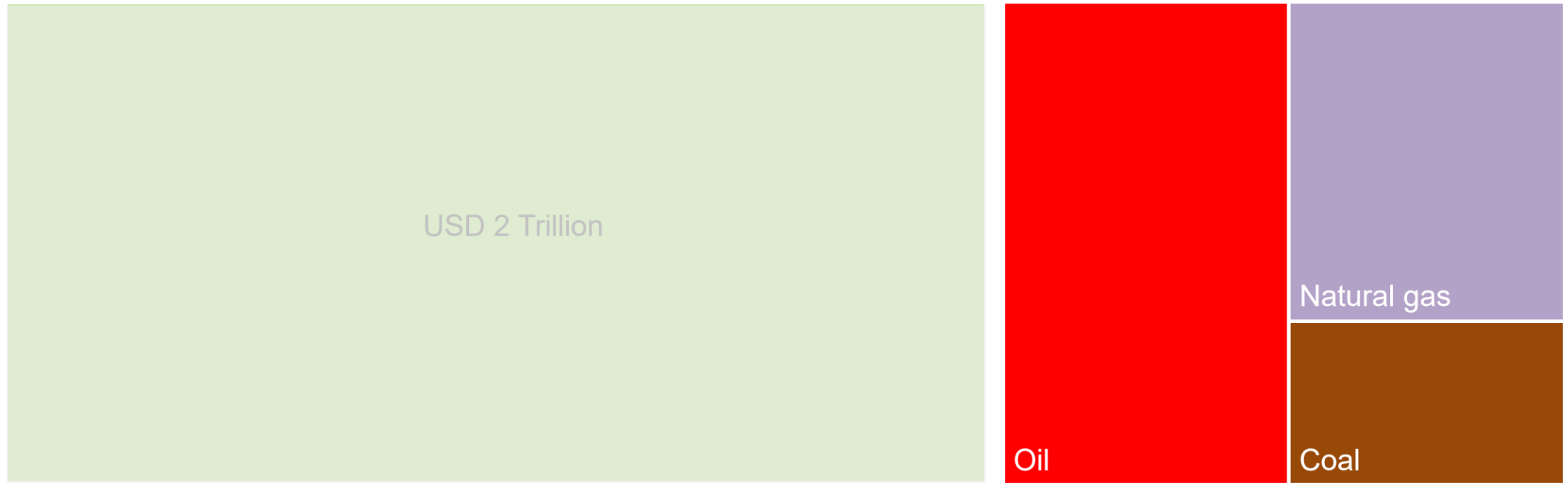
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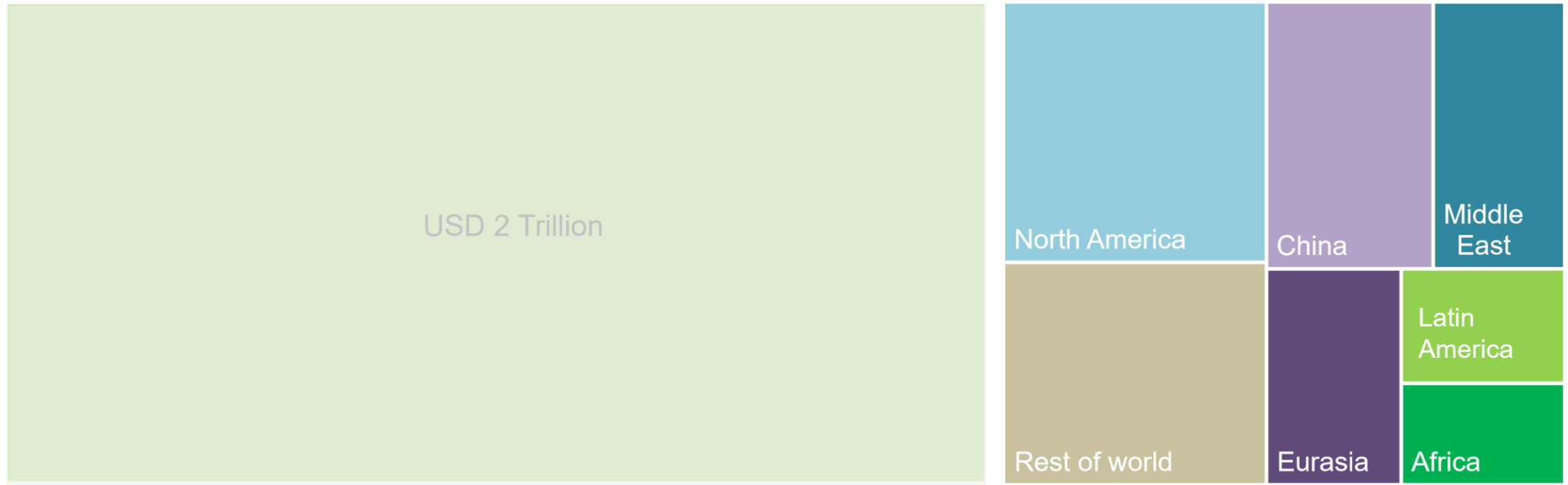
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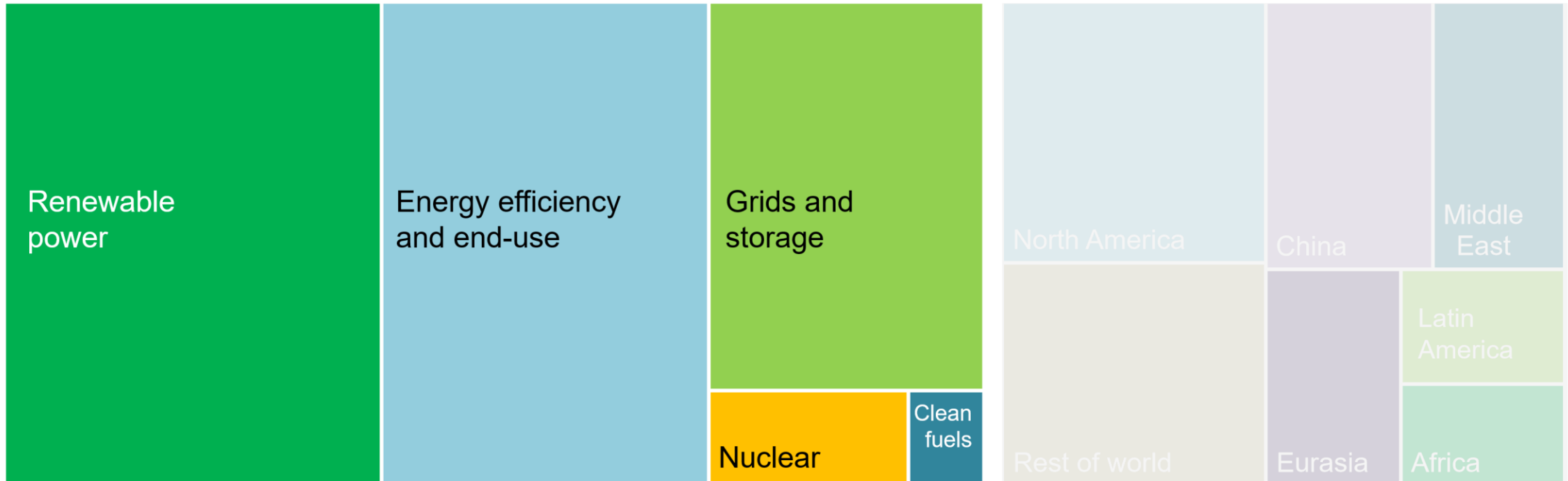
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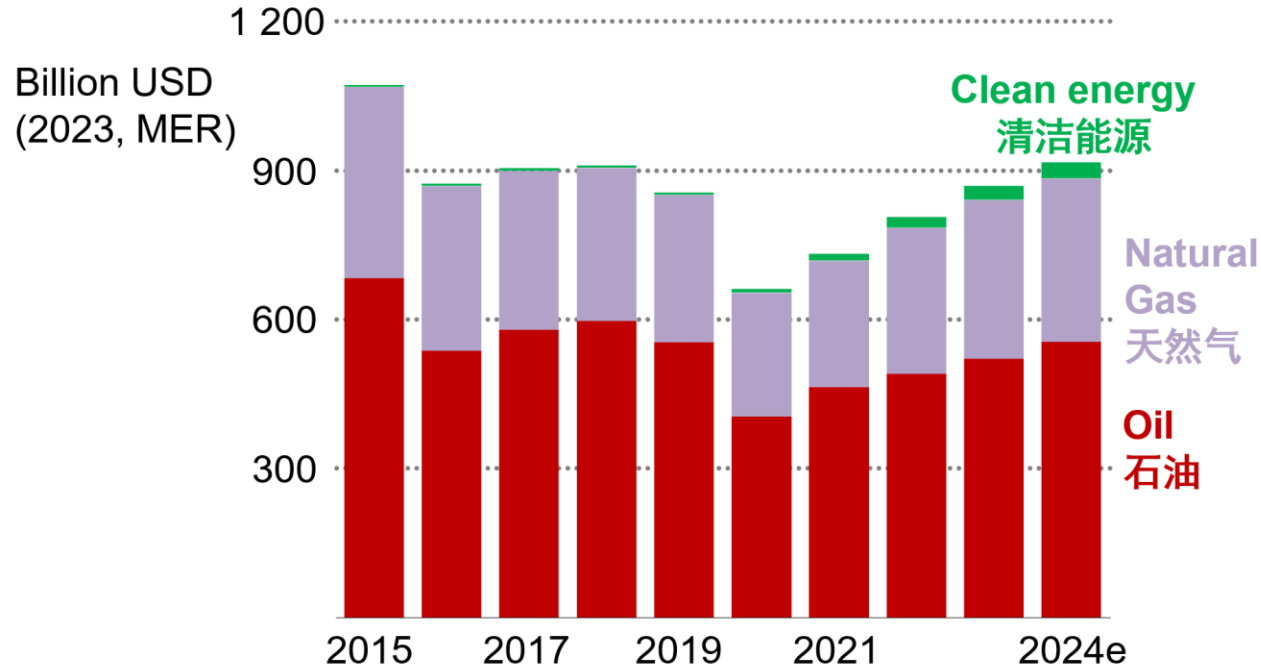
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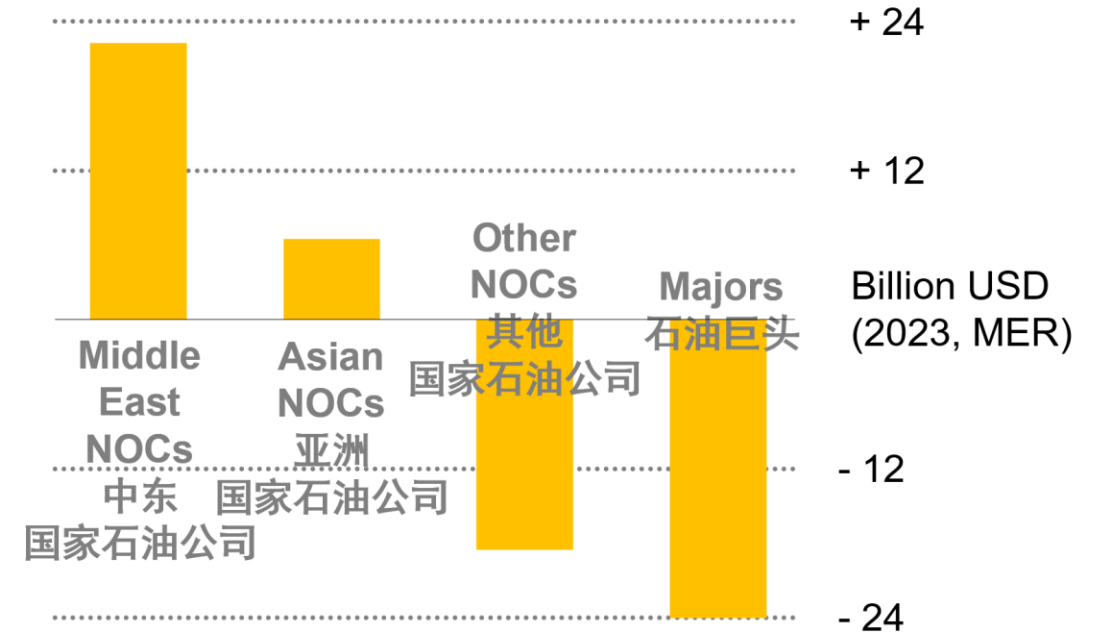
# Oil and gas investments have returned to pre-pandemic levels

## 石油天然气投资已经恢复到疫情前水平

Investment by oil and gas companies  
石油和天然气公司投资



Change in annual upstream investment by selected company grouping, 2019-2024e  
按公司组别分的年度上游投资变化

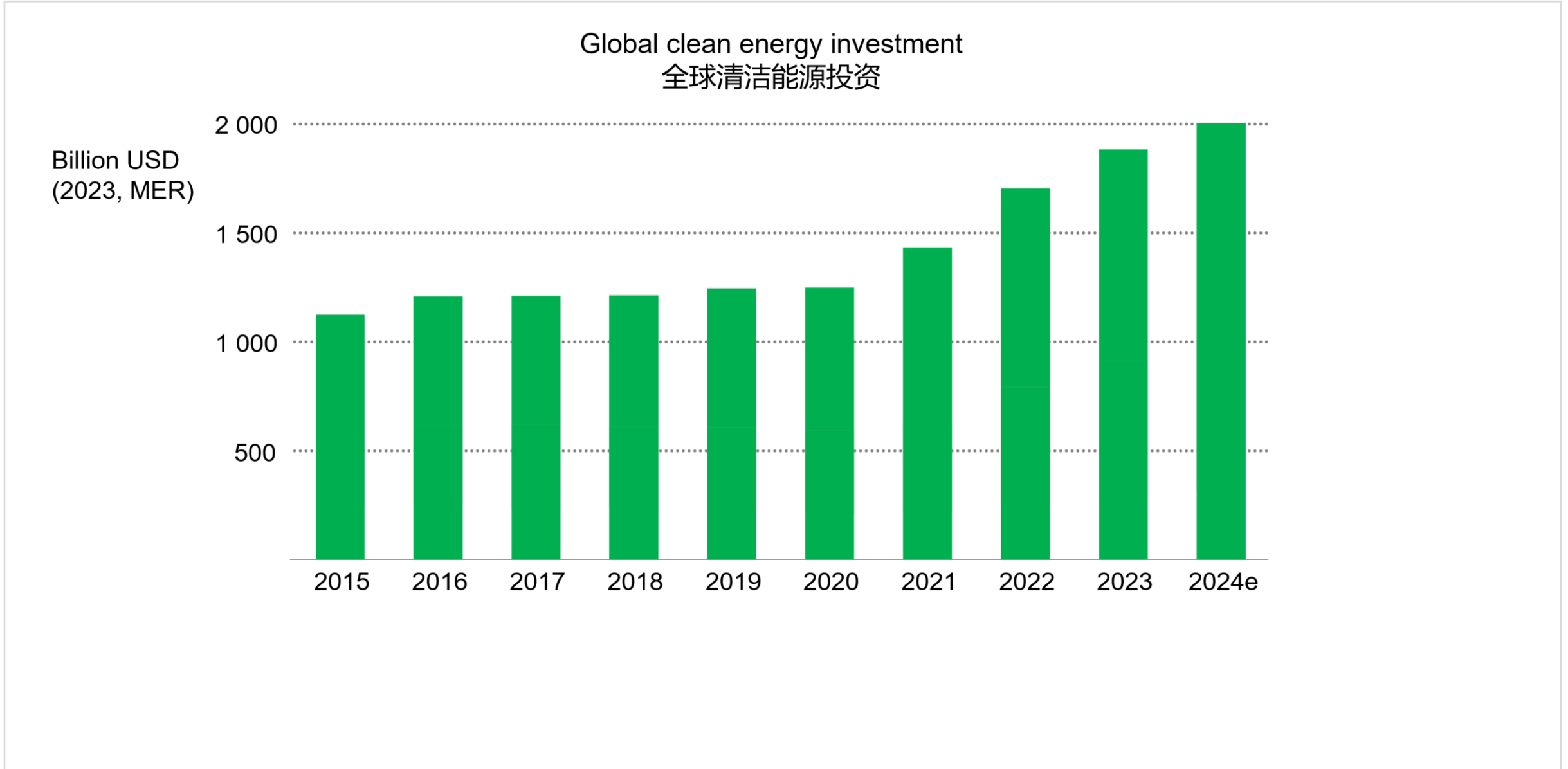


The rebound in oil and gas investment has been led by National Oil Companies (NOCs) in the Middle East and Asia.  
石油和天然气投资的恢复主要由中东和亚洲的国家石油公司引领

Clean energy investment by the industry is around USD 30 billion, less than 4% of total capital spending.  
该行业对清洁能源的投资约为300亿美元，不到资本支出总额的4%

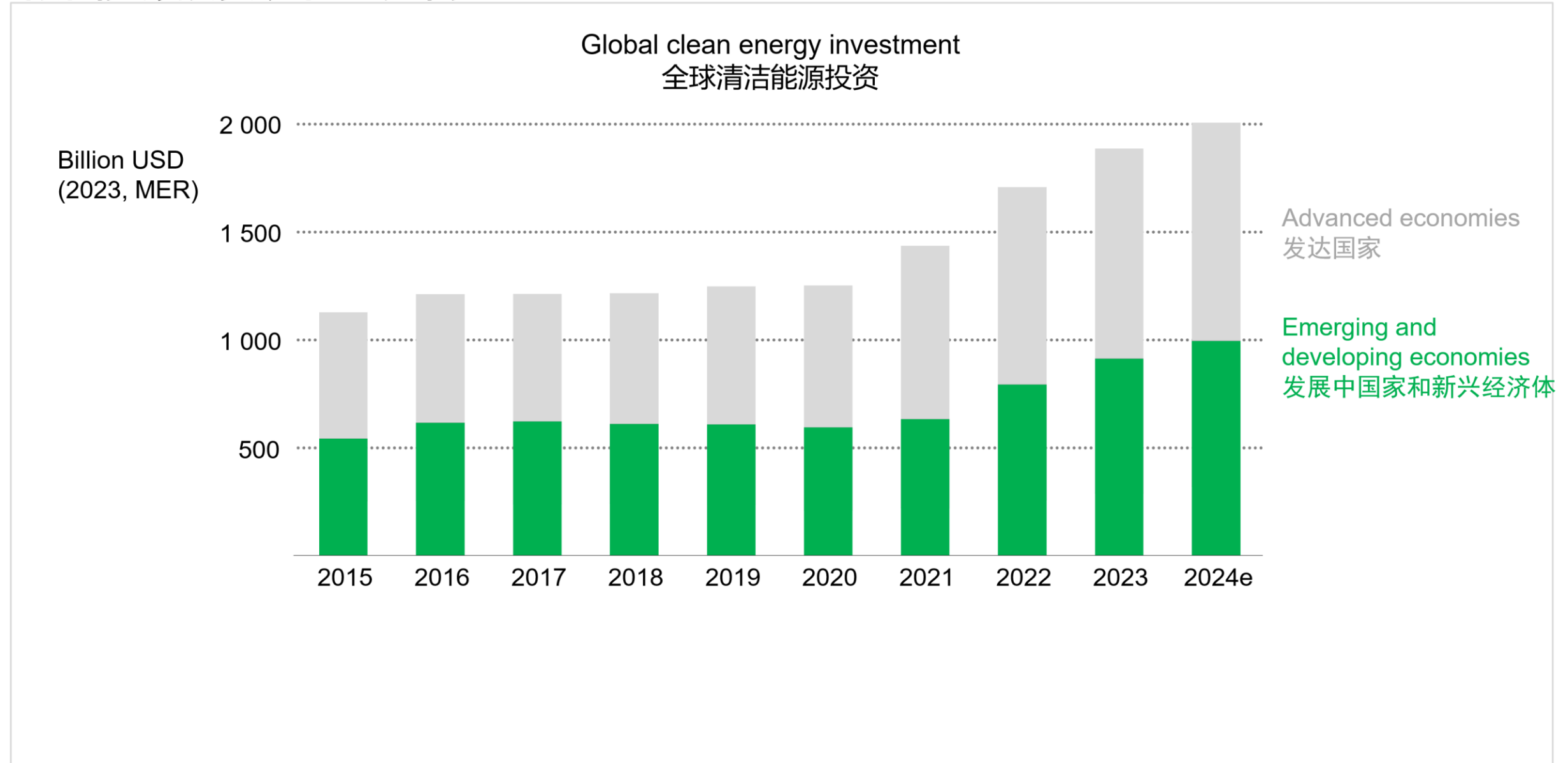
# A growing imbalance in clean energy investment flows

## 清洁能源投资流日益失衡



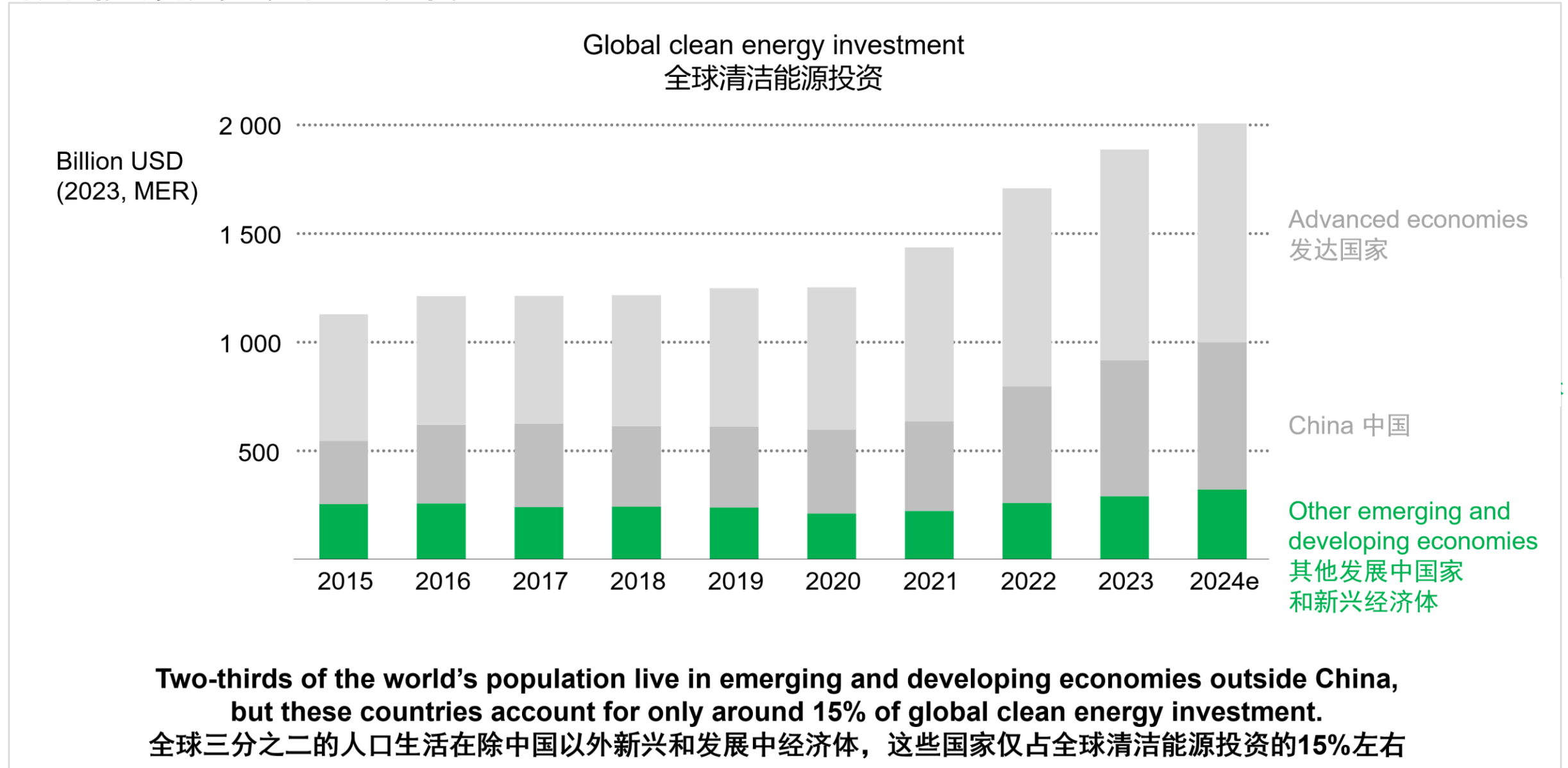
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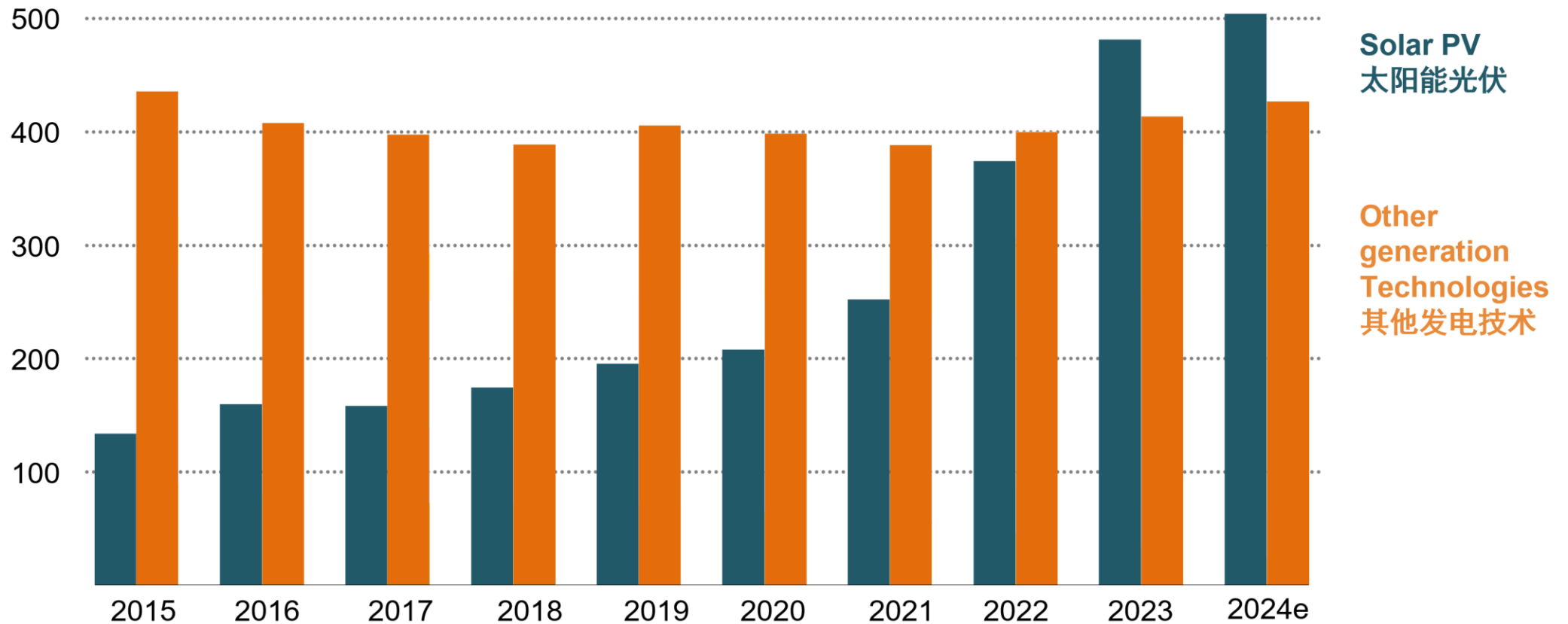


# Solar PV has overtaken all other generation technologies combined

## 太阳能光伏已超过所有其他发电技术的总和

Global annual investment in solar and other generation technologies  
全球每年在太阳能和其他发电技术中的投资

Billion USD  
(2023, MER)



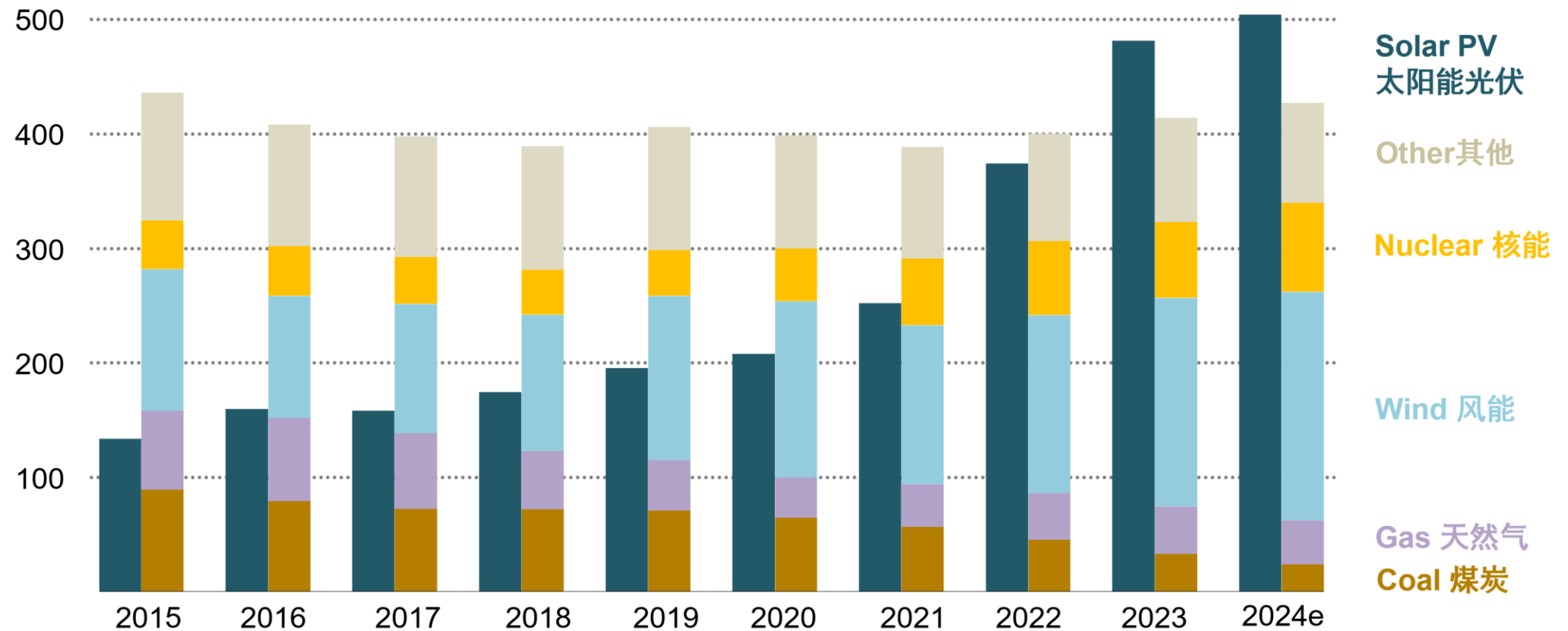
**Investment in solar PV is set to hit half a trillion dollars in 2024, putting it at the centre of the transformation of the global energy sector.**  
**太阳能光伏发电的投资将在2024年达到5千亿美元，成为全球能源行业转型的核心。**

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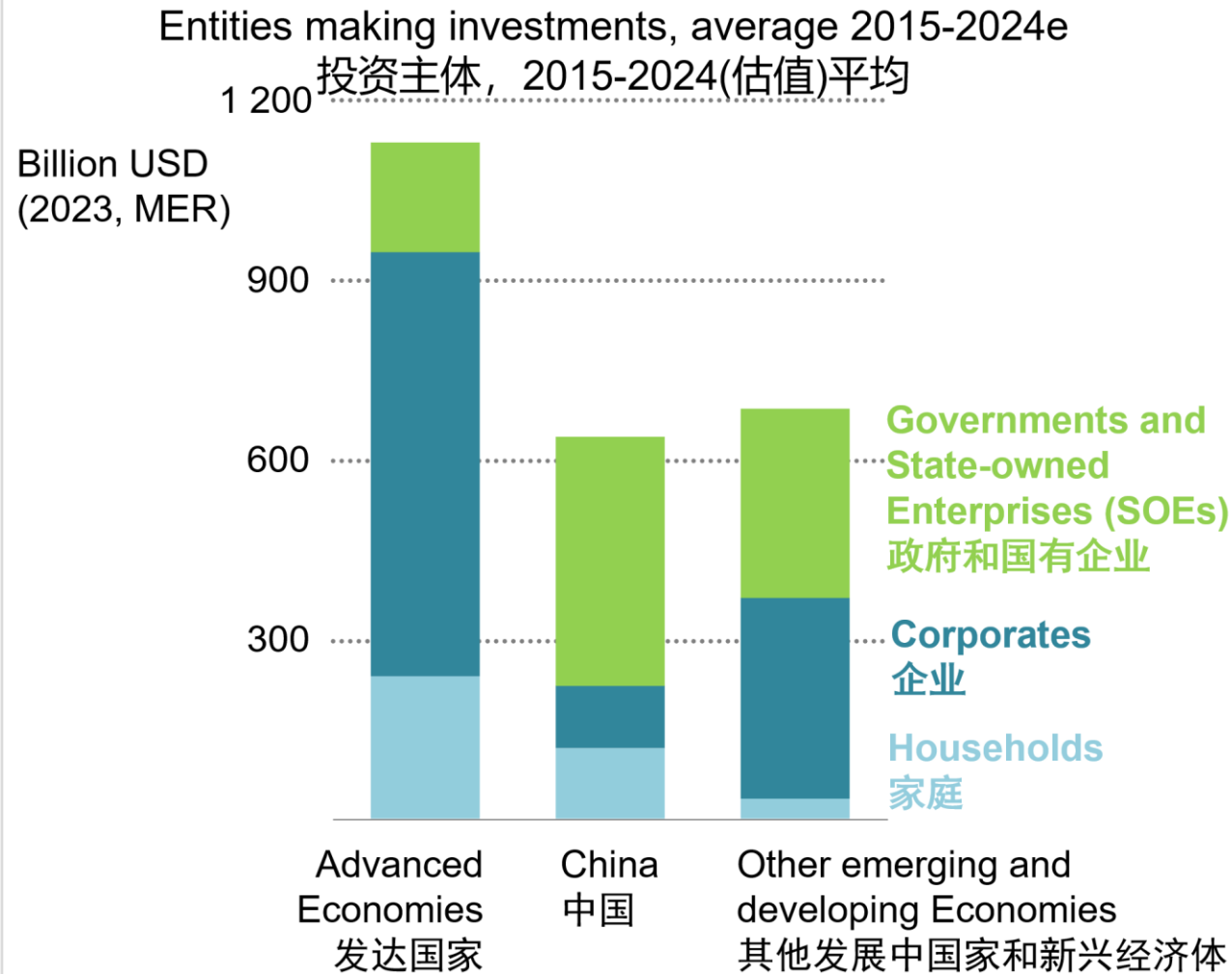


Investment in wind and nuclear power has risen as gas and coal spending falls back.  
随着天然气和煤炭消费的回落，风能和核能的投资也在上升



# Who is making energy investments

## 谁在进行能源投资



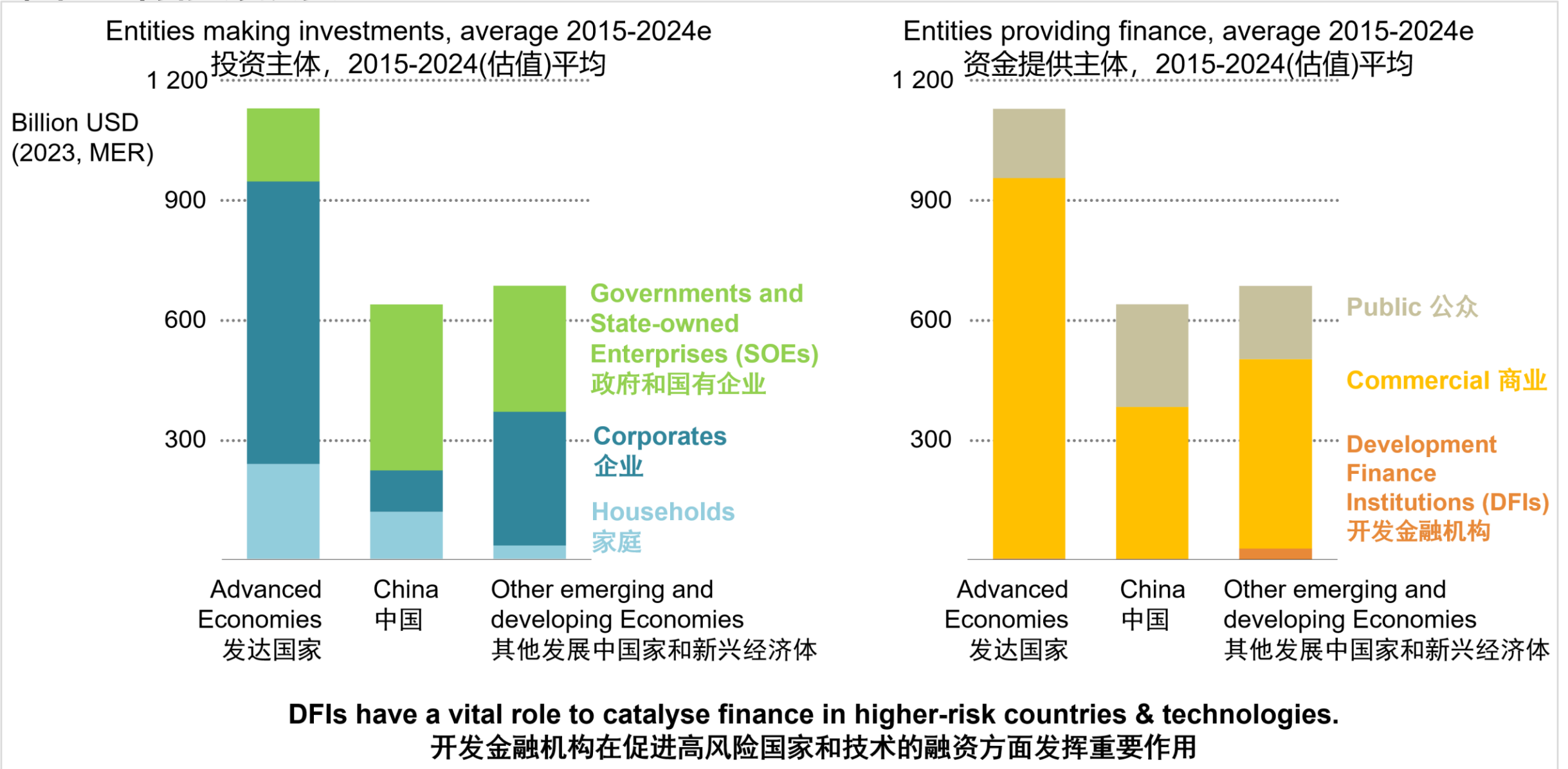
**The situation varies by region, but 45% of worldwide energy investments are made by private firms, 35% by states & SOEs and 20% by households.**

**各地区情况有所不同, 但全球能源投资45%由私营企业进行, 35%由国家和国有企业进行, 20%由家庭进行**

# Who is making energy investments ... and who is financing them?

## 谁在进行能源投资

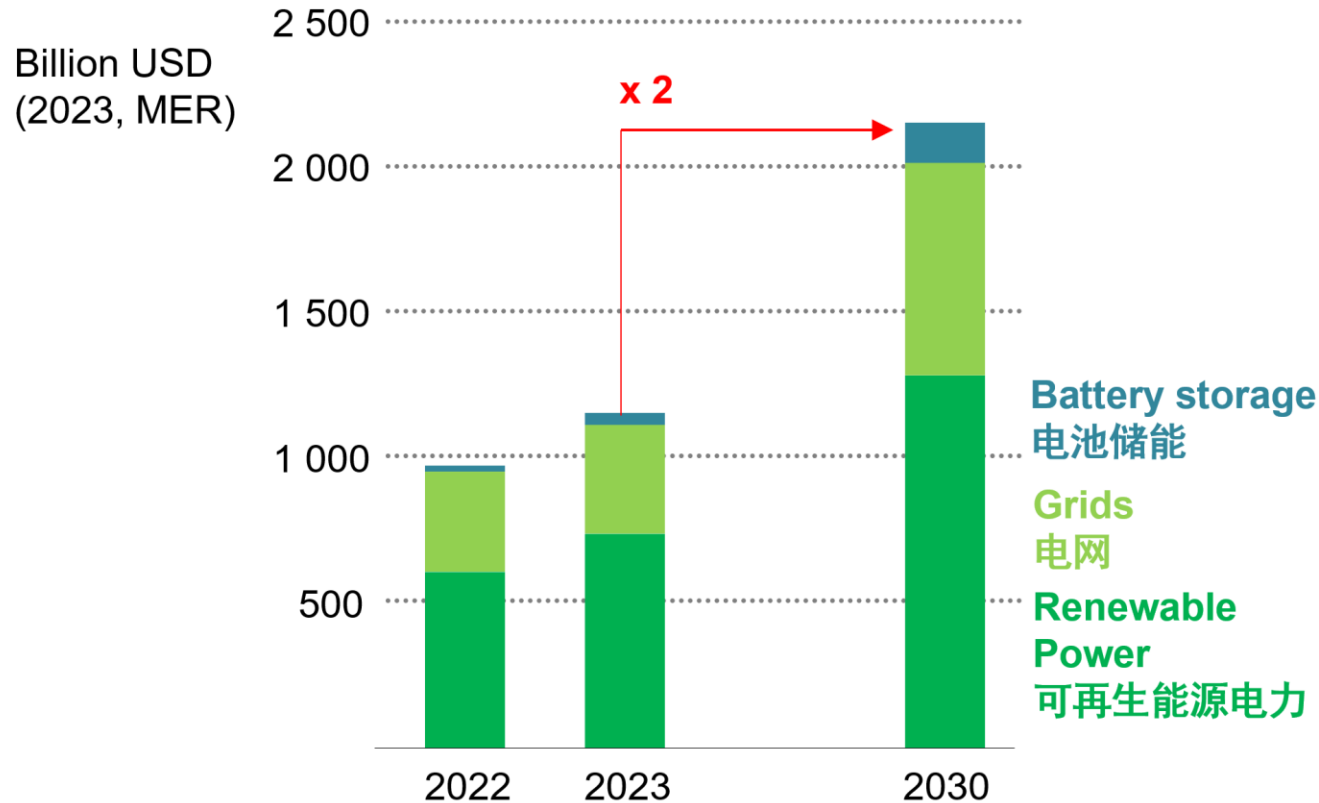
## 谁又为他们融资



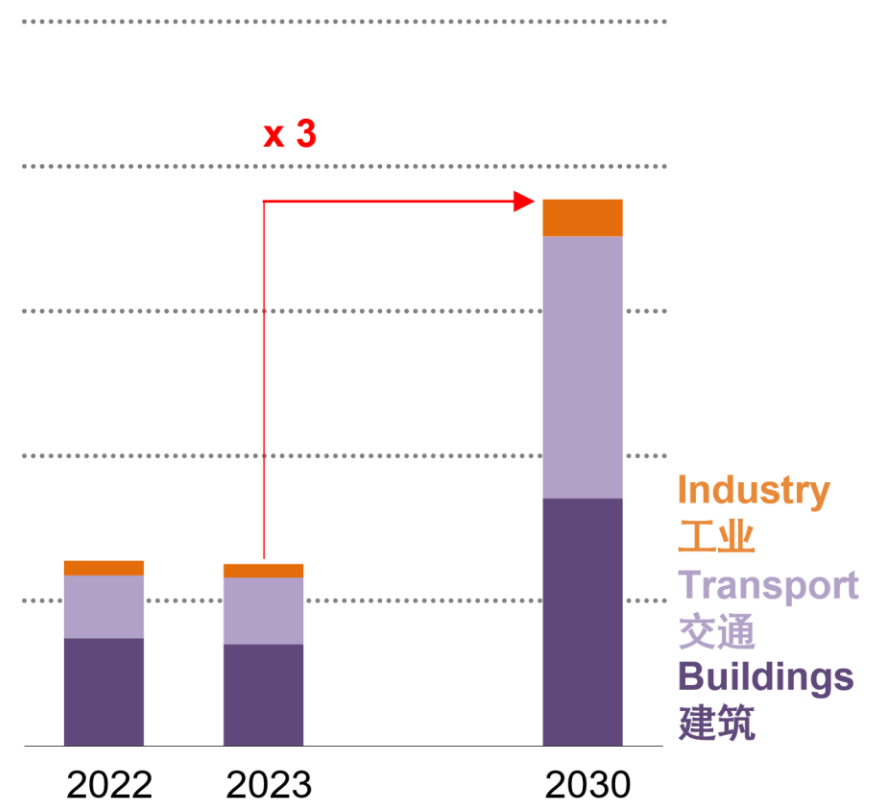
# A steep hill to climb to hit the COP28 targets agreed in Dubai

## 实现迪拜COP28目标任重道远

Investments in renewables, grids and battery storage  
可再生能源、电网和电池储能投资



Investments in end-use sectors  
终端应用部门的投资

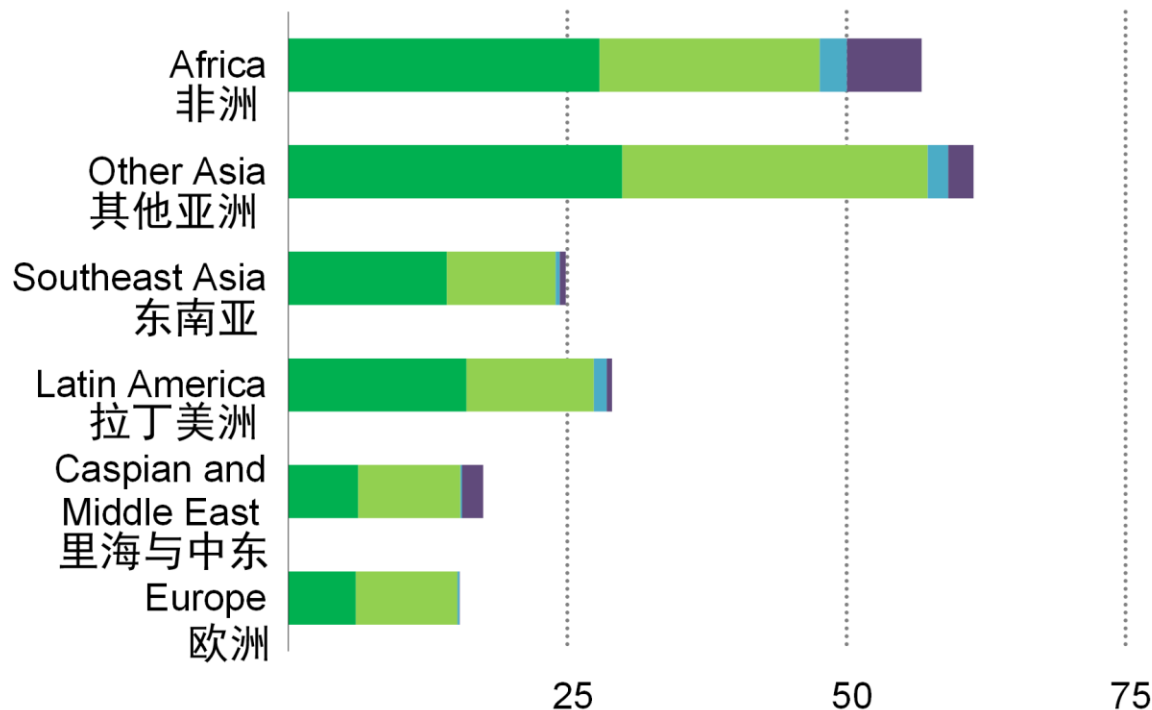


**Tripling renewables capacity requires a doubling in investments in renewables, grids and storage, while doubling the pace of energy efficiency improvement means a tripling of spending.**  
可再生能源装机翻三番需要在可再生能源、电网和储能方面的投资翻两番，而能效提升两倍意味着支出翻三番

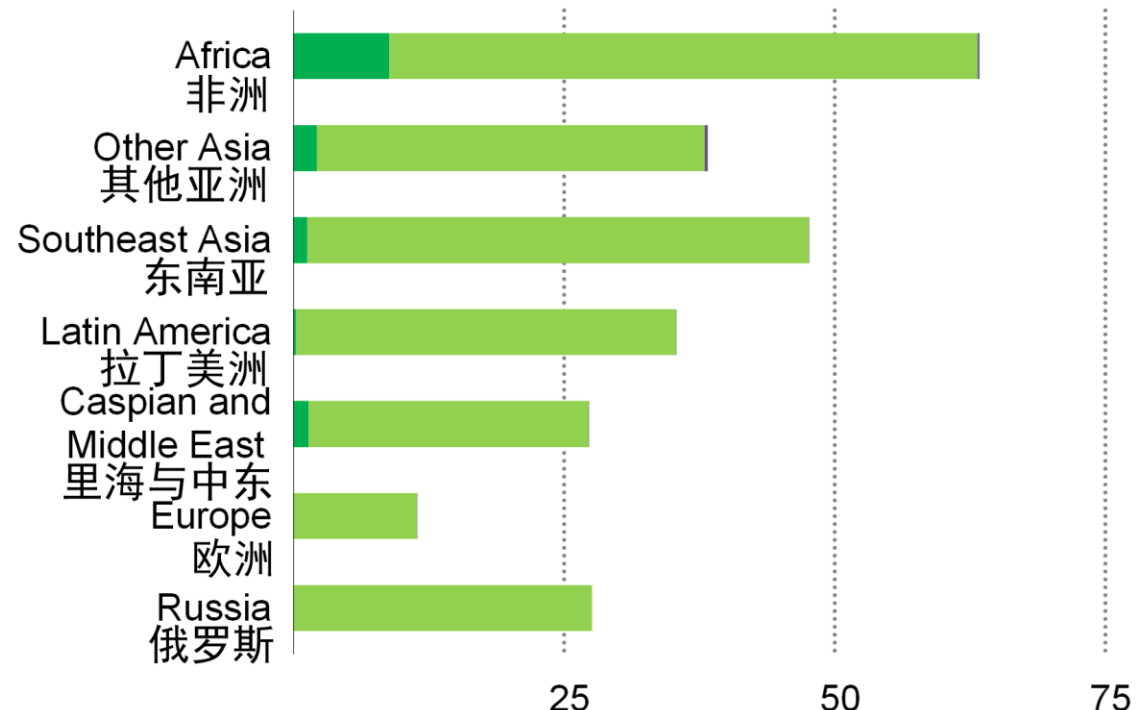
# DFIs provide mainly debt, primarily to Africa and Asia

## 开发金融机构主要提供债务，主要面向非洲和亚洲

DFIs reporting to OECD DAC, 2013-2021  
开发金融机构向经合组织发展援助委员会的汇报



China-based DFIs, 2013-2021  
中国的开发金融机构



■ Debt: Overseas development assistance  
债务：海外开发援助

■ Debt: Other official flows  
债务：海外官方资金

■ Equity  
资产净值

■ Grant  
赠款

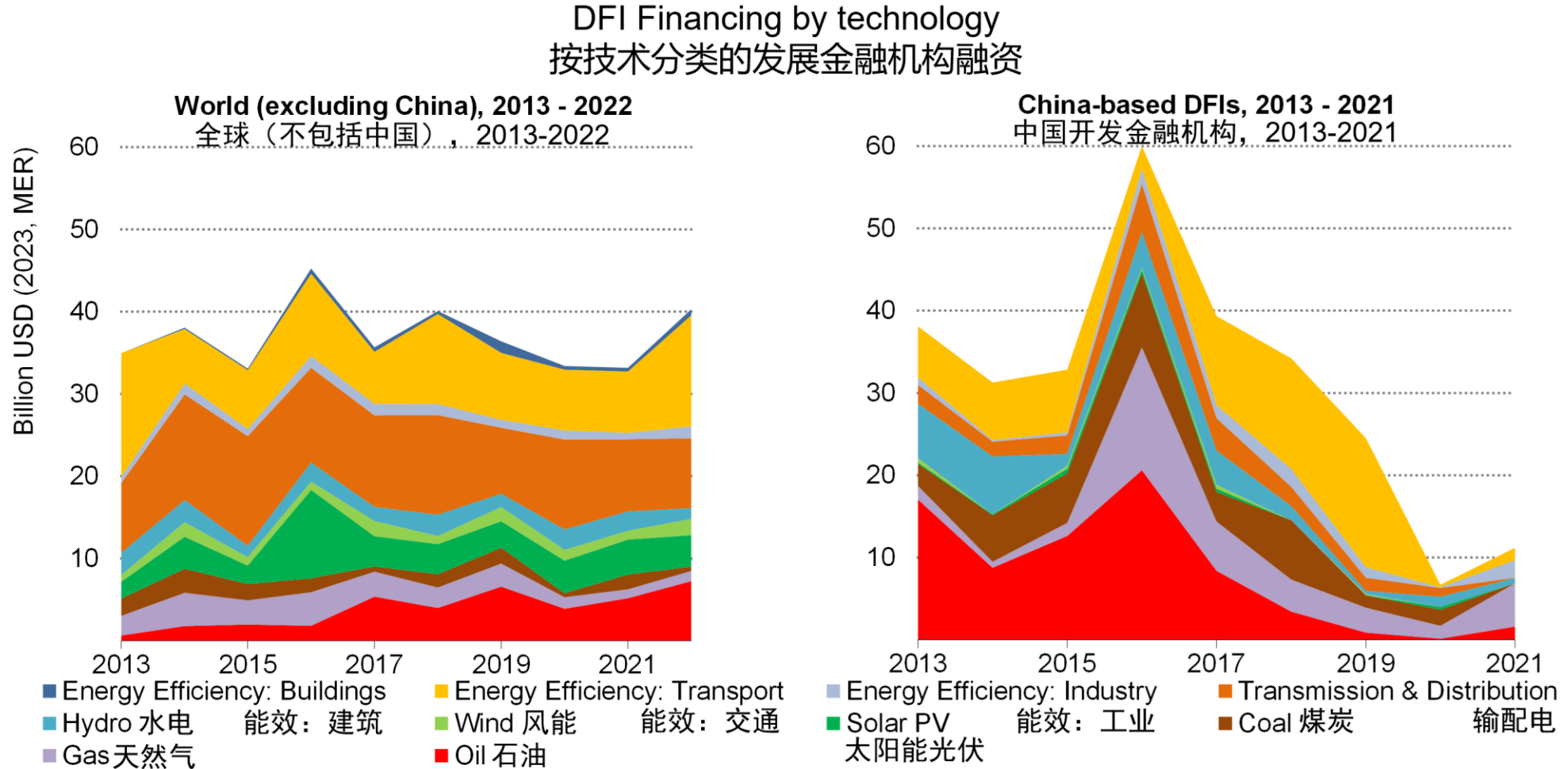
Billion USD (2023, MER)

**Development finance institutions primarily provide debt financing and are making progress in mobilising private capital for renewable power projects.**

**开发金融机构主要提供债务融资，在为可再生能源发电项目调动私人资本方面正在取得进展**

# DFIs play a significant role in clean power and end-use sectors

## 开发金融机构在清洁电力和终端应用部门发挥重要作用



**Development finance institutions have reduced their support for fossil fuel activities, notably from China, but this has not been accompanied by a surge in financing for clean energy.**  
**开发金融机构降低了对化石能源活动的支持，特别是来自中国，但并没有伴随着清洁能源融资的激增**

# Leading the world in global energy investments

## 引领全球能源投资

### Key indicators for Chinese energy investments

### 中国能源投资的主要指标

#### Economic and financial indicators 经济和金融指标

#### GDP per capita (USD)

人均 GDP (美金)

22,695 20,952

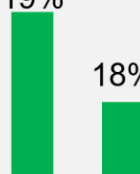


2023

#### Share of the world

全球占比

19% 18%



GDP Population

#### NZE commitments 净零排放承诺



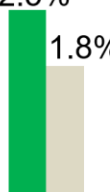
China 中国  
World 全球

#### Energy investment indicators 能源投资指标

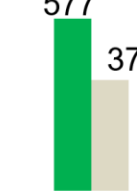
#### Energy investment

能源投资

2.5% 1.8% 577 371



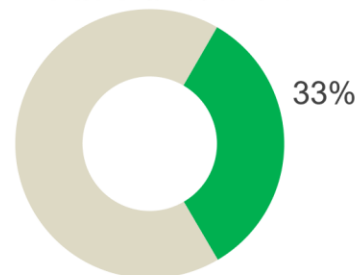
% of GDP



Investment per capita (USD)

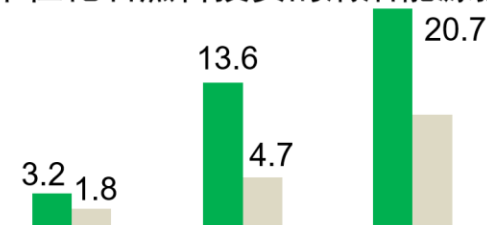
#### % Global clean energy investment

全球清洁能源投资%



#### Clean energy investments per fossil fuel investment

每单位化石燃料投资的清洁能源投资



2023

APS 2030

NZE 2030

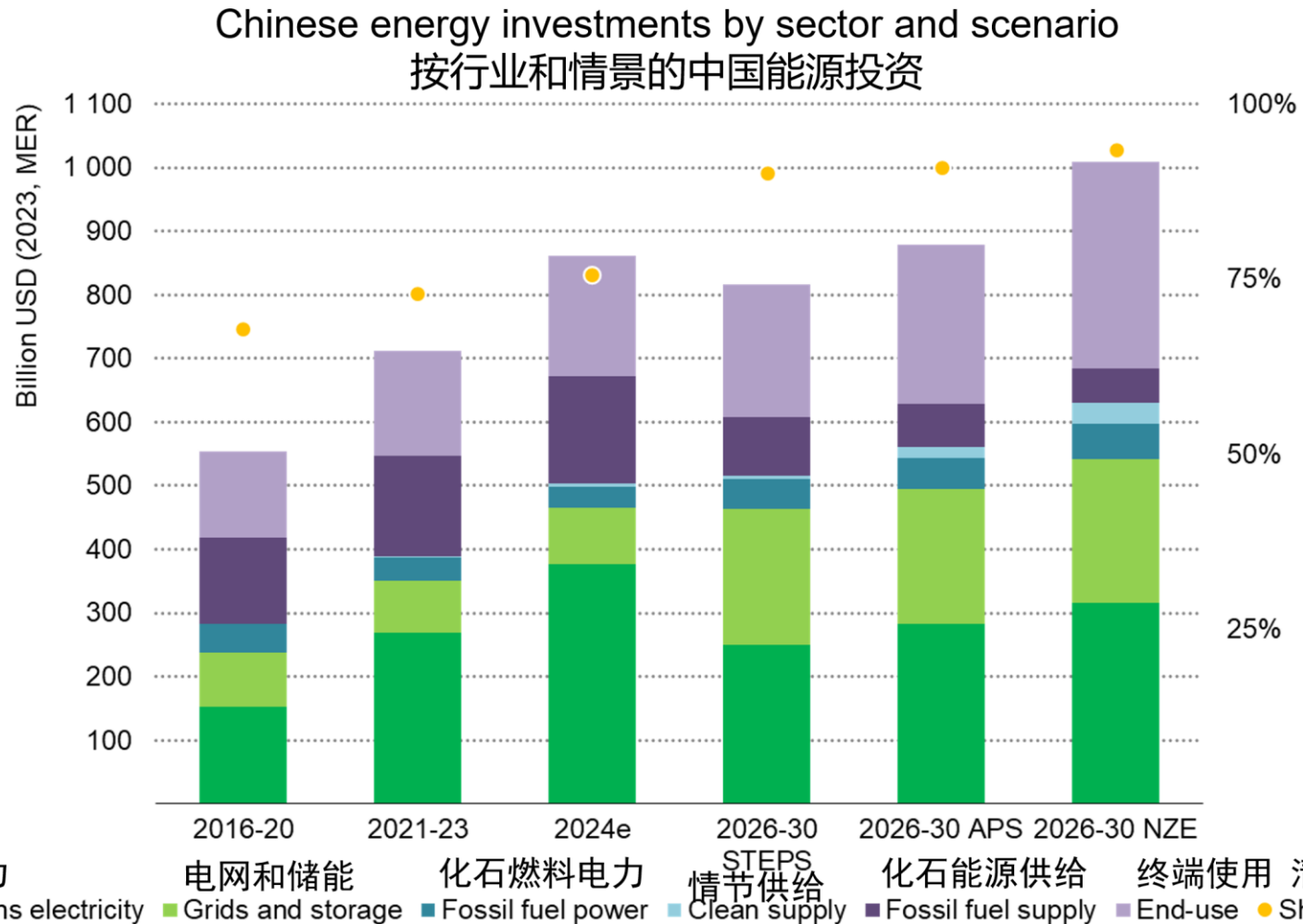
China's clean energy investments are exceeding the global average.

中国清洁能源投资超出全球平均值



# China's energy investment for clean energy transitions

## 中国能源投资促进清洁能源转型



**Alignment with China's energy and climate goals implies a rebalancing away from investments in fossil fuel supply towards grids and the end-use sectors.**

为与中国的能源和气候目标一致，需要重新平衡，从对化石燃料供应的投资转向对电网和终端使用部门的投资

**iea**