



## Linking Emissions Trading Schemes

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## Definition of Linking

*“...two national emissions trading schemes are linked if one country’s allowance can be used, directly or indirectly, by a participant in the other country’s scheme for compliance purposes.”*

*(OECD, Harmonisation between National and International Tradable Permit Schemes, March 2003)*

First links are established: EU Emissions trading scheme will link to Norway, Iceland, Lichtenstein, decision made 26 October 2007



## Potential benefits of linking

- Expands market & increases cost-effective functioning by
  - increasing market liquidity – fewer market power issues
  - diversity in marginal abatement costs – more access to low cost emissions reductions.
- Developing a global carbon market
  - reduce competitiveness distortions (same price)
  - reduces potential leakage
- Links to JI/CDM enhance technology transfer to countries and involves sectors not covered by EU ETS in reduction efforts



## Potential risks of linking

- Poorly-designed linked ETS can undermine entire environmental effectiveness (e.g. safety valves)
- By-passing environmental guarantees (e.g. negative list JI/CDM projects)
- Impact on competition between companies (e.g. unequal target or allocation rules)
- If harmonisation needs overly-complicated “gateways”  
->increase in transaction costs



## Main linking options for Australia

- **With** Kyoto Protocol ratification
  - Indirect linking
    - Project based mechanism of the Kyoto Protocol (CDM, JI)
  - Direct linking
    - Over Article 17 KP trading (government level and company level see NZ)
    - Bilateral link (fully link e.g. EU ETS with Australian scheme)
    - Unilateral link (e.g. allowances of EU ETS can be used in Australian scheme for compliance but not the other way around)
- **Without** Kyoto Protocol ratification
  - Indirect linking:
    - Through offsets
  - Direct linking:
    - Bilateral link (fully link e.g. EU ETS with Australian scheme) difficult
    - Unilateral link (e.g. allowances of EU ETS can be used in Australian scheme for compliance but not the other way around)



## Non-Ratification problems

### Problem:

Transfers out of Kyoto Parties:

- Not possible under Kyoto unless stripped of AAU
- => Double counting, therefore need to cancel AAU

Transfers into Kyoto Parties:

- Would inflate emissions without corresponding acquisition of Kyoto units

=> non-compliance

### Possible solutions:

- Semi-open link, could be done unilaterally or by gateway
- Full link with gateway



## Direct linking

- **Definition:** Mutual recognition of allocated permits in each ETS for compliance
  - Kyoto Protocol ratification:
    - Assigned Amount Units (AAUs) are directly allocated to companies
    - Companies can exchange national permits for AAUs
  - Without Kyoto Protocol ratification:
    - Mutual recognition of units, more difficult



## Indirect linking

- **Definition:** Indirect linking through off-sets means that there is no mutual acceptance of allocated cap-and-trade credits for compliance under each ETS, but common acceptance of credits generated under certain off-set mechanisms
- Two options:
  - Use of **same off-set mechanisms** (CDM and JI)
  - Parallel creation of **alternative off-set mechanisms** (national offsets)
- **Advantages:**
  - Much **less harmonization** required, as linkage only on a limited field (e.g. no allocation rules)
  - Still benefit of extended **market place**



## Indirect linking options for Non-ratifying Parties

- Alternative **formal association**: Hook-up of non-party registry to KP party national registries and Independent Transaction Log (ITL)
- International agreement on hook-up
  - Transnational/national implementation
  - Registry problems could arise
- Alternative **“informal participation”**: Non-parties or participants under according ETS establish accounts in some KP party state registry and/or CDM registry
  - No international agreement required
  - National implementation of non-party ETS
  - Credits would be kept in account within KP registry and be transferred or cancelled for compliance at the end
  - Most likely scenario for Australia until Kyoto is ratified



## Linking issues

- **Units used** (AAUs, ERUs, CERs, RMUs, national units)
- Type of target/cap (absolute/relative - voluntary/binding) and stringency
- Quality of monitoring and reporting provisions
- **Level and types of sanctions/penalty**
- Extent of governmental intervention (caps/ safety valves/ex-post adjustments)
- Direct vs. indirect approach / Upstream vs. downstream
- Banking and borrowing
- Communication between registries (Kyoto Protocol standards)



## Units

### **Problem:**

- Different metric in USA
- Difference in time span (e.g. yearly units, phase based units)
- Differences in recognition of units, e.g. sinks, domestic offsets, AAUs

### **Possible solution:**

- Metric: Harmonisation or exchange rate
- Time span: Clarification needed which unit can be used when
- Recognition: Harmonisation or no link, possible adjustment measures such as exchange rate might be burdensome and ineffective





## Level and types of penalties

### **Problem:**

- Prices caps or safety valves
- Price cap in one scheme would be price cap for combined schemes - and at rather low price the link would make emissions higher than if schemes kept separate – reduces environmental effectiveness!

### **Possible solutions:**

- restriction of supply to difference between allocation and actual emissions, operational only at time of compliance assessment
- gateway



## Potential linking issues for Australia – EU ETS

- **Units:**  
yearly vintages (A) – compliance phase based units (EU)
- **Sink-projects:**  
proposed inclusion (A) – not currently included (EU)
- **Non-CO<sub>2</sub>-gases:**  
proposed inclusion (A) – not currently included (EU) but e.g. N<sub>2</sub>O from 2008 in some countries  
Risk to import uncertainty of accounting
- **Monitoring and Verification:**  
equal stringency important
- **Sanctions:**  
proposed price cap (A) – currently no price cap (EU)



## Conclusions

- Design differences do matter for linking
- Some design differences might be solved, others can only be solved by introducing burdensome and inefficient mechanisms (e.g. gateways)
- Differences in design may have impact on environmental effectiveness
- Linking will make the national market depending on political decisions (e.g. target) in the other linked markets
- Linking will make systems more complex and therefore supply – demand less predictable
- Benefits of linking will need to be weighed against the risks of linking.

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