Renewable energy: international regulation and international trade law

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Some data to start with

UNEP’s “Global Trends in Renewable Energy Investment 2016”
All investments in renewables, including early-stage technology and research and development as well as spending on new capacity, totalled $286 billion in 2015. Additionally, developing world investments in renewables topped those of developed nations for the first time in 2015.

Renewable energy sources – particularly wind, hydro and solar – are expected to account for the biggest change in global electricity generation between 2013 and 2020. IEA data

Are we witnessing a structural change in our energy systems?
Outline

I. Introduction

II. International regulation of renewable energy

III. Renewable energy and international trade law

Part I - Introduction
Some preliminary questions

1. What is renewable energy?
2. Why regulating renewable energy?
3. How regulating renewable energy?

1. WHAT is renewable energy?

- What is energy?
  - from the Greek ενέργειας (en-ergon), meaning "at work".
- Energy generation = a conversion process
  - Distinction between force, energy, power
  - Needs an energy carrier (electricity, gasoline, hydrogen, batteries, etc.)
- Different forms of energy:
  - thermal, chemical, kinetic, electrical, gravitational, nuclear.
- The different sources of energy generation
  - Distinction between renewable and non-renewable energy sources
  - Converted into energy for further use
• General definition:
  – “renewable energy is from an energy resource that is replaced rapidly by a natural process such as power generated from the sun or from the wind”
  – “energy from a source that is not depleted when used, such as wind or solar power (Oxford Dictionary)
  – Typically: solar, wind, geothermal, hydro, some forms of biomass.

• Ex. of legal definition (1): Art. III, Statute of the International Renewable Energy Agency:
  – ‘the terms ‘renewable energy’ means all forms of energy produced from renewable sources in a sustainable manner, which include, inter alia: 1. bioenergy; 2. geothermal energy; 3. hydropower; 4. ocean energy, including inter alia tidal, wave and ocean thermal energy; 5. solar energy; 6. wind energy’

• Ex. of legal definition (2): Art. 2(a), Directive 2009/28/EC on the promotion of the use of energy from renewable sources:
  – ‘energy from renewable sources’ means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases

• Discussion: on the importance of regulating the definition of renewable energy.

• The importance of renewable energy in today’s energy mix
  – In 2012, the world relied on renewable sources for around 13.2% of its total primary energy supply, and in 2013 renewables accounted for almost 22% of global electricity generation, a 5% increase from 2012. (IEA)

2. WHY and 3. HOW regulating renewable energy?

- Acces to ressources → Establish jurisdiction
- Related to the question of motivation: Why do we think renewable energy is good, e.g.: environmental protection, security of energy supply, sustainable development. → Promote generation or use of RES
- Limiting negative environmental effects → permitting rules (planning law), emissions, land use, noise, nature protection (effects on flora and fauna), …
- Removing trade barriers → trade agreement, competition law
- Enabling connection to the grid → grid access rules
- Intermittent nature of RE → market balancing rules
- Proving that electricity is from renewable sources → electricity tracking (e.g., contracts, statistics)
- Fuel quality → standards
- Access to RE generation capacities, related services → competition and trade law
- Protecting investments made → contracts, international law, arbitration
- R&D&D in RE technologies development → financing
- Access to land → property rights and expropriation
Part II – International regulation of renewable energy
1. Policy endorsement at international level

Development in time

- 1972 Stockholm Declaration on the Human Environment (UN)
  - "unsustainable patterns of production and consumption"
  - Sustainable development
  - Emphasised "the necessity of [d]evelopment which meets the needs of present generations without compromising the ability of future generations to meet their needs."
  - Chapter 7.V "Renewable energy, an untapped potential"
• 1992 Rio Declaration on Environment and Development (UN)

• Agenda 21

• World Summit on Sustainable Development (WSSD), 2002
  – 2002 Johannesburg Declaration on Sustainable Development and Johannesburg Plan of Implementation (‘Johannesburg Plan’)

• Sustainable Energy for All (SE4ALL) initiative, by 2030:
  (i) universal access to energy services;
  (ii) doubling the rate of energy efficiency improvement; and
  (iii) doubling renewable energy in the global energy mix from 15 to 30 %

After 2012, 2014-2024 declared “UN Decade of Sustainable Energy for All”

Goal 7 – Ensure access to affordable, reliable, sustainable and modern energy for all.

• 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs)
  Resolution A/RES/70/1, of 25 September 2015

- TARGETS
  7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
  7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
  7.3 By 2030, double the global rate of improvement in energy efficiency
  7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
  7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support
2. Soft Law principles applicable to the development of renewable energy sources

- Important starting point: **principle of permanent sovereignty over natural resources** (customary rule)
  - Evolution and definition of the principle
    - States’ “inviolable right to dispose of their natural wealth and resources in accordance with their national … interests”

- Principle balanced by:
  - Adoption of international agreements binding on states
  - General principles of international environmental law
    - Ex: no harm rule
    - Case law: Trail Smeter Case, Gabčíkovo-Nagymaros Project (Hungary v Slovakia), etc.
3. Renewable energy and the international treaty framework (hard law)

3.1 Starting point: establishment of state sovereignty over natural resources, onshore

- Sovereignty over natural resources (see previous slide)
- Question of foreign actors investing in development of national renewable energy resources
  - Multilateral agreements on investment protection covering energy. See Energy Charter Treaty
  - Bilateral agreements on investment protection covering energy
3.2 Establishment of state sovereignty over natural resources offshore, including renewable energies

- Non-sectoral focus. Broad scope of application
- Delimitation of jurisdiction
- Right to exploit marine natural resources including renewable energy ones (tidal, geothermal, wave) and construct production installations. Associated obligations towards other states. Within TS and EEZ

Distinction between:

- Internal waters and territorial seas (12 nm)
- Exclusive Economic Zone and Continental Shelf – Exclusive sovereign rights (Art. 56, 77)
- High Seas and Deep Seabed (the Area) (Part XI) – common heritage of mankind.
- Distinction between mineral resources (ISBA) and other non-living resources (freedom of the high seas).
1982 UN Law of the Sea Convention (entry into force 1994)

Article 56
Rights, jurisdiction and duties of the coastal State in the exclusive economic zone
1. In the exclusive economic zone, the coastal State has:
(a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

3.3 International climate regime indirectly regulating renewables but most influential

- Climate regime, texts:
  - 1992 UN Framework Convention on Climate Change (UNFCCC)
    - GHG inventories
    - National or regional measures to mitigate climate change
    - “promote and cooperate in the development, application and diffusion” of technologies that “control, prevent or reduce” emissions in sectors including the energy sector.
  - 1997 Kyoto Protocol
    - Only 15% of emissions
    - Top-down approach
    - Art 2(1)(a) – non-exhaustive list of non-binding policy options

- Endorsement by IPCC.
  - Special report of the IPCC, Renewable Energy Sources and Climate Change Mitigation: Special Report of the Intergovernmental Panel on Climate Change, 2011 and 2014

- Assessment:
  - RES under the umbrella of climate change issues
  - Other aspects of RES deployment, operation and use not addressed.
Evolving climate regime, the Paris Agreement (Dec. 2015):

- Ahead of Paris:
  - Submission of Intended Nationally Determined Contributions (INDCs) (agreed at COP19, Warsaw) (bottom-up): 34 set quantified energy targets, all having renewable energy or low-carbon energy supply targets. Most INDCs mention RE (140 of 161)
  - Ex: India, about 40% cumulative electric power capacity from non-fossil by 2030

- Common goals:
  - Reaffirms long-term goal (2 degrees C, + efforts towards 1.5)
  - Sectoral approach or economy-wide: developed countries «should» undertake absolute economy-wide reduction targets; developing countries «are encouraged» to move toward economy-wide targets over time

- Individual mitigation efforts for the state parties: a set of binding procedural commitments
  - Binding commitments for all parties to make «nationally determined contributions» (NDCs), and to pursue domestic mitigation measures aimed at achieving them (Art. 4).
  - Regular reporting obligations on their emissions and implementing efforts for all parties (Art. 13.7)
  - New NDC to be submitted every five years (representing a progression)
  - Implementation or achievement of NDC is not binding in itself

- Support the efforts of developing countries, while encouraging voluntary contributions by developing countries too.
- Financial support ($100 billion a year by 2020 through 2025)
- Call for a new mechanism similar to CDM under KP to enable emission reductions.

- Agreement will be open for signature on 22 April 2016.
3.4 Regional and Multilateral Treaties directly regulating renewables:

- 1991 European Energy Charter (EEC)
- 1994 Energy Charter Treaty (ECT)
- 2015 International Energy Charter

  - Political declaration
  - Post Cold-War context

  - Only multilateral treaty dealing directly with energy
  - «economic activity in the energy sector»
  - ECT art 19(1)(d) which requires parties to ‘have particular regard … to developing and using renewable energy sources’
  - ‘awareness of the Environmental Impacts of energy systems’
  - Recent cases of change/reduction in support schemes for renewables:
    - remedies under the ECT Art. 26 ECT: domestic legal remedies or international arbitration
    - Ex: Romania, Spain, Czech Republic, Italy, Greece, Bulgaria, …
  – Countries from all continents
  – Political declaration: no legally binding obligation, no financial commitment
  – Aim: strengthening energy cooperation between signatory states.
  – Universal principles for international cooperation in the field of energy (Title I):
    • Sustainable energy development, energy security, energy efficiency
    • «promote the development of efficiency, stable and transparent energy markets at regional and global levels based on the principle of non-discrimination and market-oriented price formation, taking into account environmental concerns and the role of energy in each country’s national development»
    • Areas of cooperation: access to sources, access to markets, access to sustainable energy, energy efficiency, trade liberalisation, investment protection, technology transfer, diversification of sources and supply routes. (Title II)

• Little to compare with the European Union
  – Different focus
  – Detailed regulation of renewables
  – May conflict with intra-EU claims
3.5 Interaction with other sectoral treaties

i. RES as part of Environmental Impact Assessment and Strategic Impact Assessment

- The Espoo Convention addresses in particular the transboundary effects of certain activities through an EIA procedure
- A 2004 amendment included wind farms as mandatory projects in Appendix I.
  - includes plans and programmes that set the framework for listed development consent projects, including wind farms

ii. RES and fundamental human rights

• Environmental human rights
  - International convention on human rights and RES?
  - European Convention of Human Rights: Article 1 of Protocol 1, Article 8

• Environmental procedure rights:
  - Case: Aarhus MOP, October 2012, Compliance Committee, ECE/MP/PP/C.1/2012/12
    - National Renewable Energy Action Plans (NREAPs) falling within the definition of plan and programme requiring public participation (Art. 7)
    - Weak consultation requirements in Art. 4 Directive 2009/28/EC in preparation NREAPs
iii. RES and Environmental protection, nature protection (habitats and species) and landscape

- traditional approach – listing of protected areas, habitats and species
- well-known element of international law
- Reflect for ex. in: Ramsar Convention on wetlands and in the Bonn Convention on migratory species
- Recent concerns: biofuels

iv. RES and planning law

- Only few provisions under PIL
- Reflected in Agenda 21, Chapters 8 and 17
- Integrated coastal zone management
- Ex at regional level: EU Energy Infrastructure Regulation and PCI list
4. Renewable energy in the international institutional framework

Overview

- International Organisations
  - IRENA
  - OECD
  - IEA
- UN Agencies and programmes
  - UN-Energy
  - UN Environmental Programme (UNEP)
  - UN Development Programme (UNDP)
  - World Bank
- International political fora / conferences
  - G8
  - International Energy Forum
  - World Future Energy Summit
  - World Council of Renewable Energy established in 2001 (Mission: «be a global voice for renewable energy»)
  - REN 21
- Non-governmental organisations (NGOs):
  - Renewable Energy and Energy Efficiency Partnership (REEEP)
  - Renewable Energy Policy Network for the 21st century
- Coalition within the renewable energy sector
  - International Renewable Energy Alliance (REN Alliance)
Since April 2011, 144 members

Status of international organisation regulated by public international law

Objective (Art. 2, Statute): “The Agency shall promote the widespread and increased adoption and the sustainable use of all forms of renewable energy”

Scope of IRENA’s express mandate includes: promoting widespread, increased adoption and ‘sustainable use of all forms of renewable energy’.

Biggest limit:

- must ‘take into account’ states’ national and domestic priorities.
- no express competence or implied power to negotiate or establish international legal obligations with respect to renewable energy targets.

IRENA could propel global innovation and diffusion of renewable energy technology

Results:

- Renewable Readiness Assessments, conducted in partnership with governments and regional organisations, to provide policy guidance and facilitate the sharing of case studies and best practices
- the Global Renewable Energy Atlas (maps solar, wind sources country by country)
- the IRENA Renewable Energy Learning Partnership (IRELP), online learning network
- Handbooks for renewable energy policy development
- Technology briefs and cost studies to strengthen evidence-based policy-making and investment
- Facilitation of renewable energy planning at regional levels
- Renewable Energy Country Profiles

Launched in June 2005 as an outcome of the International Conference for Renewable Energies in Bonn, Germany

Unofficial forum: intergovernmental International Conference for Renewable Energy

A global renewable energy policy network: a wide range of actors including government, international organisations, industry associations, science and academia and civil society

- “Ministers and Government Representatives from 154 countries ... acknowledge that renewable energies combined with enhanced energy efficiency, can significantly contribute to sustainable development, to providing access to energy, especially for the poor, to mitigating greenhouse gas emissions, reducing harmful air pollutants, thereby creating new economic opportunities, and enhancing energy security through cooperation and collaboration ...”
- “Agree to build upon the results and agreements reached at the Earth Summit ... the Millennium Declaration and the Millennium Development Goals ... and the World Summit for Sustainable Development ... reaffirm their commitment to substantially increase with a sense of urgency the global share of renewable energy in the total energy supply.”

(Source: International Conference for Renewable Energies, ‘Political Declaration’ (Declaration 4 June 2004)

Results:

- reports on renewable energy policy and the development of the renewables market place
- Since 2005, annual Renewables Global Status Report (GSR)
- Regional analysis
Part III – Renewable energy and international trade law

1. Interactions RE and international trade

- The spirit of the WTO/multilateral trade system
  - Objective of trade liberalisation, primarily through promoting market access
  - Avoid unjustifiably discriminatory trade-restrictive measures

- Lack of specific rules on energy and related products
  - Ref. in the Preamble to 1994 WTO Agreement: need for the Contracting Parties to make «optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment».
  - Ref to sustainable development in 1994 WTO Agreement’s Preamble
  - Consequence: general rules applicable.
  - Energy: good, service, procurements, IPRs?
  - Environmental protection as justification for RES policies
• Example of issues:
  – Clean technologies, treatment of imports, subsidisation of domestic RE industry, financial support or requirement to encourage use of nationally produced items (although comparative – «like» foreign produced items available), etc.

• Relevance of WTO rules:
  – Negative obligations imposed on the conduct of states.
  – Affects the manner states draft national renewable energy policies.
  – Multilateral trade rules particularly relevant.

• Recent domestic practices gave rise to 2 sets of questions:
  – market access of renewable energy related products
  – local content requirements (LCRs) defined in financial incentive schemes – risk of protectionism

• But not limitative!

2. The WTO legal framework: the WTO Agreements

• Historical development
  – GATT 1947
  – Uruguay Round and Marrakech Agreement
  – 1994 WTO Agreement

• General architecture of the agreements
  – WTO Agreement = an umbrella agreement establishing the WTO
  – 3 broad areas: goods, services, intellectual property

• The agreements:
  – 1994 General Agreement on Tariffs and Trade (GATT)
     • Agreement on Sanitary and Phytosanitary (SPS Measures)
     • Agreement on Technical Barriers to Trade (TBT)
     • Curbing unfair marketing practices: The Agreement on Anti-Dumping Practices (ADP) and on the Agreement on Subsidies and Countervailing Measures (SCM)
     • Trade Related Investment Measures (TRIMs Agreement)
  – General Agreement on Trade in Services (GATS)
  – Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement)
  – Agreement on Government Procurement (GPA): plurilateral agreement
• Dispute settlement
  – A well functioning dispute settlement mechanism
  – Compulsory
  – Under the responsibility of the Dispute Settlement Body
  – Panel and Appellate Body reports are binding on the parties to the dispute
  – Process: Consultations, WTO panels (ad hoc), appeal to the Appellate Body (standing)
  – Decisions must be implemented within a reasonable period of time, possible sanctions.

• Transparency review mechanism
  – Duty to inform the WTO and fellow-members of specific measures, policies or laws through regular «notifications»
  – Regular reviews of individual countries’ trade policy conducted by the WTO

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3. Trade principles

- 6 basic rules and principles:
  - Principles of non-discrimination
  - Rules on market access, including rules on transparency
  - Rules on unfair trade
  - Rules on conflicts between trade liberalisation and regulatory interests
  - Rules on special and differential treatment for developing countries
  - Some key institutional provisions, including dispute settlements and tariff negotiation

- Applications of the non-discriminatory principle:
  - Most-Favoured-Nation (MFN) clause
  - National treatment principle
    - «LIKE» products (Article III:4 GATT)

- Green provisions in the WTO Agreements
  - Art. XX GATT
  - Art. 2.2 TBT
  - Art. 2.1 SPS
  - Agriculture
  - SCM
  - Art. 27 TRIPS
  - Art. XIV GATS

- The Doha Development Agenda
  - November 2001
  - Environmental goods and services (EGS)

- WTO and Multilateral Environmental Agreements (MEAs)
  - Many MEAs containing trade provisions
  - WTO generally in favour of multilateral agreement instead of individual
4. First series of recent cases: «market access» and trade defence instruments

- Alleged export subsidies and dumping measures followed by countervailing measures
  - Ex: DS419 China — Measures concerning wind power equipment (Complainant: United States) 22 December 2010
    - Consultations requested by US with China
    - Measures: public funds, grants, wards to wind-power technology manufacturers in China. Measures contingent to the use of domestically produced products. Allegation: «have permitted China to become the dominant global supplier of green technology», have «drained manufacturing investment from the US to China, transferred valuable technology and R&D activities to China, etc.»
    - In addition (not addressed in the U.S. complaint but by industry): restrictions on export of critical materials necessary for the manufacture of green technologies; requirements for foreign companies to transfer technology (although stipulated when China joined WTO in 2001)
    - Challenged under Article 3 SCM Agreement; must be qualified as subsidies but have not been notified to WTO, and so infringe Article XVI GATT and Article 25 of SCM on duty to notify.
    - Amicably settled after consultations in February 2011. China ended special fund

- Another example: Chinese solar panels

- Countervailing measures:
  - DS437 United States — Countervailing Duty Measures on Certain Products from China (Complainant: China) 25 May 2012
  - DS449 United States — Countervailing and Anti-dumping Measures on Certain Products from China (Complainant: China) 17 September 2012
  - Review under WTO rules:
    - general principle of non-discrimination
    - the general Lists of tariff concessions annexed to the Marrakesh Protocol.

Also:
- Agreement on Subsidies and Countervailing Measures (ASCM)
- Anti-Dumping Agreement (ADA),

- 3 requirements: 1/ a dumping practice (or subsidy) 2/ an injury to the domestic market, 3/ a causal link between the two
- EU, Art. 21 Council Regulation 1225/2009: “Union Interest Test”
5. Second series of cases: «internal regulation» – The example of national support schemes for renewables and Local Content Requirements (LCRs)

• Joint Cases:
  – Canada – Certain Measures affecting the Renewable Energy Generation Sector (Canada-Renewable Energy), WT/DS412/AB/5
  – Canada- Measures relating to the Feed-In Tariff Program, WT/DS426/AB/R

• Facts:
  – Feed-in-tariff programme in Ontario, Canada
  – Objectives: (i) improving air quality, diminishing dependence on coal-fired power plants; (ii) job creation
  – Concerns: possible protectionist provisions of Local Content Requirements (LCRs)

• Legal assessment under WTO rules
  – the general non-discriminatory clause provided for in the GATT Articles I and III:4
  – and the subsidy discipline of the ASCM.
  – Agreement on Trade-Related Investment Measures (TRIMS Agreement)
  – GPA Agreement

Other cases involving national support schemes

• EU and Certain Member States – Renewable Energy Measures (WT/DS452)
  – China requested consultations with the EU
  – Measures at stake: domestic content restrictions affecting RES generation sector relating to the FIT of the EU Member States
  – Challenged under: Articles I and III of GATT; Article 3.1(b) SCM Agreement; Article 2 TRIMs Agreement

• India – Solar Cells Measures (WT/DS456)
  – US requested consultations with India
  – Measures related to RE generation in India containing LCRs for solar energy technologies. Would injure like products since encourage use of domestic components.
  – Challenges under: Article III GATT; Article 2 TRIMs Agreement; Articles 3, 6 and 25 of the SCM Agreement
  – Panel established in Sept. 2014
Conclusion

- An area of international law promised to huge evolutions, although yet at its infancy
- Statements and declarations getting momentum (soft law / hard law)
- Still lacking a binding commitment on RES (generation or consumption)
- Increasing trade tensions
Thank you for your attention!

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