Renewable energy Challenges in EU and Albania

Jean Monnet Module: Energy Markets In The Framework Of EU Integration

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Overview

- Achieving the EU goals on climate stability means that an almost carbon free EU power system must be in place by 2050 (IPCC, 2007).
- If historical growth rates of power consumption are maintained, this would mean adding a supply capacity of about 6,300 TWh by 2050.
- Whilst improvements in energy efficiency are of vital importance to reduce that figure, renewables have a central role to play in the formation of a carbon free power sector (CEC 2008a).

Overview

- In 2005, the renewable power supply of Europe was 500 TWh but hydropower accounted for the lion‘s share of that (341 TWh).
- While increasing renewable power supply to fulfil the target of 20% energy supply from renewables by 2020 is a challenge, decarbonising the whole sector by 2050 implies an industrial revolution.

Sweden Case

- European Investment Bank put out annual surveys to 13 500 firms. The report released in June 2020 questions European companies about their investment in green energy by being more energy efficient, stating the rubric "Going green: who is investing in energy efficiency and why it matters".
- The survey showed that 43% of investing firms in Sweden also invest in Energy efficiency and that 14% of the firm's total investments are allocated towards energy efficiency improvements, which is more than the EU and US average.
- The survey also showed that firms that are more affected by energy costs are more likely to invest in Energy efficient 9 improvements and having an energy audit affected investments in Energy efficient improvements positively (Kalantzis & Niakaros, 2020).

International practices and finance

- Governmental interventions and supporting renewable energy solutions Subsidies have been the primary tool in developed countries for driving investment in clean energy technology.
- The US federal government supports development and research in new technologies but also encourage investing in commercially mature technologies such as wind and solar.
- these subsidies are supposed to spark interest in clean energy, bring markets to scale, and improve deal economics which can further push down technology costs.

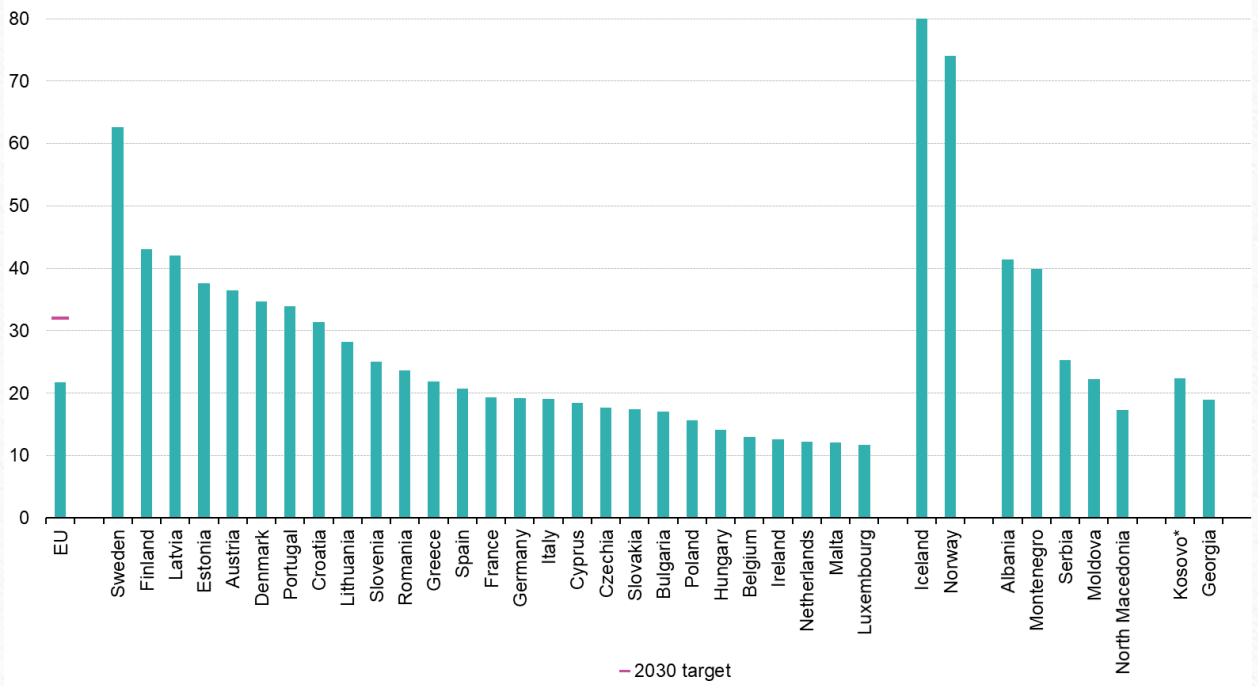
International practices and finance

- A bump for finding loans at banks is that in some sense, the entire global capital market structure is filled with institutions built over nearly a century, to serve the fossil fuel industry.
- On the contrary, the lack of institutional infrastructure leads to underinvestment. Therefore (Schub 2015) argues for the adoption of green banks which will be the winning proposition for private investors, government, customers, and businesses

Green Banks

- "Green banks" have been tested in China's green credit policies. One form of policy intervention that has been explored is to encourage banks to restrict credit to companies that violate environmental regulations while instead favoring environmentally friendly companies.
- Loans from green banks significantly contributed to the green innovations of enterprises.
- there was a more significant increase in green innovations by firms managed by senior executives with higher education, giving the conclusion that it seems that green innovations need to be strengthened in terms of environmental awareness education (Huang et al., 2022)

Share of energy from renewable sources, 2021
(% of gross final energy consumption)

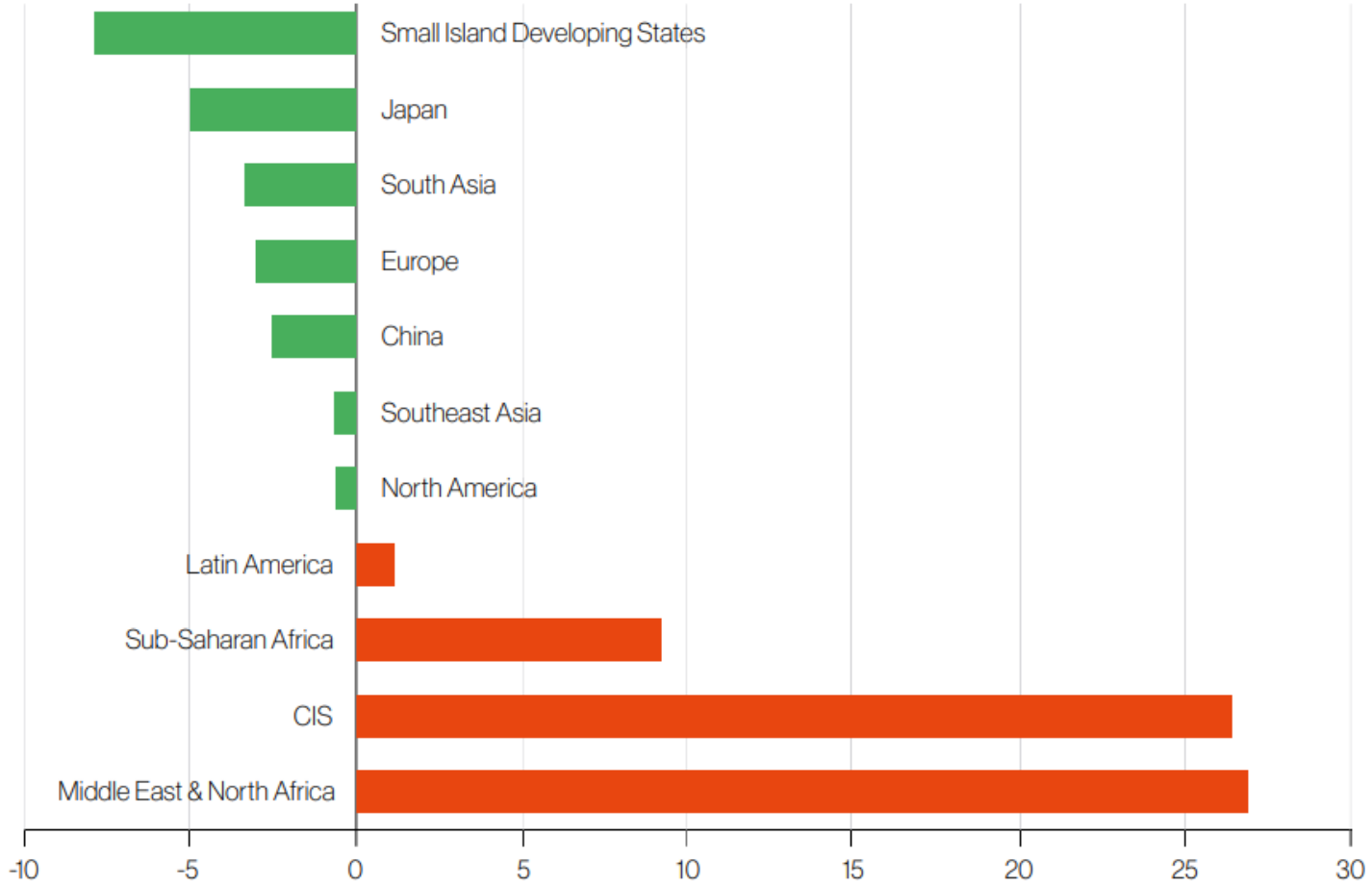


** This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.*

Source: Eurostat (online data code: nrg_ind_ren)

eurostat

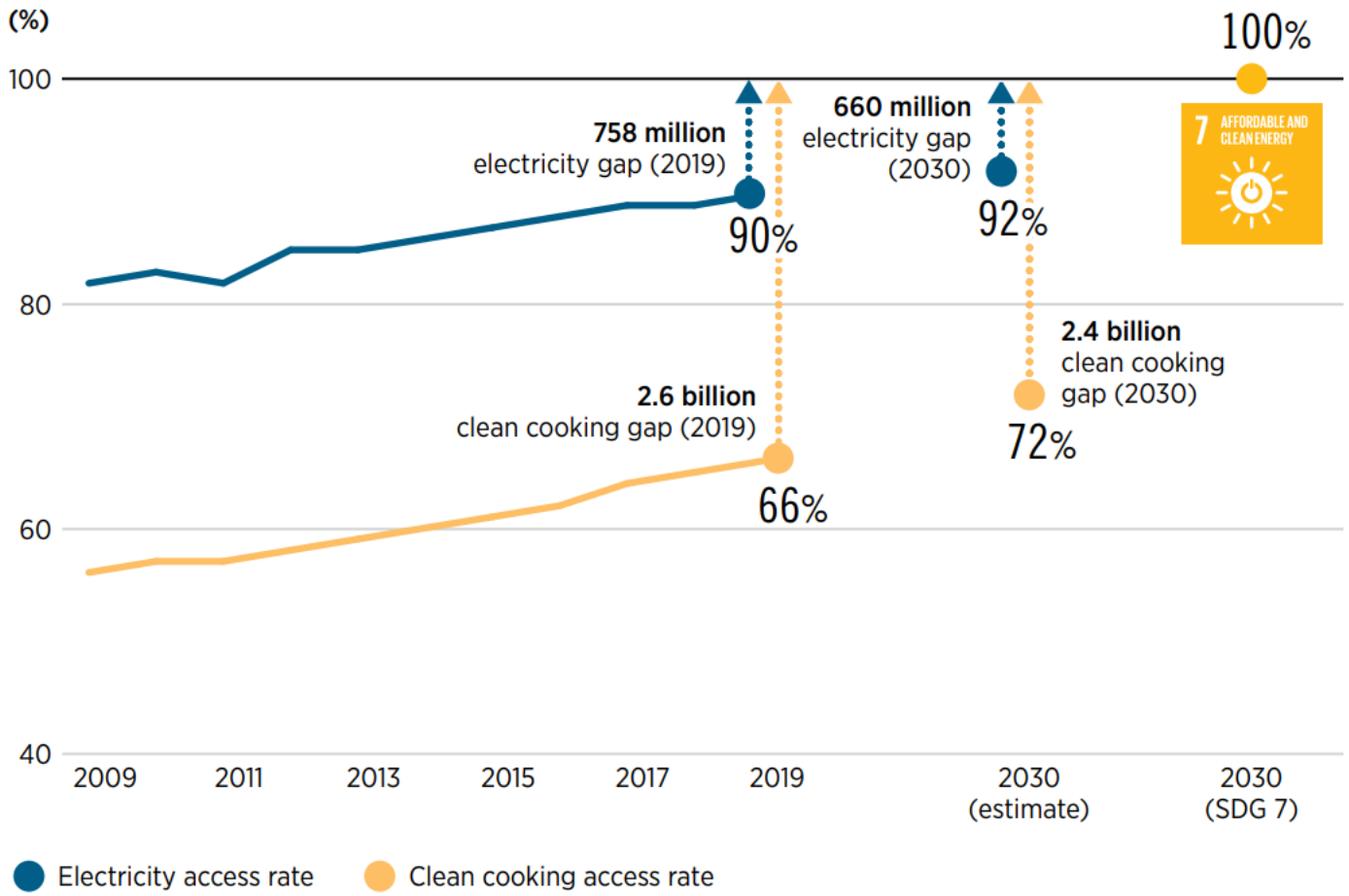
Figure 5. Regional impact of the energy transition



Source: World Bank, IMF.

With climate change impacting food and water security and efforts to meet SDGs, energy access is also crucial for adaptation measures

FIGURE 4.1 **Electricity and clean cooking access rates, global, 2009 to 2019, and forecasted for 2030**



Sources: World Bank, World Health Organization, and IEA.

Note: SDG 7= Sustainable Development Goal 7.

Picking Winers

- political reality makes it unlikely that GHG price signals will be widely enough adopted with high enough prices in the near future to drive technological change at the required pace in most markets
- the need to invest in technologies that require high capital investments today but have great future potential to reduce emissions

Picking Winners

- public investment can help to build the political constituency and community involvement required to further advance climate change and clean energy policies.
- investment decisions need to be more rules- and goals-based
- focus on technologies that maximize emission reductions over time, as a function of both emission reductions per unit deployed and scalability. Markets by no means can be counted upon to optimize these critical policy dimensions

Albania

- The current National Renewable Energy Action Plan (NREAP) sets a target of 38% for the renewable energy share of total final energy consumption (TFEC) by 2020. The NREAP also stipulates technology-specific deployment targets to achieve this goal: 7MW hydropower, 490MW solar PV, 50MW wind and 41MW waste-to-power by 2020[2].
- Needs for investment

Thank you for your attention!

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