



# 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-CO<sub>2</sub> emitting generation, while 100% is impacted by CO<sub>2</sub> costs

## European foothold, global presence



- **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 CO<sub>2</sub> 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
- ✓ CO<sub>2</sub> cost is passed through even in countries with CO<sub>2</sub> free electricity production

## Energy CO<sub>2</sub> cost risk

Compensation:

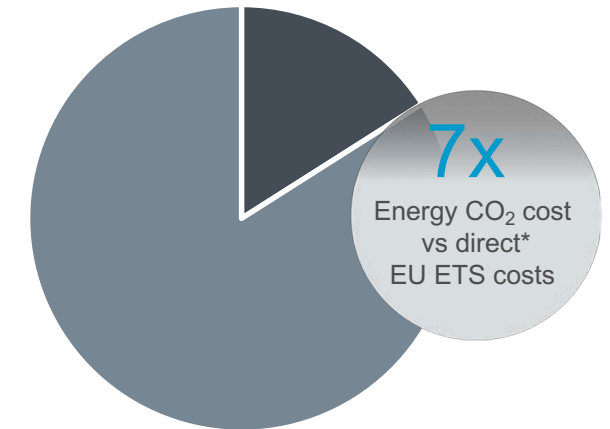
- Partial (75%(?)) and unpredictable even if performing at energy efficiency benchmark
- levels to 2030



## Direct CO<sub>2</sub> 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<sub>2e</sub> cost.
  - Linking of national/regional ETSs the way forward





# Hydro

*We are aluminium*

