

AMMONIA TRADE AND EMBEDDED EMISSIONS PRICING

Dr. Emma Aisbett



Australian
National
University



Image of an Ammonia-fueled ammonia gas carrier (AFAGC). Credit: NYK Line.

Markets are increasingly pricing embedded emissions

Penalties for high embedded emissions:

e.g. Carbon border adjustment mechanisms (CBAMs)

- EU, plus Japan, Canada, US

Premia for low embedded emissions:

“Green” and “low emissions” certification schemes

- Hydrogen, Ammonia, Steel, ...



[This Photo](#) by Unknown author is licensed under [CC BY-NC-ND](#).



EU CBAM proposal

EU's climate change law sets the economy-wide climate neutrality by 2050.

The EU proposed the legislative package "Fit for 55" on July 14th 2021

Sector scope: CBAM covers **fertilizers**, cement, electricity, iron and steel, and aluminum.

- Transitional period: starting application from 1st of January 2023, with a transitional period of three years and full application from 1 January 2026.
- **Neither green ammonia nor ammonia as a fuel, nor ammonia as a hydrogen carrier are directly addressed – presume included**
- Hydrogen is not included in current CBAM

Pricing	Targets	Rules
<ul style="list-style-type: none">• Stronger Emissions Trading System including in aviation• Extending Emissions Trading to maritime, road transport, and buildings• Updated Energy taxation Directive• New Carbon Border Adjustment Mechanism	<ul style="list-style-type: none">• Updated Effort Sharing Regulation• Updated Land Use Land Use Change and Forestry Regulation• Updated Renewable Energy Directive• Updated Energy Efficiency Directive	<ul style="list-style-type: none">• Stricter CO₂ performance for cars & vans• New infrastructure for alternative fuels• ReFuelEU: More sustainable aviation fuels• FuelEU: Cleaner maritime fuels
Support measures		
<ul style="list-style-type: none">• Using revenues and regulations to promote innovation, build solidarity and mitigate impacts for the vulnerable, notably through the new Social Climate Fund and enhanced Modernisation and Innovation Funds.		

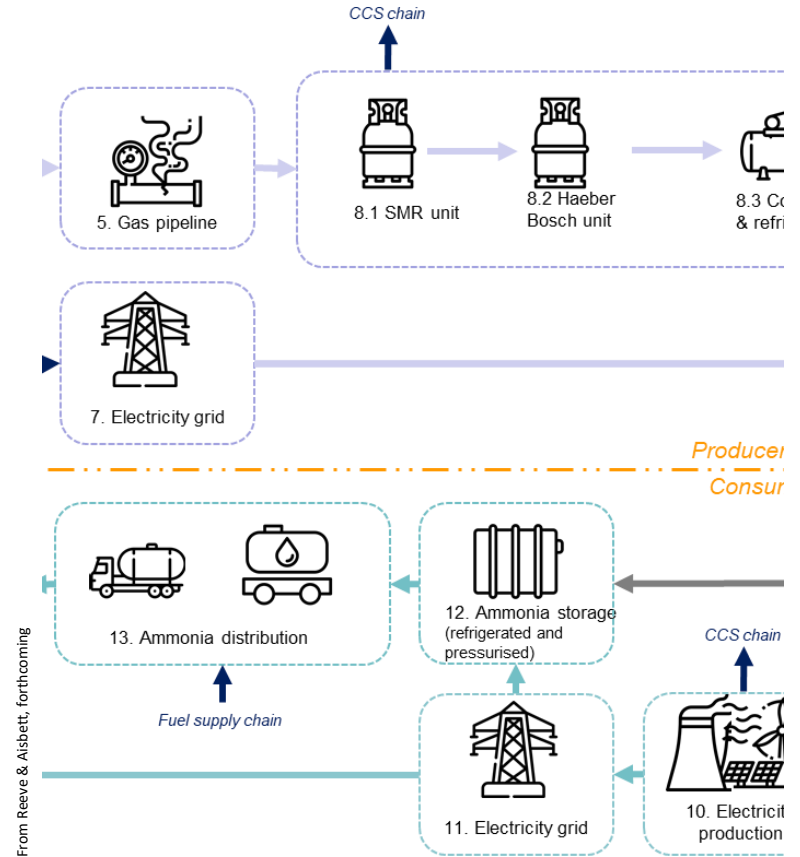
Overview of legislative proposals included in the fit for 55 package

(source: https://ec.europa.eu/info/sites/default/files/chapeau_communication.pdf)



Embedded emissions accounting

- Until Australian policy is stronger, clean producers will need to prove low emissions to avoid CBAMs
- Embedded emissions accounting needs to be robust, modular, and have minimum regulatory burden
- Public embedded emissions accounting frameworks can underpin certification schemes as well
- NGERs methodologies could be a starting point (Reeve & Aisbett)



THANK YOU

Contact Us

Dr. Emma Aisbett
School of Regulation and Global Governance
Associate Director (Research) Zero-Carbon Energy for the Asia-Pacific
emma.aisbett@ANU.edu.au
@emma_aisbett

ANU.EDU.AU/ZEROCARBON



Australian
National
University

