IETA China Session
International Experiences in Contribution to Chinese National ETS

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Norsk Hydro, aluminium producer mainly based on renewable electricity

In Europe, 90% of our electricity consumption is sourced from non-CO₂ emitting generation, while 100% is impacted by CO₂ costs.

- Europe’s largest aluminium producer
  - Primary production in Norway, Germany and Slovakia
- 65% of primary production in EU ETS, and 71% in an ETS scheme.
- World wide Norsk Hydro is the primary aluminium producer most exposed to ETS schemes.
We support the EU Emission Trading Schemes (EU ETS)

• EU’s ETS ensures a cap on man-made emissions within its sectors:
  • Driver for decarbonization
  • Can assure “On The Road To Paris”
  • Undertake the least costly reductions
  • International linking the goal with equal benchmark setting etc.

• But an ETS must:
  • Ensure installations performing at benchmark levels - direct emission and energy efficiency performance - have no competitive disadvantage
  • Ensure no competitive distortion until a global even level playing field is achieved
  • Give predictability and stability to installations (regulations, prices)
  • Avoid windfall profit, promote growth and competitiveness to the best carbon performer.
  • Not differentiate regarding technologies, raw material, locations or scale differences within a sector
EU ETS electricity and direct CO₂ costs risk exposure treated differently

Increasing risk of carbon leakage for electro-intensive industries

- In European electricity markets, price is formed by demand and supply
- Normally coal or gas is setting the electricity price
- CO₂ cost is passed through even in countries with CO₂ free electricity production

Energy CO₂ cost risk

Compensation:
• Partial (75%?) and unpredictable even if performing at energy efficiency benchmark
• Levels to 2030

Direct CO₂ cost risk

Compensation:
• Likely full from 2021 if performing at benchmark level
• Predictable to 2030.

* Direct costs (ex.process emissions)
Implementing ETS: a stepwise process.

**Step 1:** Implementing Monitoring, Reporting and Verification (MRV) and ETS Registry
- Getting and handling correct data.

**Step 2:** Plants’ compliance risk handling:
- Training for all personnel directly handling ETS data (do not forget the rest of the organization!)
- Prepare risk assessment, including mitigating actions

**Step 3:** Annual compliance.
Important to have one fixed compliance date:
- High national non-compliance fees
- Fees in EU:
  - €100/t for all quotas not surrendered + obligation to surrender the missing quotas within a year
«Lessons learned» over the years

• **Engage:** Important to engage the whole organization
  • Operational ownership is necessary to achieve results.

• **Transparency:** We share our emissions data with our competitors
  • No environmental results are secret – if necessary, only how they are achieved.

• **Dialogue:** Open dialogue with the National competent Authority is important
  • Much competence on both sides – together we can make a bigger difference.

• **International standards:** Global “equal” CO\textsubscript{2}e cost.
  • Linking of national/regional ETSs the way forward
We are aluminium