Brave New World

New Global Zero-Carbon Energy Requirements

Must Do Action Items for All Businesses

(Enterprises, Supply Chains and Group Companies)

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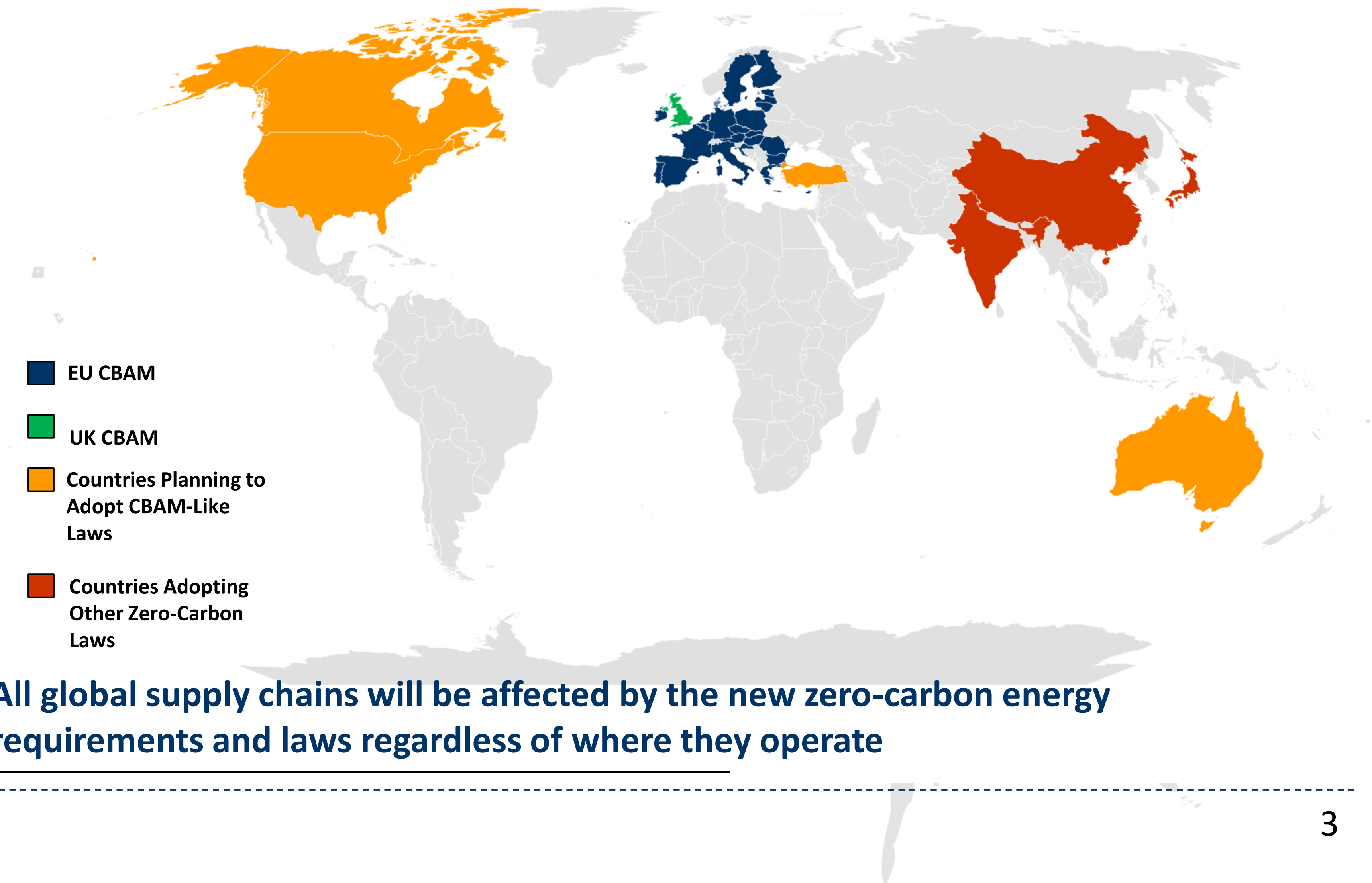

All global supply chains will be affected by the new zero-carbon energy requirements and laws regardless of where they operate

Global Zero-Carbon Energy Jurisdictions and Trends

EU Carbon Border Adjustment Mechanism ("CBAM")

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czechia
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden

UK Carbon Border Adjustment Mechanism

- England
- Scotland
- Wales
- Northern Ireland

Countries Planning to Adopt CBAM-like Laws

- US
- Canada
- Turkey
- Australia

Countries Adopting Other Zero-Carbon Laws

- China
- Japan
- India

At least 38 countries moving forward with zero-carbon energy laws and requirements

Source: https://www.business-standard.com/economy/news/india-mulling-its-own-carbon-tax-on-exports-along-the-lines-of-cbam-123092500605_1.html

New US Securities & Exchange Commission ESG Rules (2024)

The US Securities & Exchange Commission (SEC) issued its long-awaited final rule concerning climate disclosures, entitled "The Enhancement and Standardization of Climate-Related Disclosures for Investors," on March 6, 2024

- ## Who Needs to Comply?
  - **The climate disclosure rules generally apply to all SEC-registered companies, including:**
    - Public companies
    - Accelerated filers and large accelerated filers (reporting companies that have a publicly owned shares of between $75 million and $700 million)
    - Foreign private issuers
- ## Implementation Timeline
  - **The SEC's new climate disclosure rules will be phased in over a three-year period:**
    - Large accelerated filers (public companies with over $75 million in public common equity): Disclosures required for fiscal years ending after December 31, 2023 (generally included in annual reports for calendar year 2024).
    - Accelerated filers (public companies with over $25 million in public common equity): Disclosures required for fiscal years ending after December 31, 2024 (generally included in annual reports for calendar year 2025).
    - Non-accelerated filers (all other public companies): Disclosures required for fiscal years ending after December 31, 2026 (generally included in annual reports for calendar year 2027).

Source: https://www.sec.gov/news/press-release/2024-31
https://www.sec.gov/files/33-11275-fact-sheet.pdf

New US Securities & Exchange Commission ESG Rules (2024) 🇺🇸

- **What disclosures are required?**
  - Governance: How the company oversees climate-related risks and opportunities.
  - Strategy: The company's business strategy as it relates to climate change.
  - Risk Management: How the company identifies, assesses, and manages climate-related risks.
  - Metrics:
    - Greenhouse gas (GHG) emissions
    - Impact of Climate related risks including physical and transition risks
    - Climate related targets and goals
    - Internal carbon pricing
    - Carbon offsets or renewable energy certificates used

EU Carbon Border Adjustment Mechanism ("CBAM")

The EU has implemented the CBAM to address concerns about carbon leakage and ensure a level playing field for EU producers. This mechanism aims to put a carbon tax on certain goods imported into the EU, reflecting the emissions associated with their production.

- **Who Needs to Comply?**
  - The CBAM applies to a specific group of carbon-intensive goods imported into the EU. The initial phase focuses on the following sectors:
    - Cement
    - Iron and Steel
    - Electricity
    - Aluminum
    - Fertilizers
  - Other goods will be taxed after the first year of implementation
  - The European Commission has the authority and has stated its intent to expand the list of covered goods in the future

Source: https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

EU Carbon Border Adjustment Mechanism ("CBAM")

- **Implementation Timeline**
  - Transitional Phase (October 1, 2023 - December 31, 2025)
    - Collect activity data related to production and transport of the goods.
    - Calculate the associated embedded carbon emissions.
    - Submit this data to the EU CBAM system. No financial adjustments for carbon content will be applied yet. This phase serves as a preparatory period for both businesses and authorities.
  - Definitive Phase (Starting January 1, 2026)
    - Importers will be financially liable for the carbon emissions associated with their imported CBAM goods.
    - The carbon price will be determined based on the price of EU Emissions Trading System (EU ETS) allowances.
    - Importers will need to surrender allowances corresponding to the embedded emissions in their imported goods.
- **What Disclosures/Reporting are Required?**
  - Importer Information: Basic details about the importing company.
  - Product Information: Type, quantity, and origin of the imported CBAM goods.
  - Emissions Information: Calculated embedded carbon emissions associated with the production and transport of the goods.
  - Verification Information: (For some goods) Data from independent verifiers attesting to the accuracy of the emissions calculations.

China’s New Sustainability Regulations

China has implemented new disclosure requirements for ESG factors by listed companies on the Stock Exchanges, Institutional Investors and Funds and Financial Institutions . These guidelines mark a significant step towards greater transparency and accountability on sustainability practices.

- **Who needs to comply?**
  - Public companies listed on the Shanghai, Shenzhen and Beijing Stock Exchanges
  - Chinese banks and financial institutions
  - ESG funds, institutional investors and insurance companies
- **Implementation Timeline**
  - Public companies’ first reports due by 2026
  - Bank and financial institution firsts reports due by 2025
  - Institutional investor first ESG reports will be due by 2026

Source: https://www.china-briefing.com/news/chinas-stock-exchanges-announce-esg-reporting-guidelines-for-listed-companies/

China's New Sustainability Regulations

- **What Disclosures/Reporting are Required?**
  - Stock Exchanges and Public Companies
    - GHG Emissions, Pollutants Discharged, Resource Consumption
    - Energy Transition and Decarbonization Plans and Targets
    - Usage of Carbon Offsets
    - Analysis of Climate Risks: Physical and Transition
  - Banks and Financial Institutions
    - Environmental Policy and Strategy
    - Governance Structures
    - Green Financing Activities
    - Environmental Risk Identification and Mitigation Strategies
    - Direct and Indirect Environmental Footprint (projects financed)
  - Institutional Investors, Insurance Companies and ESG Funds
    - ESG Integration Process
    - Portfolio Characteristics
    - Performance Measurement
    - Risk Management

Global Supply Chains' Net-Zero Emissions Requirements

Apple, Google, Amazon and Meta– have made ambitious pledges to achieve net zero emissions by targets between 2030 and 2040. This signifies a significant commitment from companies to decarbonization and energy transition.

- **Who Needs to Comply?**
  - **Apple**: Requires net zero emissions across its entire global supply chain and product life cycle by 2030.
  - **Google**: Plans to operate on 100% carbon-free energy by 2030 for its global operations and achieve net zero across its entire supply chain by 2040.
  - **Amazon**: Plans net zero carbon emissions by 2040 across its entire supply chain, encompassing its vast logistics network and cloud computing operations.
  - **Meta**: Goal of achieving net zero emissions across its global data centers by 2030, with a broader ambition to reach net zero for its entire supply chain by 2040.
- **Implementation Timeline**
  - 2030 or 2040
  - Companies with a large physical product footprint (like Apple) may face greater challenges in decarbonizing their supply chains compared to those with a more service-oriented model (like Meta)

Source: https://sustainability.aboutamazon.com/climate-solutions
https://www.apple.com/newsroom/2020/07/apple-commits-to-be-100-percent-carbon-neutral-for-its-supply-chain-and-products-by-2030/
https://sustainability.google/operating-sustainably/net-zero-carbon/

RE100 Commitments by MNC Supply Chains

The RE100 initiative is a global network of influential businesses pledging to achieve 100% renewable electricity consumption by 2050

- **Who Needs to Comply?**
  - Over 400 companies are members of the RE100 initiative and include various industries
    - https://www.there100.org/re100-members
  - **Technology**: Microsoft, Infosys, Apple, TSMC
  - **Manufacturing**: Unilever, Johnson and Johnson, Siemens
  - **Retail**: Walmart, IKEA
  - **Financial Services**: Goldman Sachs, HSBC, Citigroup
- **Implementation Timeline**
  - RE100 member companies establish their own timelines for reaching their renewable energy goals. Ranges from 2030-2050
- **What Disclosures/Reporting are Required?**
  - Reporting is optional

Source: https://www.there100.org/re100-members

UK Carbon Border Adjustment Mechanism

The United Kingdom has announced the implementation of its own Carbon Border Adjustment Mechanism (CBAM) to address carbon leakage concerns. Similar to the EU's CBAM, this mechanism aims to put a carbon tax on certain imported goods, reflecting the emissions associated with their production.

- **Who Needs to Comply?**
  - The UK CBAM will initially apply to a defined set of carbon-intensive goods imported into the UK. The initial focus will be on the following sectors:
    - Aluminum
    - Cement
    - Ceramics
    - Fertilizers
    - Glass
    - Iron and Steel
  - Other goods will be taxed after the first year of implementation
  - The UK Government stated its intent to expand the list of covered goods in the future

Source: https://www.gov.uk/government/consultations/addressing-carbon-leakage-risk-to-support-decarbonisation/outcome/factsheet-uk-carbon-border-adjustment-mechanism

UK Carbon Border Adjustment Mechanism

- **Implementation Timeline**
  - Transitional Phase (Start Date to be Confirmed): During this initial period, companies importing CBAM goods will likely be required to:
    - Collect activity data related to production and transport of the goods.
    - Calculate the associated embedded carbon emissions.
    - Submit this data to the UK CBAM system. No financial adjustments for carbon content will be applied during this phase. This period serves for familiarization and data collection.
  - Definitive Phase (Start Date to be Determined): The levy application and carbon price determination, are still under consultation with stakeholders.
    - Importers potentially paying a carbon price adjustment based on the difference between the UK carbon price and the carbon price paid in the producing country.
    - A system for ensuring compliance and verification.
- **Reporting Requirements**
  - Company Information: Basic details of the importing company.
  - Product Information: Type, quantity, and origin of the imported CBAM goods.
  - Emissions Data: Calculated embedded carbon emissions associated with the imported goods, potentially based on methodologies outlined by the UK government.
  - Verification Documentation: (For future consideration) Documentation supporting the reported emissions data, potentially obtained from accredited verifiers.

Lessons and Must Do Action Items for Global Businesses (Enterprises, Supply Chains and Group Companies)

A Brave New World in Sustainability: Rising Global Demand for Zero-Carbon Energy and Products

- **The world is experiencing a major paradigm shift to net zero emissions.**
- **Leading economies like the US, EU, UK and China are implementing new zero carbon regulations and requirements.**
- **This trend presents both challenges and opportunities for Businesses (Enterprises, Supply Chains and Group Companies) who must adapt or perish. Paying to play greenwash is not reducing emissions so Businesses must change mentality and operations to deliver actual results. The time deadline is now.**
- **Key Challenges:** Enterprises lacking access to zero-carbon energy risk losing access to significant major export markets. Strategic plans need to include operational transformation as well as acquisition of zero carbon energy.
- Importing companies will increasingly be pressured to demonstrate the carbon footprint of their products throughout the entire supply chain

Lessons and Must Do Action Items for Global Businesses (Enterprises, Supply Chains and Group Companies)

The Takeaway: Businesses must transform their operations and prioritize decarbonization and energy transition efforts to retain access to export markets to survive and remain competitive in the global marketplace.

- **Businesses (Enterprises, Supply Chains and Group Companies) must:**
  - Create sustainable eco-compliant strategic plans to implement them for decarbonization and survival/success
  - Implement effective comprehensive sustainability and resiliency training programs to change the current mentality. These are fundamental to enable management to design, plan and implement business operations best practices to meet the complicated global challenges and cause and actually deliver decarbonization
  - Create operational systems which properly monitor, measure and report on sustainability criteria to allow a Business to compete for green financing investment, loans and insurance, as criteria to access financing resources is also changing
  - Create strategic plans, if necessary, to migrate to zero-carbon energy jurisdictions and transform the Business operations to meet decarbonization and other requirements
  - Become a leader in global supply chains and retain global market access

Lessons and Must Do Action Items for Global Businesses (Enterprises, Supply Chains and Group Companies)

In the face of stricter decarbonization regulations, evolving market access requirements and consumer driven supply chain preferences, Businesses (Enterprises, Supply Chains and Group Companies) basically have three choices:

Option A: Transform Their Current Jurisdiction to Significantly Increase Zero-Carbon Energy Supply. This involves:

- Cause societal changes that actually deliver sufficient zero-carbon energy to meet current and future growth needs.
- Replace all fossil fuels with baseload, scalable zero-carbon energy. Greenwash (pay-to-pollute schemes) and governmental public relations doesn't replace fossil with green energy. Period.
- Ensure the incorporation of sufficient clean energy for their own operations (and their entire supply chains).

Option B: Close Down: Make plans to scale down or exit operations that can't meet zero-carbon requirements

- Make a rational plan to closedown, restructure, re-engineer or implement a bankruptcy process for operations that are unable to meet zero-carbon requirements
- Plan for the loss of competitiveness and ability to export to zero-carbon markets (phase out)

Option C: Geographical Repositioning:

- Alternative Options to A and B
- Migrate (Shift) to a zero-carbon manufacturing jurisdictions, AND
- Transform the operation to global, best practice compliance Zero-carbon systems, standards to properly measure, monitor and report on all sustainability criteria

Lessons and Must Do Action Items for Global Businesses (Enterprises, Supply Chains and Group Companies)

- **Where does a Business go to secure scalable zero carbon energy? Options?**
  - What are the characteristics of an ideal jurisdiction?
- **Climate Criteria for Accessing Zero-Carbon Energy which is the Most Important Factor for achieving decarbonization and energy transition and preserving export capability**
- **General Investment Criteria for enterprise leaders to consider when repositioning their businesses: e.g., geographic, new market potential, production, distribution and supply chain, lower cost**
- **What are possible zero carbon destinations/green investment jurisdictions for Migrating/Re-shoring Supply Chains?**
  - Asia: China is 36% green energy going to 86% zero carbon energy. How to secure access
  - What are other possible zero-carbon energy destinations?
    - Best practice supply chain rules require double sources

Lessons and Must Do Action Items for Global Businesses (Enterprises, Supply Chains and Group Companies)

The Competitive Advantage of Sustainability

- **The transition to a zero-carbon economy presents a significant challenge, but it also creates new opportunities.**
- **Companies that embrace sustainability can:**
  - Gain a competitive edge by meeting the growing demand for low-carbon products. Take market share from zero-carbon laggards
  - Attract green lenders, investors, insurers and consumers who prioritize environmental responsibility
  - Reduce long-term operational costs through energy efficiency improvements
  - Transform operations to be globally competitive, opening new markets and revenues

The Takeaway: By prioritizing sustainability, businesses (enterprises, supply chain and group companies) can position themselves for success

For More Information

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