XI.30 Green electricity and the GATT

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Abstract

An efficient electricity market and cross-border electricity trade are important preconditions for a transition from grey to green electricity. GATT provisions become increasingly relevant to the creation of these preconditions but they lack adjustments to the peculiarities of the electricity market. GATT rules seem particularly inadequate to secure access of green electricity to transmission infrastructure, allow for a regulatory distinction between green and grey electricity, eliminate fossil fuel subsidies and prevent efficient renewable energy support measures from being subject to legal challenges. These deficiencies could be addressed through authoritative interpretations of specific provisions, amendments to existing agreements, a waiver or a sectorial energy agreement.

Keywords

Electricity, renewable energy, trade, market barriers, GATT, WTO

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XI.30.1 Role of green electricity in environmental protection, energy security and economy

Green electricity means electricity generated from renewable energy (RE) sources, such as hydropower, biomass, geothermal, tidal, wind and solar energy, and it is crucial for the protection of the environment. It supports climate policy by curbing greenhouse gas (GHG) emissions and health policy by reducing air pollution. The generation of electricity from RE is a fundamental element of today's global economy, contributing almost 30 percent to global electricity generation.[1] As such, the green electricity sector does not only promote environmental objectives but also enhances energy security and creates jobs. Playing a crucial role in the transition to a low-carbon economy, green electricity is a key source of new investment and innovation.

[1] Heymi Bahar, 'The Coronavirus Pandemic Could Derail Renewable Energy's Progress' (*IEA*, 4 April 2020) https://www.iea.org/commentaries/the-coronavirus-pandemic-could-derail-renewable-energy-s-progress-governments-can-help.

XI.30.2 Challenges to expanding green electricity

There are two important preconditions for a successful integration of green electricity in electricity systems. One is the creation of an efficient electricity market. The efficiency of an electricity market depends on the availability of grid infrastructure, congestion management and the market coupling needed for an integrated electricity market. Balancing green electricity supply and demand requires efficient storage options. The role of governments in creating these conditions is crucial. Regulatory interventions are also necessary to eliminate market access barriers for green electricity, including monopolies of vertically integrated energy companies, fossil fuel subsidies, dual pricing and various import and export restrictions. Moreover, when competing with heavily subsidized grey electricity (i.e. electricity generated from fossil fuels), a supply of green electricity in many countries has to rely on government support measures, such as dispatch privileges, RE quota obligations, feed-in-tariffs (FIT) and tax exemptions.

Another prerequisite for an expansion of green electricity in electric power systems is the possibility to trade across borders. The uptake of electricity from RE sources requires cross-border electricity trade because the electricity output from some RE sources, especially those based on intermittent wind and solar energy, can vary considerably over short periods of time, bringing instability into electricity systems. Therefore, green electricity with its intermittent production and impossibility of storage relies on a well-functioning international electricity market providing the possibility of handling shortages through imports and surpluses through exports depending on the season. Here too, the role of national and international regulations is crucial.

XI.30.3 The application of GATT rules to electricity trade

The transition from fossil fuel-based electricity generation to green electricity is currently driven by national laws and policies promoting RE. However, international trade rules of the World Trade Organization (WTO) could play a bigger role in the promotion of green electricity in the future, as more cross-border electricity trade is needed for the expansion of the share of green electricity in the energy mix.

Cross-border electricity trade falls under the disciplines of the WTO General Agreement on Tariffs and Trade (GATT). Electricity is included in the schedules of concessions of some WTO members as an optional tariff line under the Harmonized System (HS) code 2716.00 within subsection 27: 'Mineral fuels, mineral oils and products of their distillation; bituminous substances, mineral waxes' of section V 'Mineral products'. Electricity is therefore considered to be a good under international trade rules, despite its dual nature combining characteristics of both a good and a service, inasmuch as it cannot be stored and needs to be consumed at the same time as it is produced. The status of electricity as a good has never been questioned in WTO disputes.

Accordingly, some of the above-mentioned challenges for the expansion of green electricity can be addressed under GATT rules and the provisions of specific agreements on trade in goods. GATT provisions can particularly be invoked to prevent discriminatory treatment in the electricity market prohibited by the most-favored-nation (MFN) obligation under Article I:1 GATT and the national treatment obligation under Article III GATT. They can also be called upon in relation to local content requirements for the purchase of RE equipment, which, additionally to Article III:4 GATT, can be challenged under the Agreement on Trade-Related Investment Measures (TRIMs). GATT

provisions can further be used to prevent a discriminatory application of technical regulations, including sustainability requirements for biofuels, which can be dealt with under the Agreement on Technical Barriers to Trade (TBT). GATT rules may also be invoked to deal with some market access problems of green electricity generators, including import fees on cross-border electricity flows and quantitative restrictions on the volume of electricity transmitted across the border. The former can be challenged under Article II GATT, which prohibits extra import duties and charges, whereas the latter can be outlawed under Article XI GATT, which prohibits quantitative restrictions. Moreover, recourse to environmental exceptions under Article XX GATT would be available to defend some regulatory incentives for green electricity otherwise inconsistent with GATT rules, should these measures be challenged through WTO dispute settlement (DS).[2]

However, many other problems of green electricity in the electricity market cannot be tackled under international rules on trade in goods. Designed for trade in goods in general, these rules apply to electricity in the same way as they apply to any other product. They take into account neither the peculiarities of electricity trade nor the regulatory needs of the green electricity market (dependency on networks, storage and balancing challenges, separation of physical and commercial flows, etc.). Moreover, there is little certainty about how GATT rules would apply to specific measures affecting electricity trade, as this has never been tested in the DS process. There has been no dispute so far over a measure impeding electricity trade directly. The absence of disputes can be explained by the still relatively small scale of cross-border electricity trade. At the same time, a number of disputes have been brought to the DS mechanism over trade measures taken in relation to RE equipment.[3] Some issues discussed in these disputes about local content requirements, anti-dumping and countervailing duties shed light on some aspects of the application of GATT rules to electricity trade.

XI.30.4 Regulatory deficiencies of GATT in promoting green electricity

GATT rules lack some important adjustments to the special nature of electricity as a good. This is particularly true for the rules of transit. In the case of electricity, the right to transit cannot be absolute and unrestrained as provided by Article V GATT. Electricity transit, similarly to commercial electricity trade, may need to be restricted due to technical limitations of a network-bound industry and certain market conditions. Such restrictions may be necessary to ensure secure and reliable electricity supply, as transit of electricity requires additional transmission capacity. The unrestrained right to transit is therefore against the nature of the management and operation of electricity systems. Moreover, GATT rules of transit have no impact on the construction of electricity grids that is needed for a further expansion of electricity trade and transit.

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[2] Holzer et al. (2017).

[3] See e.g. *Canada – Certain Measures Affecting the Renewable Energy Generation Sector* and *Canada – Measures Relating to the Feed-in Tariff Program – Appellate Body Reports* (24 May 2013) WT/DS412/AB/R and WT/DS426/AB/R; *India – Certain Measures Relating to Solar Cells and Solar Modules – Appellate Body Report* (14 October 2016) WT/DS456/AB/R; *European Union – Anti-Dumping Measures on Biodiesel from Argentina – Appellate Body Report* (26 October 2016) WT/DS473/AB/R.

GATT rules are also vague about the possibility of making a regulatory distinction between grey and green electricity, as may be needed, among others reasons, for taxation. Tax exemptions or tax rate reductions for green electricity based on RE certificates can stimulate further investment in green electricity. However, a tax differentiation based on the sources of electricity might be challenged under the non-discrimination obligation of Article III:2 GATT. The analysis of compliance of a differentiated electricity tax with this provision raises the issue of likeness of grey and green electricity and a debate on the acceptance of measures based on the processes and production methods (PPMs).

The GATT also lacks disciplines to curb export duties and dual pricing practices that distort competition in the energy market through creating a subsidy effect on grey electricity consumption. Commitments not to apply export duties on energy products have only been undertaken by a limited number of newly accessed WTO members, whereas dual pricing is not caught by WTO rules on subsidies, as it does not satisfy the specificity criterion to qualify as a subsidy.

WTO subsidy rules of GATT Article XVI and the Agreement on Subsidies and Countervailing Measures (ASCM) are also criticized for not providing enough policy space for RE government support measures, including FIT programs and RE tax exemptions for green electricity.

XI.30.5 Proposals for reform of international trade rules relevant to green electricity

Given the existing deficiencies in international trade rules to steer a transition from grey to green electricity, scholars have explored the possibilities of adjustment of these rules to the needs of the RE sector. The focus is on the balance between WTO obligations and national policy space for the promotion of RE. Suggestions have been made to adopt authoritative interpretations of specific provisions relevant to the promotion of RE, supplement existing WTO agreements with new provisions favorable for RE, grant a waiver for measures linked to climate change mitigation, RE expansion and RE security, and, eventually, adopt a sectorial agreement on energy trade either within the WTO or in another forum. A sectorial agreement on energy trade should address all challenges of contemporary RE markets. In particular, it should clarify the application of subsidy rules to energy and provisions on the use of defense measures, including anti-dumping and countervailing duties. Moreover, it should outlaw fossil fuel subsidies and reintroduce the category of non-actionable subsidies for certain types of RE subsidies. It should also foresee exemptions for developing countries, clarify conditions for the use of measures based on PPMs, include competition rules, and facilitate provisions for international connection to electricity grids (third-party access) and a legal framework for technology transfer and investment in green electricity generation, transmission infrastructure and the interconnection of electrical grids.

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