

Building resilient energy systems in the UNECE region: achieving greater energy security, affordability, and net- zero

Insights from UNFCCC Secretariat

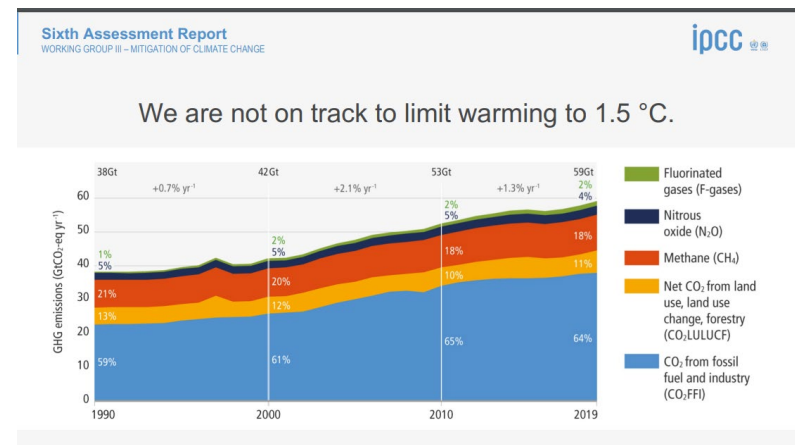
Gajanana Hegde, Team Leader, Mitigation, UNFCCC secretariat

21st September 2022, Geneva



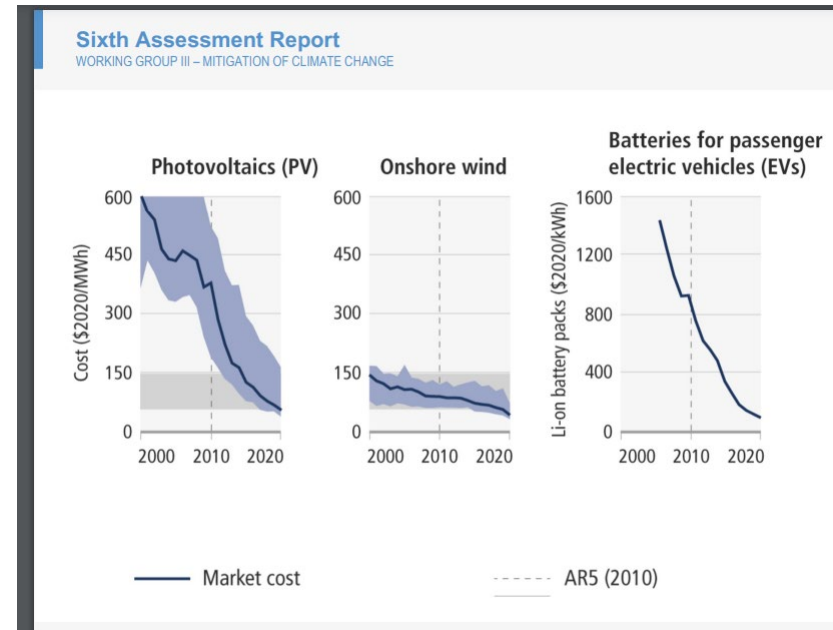
IPCC ARWG- 6 findings and Ambition Gap in NDCs

- 1.5 deg goal
 - a) emissions peak at 2025
 - b) <43% than 2010 level by 2030, net zero by mid century
 - c) Aggregate of current NDCs 13.6%> 2010 level by 2030
 - d) Glasgow COP (CMA) called for more ambition in NDCs
 - e) Develop, deploy, disseminate technologies, adopt policies for transition to low emission systems
 - f) Phase out unabated coal, inefficiency fossil fuel subsidies
- <15 updated NDCs so far

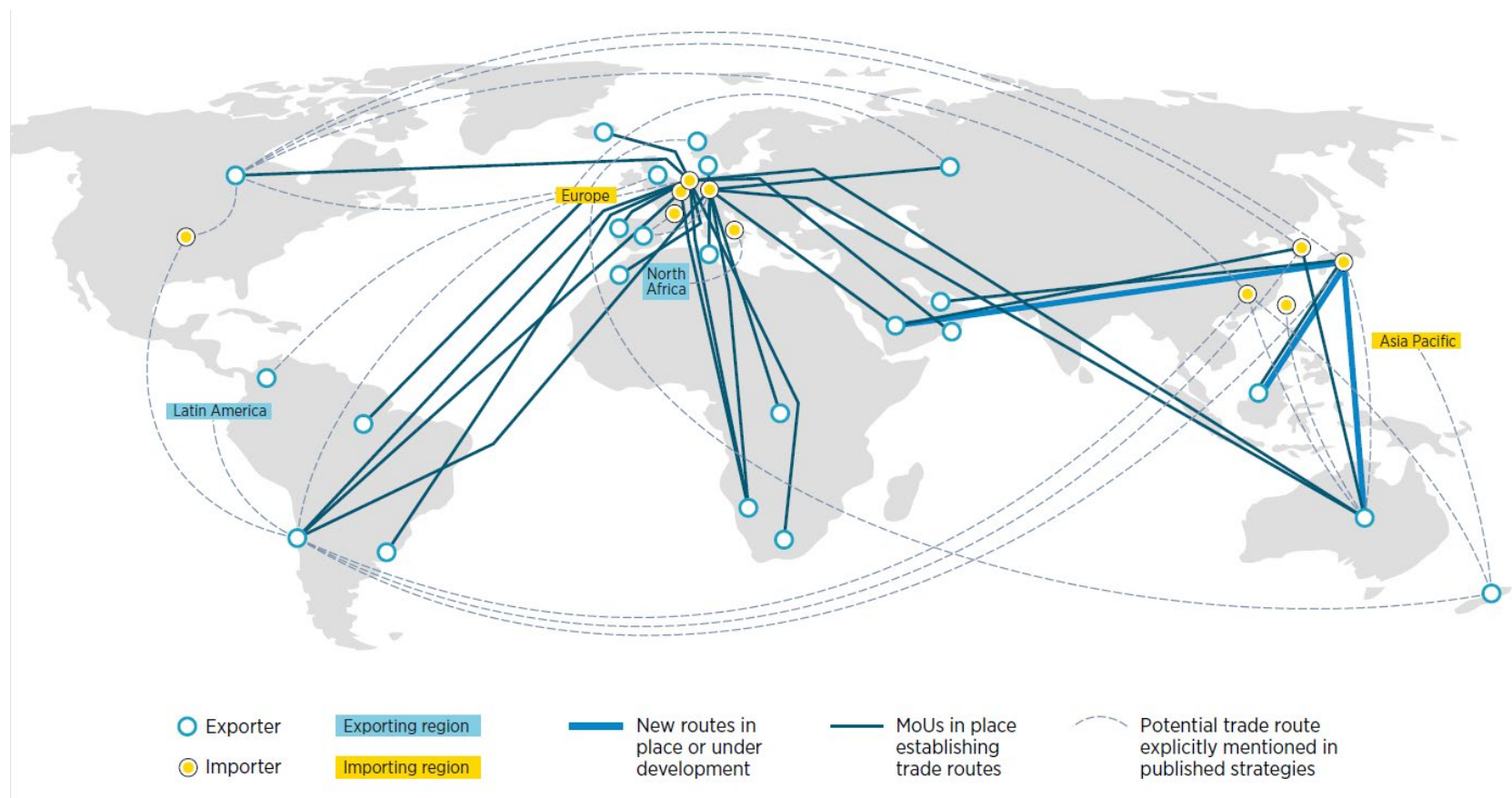


No time to loose momentum for climate action, scale up is the need of the hour

- Almost universal halting of overseas investment in coal plants had been achieved by end of 2021
 - a) For example China declared it will not build new coal power plants abroad in Sept 2021, following similar announcements by Japan and S. Korea
- Massive drop in cost of electricity from PV, wind and batteries for EV in the last decades



Potential for Green Hydrogen

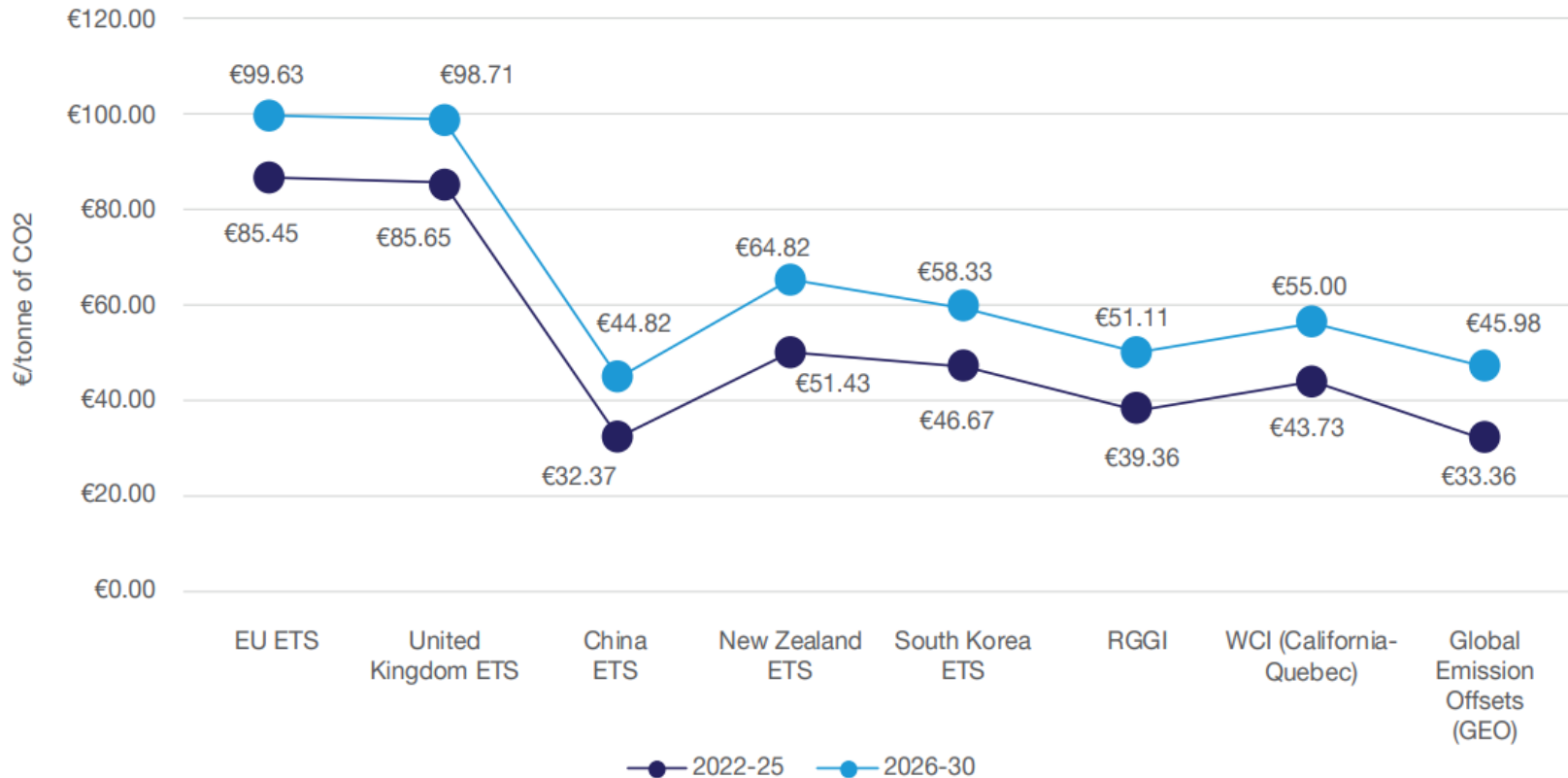


Technical potential to produce green hydrogen under USD 1.5/kg by 2050 is order of magnitude larger than global energy demand

Source: <https://www.irena.org/publications/2022/Apr/Global-hydrogen-trade-Part-II>



Leadership of EU in climate action and carbon pricing



Note: To calculate the expected average carbon price, where respondents selected the “Over €120” category this was assumed to be €135.

Figure 1. Results of IETA survey for the question What do you expect the average carbon price to be for each of the following ETS in the periods 2022-2025 and 2026-2030? (source: IETA GHG Market Sentiment Survey Report 2022)



Short terms measures need not be at the expense of Long term goals and leadership position of EU

- Un indented consequence of reallocation of capital on account to geopolitical situation (e.g. reallocation of capital for defense and FF generation)
 - a) Besides emissions and lock in with FF assets, may affect financial flows to developing countries promised under PA, much needed for the achieving conditional part of the NDCs
 - b) Supply chain issues with materials (e.g. copper, nickel and silicon) means wind and solar generation are costlier by 19 and 12 per cent respectively
- International cooperation is key for net zero efforts (e.g. international standards, agreement and institutional set up and cooperation)
- Energy security and economics could converge to speed the innovation for net zero if bold moves on energy efficiency and renewable energy are taken today

