Recent progress in K-ETS

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Il-Young OH

Ministry of Strategy and Finance of the Republic of Korea

Topics

- *Current status of K-ETS*
- *Preparation for phase 2*
- *Enhancing low carbon investment*
- *Competitiveness of covered companies*

Current status of K-ETS

The first phase('15~'17)

- ***Inclusion criteria :*** *entities with annual average emissions over 125,000 tCO_2e or facilities with annual average emissions over 25,000 tCO_2e during the baseline period(3 years in a row from 4 years prior to the beginning of each commitment period)*
- ***GHG coverage :*** *CO_2, CH_4, N_2O, HFCs, PFCs, SF_6*
- ***Allocation :*** *mainly GF(grandfathering) but BM(benchmark) for three sectors (cement, aviation, refinery)*

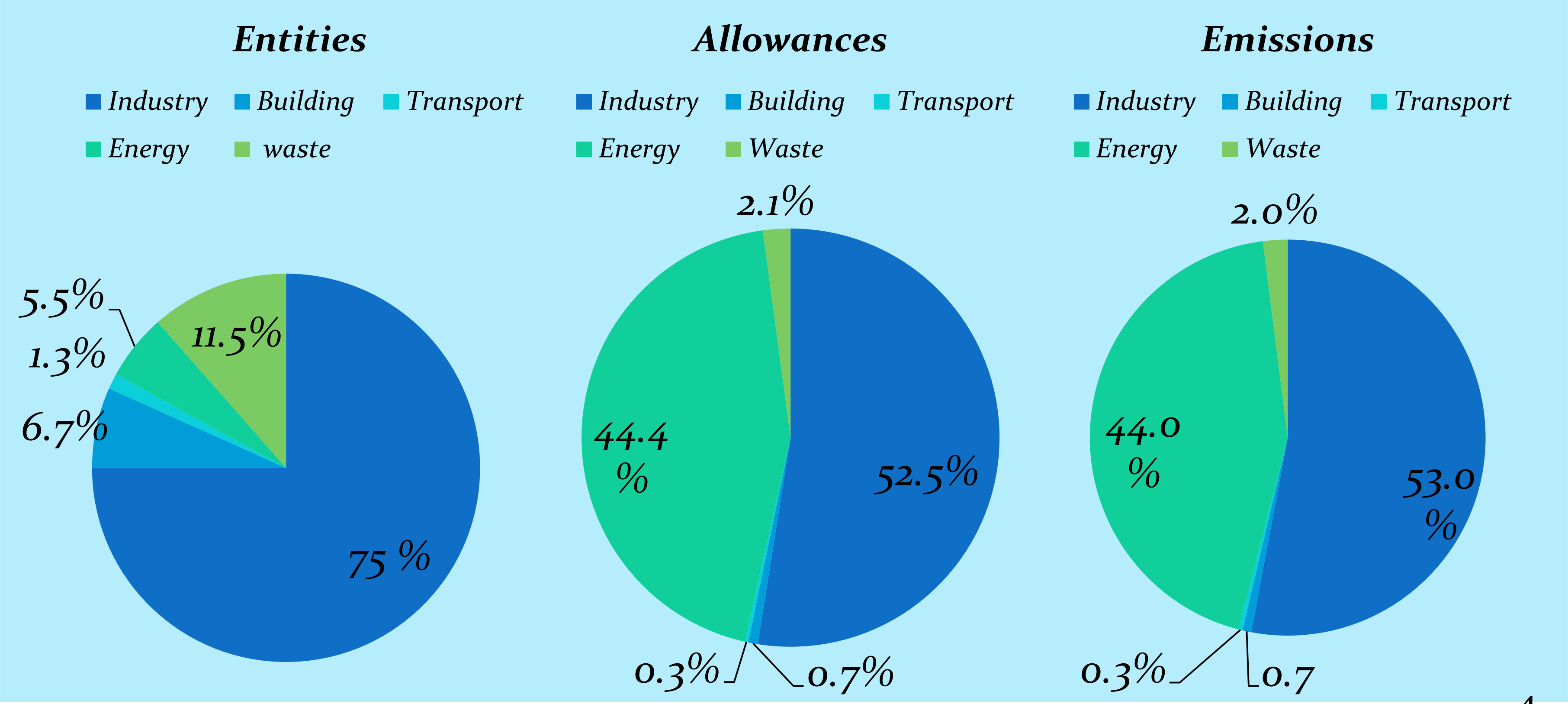
  - 1st Phase (2015~2017) 100% free allocation

  - 2nd phase (2018~2020) 3% auctioning
- ***Flexibility Mechanisms :*** *banking, borrowing and offsets*

Current status of K-ETS

- ***Coverage Sectors subject to ETS :*** *5 parts, 26 sectors, 599entities (as of July 2017)*

★ *ETS coverage : approx.68% of national GHG emissions*



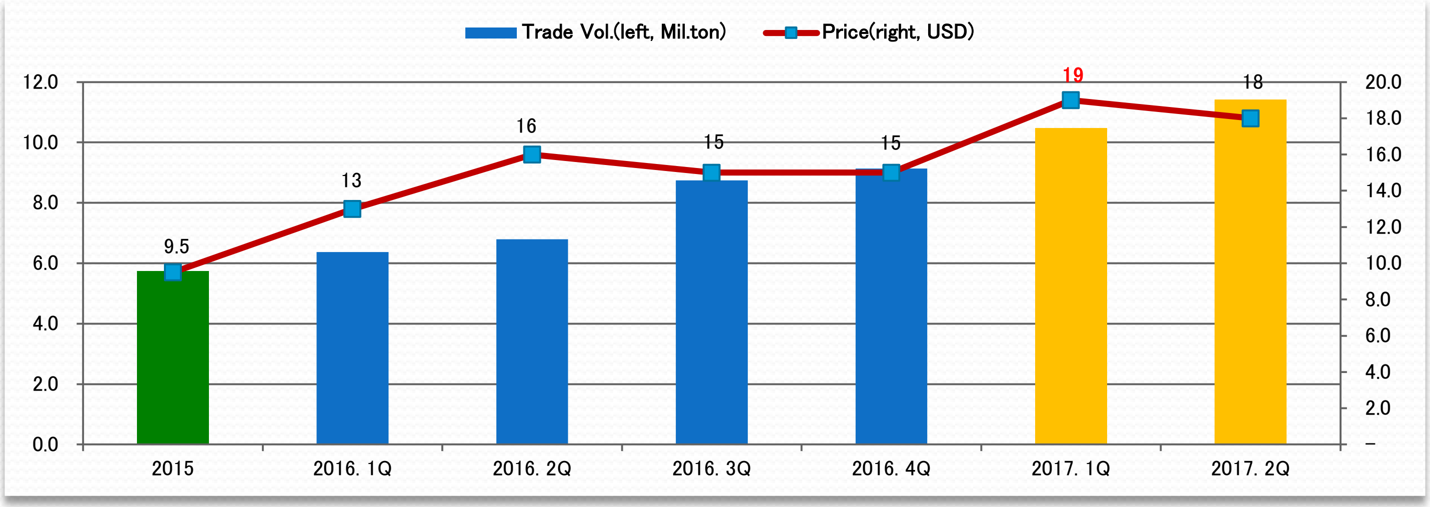
Current status of K-ETS

- **Trading :** *beginning as from Jan. 2015 at the Korea Exchange(KRX)*

  * *carbon credits : KAU (Korean Allowance Unit), KOC (Korean Offset Credit), KCU(Korean Credit Unit)*

- **Trading volume :** *36.3MtCO_2e(KAU 20.2MtCO_2e / KCU 3.4MtCO_2e / KOC 12.7 MtCO_2e)*

- **Price Trend :** *('15) USD9.5→(1Q '16) USD13→(2Q '16) USD16→(3Q '16) USD 15→(4Q '16) USD 15 →(1Q '17) USD 19 →(2Q '17) USD 18 *EU-ETS price: USD5.4, China-ETS:7.3, California:14(as of 2016~2017)*



Preparation for phase 2('18~'20)

- ***Allocation :***

★ *Setting cap size level to achieve the 2030 NDC(Nationally Determined Contribution)*

1. BM-based allocation sectors

① Expansion : 3 sectors(cement, aviation, refinery) → 8~10 sectors

② Periodically(every commitment period) updating on carbon emissions efficiency(CO_2*/output of products) and reflecting it on later allocation*

→ Advantageous to the companies with higher low carbon efficiency

Preparation for phase 2('18~'20)

***2. GF-based allocation: GHG reductions in previous period** (verified by a third party verifier)*

→promoting reduction activities and low carbon investment

★ *GF-based allocation's weakness is the more reducing GHG, the less being allocated*

3. Auctioning

1st phase (2015~2017)	2st phase (2018~2020)	3rd phase (2021~2025)
100% free allocation	3% auctioning	auctioning up to 10%

Preparation for phase 2('18~'20)

- ***Offset***

1. ***Methodology diversification*** *(as of July 2017, 33 domestic & 211 CDM methodologies)*

→Promoting development of various offset projects

2. ***Standardizing and simplifying reporting procedures for small sized offset projects****(ex. below 100 tCO_2e)*

→Promoting reduction activities by diverse stakeholders

(schools, local community, small and medium-sized companies and so on)

3. ***Allowing trading of international offsets****(CER)* ***developed by domestic companies***

→Promoting low carbon investment in the international carbon market

★ limit to surrendering: up to 10% of each entity's emission volume that has to be surrendered (maximum of 5% coming from international offsets for 2nd and 3rd phases)

Preparation for phase 2('18~'20)

- **Carbon market**

1. **Operation of auction market**

→ *Auction revenue will be recycled to support covered companies to invest in clean and low carbon technologies*

2. **Introducing market-maker for K-ETS**

→ *Increasing domestic carbon market's stability*

Enhancing low carbon investment

- ***Lessons from operation of the phase 1***

1. Allocation *: mainly GF(Grandfathering) based approach*

→ Unable to incentivize low carbon investment

2. Carbon price *: Despite the highest carbon price, not leading to low carbon investment*

★ *The KETS has been operated just for about 2.5 years, it's very short time for companies to react*

3. The short commitment period*(3years during phase 1-2)has a limit for companies to have the long-term prospect and invest in low carbon technologies*

Enhancing low carbon investment

- ***The changes from the phase 2***

1. ***Allocation :*** *expansion of BM-based allocation, periodic update on BM indicators, supplement GF-based allocation*
2. ***Offset :*** *Methodology diversification, supporting small sized offset projects, low carbon investment in the international carbon market*
3. ***Auction revenue recycling*** *for low carbon investment*
4. ***Behavior changes of companies*** *: Raising awareness about new low carbon technology and carbon credit trading strategy*

Competitiveness of covered companies

1. Free allocation sector

- Determined by carbon leakage risk*(measured through trade intensity, additional production cost)*

★ *1. trade intensity of over the 30%*
2. additional production cost of over the 30%
3. trade intensity of over the 10% & additional production cost of over the 5%

-**Trade intensity** = *(Annual average amount of **export** of the sector for the baseline period* + Annual average amount of **import** of the sector for the baseline period)/(Annual average **revenue** of the sector for the baseline period + Annual average amount of **import** of the sector for the baseline period)*

-**Additional production cost** = *(Annual average GHG **emissions** of the sector for the baseline period × **carbon price** during the baseline period)/ Annual average **Added Value** of the sector for the baseline period*

★ *Baseline period : 3 years in a row from 5 years prior to the beginning of each commitment period*

Competitiveness of covered companies

2. Auction revenue recycling

- Auction revenue will be recycled to support covered companies to invest in clean and low carbon technologies

3. linking carbon market(?)

- Benefit :

*1.Increasing market **liquidity** and price **stability***

*2.Reducing competitive distortions by **levelling** the carbon price*

- Risk:

*1. Environmental **integrity**(double counting, reliability of actual abatement, not fully 'additional' offsets)*

2. Reducing incentives to domestic low-carbon investments

Thank you

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