

**IEAWS**

**Industry/business use of 'complementary measures' for decarbonisation**

***Policy transfer of voluntary approach  
-Experience in South Korea***



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- Background of GHG & Energy Target Management Scheme(GETMS)
- Comparison between GETMS and Japan's Voluntary action plan
- Potential benefit of VA in South Korea's context

- In 1996, the government started the study about energy star program of US.
  - Long Term Agreement (LTA), Voluntary action plan in Japan, Climate Change Agreements (CCA)
- In 1998, the first Voluntary Agreement for energy efficiency has started with 15 entities including Posco.
  - Provide low interest loan and tax reduction as a incentive
- Number of participants had been decline after 2005 (peak year).
- ***Introduction of Energy TMS was proposed*** in 2009 leaded by Ministry of Knowledge and Economy(MKE).

- The Framework Act on Low Carbon, Green Growth stipulated the introduction of TMS and ETS to achieve 2020 national target [30% reduction from BAU] (enacted in 2010)
  - The act pointed out *Ministry of Environment(MOE)* as a leading agency
  - Details of TMS and ETS determined in the ordinance of the framework act
- The Ministry of Environment (MOE) set up a task force team for GHG management in April 2010, then announced policy guideline and procedure for GHG & Energy TMS in March of 2011
  - The role of MKE became limited to notification, target setting and performance evaluation

# Changes from early design

	Energy Target Management System (Proposed by Ministry of Knowledge and Economy)*1	Enforcement ordinance (Green Growth act)
Principle	<ul style="list-style-type: none"> <li><input type="checkbox"/> Consistency with 2020 national GHG reduction target</li> <li><input type="checkbox"/> Considering historic performance, technology, international competitiveness, <b>new facilities</b></li> <li><input type="checkbox"/> Consistency with energy consumption report</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Consistency with 2020 national GHG reduction target</li> <li><input type="checkbox"/> Considering historic performance, technology, international competitiveness, <b>new facilities</b></li> <li><input type="checkbox"/> Include energy and industry process <b>to avoid double regulation</b></li> </ul>
Target	<ul style="list-style-type: none"> <li><input type="checkbox"/> Fossil fuel consumption</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> 6 GHGs, energy consumption, energy efficiency</li> </ul>
Target setting procedure	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Company report target</b></li> <li><input type="checkbox"/> After negotiation, set the target level</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>The government set target and notify</b></li> <li><input type="checkbox"/> Possible to negotiate</li> </ul>
Unit of Target	<ul style="list-style-type: none"> <li><input type="checkbox"/> Company can select target from intensity or absolute amount</li> <li><input type="checkbox"/> Intensity target for energy supply sector</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Absolute amount</li> <li><input type="checkbox"/> Intensity target for energy supply sector</li> </ul>
Coverage	<ul style="list-style-type: none"> <li><input type="checkbox"/> Companies more than 20,000Toe(800TJ)*3</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Companies more than 50,000t-CO<sub>2</sub>e and facilities more than 15,000-CO<sub>2</sub>e</li> </ul>
Model	<ul style="list-style-type: none"> <li><input type="checkbox"/> Voluntary agreement in EU and Voluntary action plan in Japan</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mandatory reporting of GHG in US, Mandatory reporting of GHG in Australia, Tokyo-ETS, JVETS in Japan</li> </ul>

\*1 proposed and consulted during 2009

\*3 Toe=3.2t-CO<sub>2</sub>e

# Comparison between TMS and Voluntary action plan

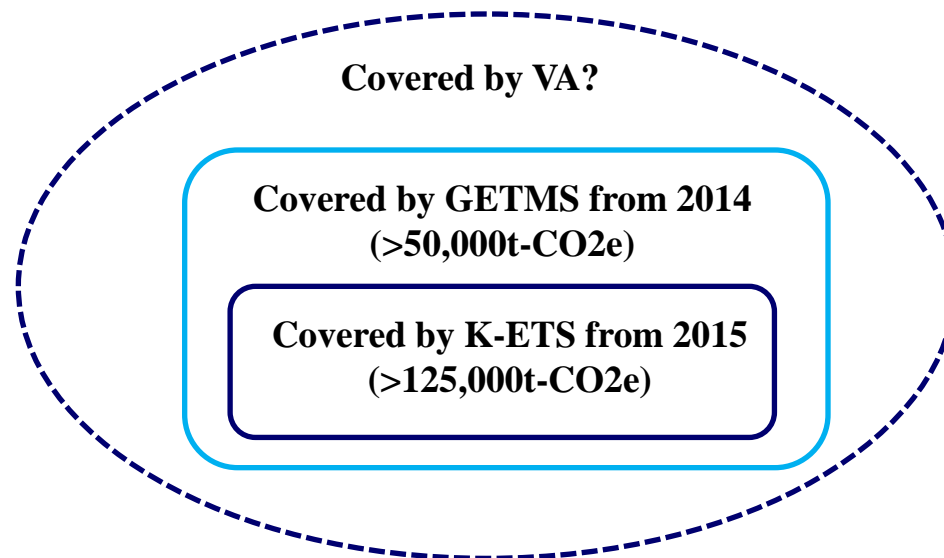


	South Korea	Japan	
Name	GHG and Energy Target Management Scheme (TMS)(2010~)*1	Voluntary Action Plan (1997 -2012)	Commitment to a Low Carbon Society (2013-2020)
Participants	434 entities (company )	114 industrial organizations	94 industrial organizations
Target setting	<ul style="list-style-type: none"> <li>• CO2 emission and energy consumption from base period(3 years average)</li> <li>•Set by the government then <b>mutual agreement</b> with controlled entities</li> </ul>	<ul style="list-style-type: none"> <li>•CO2 intensity, Energy intensity, CO2 emission, Energy consumption from base year</li> <li>•Set by industrial organization</li> </ul>	<ul style="list-style-type: none"> <li>•CO2 intensity. Energy intensity, CO2 emission, Energy consumption from base year or BAU</li> <li>•Set by industrial organization</li> </ul>
Verification of emissions/ follow-up on target achievement	<ul style="list-style-type: none"> <li>•Third party verification of emissions</li> <li>•Achievement status of targets judged by the government</li> </ul>	Government committees verify probability of target achievement and relevant efforts	
Incentives for compliance	<ul style="list-style-type: none"> <li>•Improvement order.</li> <li>•Penalties in non-compliance</li> </ul>	Social commitment	

\*1 Designation and notification of controlled entities in 2010, determination of targets in 2011, implementation in 2012.

\*2 According to a questionnaire survey conducted by METI, 98% of respondents answered the plan to be a social responsibility and 78% acknowledged the Plan were pledges made to society.

- Why did the government adopt direct regulation?
  - South Korea's institutional practice due to mutual distrust between the government and industry
  - Korea's specific industrial structure and horizontal business style
  - Urgent need for action
- However, Top-down target setting and mandatory compliance could be unrealistic for SMEs

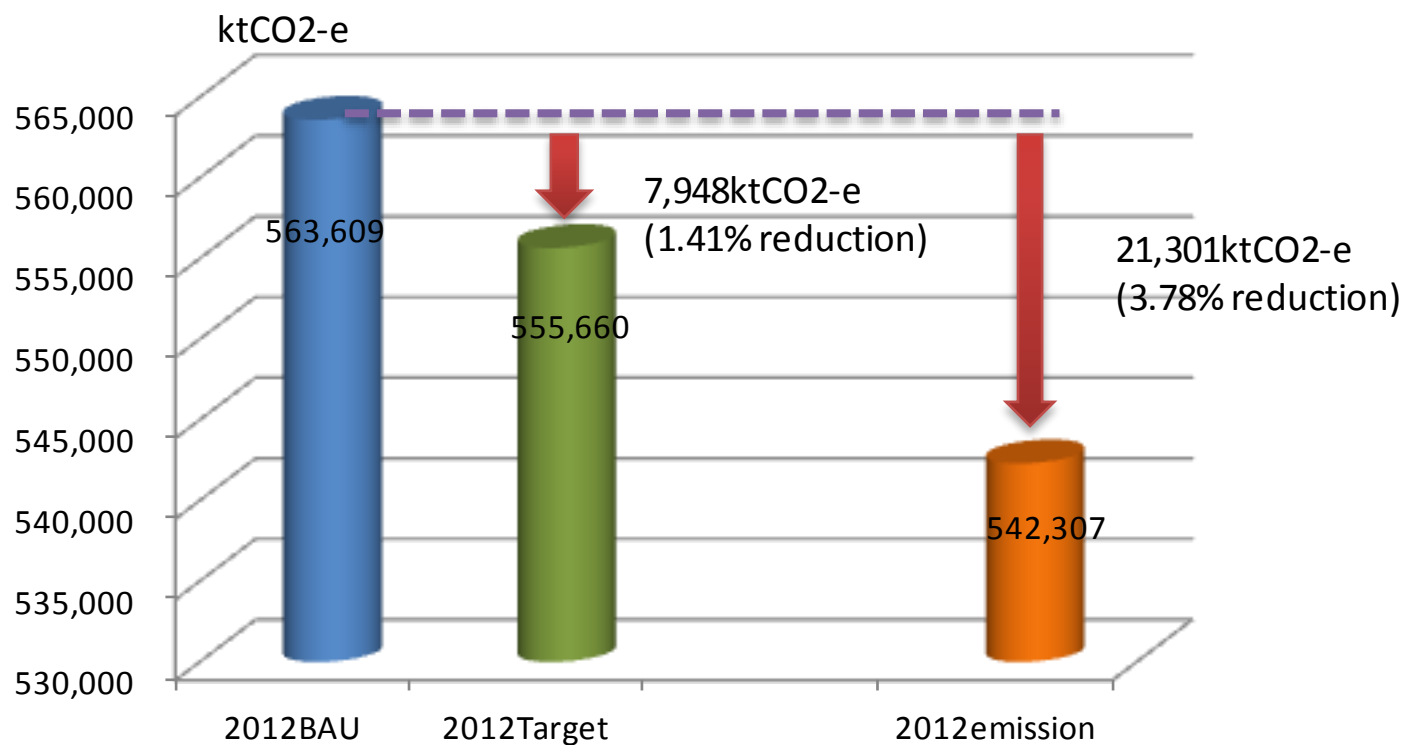


- The Keidanren announced “the Keidanren Voluntary Action Plan on the Environment “(here after action plan)in 1997.
- In 1998, the Government conducted its first follow-up on action plans. Since then, the Plan was reviewed regularly at Government-led follow-ups in relevant advisory councils.
- the number of industries with action plans increased from the initial 37 Keidanren member industries in 1997 to 114 industries in 2012
- Industries adopted targets for a diversity of performance indicators, including energy or CO2 intensity, energy consumption and CO2 emissions
- In 2009, the Keidanren determined the basic principles for the Commitment to a Low Carbon Society ( here after the commitment), then the Commitment was announced in January 2013.
- Targets of action plan were achieved by 84 industries of the 114 industries

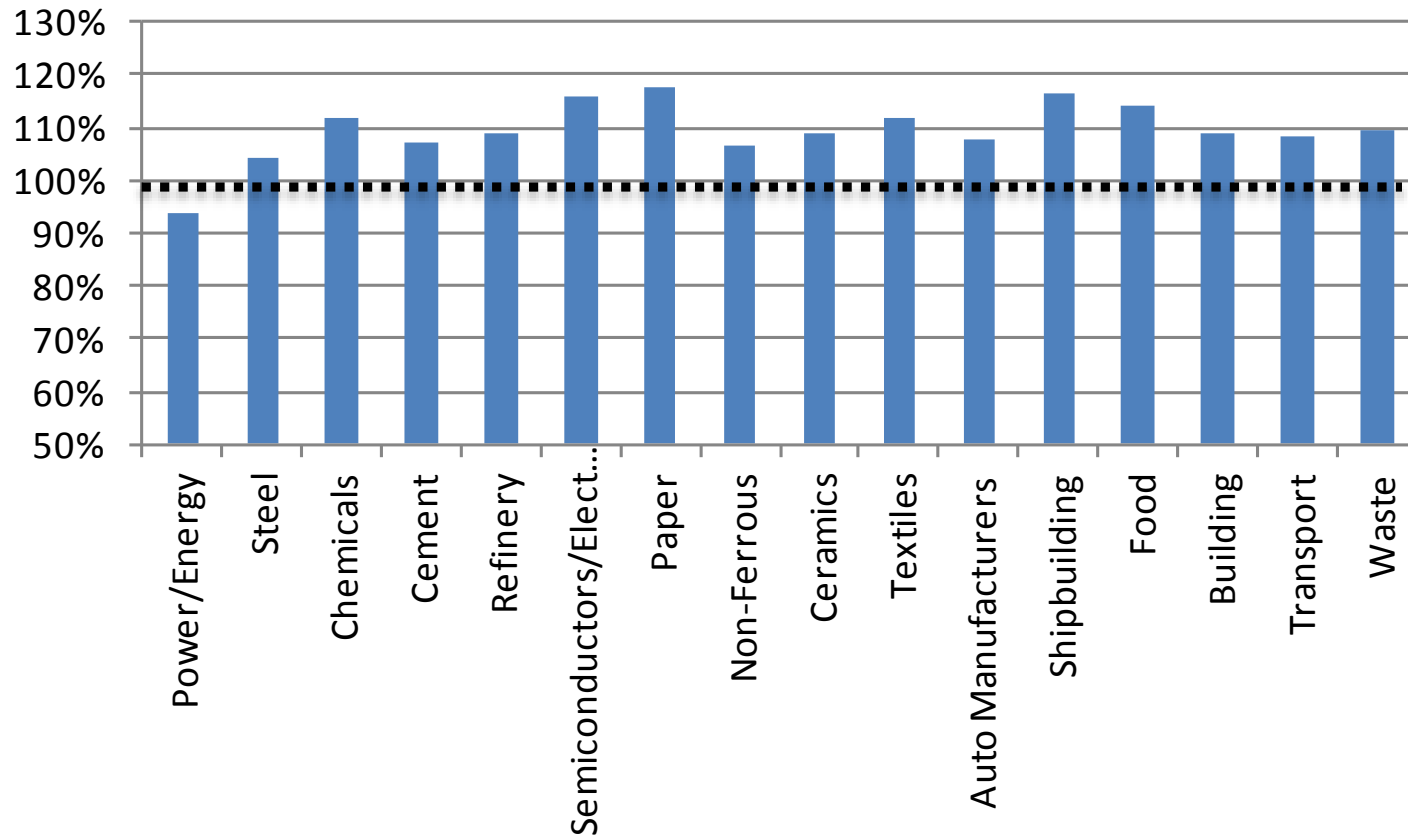


# First year achievement of GETMS(1)

- 434 entities (61% of GHG emissions in 2007)
- 3.78%(2.13Mt) reduction from 2012 BAU
- 90.3%(392 entities) achieved target and 372 entities get emission credit of 30,050ktCO<sub>2</sub>-e which can use at K-ETS



- Target achievement rate



Thank you for your attention!