

15th annual IEA-IETA-EPRI workshop,
29-30 September, Paris

Emissions Trading Scheme in Korea

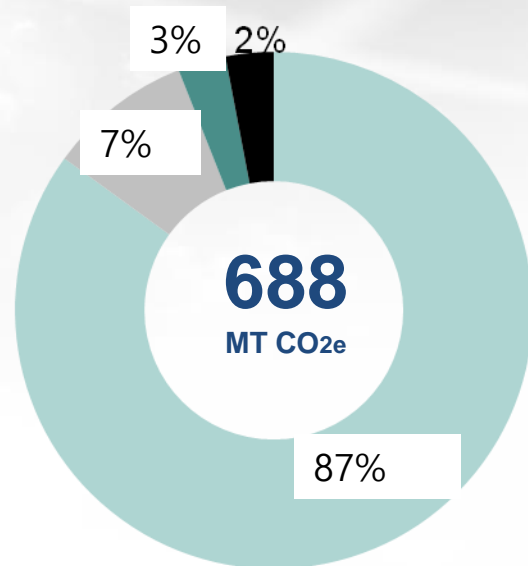
29 September 2015

Ministry of Environment
Republic of Korea



1. Overview of Korea's GHG emissions

Energy & Industrial Process – key sectors for GHG emissions



GHG emissions by sector (2012)

■ Energy ■ Industrial Process ■ Agriculture ■ Waste

Facts on Korea's energy consumption

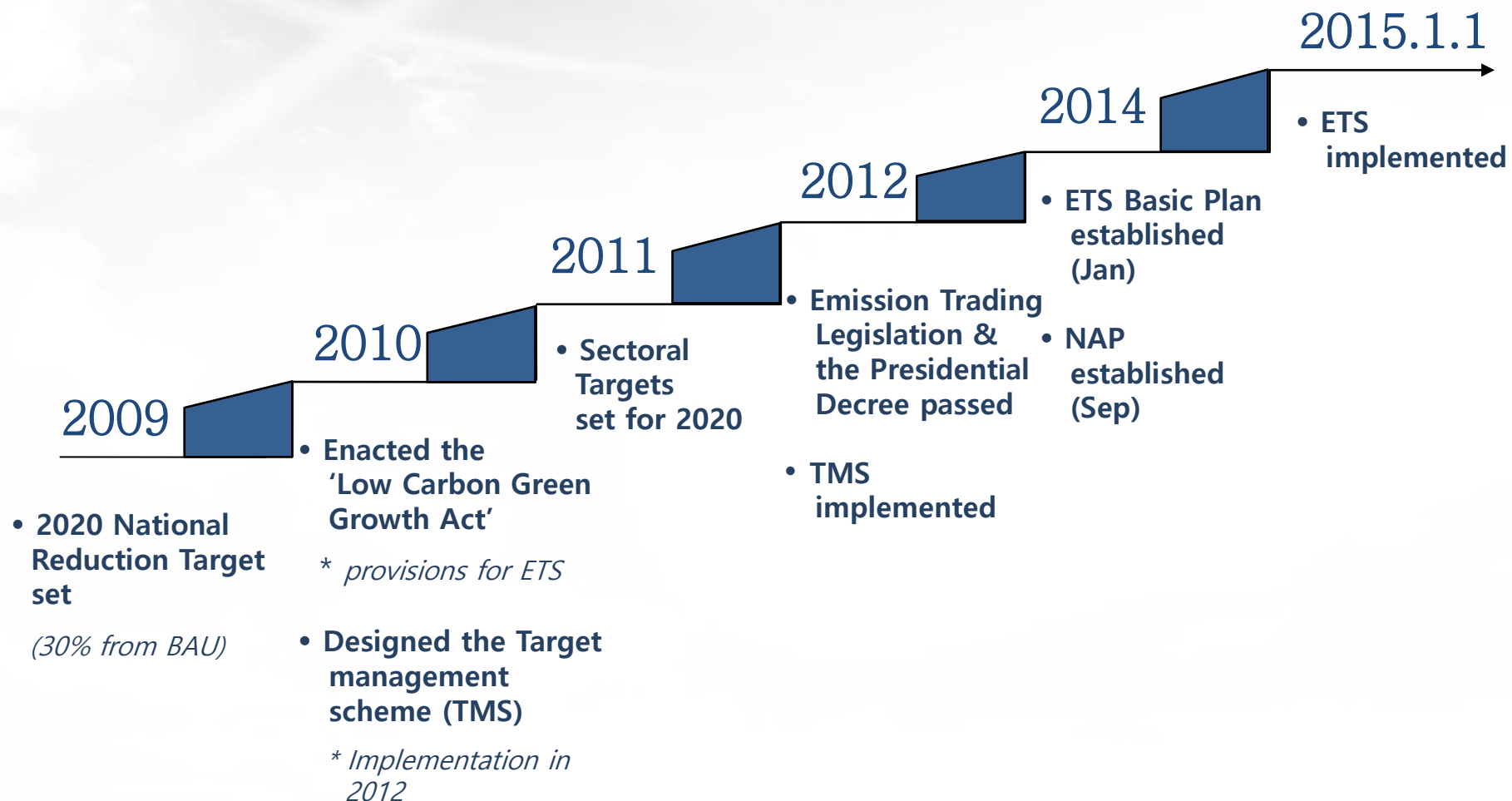
World's **10th** largest energy consumer

97% of energy is imported from abroad

Energy import accounts for **29%** of Korea's total import volume

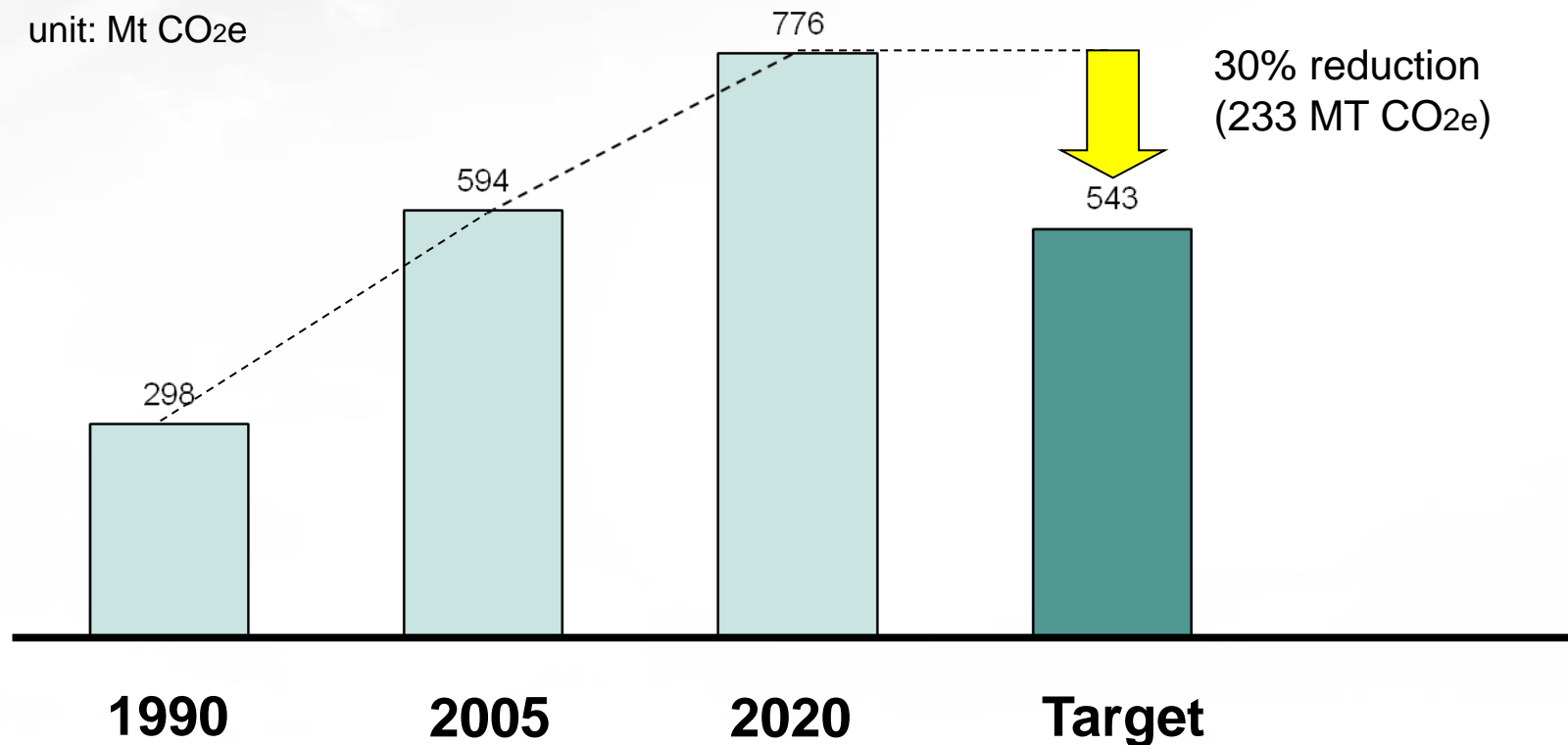
2. Recent landmark on GHG mitigation

Substantial progress in mitigation policy in the last few years



3. The national target (2009)

Estimated that such ambition could imply some 233MT CO₂e reduction in 2020 from the business-as-usual scenario



INDC submitted('15.6.30)

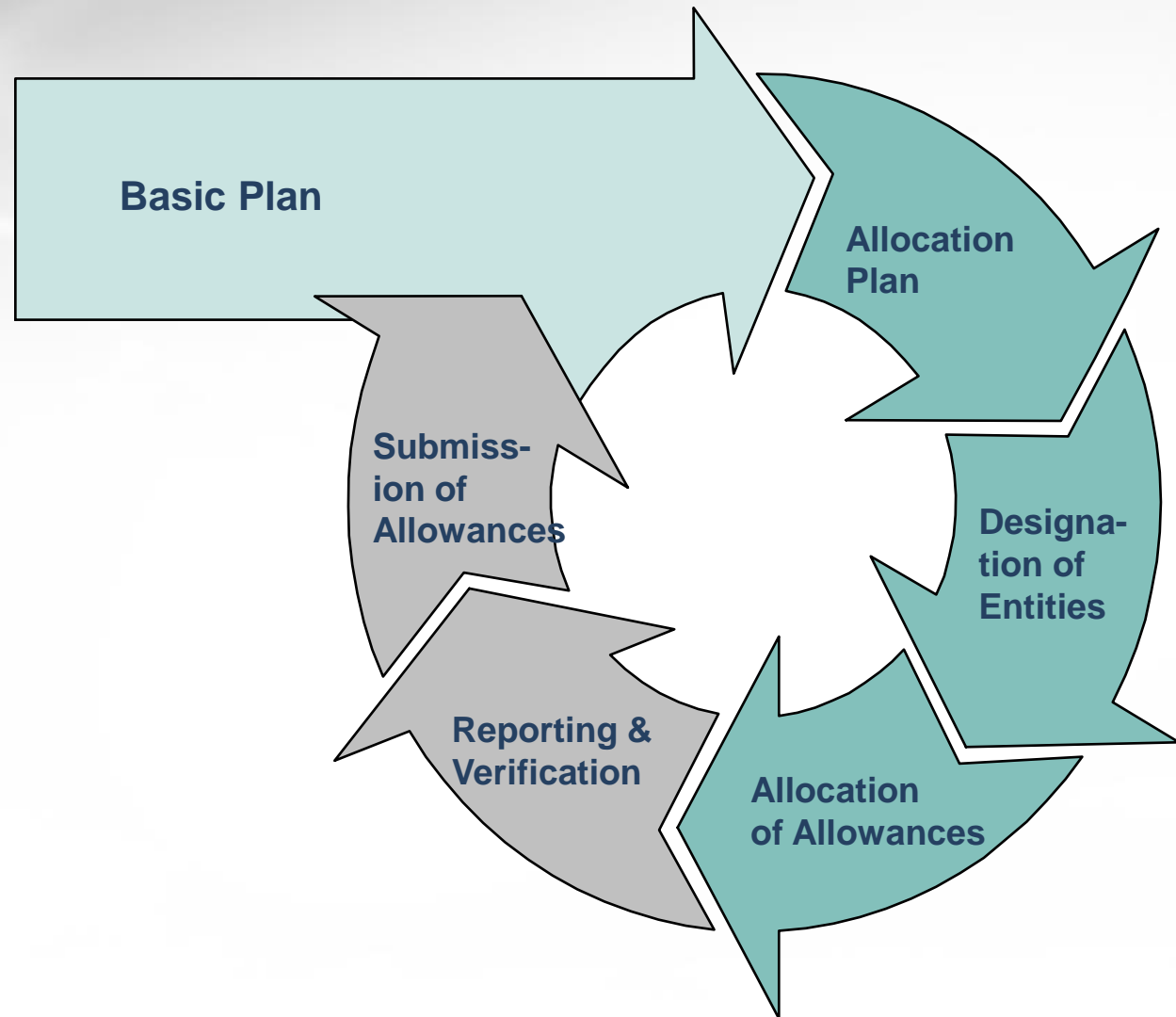
Target – reducing GHG emissions by **37%** below BAU by 2030

4. ETS (Key processes and legal plans)



Basic Plan
<ul style="list-style-type: none">• 10 year plan• Every 5 years• Ministry of Strategy and Finance• Policy direction for ETS, BAU forecast, economic impact assessment, etc.

Allocation Plan
<ul style="list-style-type: none">• Every phase (3~5 yrs)• Ministry of Environment• ETS cap, Cap for each sector, Allocation methodology,• Reviewed by the Allocation Committee



4. ETS (Scheme design)

Coverage

- Average emission of 3 years prior to the implementation phase
Entity criteria 125,000t CO_{2e}, Installation criteria 25,000t CO_{2e}
- Voluntary participating entities

Implementation phases & free allocation

Phase I

- 2015~2017
- **100%** free allocation

Phase II

- 2018~2020
- **97%** free allocation

Phase III

- 2021~2025
- Less than **90%** free allocation

*An Implementation phase
5 years from Phase III*

100% free allocation for EITE entities

- > 5% of production cost intensity + > 10% of trade-exposed intensity
- > 30% of production cost intensity
- > 30% of trade-exposed intensity

* Emissions-Intensive and Trade-Exposed

4. ETS (National Allocation Plan, Sep 2014)

Cap

- **1,687 million KAUs**(Korean Allowance Unit) from 2015 to 2017
 - approx. **1,598 million KAUs** were allocated to entities before Phase I starting (Dec 2014)
 - **89 million KAUs** were reserved in National Reserve for Market Stabilization, Early Action, and Others(additional allocation)

Allocation

- 100% free allocation
 - **Grandfathering**, based on historic emissions for electricity, steel, chemical and others(total 20 sub-sectors)
 - **Benchmarking**, based on productivity for refinery, cement and domestic flight

4. ETS (National Allocation Plan, Sep 2014)

Emissions Cap and Pre-allocation

Unit : Thousand KAU(Korean Allowance Unit)

Sector	Sub-sector	Implementation Year			Cap during the phase
		2015	2016	2017	
Cap		573,460	562,183	550,906	1,686,549
	Reserve	88,822			
	Pre-allocation	543,227	532,576	521,924	1,597,728 (94.7%)

4. ETS (National Allocation Plan, Sep 2014)

Target Sector and Industry

- 23 sub-sectors in 5 sectors based on sub-sector classification under Target Management System and under the national reduction targets
- Sub-sector of target entities are designated in alignment with sub-sector designated under Target Management System

Type of Sub-sectors

526 entities('15.9)

Sector	Conversion	Public-Waste	Building	Transport	Industry	
Sub-sector	Power generation-energy	Water supply Waste	Building Communications	Aviation	Mineral Food & Beverage Textile Lumber Paper Refinery Petrochemical Glass/Ceramic	Cement Steel Non-ferrous metal Machinery Semiconductor Display Electric/electronic Automobile Shipbuilding
Total(23)	1	2	2	1	17	

4. ETS (Flexibility)

Banking & Borrowing

- Banking is allowed to the next implementation year within the same phase or the 1st year of the next phase
- Borrowing is allowed from the next implementation year (**max of 10%** of total necessary allowances for submission)

Offsets

- **Max of 10%** of total necessary allowances for submission
- International offset credits are allowed from Phase III (50% of total offset credits)

Early Action

- Max of 3% of total cap (only for Phase I)

4. ETS (Adjustment, cancelation & fine)



Adjustments

- Adjustments in allocation of allowances is possible when:
 - there is a change in the Allocation Plan;
 - there is request from entities for additional allowances allocation due to unexpected expansion or merge acquisition and change in operation

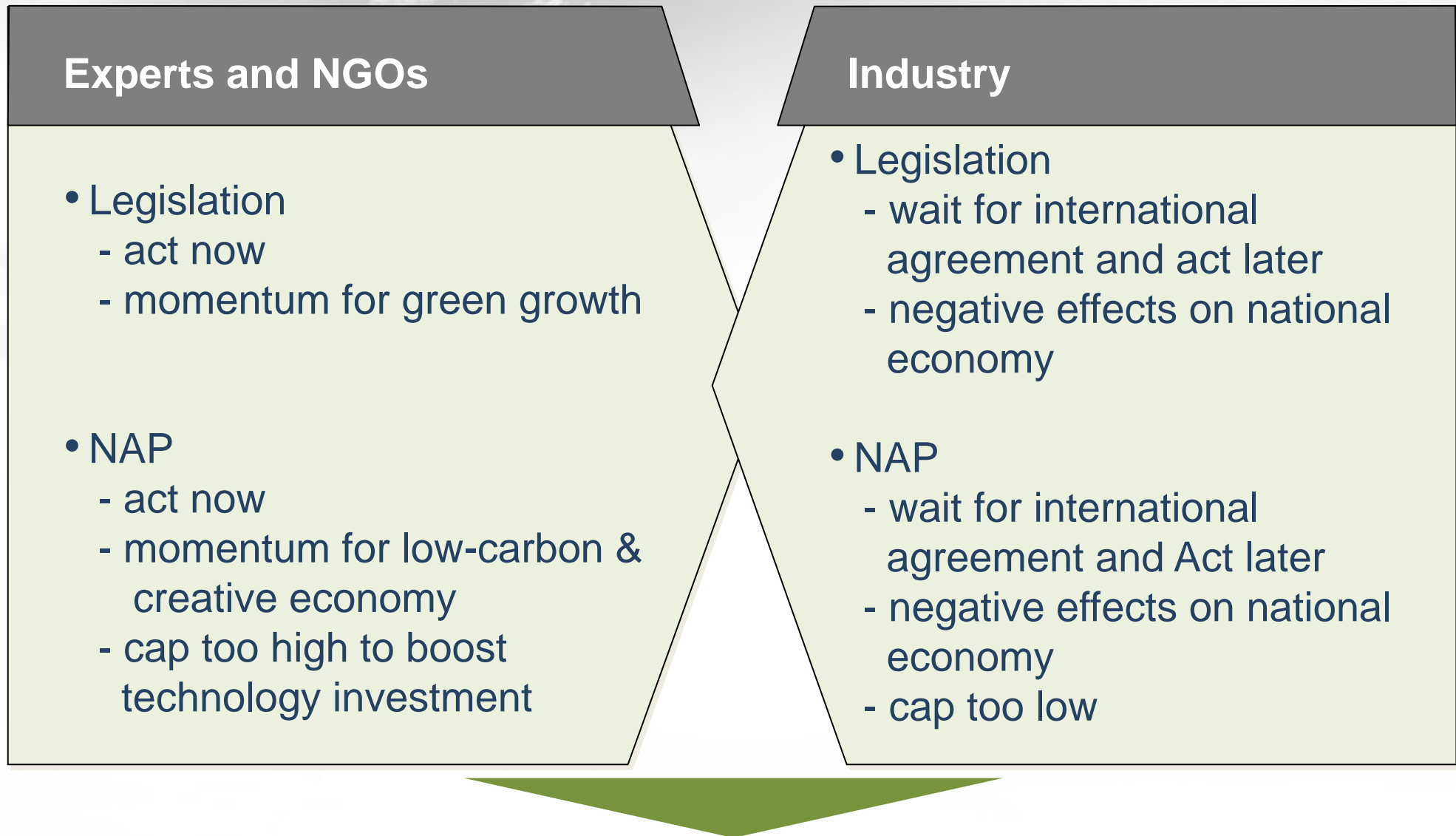
Cancellation

- Cancellation of allowances is possible when:
 - there is a closure;
 - delay in operation of over 3 month; or
 - suspension of operation of 1 year

Fine for non-compliance

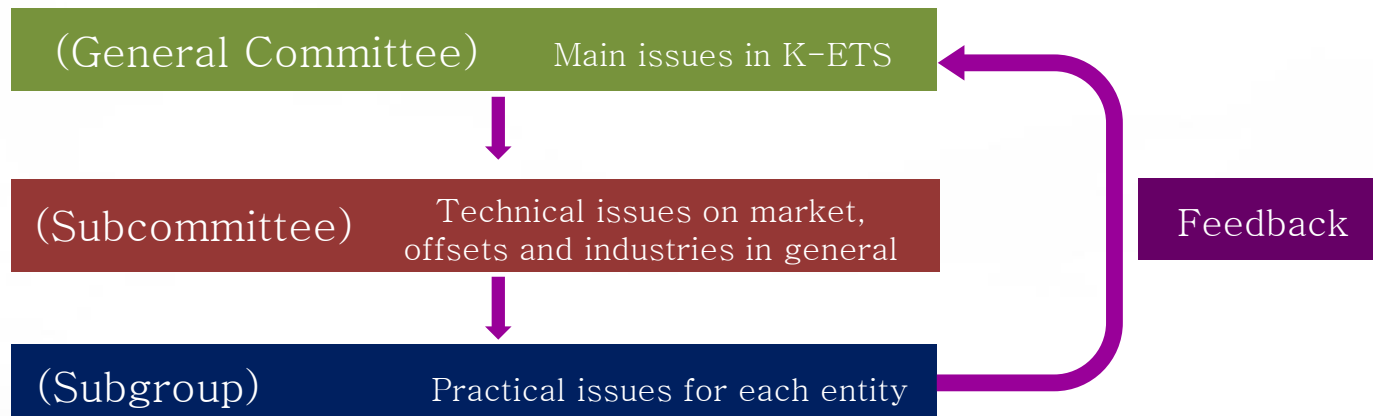
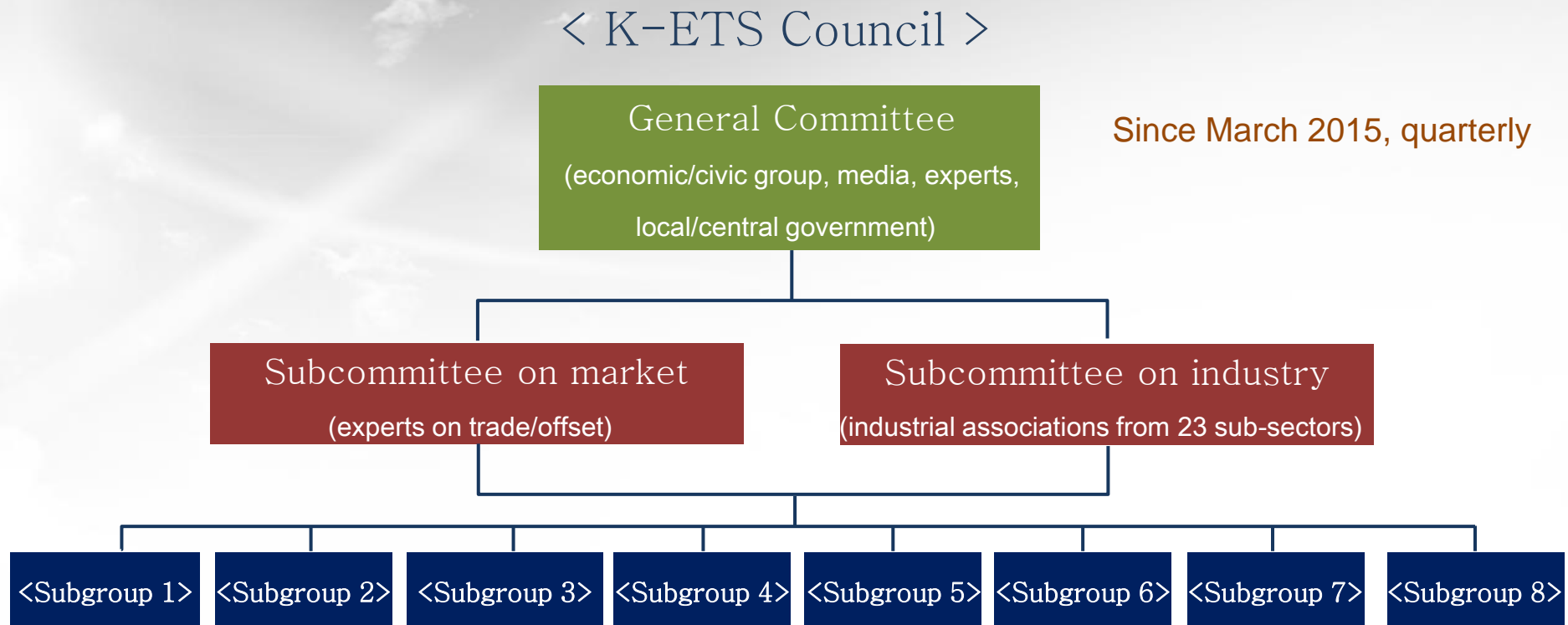
- Up to **3 times** the average market price
- Max of **100 thousand KRW** (US\$ 91)/tCO₂e

4. ETS (Issues and experience)



- Tens of public hearings, dozens of stakeholder meetings....

4. ETS (Issues and experience)



4. ETS (Current Status and Future)



Trading

- KAU(Korean Allowance Unit) Korea Exchange
- KCU(Korean Credit Unit) (<http://ets.krx.co.kr>)
- KOC(Korean Offset Credit) OTC(outside KRX)

Approx. 1.9MT (approx. 16M US\$)

Investors

- Only ETS-regulated entities can trade KAU and KCU(~'20)
 - Foreign investors can participate K-ETS market according to an international agreement

No limitation on KOC trading

Linking the market

- Endeavor to link domestic emissions allowances markets with international carbon markets in accordance with the UNFCCC and relevant protocols

International Market Mechanism?

Common MRV system(IAF)?

International offsets after 2020?

Thank you!

