MSR Bandwidth and How Can We Stay Competitive With MRS

Liv Rathe, Norsk Hydro
Consumption-based emissions (carbon footprint)

Allocating emissions to the consumption of goods and services provides an alternative perspective on emission drivers.

Consumption-based emissions are calculated by adjusting the standard production-based emissions to account for international trade.

Source: Le Quéré et al 2014; Peters et al 2011; Global Carbon Project 2014
Primary Aluminium Production Growth 2005-2013; 32 MT to 50MT - 50% growth

- 9% North America - 4,918
- 20% South America - 1,920
- 20% West Europe - 3,525
- 22% Asia (ex China) - 2,439
- 5% East & Central Europe - 3,995
- 3% Africa - 1,810
- 3% GCC - 3,886
- 22% China Reported - 21,936
+ 212% China Estimated Unreported - 2,400
- 7% Oceania - 2,105

ROW Estimated Unreported - 780
The carbon footprint of primary aluminium varies with energy source...

...yet EU produces less and worse its footprint
Europe’s climate policy leads to industry relocation, unless; Full compensation for indirect and direct costs must be given through an EU wide scheme, linked to actual recent production and technical achievable benchmarks, without any correction.
MSR Structure should;

• From a Climate and EU «lead the way» perspective, MSR should;
  – Start early, transfer BL direct to MSR, high withdrawal %, low upper threshold, low lower threshold, compromise the cap between trading periods and the bandwidth wide enough.

• But From an Industry, without adequate compensation level, perspective;
  – Start late, don’t touch BL, low withdrawal %, high upper threshold, high lower threshold, no cap compromise between trading periods and wide enough bandwidth.
If Adequate Compensation in place then Bandwidth to reflect;

- **Balance market fluctuations** as economic circles and fuel switching
  - Hedging need - actors positions influenced by volatility, capital resources, trust in market
    - Allow normal fluctuations

- **Assure sufficient liquidity** (spot and forward)
  - Not too tight between - 100MT or +100MT
    - More critical out in time as auction volume decreases (2.2%)

- **Large enough to avoid arbitration and instability** in the market.
  - Maybe 300MT?

- **Balance criteria** for taking out and bringing back

- **Global situation for cut** – when can we afford higher prices?

- Hedging need

- **Thresholds and bandwidth adjustable in a predictable way;**
  - Not too frequently - each 5th year?
  - Clear review parameters