

# 2023台德氣候政策與碳定價論壇 《企業與金融》

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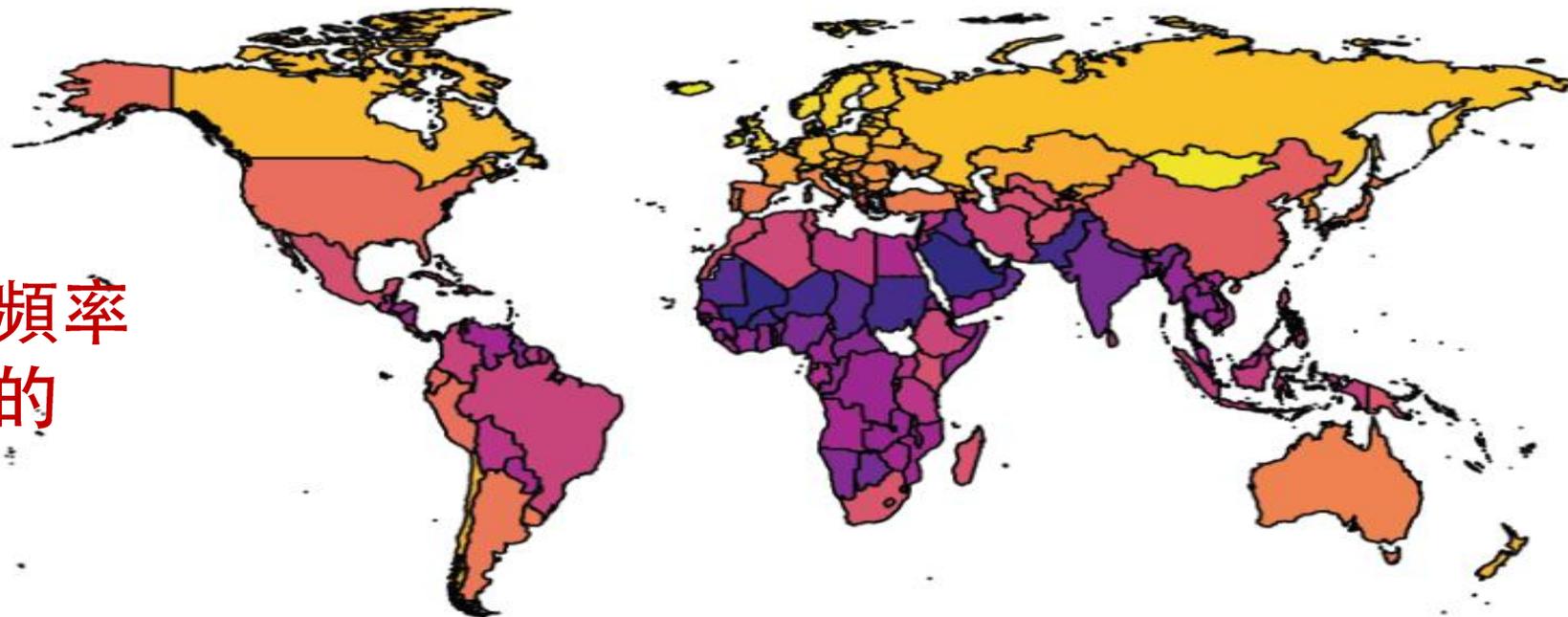
Sept. 19, 2023

# 暖化失控下各地區GDP的累計損失

## Physical risk GDP losses by country

Current policies (95<sup>th</sup> percentile damages)

Per cent GDP loss



5% of a population set will exceed the referenced value.

極端氣候的頻率  
與強度造成的  
經濟損失



本世紀末累計

Source: Calculations by PIK based on scenario temperature outcomes and damage estimates from Kalkuhl and Wenz (2020). Base year for warming is 2005.

# 氣候風險為金融監理的主要課題

- 下一場全球系統性金融風險可能是由「**氣候變遷**」所造成!
- 金融監理機關必須採取必要措施來避免，因此主要國家央行紛紛變成氣候鬥士。



climate-related risks will take. These include what we call “green swan” risks: potentially extremely financially disruptive events that could be behind the next systemic financial crisis. Central banks have a role to play in avoiding such an outcome, including by seeking to improve their understanding of climate-

# 格拉斯哥金融淨零排放聯盟

包括以下次聯盟，合計有450金融機構，  
總資產高達US\$130trn

Net-Zero Banking Alliance

Net Zero Asset Managers initiative

Net-Zero Asset Owner Alliance

Net-Zero Insurance Alliance

Net Zero Financial Service Providers Alliance

Net Zero Investment Consultants Initiative



**簽署者必須做以下承諾：**

- 調整商業模式，用投融資工具，協助社會在2050前達到淨零排放。
- 將客戶或投資對象的範疇123的排放，納為自身的範疇3排放。
- 以2030年為中程目標。
- 金融機構可選擇絕對排放或排放密集度。

# 國內金融業須依PCAF計算碳排放

## GHG Emissions Metrics for Banks

Asset Class	Description	Formula
Business Loans	All loans and lines of credit for general corporate purposes to businesses, nonprofits, and any other structure of organization that are not traded on a market and are on the balance of the financial institution.	<p>To listed companies:</p> $\sum_c \left( \frac{\text{Outstanding amount}_c}{EVIC_c} \times \text{Company emissions}_c \right)$ <p>To private companies:</p> $\sum_c \left( \frac{\text{Outstanding amount}_c}{\text{Total equity} + \text{debt}_c} \times \text{Company emissions}_c \right)$ <p>EVIC = enterprise value including cash c = borrower or investee company</p>

# 上市櫃公司永續報告書專章揭露TCFD

## Core Elements of Recommended Climate-Related Financial Disclosures



### Governance

氣候風險與機會納入董事會決策

### Strategy

具體揭露該公司有那些氣候風險與機會；  
銀行對高碳排企業的放貸曝險

### Risk Management

辨識與評估氣候相關風險；  
包括: 信用風險、市場風險、流動風險與操作風險

### Metrics and Targets

衡量氣候風險機會與企業改善目標；  
銀行放貸於高碳排客戶佔總資產的比例

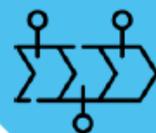
# 推動我國接軌IFRS永續準則藍圖

直接採用 (adoption)  
ISSB發布的IFRS永續揭露準則(包含IFRS S1, S2)  
· 未來評估逐號認可各號IFRS永續準則

接軌方式



適用對象  
及時程



- 2026年：資本額達100億元以上之上市櫃公司適用
- 2027年：資本額達50億元以上未達100億之上市櫃公司適用
- 2028年：其餘所有上市櫃公司適用

- 於股東會年報依IFRS永續準則揭露相關資訊
- 與財務報告同時公告

揭露位置  
及時點

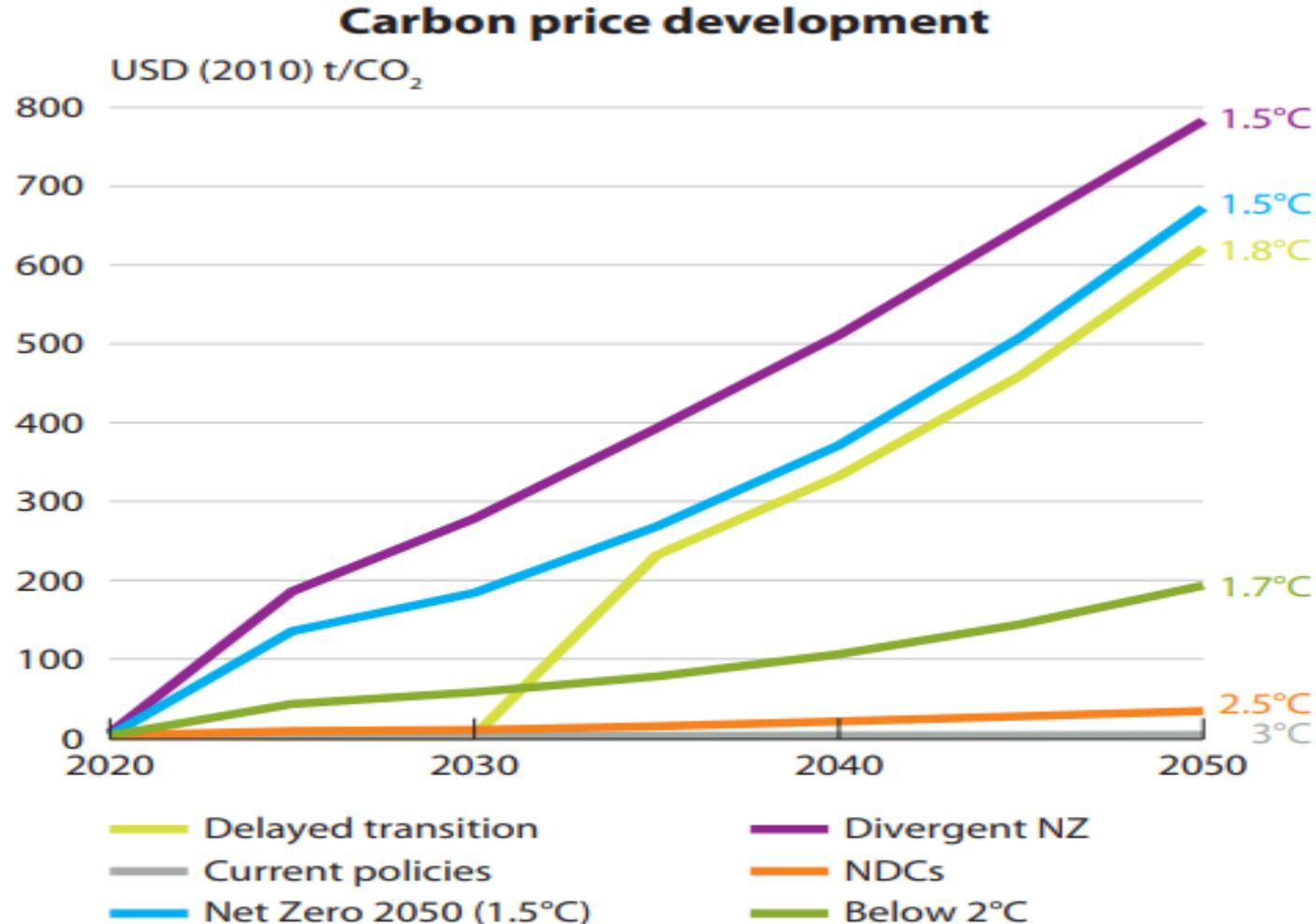


揭露內容



- 採用豁免
- 依目前合理可佐證的資料估算
- 允許部分資訊質性揭露

# 各種碳定價將造成不同程度的地球增溫

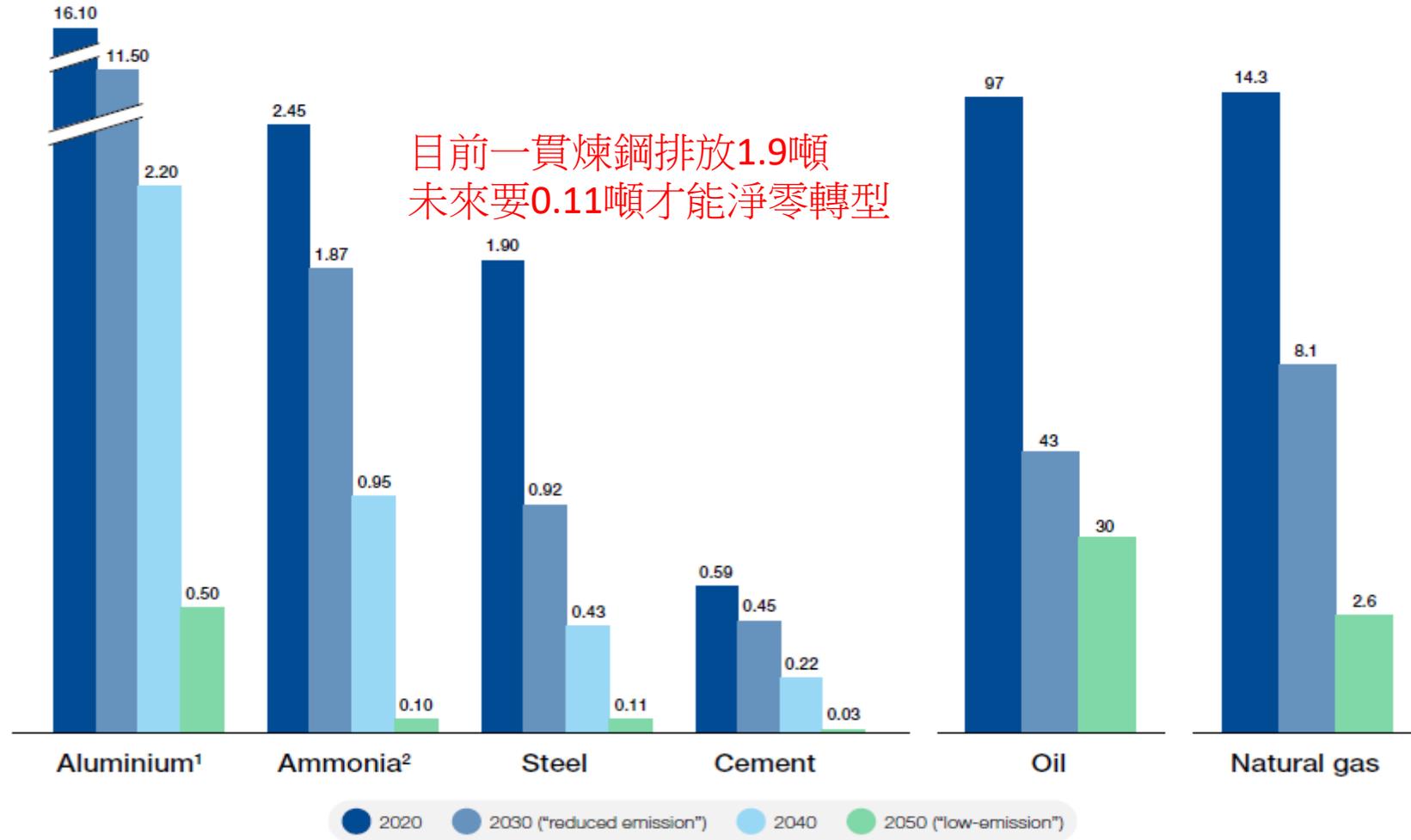


Source: IIASA NGFS Climate Scenarios Database, REMIND model.  
Carbon prices are weighted global averages. End of century warming outcomes shown.

# 六大碳排項目未來須減碳的空間

Basic materials industry emission intensity trajectory (2020-2050) (tCO<sub>2</sub>e/t production)<sup>5</sup>

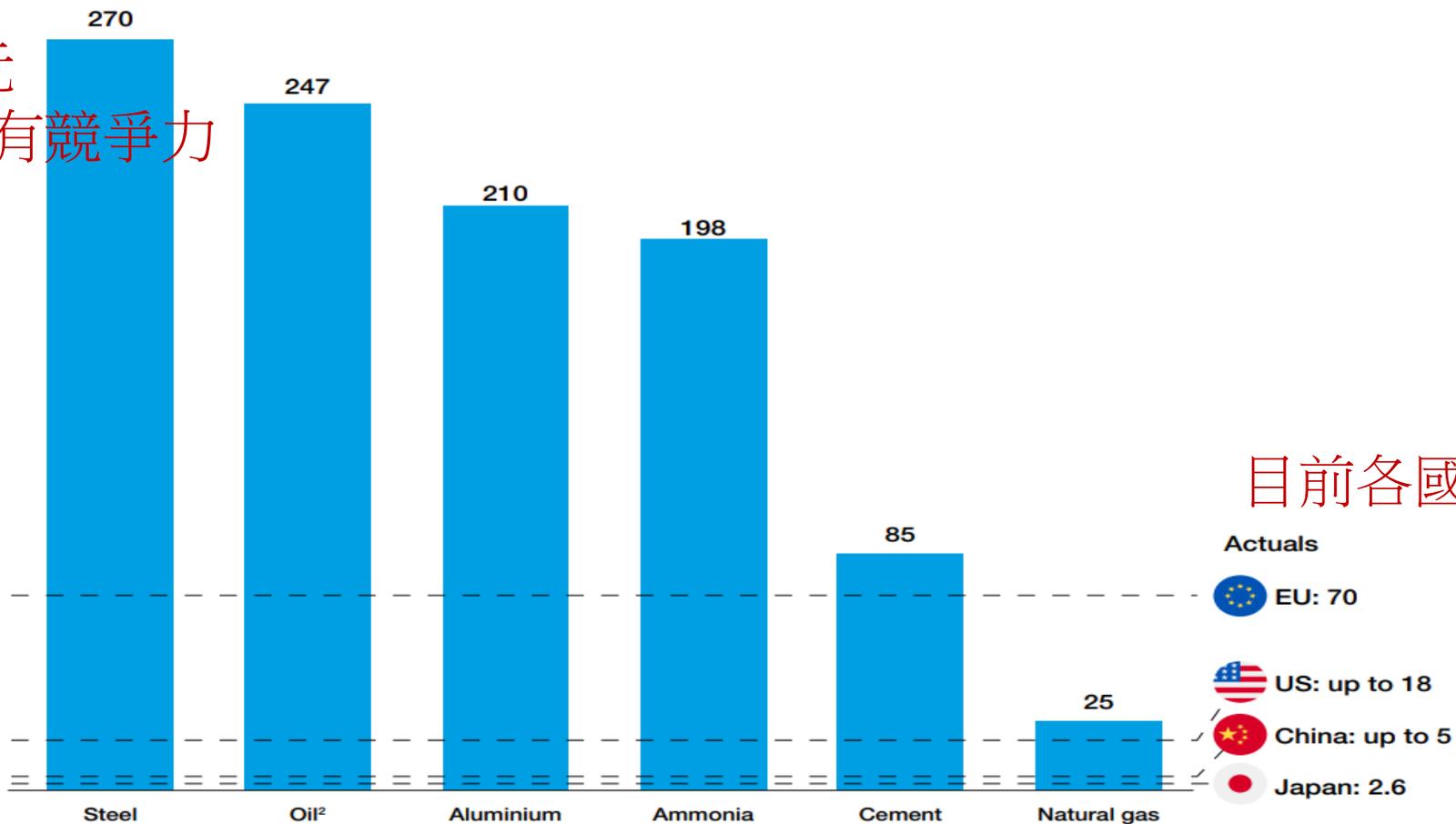
Energy industry emission intensity trajectory (2020-2050)<sup>3</sup> (kgCO<sub>2</sub>e/bbl and tCO<sub>2</sub>e/MMcf)<sup>6,7</sup>



# 各產業需要多少碳定價，這些低碳技術才有競爭力

Carbon price required to level the playing field for low-emission production vs actual carbon prices<sup>1</sup> (\$/tCO<sub>2</sub>e)

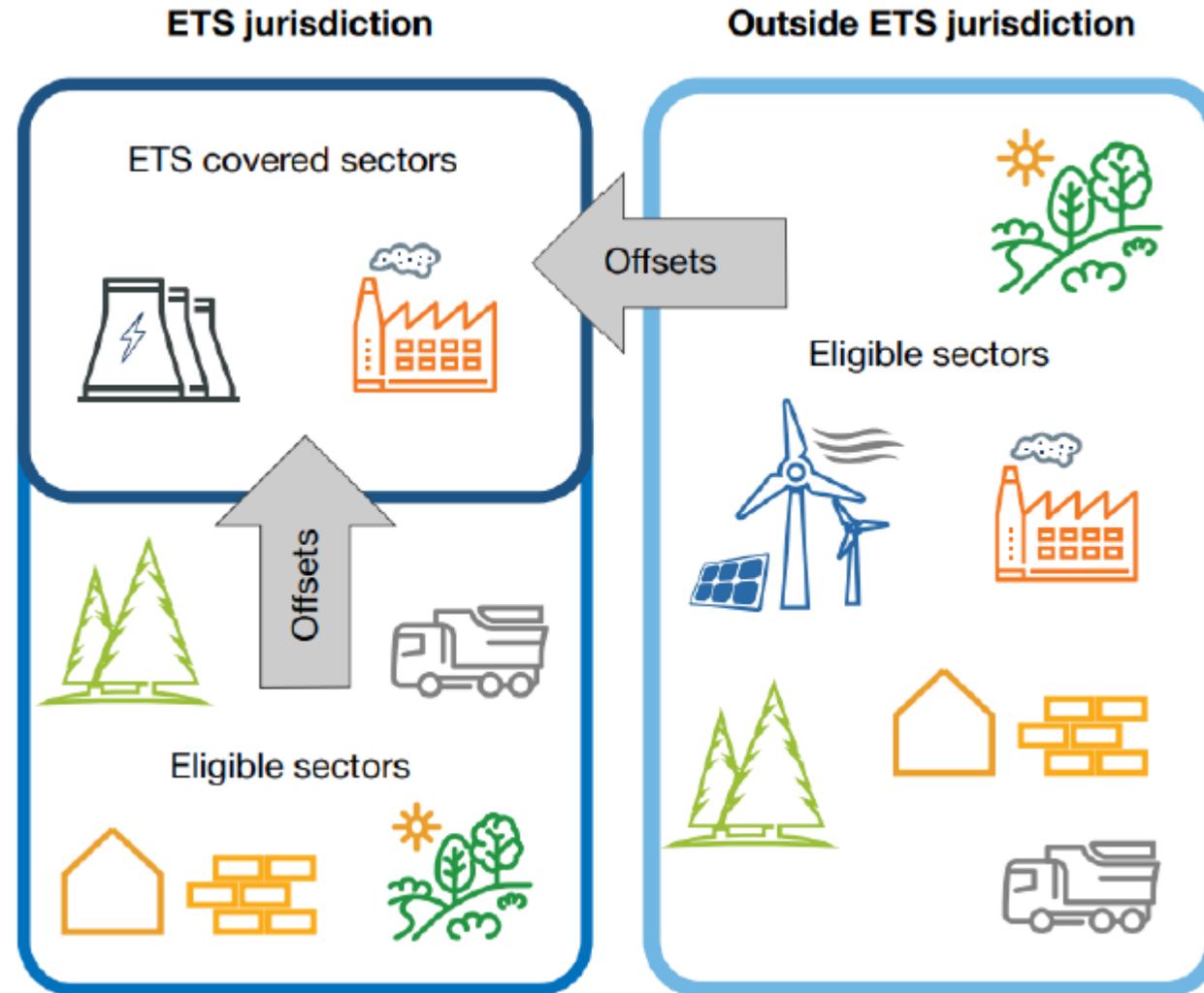
碳定價要270美元  
淨零煉鋼技術才有競爭力



目前各國的碳價格

Notes: 1 Based on the estimated carbon price necessary to make "low-emission" product prices competitive with traditional product prices; 2 Refers to refined petroleum products.

# 碳權抵換減輕業者負擔=降低其減碳誘因



因此對碳權產生的方式與外加性，要有特別要求

對境外碳權更要有特別限制