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# REACHING NET ZERO TOGETHER

Trends in Corporate Sustainability

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# Presenters



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# Agenda

- Corporate Sustainability Trends
- The Voluntary Carbon Markets
- Potential Regulatory Oversight over Carbon Offsets
- Corporate Sustainability Trends in Europe





# Corporate Sustainability Trends

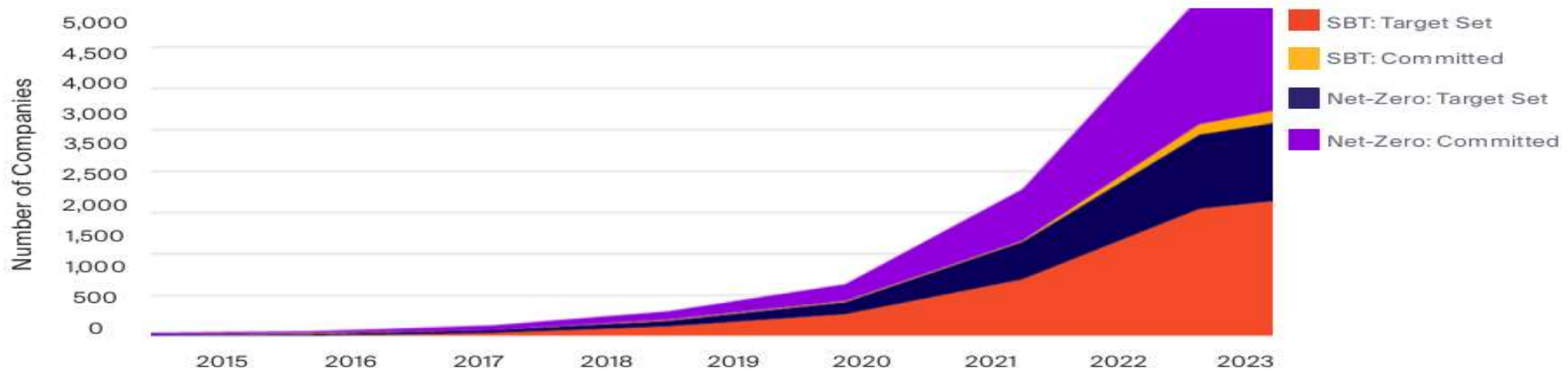
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# Corporate Commitments Continue to Expand

- RE100 has grown to 380+ members, with 420TWh/year purchases of renewable electricity
- New record in U.S. Corporate Power Purchase Agreements in 2022 (19.9GW)
- U.S. market incentivized by Inflation Reduction Act, but project development risk remains with higher costs, supply chain challenges, interconnection, interest rates, and regulatory risk
- European Corporate PPA growth exceeding 8GW
- European market prices moderating, new projects in emerging markets
- European regulatory reform (planned electricity market changes, support for PPAs, improved permitting regime) likely to increase development

# Increasing Commitments to Net Zero and Science-based Targets

- Science-based targets are greenhouse gas reduction goals that are aligned with projected reductions required to meet 2C or 1.5C goals
- Over 5,000 companies have set net zero or science-based targets



# “Net Zero” and Carbon Removal

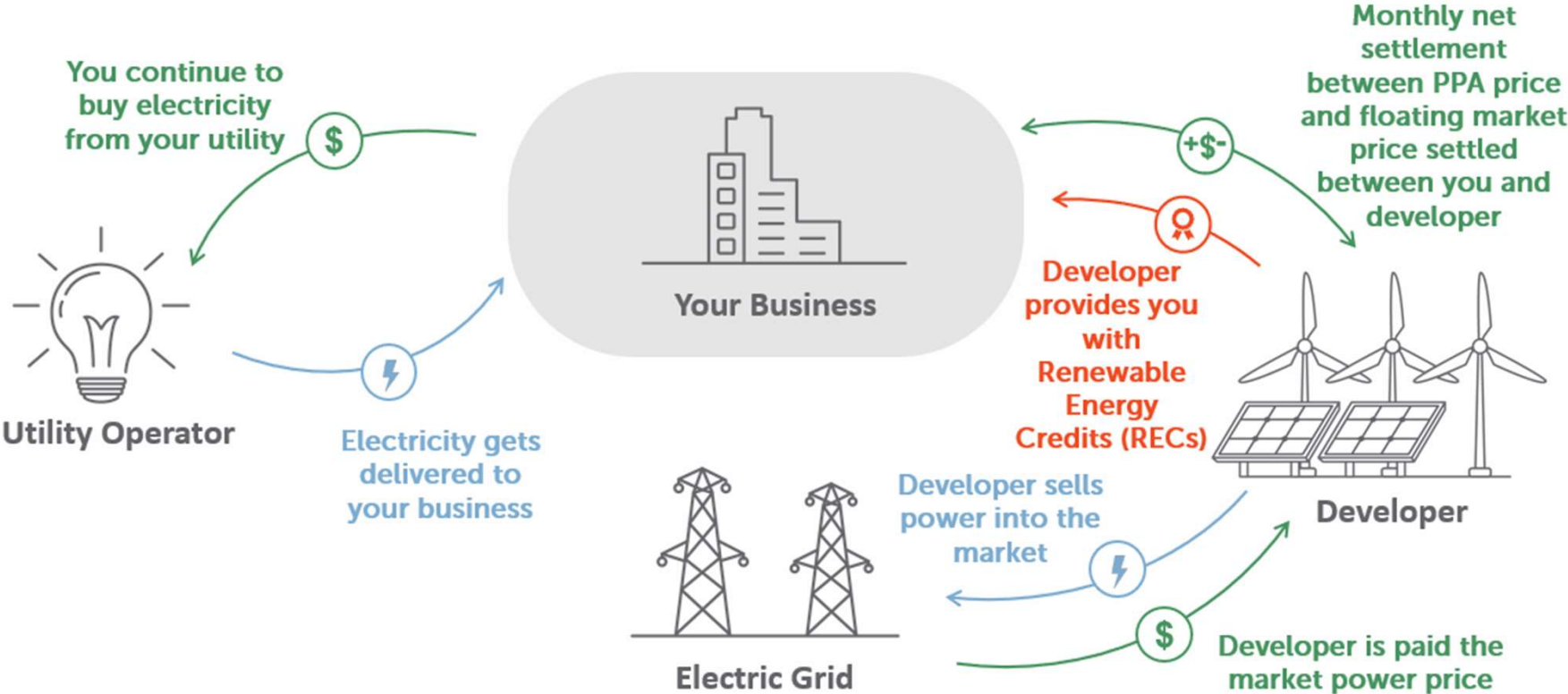
- “Net Zero” typically refers to the time when net human-caused CO2 emissions stop increasing and there is a stabilized level of cumulative warming in the atmosphere
- IPCC Reports detail the consequences of the level of cumulative warming (e.g., 1.5C, 2C) and the complexities of “overshoot”
- Net zero requires attention to residual emissions, i.e., the emissions that cannot be eliminated through use of renewable energy and other mechanisms
- Increasing focus on residual emissions -> increasing focus on carbon removal technologies and associated policy challenges

# Participants

- Corporations with sustainability commitments
- Asset managers
- Investors
- Utilities
- Energy companies and project developers
- Regulators



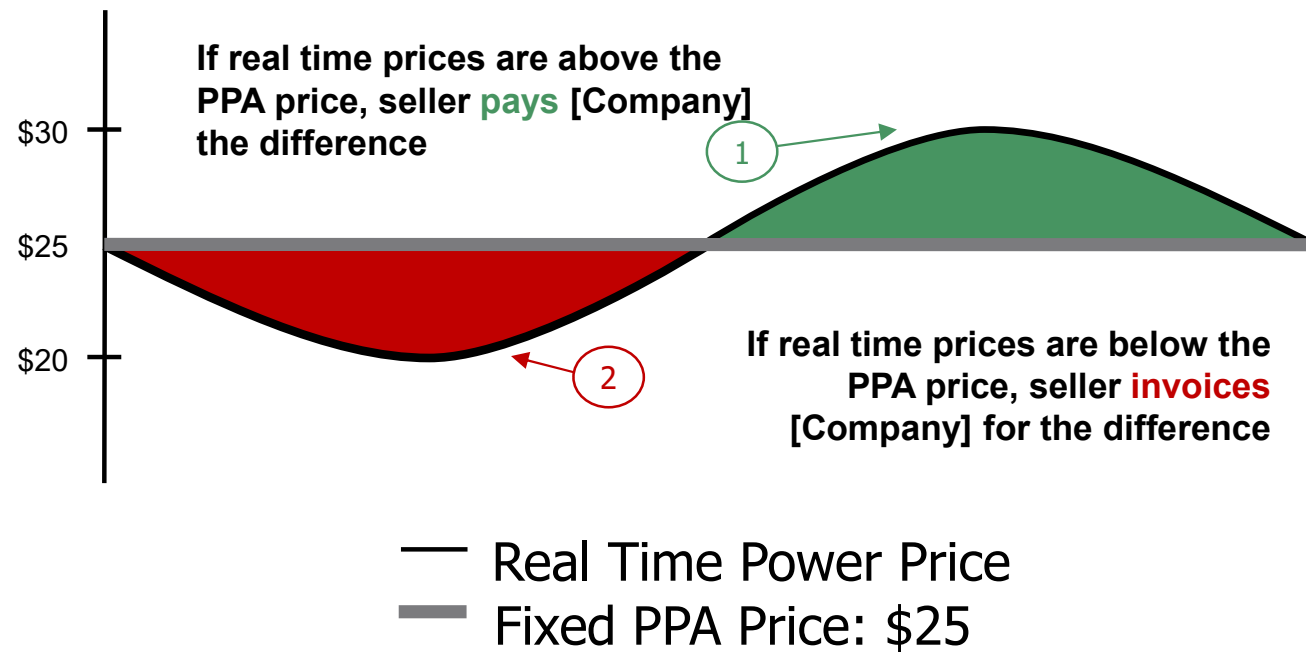
# Virtual Power Purchase Agreement (vPPA): How it Works



Source: Edison Energy

# vPPA Settlements

- Buyer pays fixed price per unit of energy generated (\$/MWh)
- Developer provides Buyer with the value of the energy sold on the market + RECs
- As energy is generated by the asset, Developer sells physical energy to the grid at market price, which fluctuates
- The vPPA is settled as a unit-contingent contract-for-differences
- The contract settlements are netted & invoiced monthly

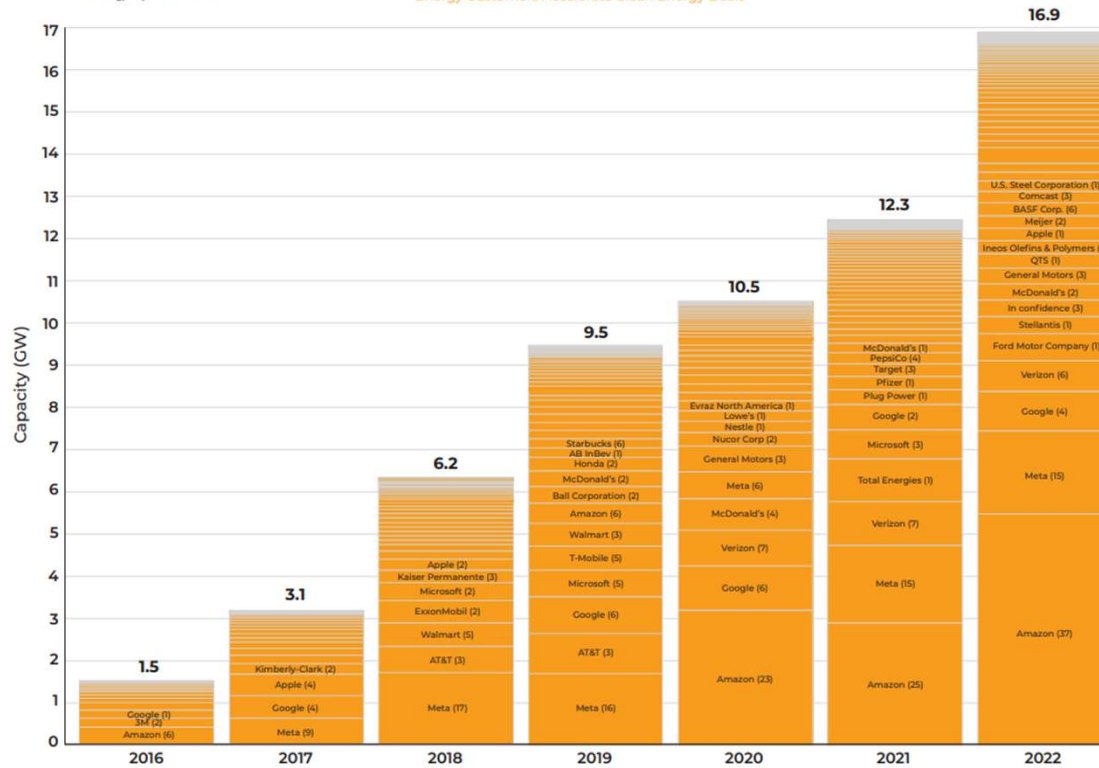


Source: Edison Energy

# Corporate VPPA Market



**CEBA Deal Tracker 2016 through Q4 2022**  
Energy Customers Accelerate Clean Energy Deals



As of December 31, 2022. Includes publicly announced corporate clean energy procurement through power purchase agreements, green tariffs, tax equity investments, and project ownership in the U.S. from 2016-2022. Excludes onsite generation <20 MW. [#] indicates number of deals each year by individual companies.

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# Clean Energy Buyer Association 2022 Deal Tracker "Top 10" 16.9 GW New Deals Announced – 33% Increase Over 2021

Company	Volume (Megawatts)
Amazon	5,495 MW
Meta	1,978 MW
Google	942 MW
Verizon	730 MW
Ford Motor Company*	650 MW
Stellantis*	400 MW
McDonald's	385 MW
General Motors	370 MW
QTS	350 MW
INEOS Olefins & Polymers*	310 MW

# VPPA General Structure and Legal Provisions

- **VPPA generally addresses**

- Project development and operation
- Sale and delivery of environmental attributes
- Other provisions

- **Project Development and Operation**

- Project description and technology
- Timeline for development / COD
- Early termination rights
- Delay damages
- Capacity Adjustment
- Project substitution
- Pro-Rata Provisions
- Availability Guarantees; damages and termination rights



# VPPA General Structure and Legal Provisions (cont'd)

- **Environmental Attributes**

- Type and tracking system – alignment with sustainability goals
- Potential future environmental attributes and other types of attributes that may be eligible for compensation in the future (e.g., capacity)
- Potential delivery of “comparable” environmental attributes
- Performance Guaranty

# VPPA General Structure and Legal Provisions (cont'd)

- **Other Provisions for Consideration**
  - Performance Assurance
  - Seller and Buyer Covenants
  - Events of Default
  - Dodd-Frank Reporting and Compliance
  - Assignment
  - Collateral Assignment for Financing Purposes
  - Change in Law

# VPPA – Current Issues

- Buyer Competition / “Seller’s Market” Dynamics
- Basis Risk
- Additional Conditions Precedent / Termination Rights
- Higher Costs (Equipment, EPC, Debt)
- Supply Chain Issues
- Interconnection and Permitting Challenges
- Tariff Risk
- Inflation Reduction Act Implementation
- Other Regulatory Risk



# The Voluntary Carbon Markets

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# Carbon Offsets: An Overview

- Carbon offset: an instrument that represents a permanent reduction in greenhouse gas (GHG) emissions or increase in carbon removal or storage that is used to compensate for emissions that occur elsewhere
- Other environmental attributes:
  - Renewable Energy Certificate
  - Renewable Identification Number
  - Carbon Credit



# Types of Projects that Generate a Carbon Offset

- Forest Management and Conservation
- Methane Destruction
- Carbon Removal Projects
- Renewable Energy Development

# Carbon Offset Markets

- Mandatory Compliance Carbon Markets
  - Cap-and-trade programs that require sources of GHG emissions to meet regulatory GHG emission caps
- Voluntary Carbon Markets
  - Markets that allow carbon emitters to offset their unavoidable emissions by purchasing carbon offsets

# Carbon Offset Key Issues

- Variability in standards used to verify the offset
- Permanence of carbon reduction or removal
- Additionality of project that generated the offset
- Registration and retirement of the offset

# Commercial Considerations When Transacting Carbon Offsets

- What standard or methodology applies to the carbon offsets?
- How will the offsets be verified?
- Do the offsets reflect the permanent removal or reduction in GHG emissions?
- Have the carbon offsets been double counted or already claimed?



# Potential Regulatory Oversight over Carbon Offsets

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# Commodity Futures Trading Commission

- CFTC
  - Regulator of the derivatives market, but holds anti-fraud and anti-manipulation authority over the underlying market
  - CFTC-regulated exchanges have future contracts that reference carbon offsets
  - CFTC commissioners have raised concerns about fraud in the voluntary carbon markets
- June 2022 Voluntary Carbon Markets Convening
- CFTC Request for Information on Climate-Related Financial Risk
- Potential second Voluntary Carbon Markets Convening

# Types of Fraud

- What types of carbon offset transactions could constitute fraud?
  - Transactions where there is a risk of fraudulent selling of carbon offsets that do not exist or that do not belong to the seller
  - Transactions where different methodologies are used to quantify the carbon being avoided or reduced
  - Transactions where conflicts of interest between traders and investors could lead to traders manipulating prices by issuing buy/sell recommendations to their customers, while doing the opposite with their own credits
  - Transactions where there are unclear and misleading communications around buyers' use of offsets

# Securities and Exchange Commission

- Proposed Rule: The Enhancement and Standardization of Climate-Related Disclosures for Investors
- Would require companies that use carbon offsets as part of their plan to achieve climate-related targets or goals to disclose certain information about the carbon offsets including:
  - The amount of carbon reduction represented by the carbon offsets
  - The source of the carbon offsets
  - A description and location of the underlying projects, any registries or other authentication of the offsets
  - The cost of the offsets



# Corporate Sustainability Trends in Europe

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# The EU's Green Deal

- In 2019, the EU pledged to reach the following more detailed targets by 2030:
  - Minimum 55% cuts in greenhouse gas emissions (“Fit for 55”)
  - Above 32% share of renewable energy
  - At least 32.5% improvement in energy efficiency
- By 2050, Europe aims to become the world’s first climate-neutral continent.
- The EU adopted a dedicated action plan (the so-called “EU Green Deal”) to reach these targets on time.
- The EU Green Deal covers a wide range of policy areas, notably transport, energy, agriculture, buildings, and industries such as steel, cement, ICT, textiles and chemicals.

# Funding: The Green Deal Industrial Plan

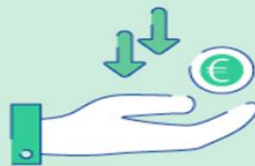
Simplified regulation	Faster access to funding	Enhancing skills	Open trade for resilient supply chains
<b>Net-Zero Industry Act</b>	<b>Relaxed State Aid rules:</b> General Block Exemption Regulation, Temporary State aid Crisis Framework	The Commission will propose to establish <b>Net-Zero Industry Academies</b>	Further development of the <b>EU's network of Free Trade Agreements</b>
<b>The Critical Raw Materials Act</b>	Simplified funding, ex. for <b>IPCEI-related projects.</b>	New tools to <b>foster and align public and private funding</b> for skills development.	Creation of <b>Clean Tech/Net-Zero Industrial Partnerships.</b>

# Saving: Revision of the EU Emissions Trading System (ETS)

- The ETS is the world's first major carbon market and remains the largest one (regulating about 40% of the EU's total greenhouse gas emissions).
  - based on the 'cap and trade' principle
  - incentivises companies to pollute less



The system puts a price on carbon. Every year, entities covered by the ETS have to buy “allowances” corresponding to their greenhouse gas emissions.



Every year, a cap is set on how many allowances are put on the market for that year and each year; that cap then decreases with every passing year. This creates financial incentives for companies to cut emissions.

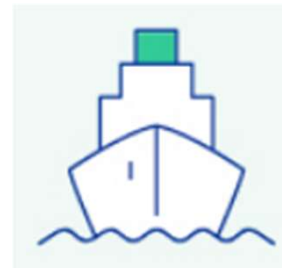
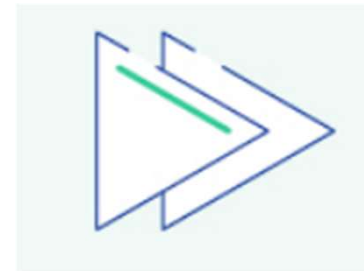


However, certain sectors that are exposed to ‘carbon leakage’ get free allowances to support their competitiveness.



# Saving: Revision of the ETS (II)

- More ambitious cutting of emissions in sectors covered by the ETS to 62% by 2030, compared to 2005 levels
- Faster reduction of the cap
- Reduction of allowances
- Expansion of sectors covered
  - inclusion of maritime transport
  - separate ETS for buildings, road transport, and fuel



# Taxing: Carbon Border Adjustment Mechanism (CBAM)

- The CBAM seeks to ensure that the carbon price of imports is equivalent to the carbon price of domestic production.
- Extension of the ETS to non-EU production
- Progressive enlargement of the scope



iron and steel



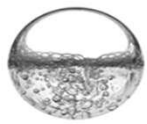
cement



fertilisers



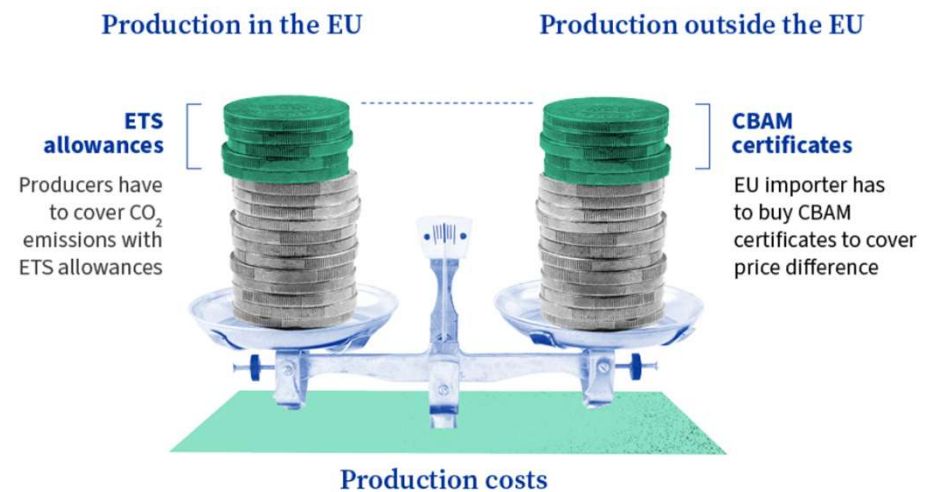
aluminium



hydrogen production



electricity



# Diligence: Proposal for a Corporate Sustainability Due Diligence Directive (CSDDD)

- Horizontal due diligence framework for businesses operating in the EU's single market to respect human rights and the environment.
  - establishing a corporate due diligence duty for companies to identify, bring to an end, prevent, mitigate and account for negative ESG impacts in their own operations and value chains
  - introducing duties for directors of EU companies to set up and oversee the implementation of the due diligence process and integrate due diligence into the corporate strategy
- Covers large EU companies or non-EU companies active in the EU.
- Small and medium-sized enterprises, including micro-enterprises, are not in scope, but may be impacted as contractors or subcontractors to companies in scope.
- Legislative process expected to conclude by 2024.



# Exempting: Pushing the Limits of Antitrust

- EU Commission: broad sustainability notion but net consumer pass-on requirement
  - Review of horizontal cooperation guideline
  - Review of informal guidance notice
- Most Member States follow EU's soft law approach
  - Mostly limited to implementation of environmental regulation obligations
  - Difficulty to account for “out of market” effects
- No carte blanche: Car emissions case
- Self-assessment induces caution: the example of the UN Net Zero Insurance Alliance (NIZA)





# Questions

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# Biography



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Ken Kulak is a co-leader of the firm's power and renewables sector team and a member of the firm's climate change and sustainability working group. He counsels energy companies in regulatory proceedings, including ratemaking proceedings, before public utility commissions and in transactional matters. Ken also advises public utilities, project developers, investors, and corporate energy users on retail and wholesale electricity markets, renewable portfolio standards, distributed generation (including microgrids), demand response, and energy efficiency.



# Biography



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Mark A. Lazaroff counsels public utilities, energy companies, and other clients on regulatory issues and transactional matters. He represents natural gas, water, and wastewater utilities in regulatory proceedings, including ratemaking proceedings, before public utility commissions, in matters before the Federal Energy Regulatory Commission, and in litigation. Mark also represents clients in the development of renewable energy projects (primarily solar, storage, and wind) to meet their sustainability goals and reduce their carbon footprints. He is an active member of the firm's energy industry team, Climate Change and Sustainability Working Group, and Electric Vehicles Working Group.

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Levi McAllister, head of the firm’s Electric Vehicles (EV) Working Group and Energy Commodity Trading and Compliance Working Group, helps energy companies navigate the quickly evolving regulatory and investment environment for both conventional and emerging energy technologies. As more sectors look to creative solutions to mitigate the effects of climate change, Levi guides clients seeking to reduce their carbon footprints and take advantage of new and evolving energy storage and infrastructure assets, while also advising on energy commodity trading and the deployment of EVs and EV infrastructure in US markets. He is a member of the National Native American Bar Association and a frequent public speaker on energy issues.

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Christina Renner concentrates her practice on European Union and German merger control/foreign direct investment (FDI) and antitrust law, with experience in cartels and general behavioral matters, abuse of dominance, as well as EU state aid laws. Christina has long-standing experience in handling multi-jurisdictional merger and FDI filings for a variety of clients and regularly advises on complex cross-border competition and EU regulatory compliance matters. She also regularly advises on a variety of EU cross-border trade issues, including EU sanctions and foreign subsidies.

Christina has an established EU regulatory practice that spans from traditional to virtual networks across a variety of industries, including energy, telecommunications, transportation, as well as life sciences and digital markets.

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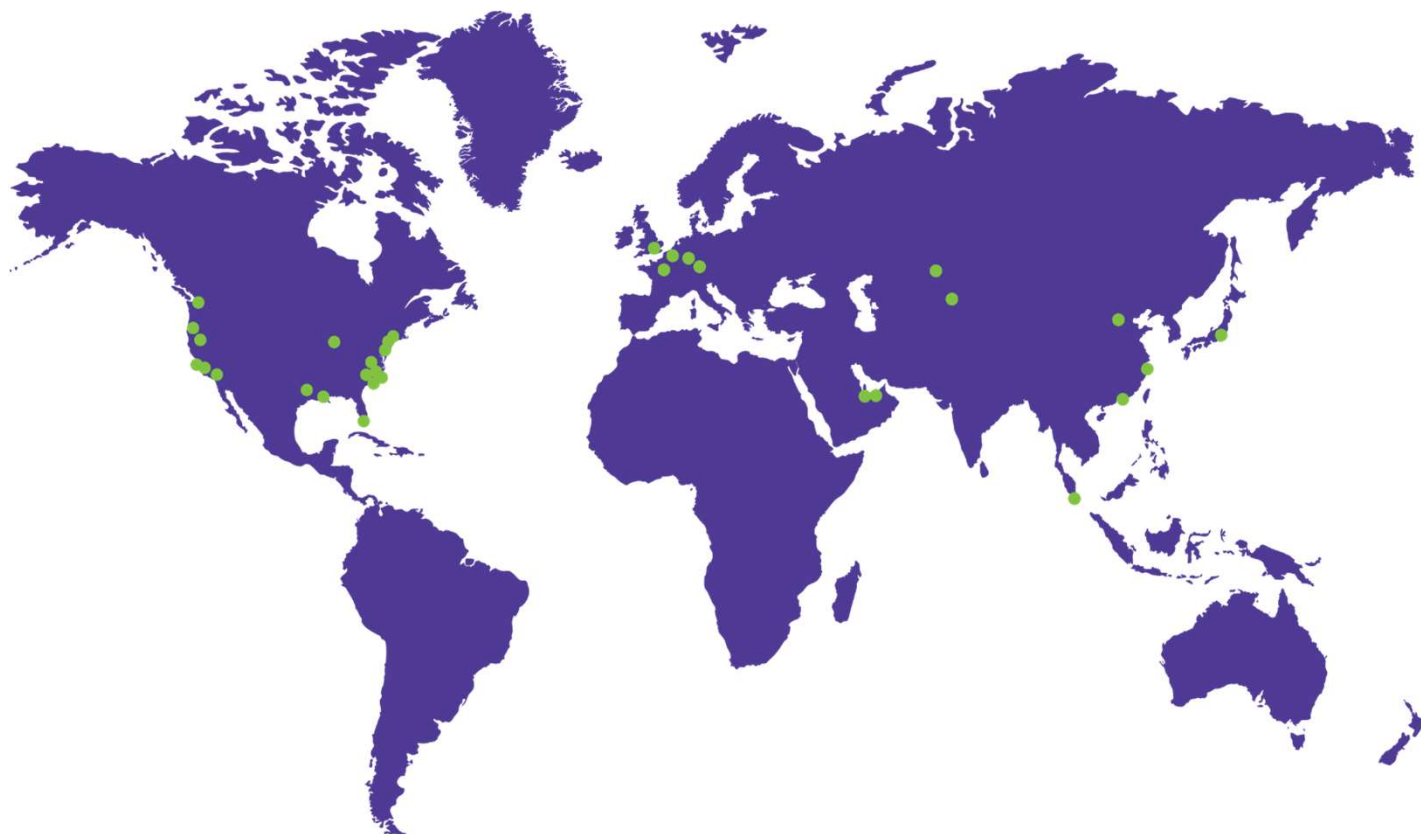
Pamela T. Wu represents companies in the energy industry in a broad range of matters involving rates, market rules and regulation, and energy commodity trading before the Federal Energy Regulatory Commission (FERC) and Commodity Futures Trading Commission (CFTC). She advises clients seeking to reduce their carbon footprint through new infrastructure assets, clean energy technologies, and transacting carbon credits and carbon offsets. Pam is an active member of the firm's Energy Commodity Trading and Compliance Working Group, Hydrogen Working Group, Electric Vehicles Working Group, and Renewables Working Group.

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