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Clean Energy Transition and International Trade Law in the 21st Century

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Clash or compatible?

**International
trade law**

**Clean energy
transition**

Research Questions

Does international trade law support or restrict governments from adopting clean energy transition measures that affect international trade?

- What are clean energy transition measures that affect international trade?
- What is international trade law?
- What obligations under international trade law that members shall comply with?
- How does international trade law support clean energy transition efforts?
- Is the policy space under international trade law sufficient for members to use trade-related measures to accelerate the transition to clean energy?



Clean energy transition

- “A transformative shift in how energy is produced, distributed and consumed, aiming to move away from fossil fuels towards a system centered on renewable energy sources.” (UNDP, 2025);
- The term ‘transition’ is used because shifting from fossil fuels to clean energy sources is a gradual and complex process that requires significant infrastructure development, technological advancements, and policy changes;
- The progress is uneven across different regions and technologies.



Three Dimensions of the Interplay of International Trade and Clean Energy Transition



The effects of international trade on clean energy transition

The effects of international trade rules on the use of clean energy transition policy measures

The effects of clean energy transition policy measures on international trade



International trade affects the clean energy transition in different ways:

Scale

Composition

Technique

The increasing use of trade-related measures that affect clean energy transition

- Tariffs
- Quotas
- Taxes
- Subsidies
- Technical standards;
- Labelling requirements;
- Technology transfer;
- ...





IN BRIEF

The dramatic escalation in US-China competition in the clean energy sector saw China file a complaint with the World Trade Organization (WTO) over the US Inflation Reduction Act in March 2024. Discriminatory 'green industrial policies, a result of perceived political and national security pressures, violate WTO Agreements

Economics + Politics

China Gets WTO Panel to Probe US Inflation Reduction Act

- Dispute panel to rule whether subsidies comply with trade law
- US uses climate change as guise for protectionism, China says



The US and the EU previously moved to erect new trade barriers against Chinese imports, arguing that state help and overcapacity damaged their domestic industries. Photographer, Fabrice Coffrini/AFP/Getty Images

Battery maker CATL faces potential US investment ban | Hotter Commodities

Chinese battery maker Contemporary Amperex Technology Co., Limited (CATL) has been added to the US Department of Defense's Chinese Military Company (CMC) list

January 8, 2025

By Andrea Hotter

- Automotive
- Battery materials
- China
- Electric vehicles
- United States
- US election

The company joins shipping and logistics giant Cosco as well as state-owned China National Offshore Oil Corporation (CNOOC) on the list, classifying them as military companies with ties to the Chinese military.

This determination doesn't impose any immediate sanctions on CATL or other companies on the list.

Chinese EV makers file challenges to tariffs at EU court

By Philip Blenkinsop
January 24, 2025 5:45 PM GMT+8 · Updated a month ago



Biden announces 100% tariff on Chinese-made electric vehicles

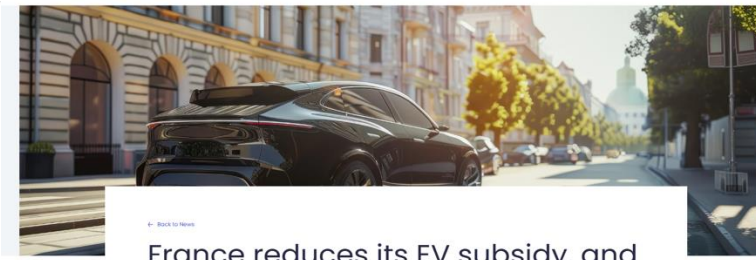
White House levy to protect US makers from cheap imports likely to inflame trade tensions



China produces a possible 30m electric vehicles a year but reportedly can sell only 22m-23m at home. Photograph: VCG/Getty Images

The US president, **Joe Biden**, has announced a 100% tariff on Chinese-made electric vehicles as part of a package of measures designed to protect US manufacturers from cheap imports.

In a move that is likely to inflame trade tensions between the world's two biggest economies, the White House said it was imposing more stringent curbs on Chinese goods worth \$18bn.



France reduces its EV subsidy, and tightens vehicle CO2 emission penalties amid budget cuts

Published 19 October 2024

The French government has released its proposed budget for 2025, outlining EUR60 billion (USD65.7 billion) in spending cuts and tax increases aiming to manage its fiscal pressures. Among the key measures are significant reductions to the EV assistance program the *bonus écologique* and stricter penalties for CO₂ emitting vehicles through

European Commission

Trade and Economic Security

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Home > News > EU challenges Taiwan's discriminatory rules on offshore wind projects

EU challenges Taiwan's discriminatory rules on offshore wind projects

The EU has today requested dispute settlement consultations at the WTO concerning Taiwan's use of local content criteria for offshore wind energy projects.

The EU is committed to leading the global green transition and, as such, welcomes Taiwan's efforts to support green energy. However, such efforts must respect the global level playing field and comply with international trade rules. In the view of the EU, Taiwan's local content eligibility and award criteria in energy capacity allocation auctions for offshore wind farms are inconsistent with its WTO commitment to not discriminate against imported goods and services.

The WTO-inconsistent local content requirements in Taiwan's offshore wind policy have a negative impact on a sector of strategic importance to the EU. The EU wind energy sector alone has an annual turnover of €60 billion (2024 figure) and provided around 300,000 jobs in the EU in 2022. Under the [REPowerEU targets](#), the number of jobs is estimated to grow to 936,000 by 2030.

Moreover, in discriminating against non-Taiwanese goods and services, the local content requirements mean efficiency losses and price increases, ultimately making the transition to a secure supply of renewable energy more difficult and costly and therefore hindering global climate ambitions.

US bans five Chinese PV firms under Uyghur Forced Labor Prevention Act

Under the Uyghur Forced Labor Prevention Act (UFLPA), the US authorities have banned five Chinese companies from providing products and services in the United States.

JANUARY 16, 2025 RYAN KENNEDY

- LEGAL MARKETS MARKETS & POLICY POLICY ALBANIA ALGERIA ASIA BOSNIA & HERZEGOVINA BULGARIA CHINA CROATIA CZECHIA EGYPT GERMANY HUNGARY ILIYA MOROCCO NORTH MACEDONIA POLAND ROMANIA SERBIA SLOVAKIA SLOVENIA TURKEY UNITED ARAB EMIRATES UNITED STATES YEMEN



The Evolution of International Trade Law (1947 – now)



- 23 nations became signatories

The adoption of General Agreement on Tariffs and Trade in 1947

Multiple rounds of trade negotiations from 1947 to 1994

- An increasing number of participating countries and economies;
- An expanding coverage of subject matters under these negotiations



- An international organization established by treaty with full legal personality;
- The only multilateral trading system that creates, regulates and manages the rules of trade between nations

The establishment of the World Trade Organization (WTO)

World Trade Organization: An Introduction



- The only international organization dealing with the rules of trade between nations;
- It consists of agreements covering trade in goods, services, and intellectual property, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments;
- The primary objective is to use trade as a means to improve people's living standards, create better jobs, and promote sustainable development.

WTO Membership

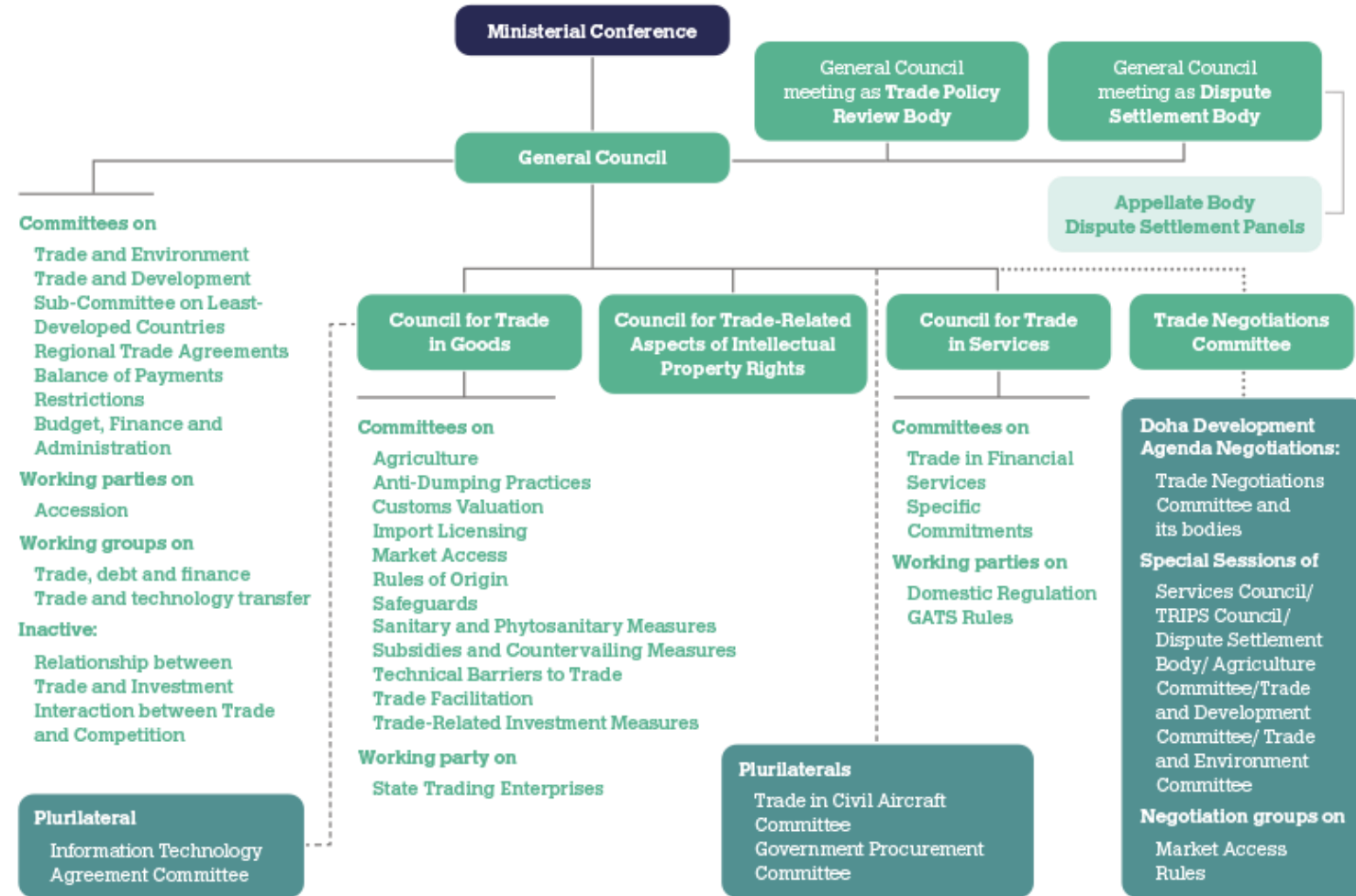
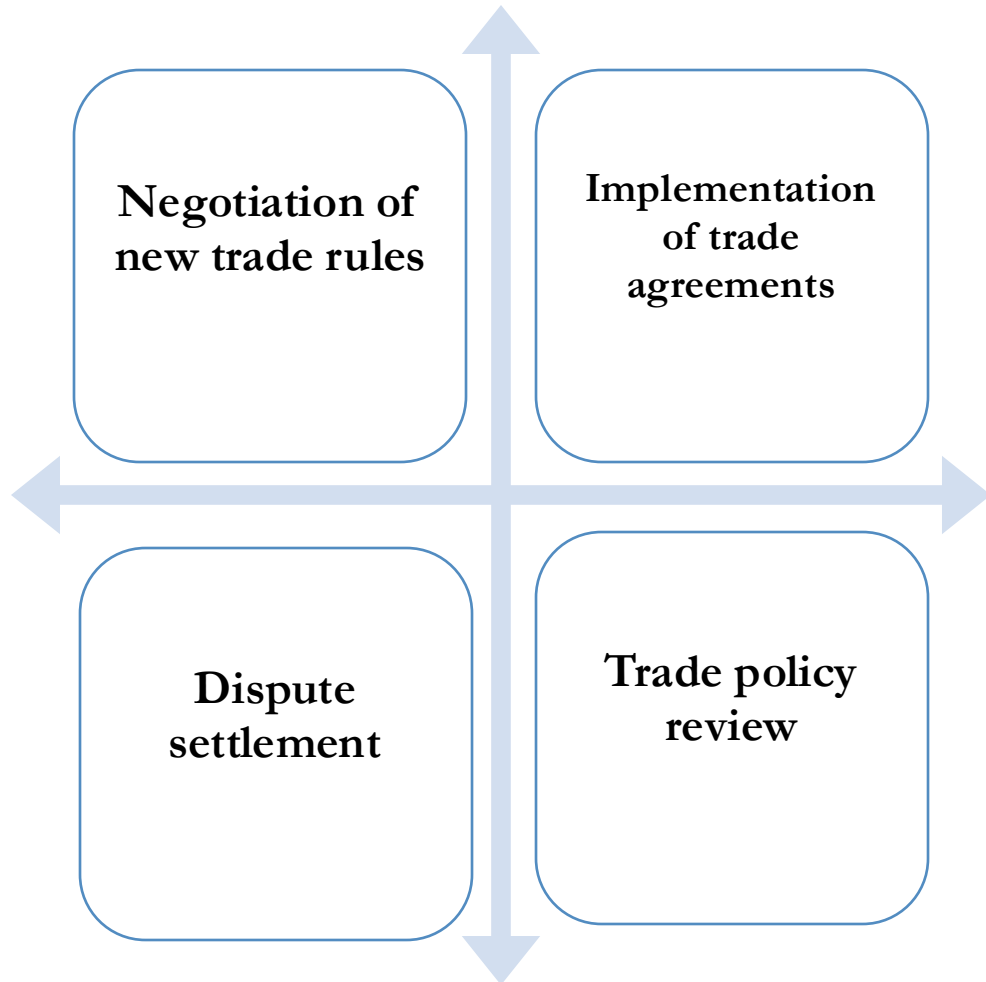
- 166 Members not limited to nation states, but customs territories (e.g., Taiwan, Hong Kong and Macau are all Members in their own right)
- 99.95% of world trade
- 99.98% of world GDP
- 99.35% of world population

The *Parties* to this Agreement,

Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.

The preamble of the *Marrakesh Agreement Establishing the World Trade Organization*

WTO's Core Functions and Organizational Structure



Key

— Reporting to General Council (or a subsidiary)

— Reporting to Dispute Settlement Body

----- Plurilateral committees inform the General Council or Goods Council of their activities, although these agreements are not signed by all WTO members

..... Trade Negotiations Committee reports to General Council

WTO's Core Principles

Non-discrimination (with limited exceptions);

Reduction of trade barriers;

Predictability and stability through binding trade commitments;

Fair and undistorted competition

WTO Dispute Settlement

- Binding and enforceable;
- One of the most active international tribunals;
- WTO disputes in the renewable energy sector:



DS612 *UK – CfD* (EU)
DS437 *US – Countervailing Measures* (China)
DS426 *Canada – Feed-in Tariff Program* (EU)
DS419 *China – Wind Power Equipment* (US)
DS412 *Canada – Renewable Energy* (Japan)



DS562 *US – PV Products* (China)
DS510 *US – Renewable Energy* (India)
DS456 *India – Solar Cells* (US)
DS452 *EU – Renewable Energy Generation* (China)
DS437 *US – Countervailing Measures* (China)
DS426 *Canada – Feed-in Tariff Program* (EU)
DS412 *Canada – Renewable Energy* (Japan)



DS600 *EU – Palm Oil* (Malaysia)
DS593 *EU – Palm Oil* (Indonesia)
DS459 *EU – Biodiesel* (Argentina)

Key Stages of the Dispute Settlement Process



Consultations



Panel



Appellate Review



Implementation



Compliance and
compensation/retaliation

The Appellate Body in Crisis

- The Appellate Body: seven members (four-year term, one-time reappointment for further four-year term);
- Three members serve on any one case (on a rotating basis through random selection);
- Appeals are limited to the issues of law covered in the panel report and legal interpretations;
- The Appellate Body has the authority to uphold, modify or reverse the legal findings and conclusions;
- **There are currently NO members of the Appellate Body. The term of the last sitting member expired on 30/11/2020.**



Principal WTO Rules Relevant to Clean Energy Transition

- **The National Treatment Principle:** treat imported goods no worse than “like” domestic goods (GATT Article III)
 - It applies broadly to all ‘internal’ requirements applied to imported products, including taxes, charges, and all manner of regulations.
- **The Most Favoured National (MFN) Principle:** ensure equality of treatment of ‘like products originating or destined for the territories of all other contracting parties’ (GATT Article I)
 - It applies to customs charges and duties; all rules and formalities connected with importation or exportation, and internal taxes, charges, and domestic regulation of a product’s distribution, sale, and use.
- **The prohibition of quantitative restrictions:** (GATT Article XI)
 - No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.

Principal WTO Exceptions Relevant to Clean Energy Transition

- **The GATT Article XX (b) and (g):** nothing in the GATT should be construed to prevent the adoption or enforcement of measures,
 - ✓ *necessary to protect human, animal or plant life or health* (paragraph b);
 - ✓ *relating to the conservation of exhaustible natural resources, provided such measures are effected in conjunction with restrictions on domestic production or consumption* (paragraph g);

For a measure to fall under the exceptions, it must not be applied *in a manner constituting a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade* (GATT Article XX Chapeau)



DS412/426: *Canada – Renewable Energy/Feed-in Tariff*




Complainants: European Union & Japan

Measures at issue: Feed-in Tariff (FIT) Program of the Province of Ontario (the FIT Programme), and all individual FIT and micro FIT Contracts implementing the FIT Programme. The eligibility for FIT is linked to a local content requirement (LCR) - by 2012, the minimum required domestic content be 50% for large wind installations and 60% for solar photovoltaic (PV).

Complainants' claims: the domestic content requirements provided for and implemented under the challenged measures place Canada in violation of:

- (i) **the national treatment obligation under Article III:4 of the GATT 1994;** →
- (ii) the prohibition that is set out in Article 2.1 of the TRIMs Agreement on the application of any trade-related investment measures that are inconsistent with Article III of the GATT 1994; and
- (iii) the prohibition on import substitution subsidies prescribed in Articles 3.1(b) and 3.2 of the SCM Agreement.

“The domestic content rules of the FIT Programme and Contracts accord less favourable treatment to imported renewable energy generation equipment than that accorded to like products of Ontario origin because they modify the conditions of competition to the detriment of imported products.” (Japan in its submission)

- 
- **The Panel's rulings:** the Minimum Required Domestic Content Levels prescribed under the FIT Programme and related FIT and micro FIT Contracts are inconsistent with Article III:4 of the GATT 1994.
 - **The Appellate Body** upheld the Panel's decision regarding the compatibility of the challenged measures with the national treatment obligation.
 - **The Appellate Body** recommended that the Dispute Settlement Body request Canada to bring its measure found to be inconsistent with the GATT 1994 into conformity with its obligations under the Agreement.
 - **The respondent** did not invoke any exceptions under the GATT Article XX, but what if it did? Can the GATT Articles XX (b) and (g) be available? (Not likely!)

What are the implications of the WTO's tough stance against LCRs?

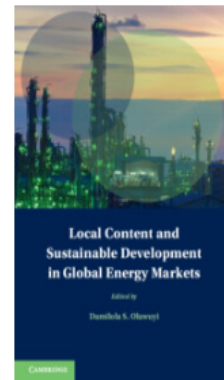
manufacturers could be provided with more competitive advantages and thus, opportunities to grow and compete with foreign counterparts.

4 CONCLUSIONS

An examination of the WTO case law developed so far concerning the use of LCRs in renewable energy policies suggests the difficulty that LCRs face in passing muster in WTO disciplines. The high chance for complaining parties to win a WTO dispute concerning the use of LCRs in renewable energy policies also explains the rising litigiousness in this area. However, not providing breathing room for LCRs does not mean that the WTO regime is hostile towards non-trade values, namely climate change mitigation. Quite the contrary. Striking down blatantly discriminatory measures, such as LCRs, can be conducive from the perspective of climate change mitigation. Furthering trade liberalisation in the renewable energy sector can meaningfully contribute to the reduction of renewable energy price and diffusion of renewable energy technologies, which is much needed to combat climate change.

In addition, when an increasing number of Members turn to trade-discriminatory measures, such as LCRs, to boost their own renewable energy industry, a 'beggar-thy-neighbour' scenario featuring trade-inhibiting consequences would emerge. In other words, if left unchecked, the rampant use of LCRs can open the floodgate to rising protectionism in the renewable energy sector that can encourage the adoption of various forms of trade-restrictive measures. The trade disputes between WTO Members with respect to how to develop renewable energy with trade-related measures would always take years to simmer down, which can cast chilling effects on trade and investment in renewable energy.

However, the usefulness and effectiveness of LCRs in fostering infant industries, including the renewable energy industry, should not be entirely dismissed. In the presence of the urgent need to take action on climate change and energy issues, the use of LCRs can be politically salient, particularly in emerging and developing economies. This is not to argue that the WTO regime should give a pass to LCRs as long as they are adopted in renewable energy production. Instead, this Chapter points out that there is still policy space for the WTO Members to make use of LCRs without running afoul of the trade law. The rather limited scope of policy space under the GATT Article III:8(a)¹⁵⁸ can effectively reduce the abusive use of government procurement to serve protectionist objectives, while still allowing the Members to nurture domestic renewable energy industries. If properly designed and implemented, renewable energy LCRs can not only survive the scrutiny of the



[Local Content and Sustainable Development in Global Energy Markets](#)

[Buy print or eBook](#)

3 - Local Content Measures and the WTO Regime: Addressing Contentions and Trade-offs

from Part I - Introductory Context and Principles

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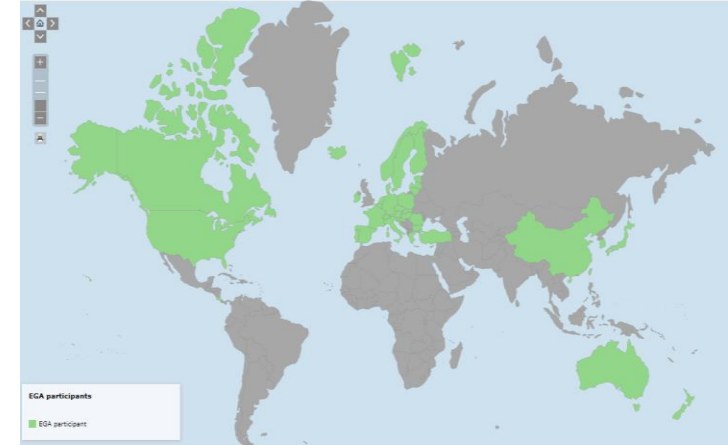
Summary

Source: <https://www.cambridge.org/core/books/local-content-and-sustainable-development-in-global-energy-markets/365092990B11E7A2AF455A289A1260D4>

Negotiation of New Trade Rules

■ Environmental Goods Agreement (EGA)

- The negotiations for the establishment of the EGA were launched by 18 participants (46 WTO members) on July 2014;
- The goal is to eliminate tariffs on a number of important environment-related products and extend the benefits to the entire WTO membership;
 - Air pollution control
 - Cleaner and renewable energy
 - Energy efficiency
 - Environmental monitoring analysis and assessment
 - Environmental remediation and clean-up
 - Environmentally preferable products
 - Noise and vibration abatement
 - Resource efficiency
 - Solid and hazardous waste management
 - Wastewater management and water treatment
- Lack of progress from 2016 to 2021, but a fresh opportunity to renew negotiations since 2022



The participants to these negotiations account for nearly 90% of global exports in environmental goods.

- A potential agreement to rein in fossil fuel subsidies?

- 12 WTO members signed a Ministerial Declaration encouraging reform and phasing out of fossil fuel subsidies at the 11th Ministerial Conference (2017);
- 48 WTO members co-sponsored the Ministerial Statement on Fossil Fuel Subsidies in 2024 – the launch of the Fossil Fuel Subsidy Reform (FFSR) initiative, seeking ‘the rationalization and phase out of inefficient fossil fuel subsidies’;
- The FFSR adopted a work plan and discussed the next steps toward the 13th Ministerial Conference;
- Increasing momentum for reaching a binding multilateral agreement?

MINISTERIAL STATEMENT ON FOSSIL FUEL SUBSIDIES

The following communication, dated 10 June 2022, is being circulated at the request of the delegations of Albania; Chile; Costa Rica; European Union; Fiji; Iceland; Liechtenstein; Moldova, Republic of; Montenegro; New Zealand; North Macedonia; Norway; Panama; Paraguay; Samoa; Switzerland; Tonga; United Kingdom; Uruguay; and Vanuatu.

HIGH-LEVEL WORK PLAN

Global fossil fuel subsidies on the rise

Volume of global fossil fuel subsidies (in trillion US dollars)



Concluding Remarks

- International trade and international trade law can play an instrumental role in facilitating the clean energy transition;
- Trade obligations aiming at non-discrimination and lowering trade barriers (tariff & non-tariff ones) can enhance economic efficiency and curb protectionism, which are integral to the dissemination of clean energy technologies;
- The multilateral trading system – the WTO is undergoing a challenging time (negotiation stalemate, dispute settlement dysfunction, rising unilateral measures etc.,) which can undermine its contribution to clean energy transition;
- Some of the existing WTO rules, such as those on subsidies, require revisions, if not an overhaul.

Recommended Reading List

- WTO and WMO, 'Supporting the Renewable Electricity Transition through Trade' (2024)
- Gautam Jain et al., 'Resuscitating WTO for the Energy Transition: Why, How, and Who' (World Bank, 2024)
- WTO, 'Climate Change and International Trade' (2022)
- Daniel Esty, *Greening the GATT: Trade, Environment, and the Future* (PIIE, 1994)
- Henok Asmelash, 'The First Ten Years of WTO Jurisprudence on Renewable Energy Support Measures: Has the Dust Settled Yet?' (2022) 21(4) *World Trade Review* 455
- Mandy Meng Fang, 'When Decarbonization Meets Industrialization: The First WTO Dispute Between the EU and UK' (2023) 63(2) *Virginia Journal of International Law* 165-208