



Policy and Regulatory Needs for Developing a Hydrogen Economy

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Context for Policy and Regulation

- I will focus on green hydrogen, particularly for GHG emissions reduction in hard-to-electrify heavy industry and heavy transport.
- We need to look at the lessons from the earlier policy and regulatory support that helped develop solar and wind.
- Lessons: (1) subsidies should be temporary, should be designed to decline as costs fall; (2) subsidies create a global public good (whether you want to or not); (3) regulations to ensure grid access are important for investor certainty.
- Import to note that technology breakthroughs could massively boost demand for green hydrogen (e.g. if power plant turbines are developed to run on pure green hydrogen).

What is happening in the EU?

- The “Green Deal” – what’s the concept?
- “Fitfor55” package – what does it imply?
- Support for green hydrogen in the EU: (1) funding for specific projects; (2) by end-2021, regulations to be issued on access to infrastructure; (3) by mid-2022, subsidy scheme (“contracts for differences”) to be adopted at EU level.
- In parallel, some EU member states may have their own subsidy schemes and/or financing arrangements.
- EU and/or member states may choose to support green hydrogen projects outside the EU, including for export of green hydrogen to the EU.
- EU Carbon Border Adjustment Mechanism (CBAM) creates incentive to green industry in countries exporting to EU.

Implications for Israel and MENA

- Subsidies in EU and elsewhere that boost global manufacturing of equipment (particularly electrolysers) will reduce costs *globally* through economies of scale and technological progress. This will benefit Israel/MENA.
- Subsidies for green hydrogen in the EU that boost demand could create a green hydrogen export market for Israel/MENA, given that renewable electricity is cheaper in Israel/MENA.
- CBAM incentivizes industry to consume green hydrogen (e.g. steel, cement, chemicals).
- Access to hydrogen transport infrastructure needs to be regulated (technically and economically).