

Climate Change and Business sector

Takashi Hongo
Senior Fellow

Mitsui & Co. Global Strategic Studies Institute

COP26 for Business Sector

COP26 - Impact on Business Sector

● Ambition and Paris Agreement

- Shift from 2.0°C target to 1.5°C (pursuing effort)
- 1.8°C increase when all commitments are realized (by IEA)

⇒ What is the impact on long term strategy of industry?

● Implementation of Paris Agreement

- Article 6 (emission trading)
 - 6.2 and 6.4

⇒ Will JCM be more active?

- Continues the discussion

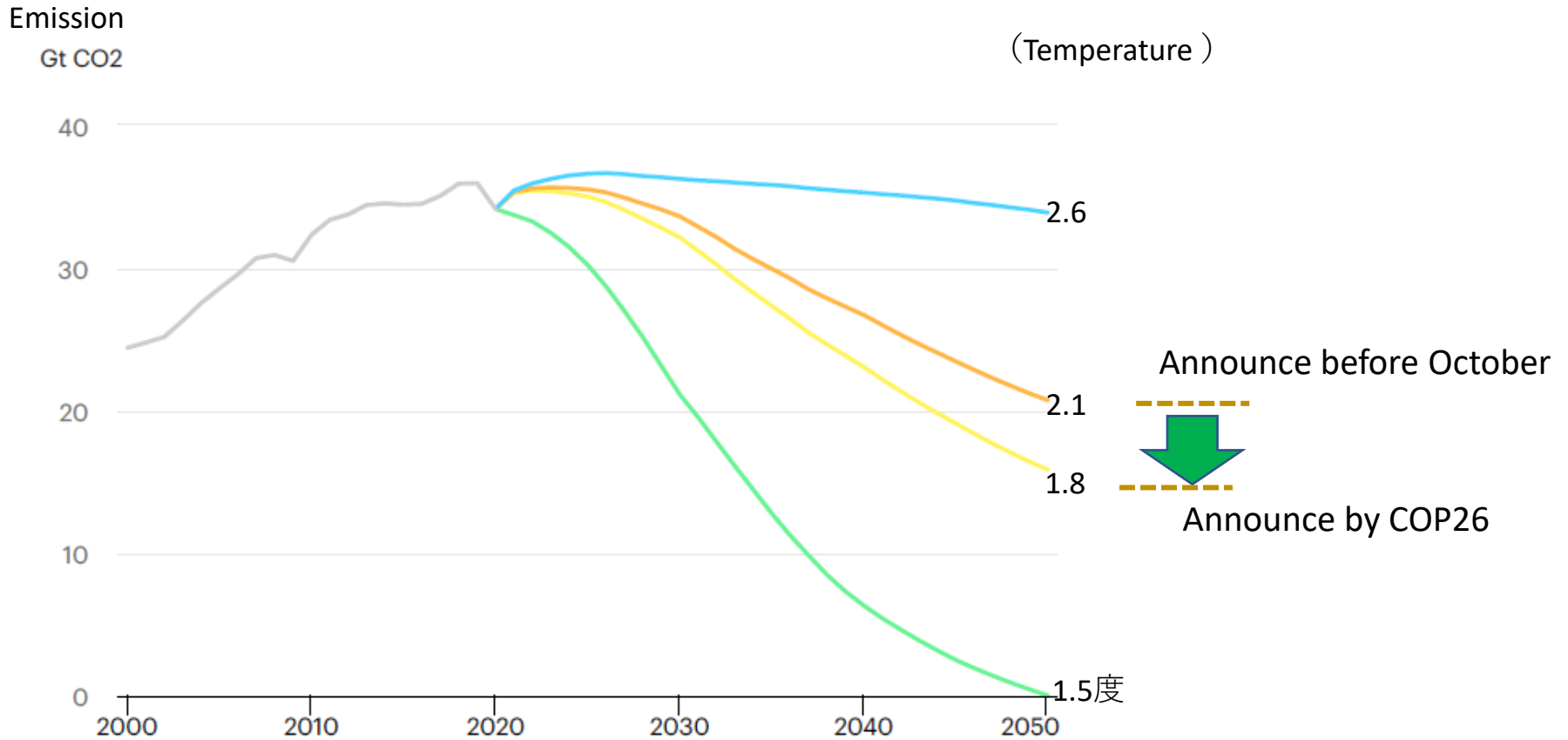
● Finance

⇒ Finances are important, but improving the investment environment is more important for investment.

● UK Initiatives etc.

- Global Coal to Clean Power Transition
 - Indonesia, Vietnam....
- Finance and related services
 - IFRS (disclosure and international accounting standard)

Shift from 2.0°C to 1.5°C



IEA. All Rights Reserved

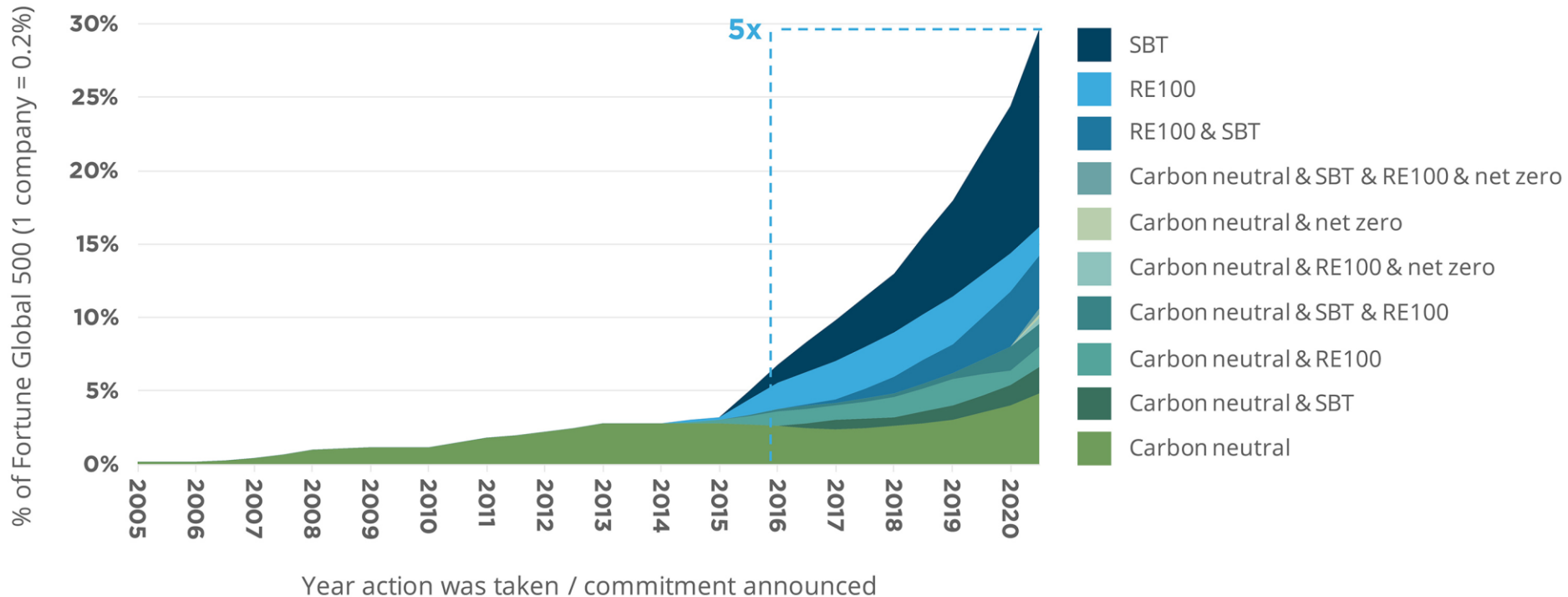
- Historical
- Stated Policies Scenario
- Announced Pledges Scenario
- Announced Pledges Scenario - updated with COP26 pledges as of 3rd November
- Net Zero Scenario

Action by Business Sector

- Net Zero Emission Target becomes mainstream -

Paris Agreement - turning point of voluntary action

➤ Fortune Global 500; number of companies with voluntary commitment is increased rapidly after Paris Agreement in 2015



Source Natural Capital Partners

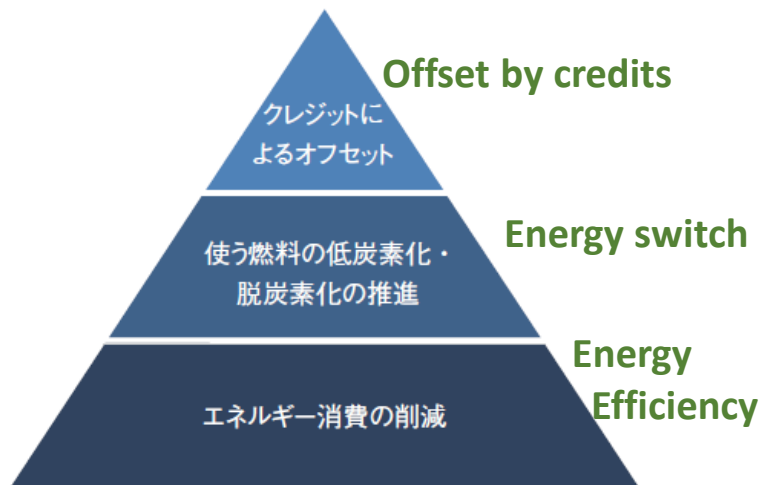
Net Zero Emission by industry

Company	Target
Shell	Net zero by 2050 (Scop1 & 2). 50% reduction of CO2 intensity including Scope by 2050
BP	Net zero by 2050 (Scop1 & 2).
BHP	Net zero by 2050 (Scop1 & 2). 50% reduction of CO2 intensity of Scope3 emission by 2030
BASF	Emission in 2030 should be the level of 2018 (Scop1 & 2)
ENGIE	85% reduction by 2050
Microsoft	Negative emission in 2030. Accumulated emission should be zero by 2050
JERA	Net zero by 2050
Nippon Steel	Carbon Neutral by 2050
JFE	Carbon neutral after 2050
JAL	Net zero by 2050
ANA	Net zero by 2050
Mitsubishi Corp.	Net Zero by 2050
Mitsui & Co,	Net zero by 2050

Offset for Net Zero Emission Target

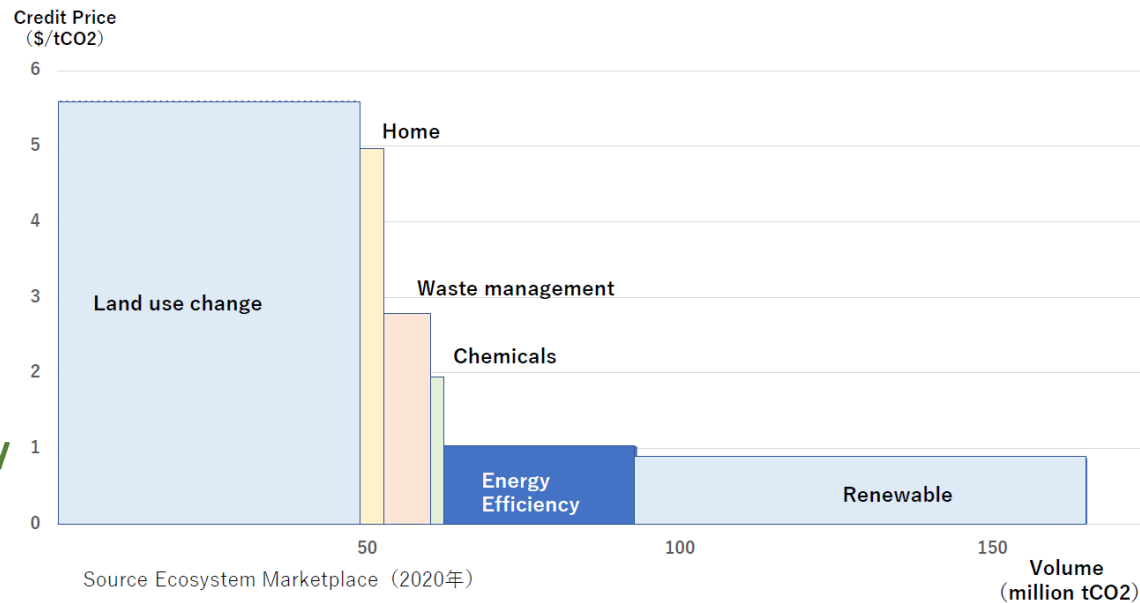
- ◆ Hierarchy Approach: offset as the last option
- ◆ Voluntary credits is major for voluntary offset
- ◆ Not only for corporate Net Zero Emission target but also for Carbon Neutral Products

Hierarchy Approach



Source: Takashi Hongo, 'Credits from forest related activities', Japan Greenery Research and Development Center

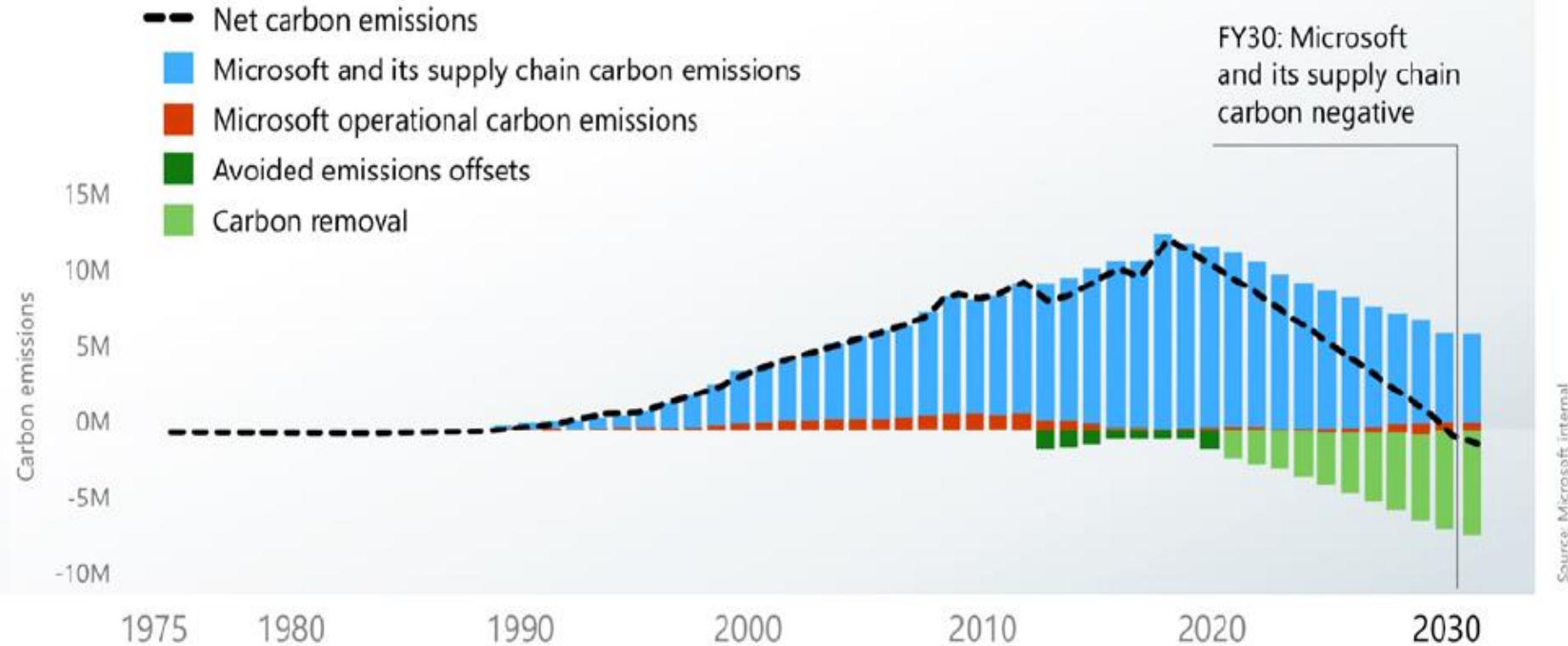
Price of Voluntary Credits



Source: Takashi Hongo, 'About COP26', Nikkei Veritas (12 December 2021)

Voluntary Action – Microsoft

Annual carbon emissions

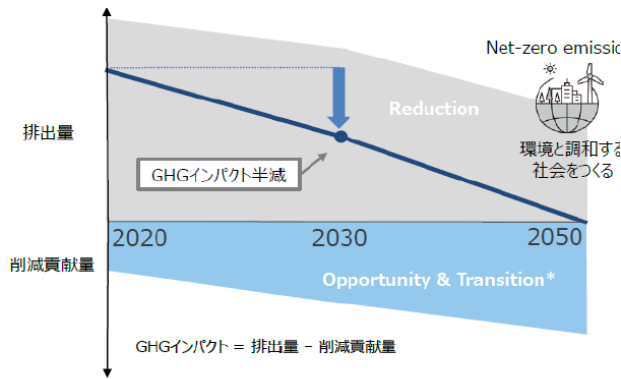


- Carbon Negative in 2030 and offset of accumulated emission by 2050
- Scope 3 emission is included – co-works with suppliers for reducing emission from their supplies

Voluntary Action – Mitsui & Co.

< Reduction of won emission >

- Reduction: 50% reduction by 2030 and net zero by 2050
- Net zero of offices by forest sink and credits



*Transitionについては、将来当社が自社でカウントし得る削減貢献量のみを想定

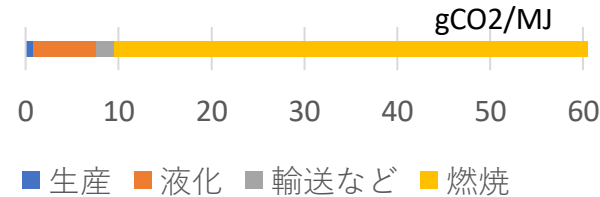
Lower carbon electricity



< Zero emission products >

- Carbon Neutral LNG
- ✓ Offset of LCA emission by forest credits (voluntary credits)

LCA emission of LNG



日本ガス協会資料から（「LNG 及び都市ガス 13A のライフサイクル温室効果ガス排出量の算定」（エネルギー・資源学会研究発表会講演論文集 2016））



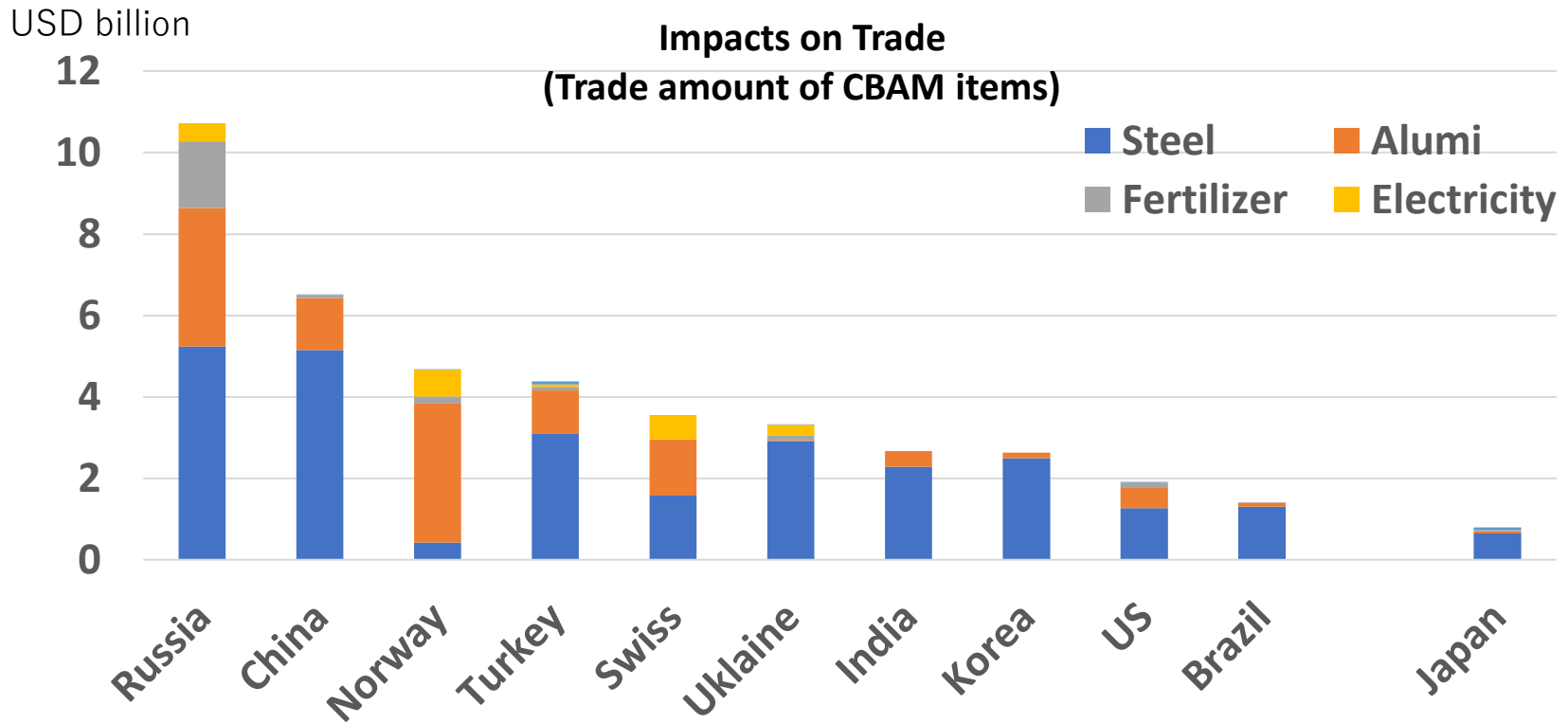
NHKニュースから

(<https://www3.nhk.or.jp/sapporo-news/20210319/7000031950.html>)

Trade and Climate Change

Carbon Border Adjustment

- EU CBAM
- ✓ From 2026. No significant impacts on Japan and ASEAN
- ✓ Response: ETS (China and Korea), Carbon Price (Canada), negotiation (US)
- ✓ Possibly enlarge the items under CBAM



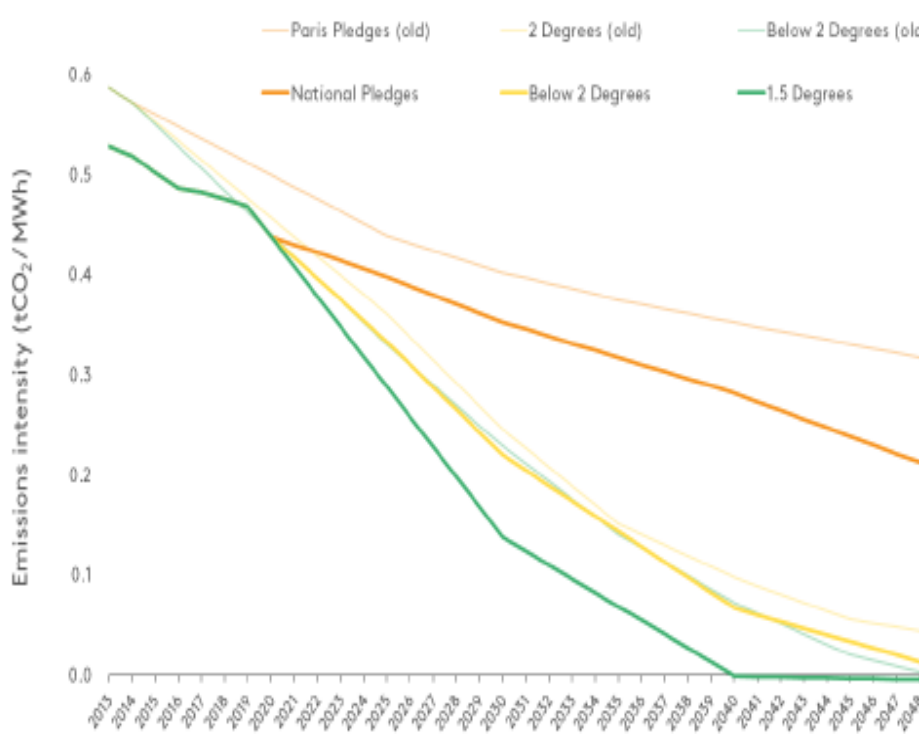
Long term strategy and Risk Management

Transition Finance and Scenario Analysis

- ◆ Perfect Solution VS Pragmatic Approach
- ◆ Alignment with 2°C pathway is a condition
 - ⇒ a scenario VS scenarios; global standard or diversification
- ◆ Transition Finance; investment based on peer analysis

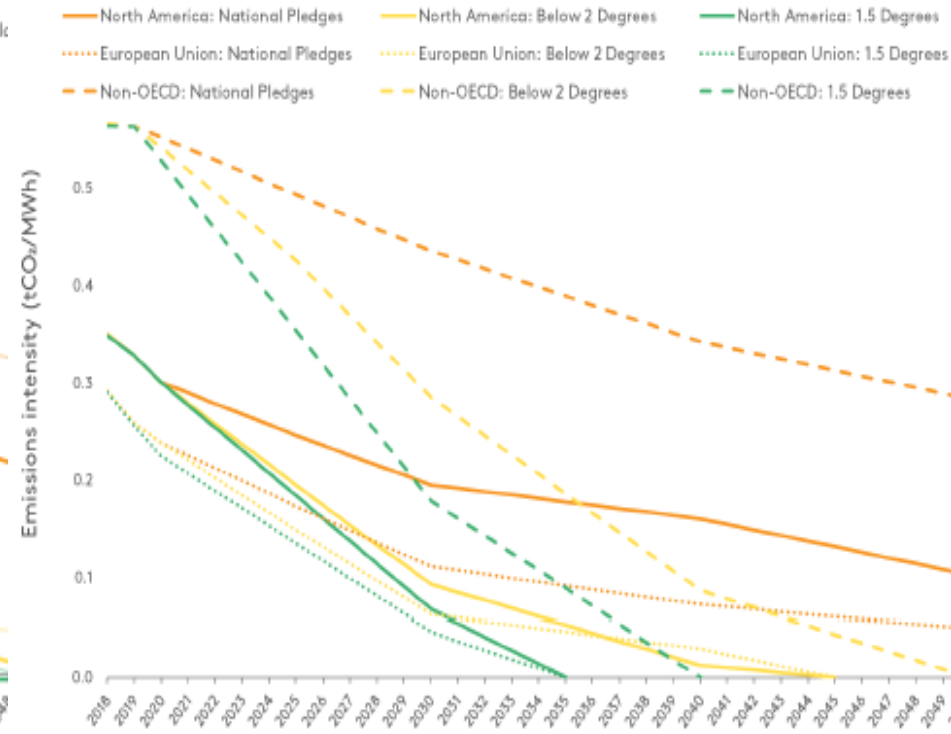
Power Sector - world

Figure 1 Benchmark global carbon intensity pathways for the power sector (tonnes of CO₂ per MWh of electricity generation)



Power Sector - regional

Figure 2 Benchmark regional carbon intensity pathways for the power sector (tonnes of CO₂ per MWh of electricity generation). The OECD pathways (not shown) are very similar to those for North America.

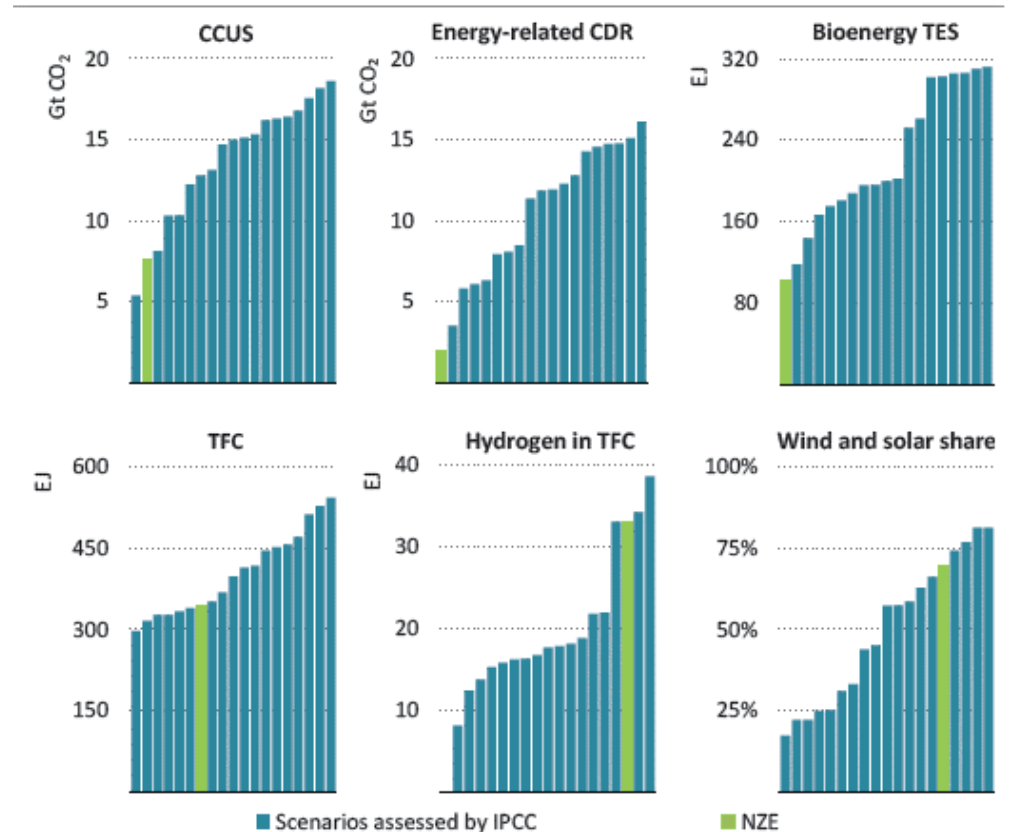


“Net Zero by 2050” of IEA

- IEA’s scenario is used for the consideration of corporate long term strategy by many companies.
- Check the prerequisites for the use of scenarios. Corporate strategy should also prepare for cases where assumptions do not materialize.



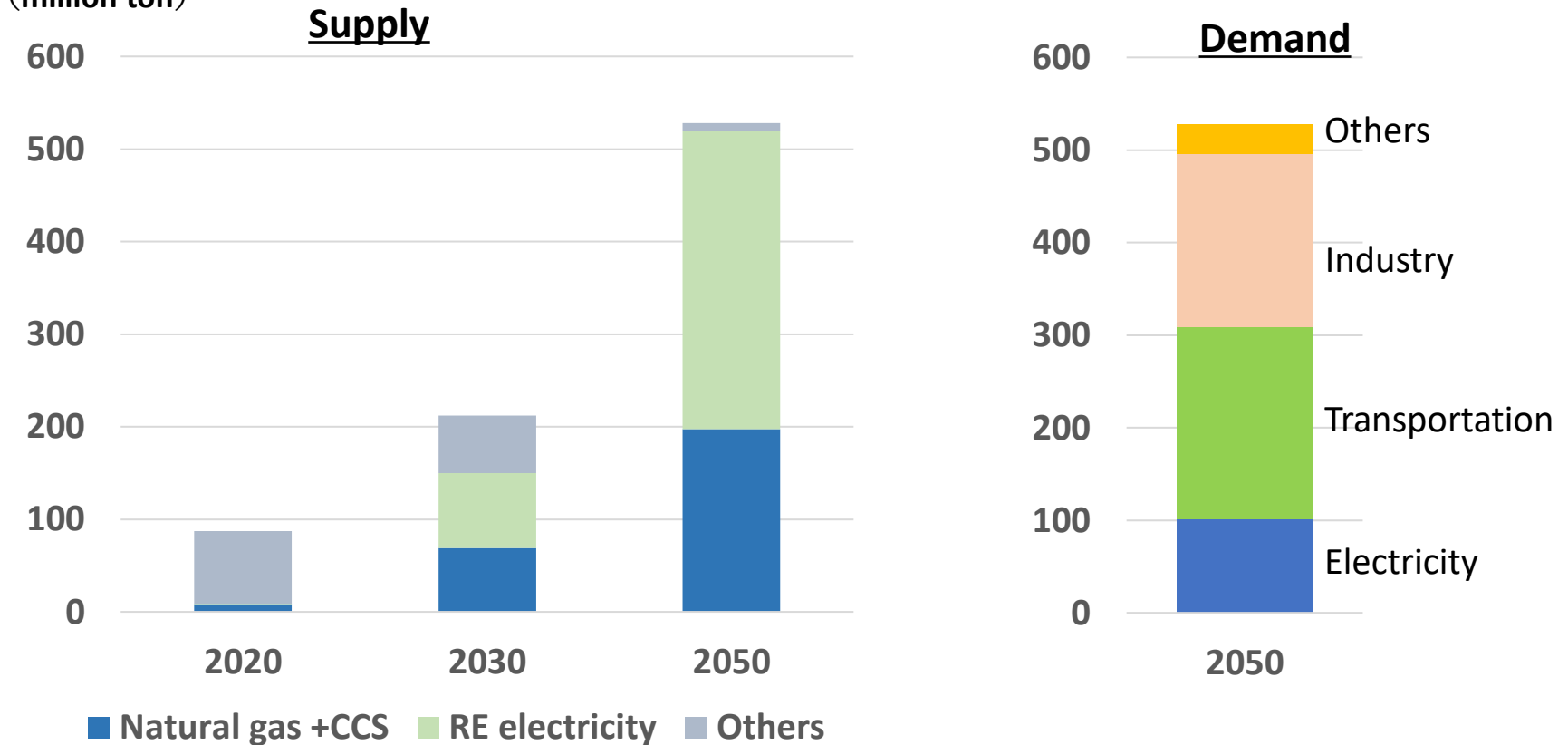
Figure 2.11 ▶ Comparison of selected indicators of the IPCC scenarios and the NZE in 2050



Energy as the key for Business

- ◆ Energy demand is increasing in Vietnam and ASEAN. An option is zero emission fuel such as hydrogen.
- ◆ 'Green Hydrogen VS Blue Hydrogen' or 'Both Green Hydrogen and Blue Hydrogen'

(million ton)



Corporate Long Term Strategy – Risk and Opportunity

- Momentum for Net Zero Emission
- Long Term Strategy is needed
- Observation of policy, international framework, and science background. Impact of financial initiatives is negligible

