





## **Experience with Emission Benchmarks - Options for International Coordination**

## Workshop:

Project workshop for the *Inclusion of Consumption in Emissions Trading Project* 

**Date**: October 1& 2, 2015

Place: Koreana hotel (State Room, 7<sup>th</sup> FL) in Seoul, Republic of Korea Contact: Karsten Neuhoff, kneuhoff@diw.de, +49 30 89789-471;

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In a world of differentiated carbon prices, carbon leakage protection will continue to play an important role in climate policy. Most approaches of carbon leakage protection in carbon intensive materials involve the use of benchmarks. However, determining the appropriate benchmark has raised questions on methodology and data availability and quality. It is the aim of this workshop to learn from the past experience across regions with setting benchmarks for carbon intensive materials sectors and to explore how international cooperation can support the design of benchmarks used different approaches for carbon leakage protection such as Inclusion of Consumption of selected carbon intensive materials in carbon pricing schemes. More specifically, the workshop will address the following issues.

- 1. **Defining benchmarks** what has been the experience with defining and developing benchmarks to date? What are the methodologies applied and data requirements/limitations? How are process related emissions treated across different jurisdictions?
- 2. **Benchmarks and innovation:** what can we achieve through well calibrated benchmarks (efficiency improvements/breakthrough technologies)? How can benchmarks be updated through time in a way that provides a credible investment framework, including incentives for long term capital intensive investments. How can innovation disincentives from benchmarks be avoided?
- **3. Impact on corporate decision making:** can benchmarks be designed in a way that encourages compliance at the benchmark level, beyond the basic economic incentives (signaling effects, comparability across competitors)?
- 4. **Opportunities for international collaboration** –.what is the scope to improve and coordinate methods for designing benchmarks, data collection and data sharing? What are the opportunities and constraints for moving towards international technology benchmarks? What can we learn from international cooperation on ISO (DIN) norms.
- 5. The use of benchmarks for leakage protection in particular in the context of inclusion of consumption what needs to be considered in the design and updating methodology and governance to achieve long term leakage protection while providing incentives for innovation and investment.

The workshop will take place in Koreana Hotel (State Room on the 7<sup>th</sup> floor) located in Seoul, Republic of Korea on the 1<sup>st</sup> and 2<sup>nd</sup> of October. An agenda for the workshop as well as a list of participants can be found on the following page.

## Agenda

Date and Time		Program	
	09:00-09:20	Registration & Welcome coffee	
Thursday, 1. Oct.	09:20-09:25	Opening Remark  by Sung Yong Gong (Host/Chair of the workshop & senior research fellow, KEI)	
	09:25-09:30	Welcoming Address by Byung Kook Lee (Vice-President, KEI)	
	09:30-09:40	Congratulatory Speech  by Il-Young Oh (Director, Ministry of Environment)	
	09:40-10:00	Introduction to the Workshop  The role of benchmarks in different leakage protection mechanisms, with particular focus on new approach on the Inclusion of Consumption and Presentation of international comparison of benchmarks for different materials  by Karsten Neuhoff (Co-chair & Research Director, DIW Berlin)	
	10:00-10:50	Session 1. Presentation and Discussion  US experience with ETS benchmarking (35min.)  presented by Richard Dick Morgenstern (Senior Fellow, RFF)  Discussion and Q&A (15min.)  chaired by Dongsoon Lim (Professor, Dongeu University)	
	10:50-11:40	Session 2. Presentation and Discussion  Korea's experience with ETS benchmarking (35min.)  presented by Dae-Woong Lim (Principal Partener, Eco&Partners)  Discussion and Q&A (15min.)  chaired by Dongsoon Lim	
	11:40-12:30	Session 3. Presentation and Discussion  China's experience with ETS benchmarking (35min.)  presented by Tong Qing (Associate Professor, Tsinghua University  Discussion and Q&A (15min.)  chaired by Dongsoon Lim	
	12:30-14:00	Luncheon	

Date and Time	Program	
14:00-14:50	Session 4. Presentation and Discussion  EU experience with ETS benchmarking (35min.)  presented by Maarten Neelis (Managing consultant, Ecofys)  Discussion and Q&A (15min.)  chaired by Sung Yong Gong	
14:50-15:40	Session 5. Presentation and Discussion  EU and UK experience with ETS benchmarking (35min.)  presented by Alistair Ritchie (Consulting Director/Principal, ICF International)  Discussion and Q&A (15min.)  chaired by Sung Yong Gong	
15:40-16:00	Coffee Break	
16:00-16:50	Session 6. Presentation and Discussion  EU and Germany's experience with ETS benchmarking (35min.)  presented by Felix Matthes (Research Coordinator, Öko-institute)  Discussion and Q&A (15min.)  chaired by Sung Yong Gong	
16:50-18:00	<ul> <li>Session 7. Group Discussion</li> <li>on learning from country cases and exploring implications</li> <li>How can benchmarks be designed to foster innovation?</li> <li>Options for international cooperation to improve the quality of benchmarks</li> <li>Role of benchmarks for upstream allocation and as consumption charge</li> <li>chaired by Karsten Neuhoff</li> </ul>	
18:00	Workshop Dinner	

Date and Time		Program	
Friday, 2. Oct.	09:00-09:10	Short Welcoming  by the chair (Karsten Kneuhoff)	
	09:10-10:00	<ul> <li>Session 1. Group Discussion</li> <li>on the importance of carbon intensive sectors and their specific mitigation options</li> <li>Why are carbon intensive sectors special? Why is a differentiation of sectors so important?</li> <li>What are the specificities of mitigation options in these carbon intensive sectors?</li> </ul> Opening statements by Felix Matthes and Dongsoon	
	10:00-11:00	Session 2. Group Discussion  on the leakage protection mechanisms  - Overview of different leakage protection mechanisms  Opening statements by Karsten Neuhoff and Yoon-Gih Ahn (Research Fellow, POSRI)	
	11:00-11:30	Coffee Break	
	11:30-13:00	Session 3. Group Discussion  on possibilities for Inclusion of Consumption in the Korean context  - Overview of different leakage protection mechanisms  Opening statements by Vera Zipperer (PhD. candidate, DIW Berlin)  and Yong Gun Kim (Senior Research Fellow, KEI)	
	13:00	Concluding Remarks  by the chairs (Sung Yong Gong & Karsten Neuhoff)	
	13:15	Luncheon	

## **Participants**

Name	Affiliation	Position
Sung Yong Gong	Korea Environment Institute (KEI)	Senior Research Fellow
Byoung Kook Lee	KEI	Vice President
Young Gun Kim	KEI	Senior Research Fellow
Leejin Kim	KEI	Researcher
Kilsoo Ahn	KEI	Researcher
Karsten Neuhoff	DIW Berlin	Research Director
Vera Zipperer	DIW Berlin	Researcher
Felix Christian Matthes	Öko-Institute	Research Coordinator
Maarten Neelis	Ecofys	Managing consultatant
Tong Qing	Tsinghua University	Associate Professor
Dick Morgenstern	Resources For the Future	Senior Fellow
Alistair Ritchie	ICF International	Consulting Director
Dae-Woong Lim	Eco&Partners	Principle Partner
Dong-Hyeok Kwon	Eco&Partners	Director
Il-Young Oh	Ministry of Environment of Korea	Director
Je-Won Lee	Korea Enviornment Coporation	Team Manager
Hyeon-Gi Shin	Korea Enviornment Coporation	Assistant Manager
Jong-Hwan Ko	Pukyong National University	Professor
Junwon Hyon	Korea Legislation Research Institute	Research Fellow
Kiju Han	Korea Institute for Industrial Economics and Trade	Senior Research Fellow
Yong-sung Cho	Korea University	Professor
Dongsoon Lim	Dongeu University	Professor
Yoon-Gih Ahn	POSCO Research Insitute	Research Fellow
Hyungna Oh	Kyung Hee Univeristy	Associate Professor
Moon Hyeon Kim	Daegu University	Professor