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

Insights from UNFCCC Secretariat

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• 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 lose 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
Technical potential to produce green hydrogen under USD 1.5/kg by 2050 is of 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

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: ETA GHG Market Sentiment Survey Report 2022)

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