WORKSHOP

ETS Market Stability Reserve

Brussels, 05 November 2014

MEETING DOCUMENT
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Workshop on the ETS Market Stability Reserve

Wednesday, 5 November 2014 - 16.30 - 18.30
European Parliament (Brussels), József Antall (4Q2)

The event is open to the public and will be web-streamed: http://www.europarl.europa.eu/ep-live/en/schedule

DRAFT AGENDA

Part 1  Setting the scene
Chairled by Ivo Belet, MEP, Rapporteur

16.30-16.35  Introduction
Ivo Belet, MEP

16.35-16.42  The Commission proposal on the ETS market stability reserve (MSR)
Jos Delbeke, Director General DG Climate Action

16.43-16.50  Setting the context for the discussion
Hauke Hermann, Senior Researcher at Öko-Institut

Part 2  Impacts of the MSR on the functioning of the ETS?
Chairled by Matthias Groote, MEP, S&D Shadow

16.51-16.56  Introduction
Matthias Groote, MEP

16.56-17.03  Impact of the MSR on the carbon price and the surplus
Marcus Ferdinand, EU Carbon Analysis at Thomson Reuters

17.04-17.11  Impact of the MSR on the behaviour of market participants
Luca Taschini, Grantham Research Institute, London School of Economics

17.12-17.19  Key insights from the MSR modelling
Andrei Marcu, Head CEPS Carbon Market Forum

17.20-17.34  Question & Answers

Part 3  Stakeholder discussion on the MSR
Chairled by Ian Duncan, MEP, ECR Shadow

17.35-17.40  Introduction
Ian Duncan, MEP

17.40-18.10  Stakeholder Discussion
JasonAnderson, Head of EU Climate & Energy Policy at WWF
Jesse Scott, Head of Unit Environment & Sustainable Development, Eurelectric
Peter Botschek, Director Energy, Health, Safety & Environment CEFIC
Dirk Forrister, President & CEO IETA

18.10-18.25  Question & Answers

18.25-18.30  Closing remarks
Ivo Belet, MEP, Rapporteur
SHORT BIOGRAPHIES OF EXPERTS

Hauke Hermann

Hauke Hermann is a Senior Researcher at Öko-Institute and leads different projects in the field of emissions trading, electricity market design and progress towards emission reduction targets. His key competence is quantitative analysis. During his work he has gained an in-depth knowledge of the power sector and the energy-intensive industry. He joined Öko-Institut in 2009. Prior to this he was working for Ecologic Institute, Berlin. At the latter, he was involved in research projects on the improvement and review of the European Union Emissions Trading Scheme (EU ETS) for the European Commission and the German Environmental Ministry. Hauke Hermann holds a Master degree in Environmental and Resource Management from the Technical University in Cottbus, Germany. He also studied at the Bosporus University in Istanbul.

Marcus Ferdinand

Marcus Ferdinand heads the 'Carbon Market Trader EU' team at Thomson Reuters Point Carbon an independent provider of analysis and forecasting for the energy and environmental markets. He has followed European and global carbon politics closely since 2009, providing regular policy and market analysis to governments and participants in regional and global carbon markets. He is a much used speaker at market events and he has also given presentations to advice the European Commission as well as other EU institutions and governments. Previously he worked with E.ON’s headquarter as well as E.ON’s Energy Trading business. Marcus studied Energy and Environmental Management in Flensburg (Germany) and Lima (Perú) and holds a Diploma as industrial engineer.

Luca Taschini

Luca is an economist, working at the intersection of environmental economics, energy markets, and industrial organisation. His current research investigates how market-based environmental regulations –and emissions trading schemes in particular – are working in theory and in practice. More specifically, he is studying the functioning of price containment mechanisms, participation restrictions, the linkage of markets and the investigation of policy controls able to promote technology adoption. Luca is Chair of the Dahrendorf Economic Working Group, looking at economics and climate change and he is leading the FP7 Entracte project on the EU ETS reform. He is also a visiting scholar at the Joint Program on the Science and Policy of Global Change (MIT) and at the Research Center for Sustainability Science (Ritsumeikan University – Japan).

Andrei Marcu

Andrei Marcu is currently Senior Advisor and Head of the CEPS Carbon Market Forum at the Centre for European Policy Studies. Mr. Marcu has been one of the corporate sector pioneers in the area of climate change, greenhouse gas (GHG) markets and related areas on sustainable development. Since 1993, Mr. Marcu has been actively involved in many areas of climate change related initiatives, including as Chief Executive Officer of BlueNext, the environmental exchange, based in Paris. Mr. Marcu joined Mercuria Energy in September 2009 in the role as Head of Regulatory Affairs, Environment and Climate Change. Mr. Marcu was the Founder and President and CEO of International Emissions Trading Association (IETA, a world-class business association with offices in Geneva, Brussels, Washington and Ottawa. IETA is dedicated to the creation of an efficient and environmentally robust market for greenhouse gases to address the issue of global warming and climate change. He is currently a Board Member of IETA.
**Jason Anderson**

Jason Anderson is Head of EU Climate Change and Energy Policy at the WWF European Policy Office, managing a team in Brussels and leading European policy among a network of 15 offices. Previously he was a policy officer at Climate Action Network Europe in Brussels, and then the head of the climate programme at the Institute for European Environmental Policy. He was a lead author of the IPCC special reports on ozone and climate, and on CCS. He is a contributing author to the reference text Environmental Policy in the EU, and has contributed to five editions of the Manual of European Environmental Policy.

**Peter Botschek**

Peter Botschek has served since 2006 as director of energy & health, safety and environment with Cefic – the European Chemical Industry Council. Before joining Brussels-based Cefic in 2001, Botschek was seconded from HYDRO Agri, today known as YARA, to the European Fertilizer Manufacturers Association (EFMA) in Brussels, as an issue manager for agriculture and environment. Before then, he was part of the application consultancy department Thomasdünger GmbH in Germany after managing fertilizer application experiments at the company’s research & development station. Botschek is a member of EU and international bodies such as Business Europe, the European Alliance of Energy-Intensive Industries, the European Commission Stakeholder Meetings on Climate Policy, the IEA energy and greenhouse gas efficiency initiative, Observer Focal Point with UN Climate Change Convention (UNFCCC). He received his doctorate in agriculture in Bonn, Germany, specialising in plant nutrition and environment issues.

**Dirk Forrister**

Dirk Forrister is President and CEO of the International Emissions Trading Association (IETA). Previously, he was Managing Director at Natsource LLC, the manager of one of the world’s largest carbon funds. Earlier in his career, Mr. Forrister served as Chairman of the White House Climate Change Task Force in the Clinton Administration and Assistant U.S. Secretary of Energy for Congressional, Public and Intergovernmental Affairs. Previously, he was legislative counsel to Congressman Jim Cooper of Tennessee. He was also Energy Program Manager at Environmental Defense Fund.

**Jesse Scott**

Jesse Scott is Head of Environment at EURELECTRIC since January 2012. Previously Jesse Scott has held positions at Demos Europe as the Director for Energy (between May and December 2011), E3G as the Head of the EU Office (between 2008 and 2011) and at White and Case LLP as an Associate (between 2007 and 2008). Jesse Scott has also attained a BA Hons and MPhil from Cambridge University.
Workshop on the ETS Market Stability Reserve: Setting the scene for the discussion

Hauke Hermann (Öko-Institut)  European Parliament
Brussels, 05/11/2014

The surplus at the end of 2013

Sources: EUTL, EEA data viewer, EEA (2014) Trends and Projections in Europe
**Perspective of the surplus until 2020**

![Graph showing the perspective of the surplus until 2020.](image)

Sources: EUTL; EEA: data viewer; EEA (2014): Trends and Projections in Europe; Öko-Institut calculations

**Functioning of the MSR (1)**

![Graph showing the functioning of the MSR (1).](image)

Sources: COM (2014); EUTL; EEA: data viewer; EEA (2014): Trends and Projections in Europe; Öko-Institut calculations
Functioning of the MSR (4)

MSR absorbs the equivalent of 12% of allowances in circulation from auctions each year.

Upper threshold

Lower threshold

Functioning of the MSR (3)

MSR absorbs the equivalent of 12% of allowances in circulation from auctions each year.

Upper threshold

Lower threshold
### MSR Proposals: Earlier Start Date?

- **Cumulated Surplus**: Earliest start date? Reduces cumulative surplus faster.
- **MSR absorbs the equivalent of 12% of allowances in circulation from auctions each year**
- **Upper threshold**
- **Lower threshold**
- **MSR rejects 100 Mt each year in auctions**

*Sources: COM (2014) 2612/EN; EEA data server; EEA (2014)*
*Trends and Projections in Europe; Öko-Institut calculations*

### MSR Proposals: Re-introduction of backloaded allowances?

- **Cumulated Surplus**: Re-introduction of backloaded allowances in 2019 and 2020? Increases cumulative surplus.
- **MSR absorbs the equivalent of 12% of allowances in circulation from auctions each year**
- **Upper threshold**
- **Lower threshold**
- **MSR rejects 100 Mt each year in auctions**

*Sources: COM (2014) 2612/EN; EEA data server; EEA (2014)*
*Trends and Projections in Europe; Öko-Institut calculations*
MSR Proposals: Decreasing hedging corridor?
Upper band of HC shrinks at 2 x LRF (2,2%) p.a.

European Council Conclusions on 2030 Climate and Energy Policy Framework

Following the conclusions of the European Council, it is envisaged that the MSR will play an important role:

2.3 a well functioning, reformed Emissions Trading System (ETS) with an instrument to stabilise the market in line with the Commission proposal will be the main European instrument to achieve this target; the annual factor to reduce the cap on the maximum permitted emissions will be changed from 1.74% to 2.2% from 2021 onwards

The Council conclusions suggest that the MSR will be implemented in line with the Commission proposal, however there may still be scope for further reform.
Thank you for your attention!
The Market Stability Reserve
Impact on EU ETS market balance and prices

Marcus Ferdinand
Head of EU carbon analysis

Conclusions

- Speed of oversupply reduction mainly dependent on
  - Handling of backloaded volume
  - Start date
- Resilience against future shocks: MSR will partially mitigate effects of lower economic growth
- The MSR will incentivise more abatement via the EU ETS
- Without MSR, oversupply remains high towards 2030
Thank you very much for your attention!

Marcus Ferdinand
Head of EU carbon analysis

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Interaction between prices and abatement

- Models annual abatement resulting from annual average carbon price
- Power sector:
  - Abatement represented by fuel switching
- Industry sector and aviation:
  - Abatement sector specific
  - Abatement technologies are irreversible
  - Delayed investments
- A numerical optimization algorithm used to model the interaction between price and abatement
EC proposal

POINT CARBON

No MSR

POINT CARBON
Early implementation (2018)

Transfer of backloaded allowances to reserve

Meeting document 19
<table>
<thead>
<tr>
<th>MSR Scenarios</th>
<th>Year when surplus falls within chosen surplus band</th>
<th>Average 2014-2020 price (€/t)</th>
<th>Average 2021-2030 price (€/t)</th>
<th>Abatement triggered by EU ETS (2014-2020) (Mt)</th>
<th>Abatement triggered by EU ETS (2021-2030) (Mt)</th>
<th>Allowances in reserve in 2030 (Mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commission proposal</td>
<td>2026</td>
<td>-9</td>
<td>-23</td>
<td>116</td>
<td>1,564</td>
<td>1,357</td>
</tr>
<tr>
<td>Early Start (2018)</td>
<td>one year earlier</td>
<td>+2</td>
<td>+2</td>
<td>+41</td>
<td>+170</td>
<td>+222</td>
</tr>
<tr>
<td>Transfer of 900 Mt backloaded allowances to the MSR</td>
<td>two years earlier</td>
<td>+1</td>
<td>+4</td>
<td>+22</td>
<td>+235</td>
<td>+330</td>
</tr>
<tr>
<td>German proposal</td>
<td>four years earlier</td>
<td>+3</td>
<td>+5</td>
<td>+70</td>
<td>+399</td>
<td>+523</td>
</tr>
<tr>
<td>French proposal</td>
<td>two years earlier</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>-44</td>
<td>-359</td>
</tr>
<tr>
<td>Alternative thresholds (1,000 Mt - 600 Mt)</td>
<td>one year earlier</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>-61</td>
<td>-204</td>
</tr>
<tr>
<td>Alternative thresholds (600 Mt - 200 Mt)</td>
<td>one year later</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>+36</td>
<td>+177</td>
</tr>
<tr>
<td>Alternative size of MSR adjustments (20% take out)</td>
<td>two years earlier</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>+214</td>
<td>+170</td>
</tr>
</tbody>
</table>
The EU ETS Market Stability Reserve: A Responsiveness Mechanism

Luca Taschini

London School of Economics
Grantham Research Institute

Workshop on the EU ETS Market Stability Reserve
European Parliament - Brussels, November 5, 2014

The problem: policy design under uncertainty

- By choosing a specific instrument for implementing an intended policy (carbon tax or emission permits), planners are at least temporarily locking themselves into certain consequences.
- The current inflexible supply of permits is not responding to fundamental changes in the permits demand due to economic shocks and technology advancements.
- In particular, the economic recession (a large-scale unforeseen event) reduced the permits demand depressing prices.
What is the optimal outcome?

- Under no uncertainty and complete information, firms solve their abatement problem obtaining an optimal outcome.

Yearly abatement

<table>
<thead>
<tr>
<th>Year</th>
<th>Billion tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>0.5</td>
</tr>
<tr>
<td>2030</td>
<td>1.5</td>
</tr>
<tr>
<td>2040</td>
<td>2.5</td>
</tr>
<tr>
<td>2050</td>
<td>4</td>
</tr>
</tbody>
</table>

What is the optimal outcome?

- A large surplus in the system could be the result of early abatement in light of scarcity expected in the future.
- The cap is fixed - what matters is how emissions are distributed.
Uncertainty and incomplete information

- In reality, businesses operate under uncertainty about the economy and the future policies.

Uncertainty and large-scale unforeseen events lead to sub-optimal outcomes.
What is the role of the MSR?

- The allowance demand-supply imbalance – as measured by excessive surplus – may be the result of large-scale unforeseen events and higher perceived uncertainty.

![Yearly abatement graph]

What is the role of the MSR?

- The MSR aims at making the EU ETS responsive to shocks in the future and thereby minimise the possible deviations from the optimal pathway.

![Verified emissions (blue) and TNA (red) graph]
The role of the MSR

- The MSR reduces sub-optimality inducing earlier emission reductions - red without MSR and black with MSR.

Conclusions and policy considerations

- Uncertainty and incomplete information lead to sub-optimal outcomes and call for policy adjustments.
- The MSR mitigates the impact of unanticipated shocks.
- The MSR reduces sub-optimality inducing earlier emission reductions.
- However, MSR parameters matter:
  - a large surplus in the system could be the result of early abatement;
  - withholding and injection thresholds should be set properly (adjustable).
Thank you very much for your attention.

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Figures based on the paper Kollenberg and Taschini (2014)
Presentation by Andrei Marcu

Market Stability Reserve
Environment Committee Workshop
November 5, 2014, Brussels

Andrei Marcu
Head, CEPS Carbon Market Forum

What problem are we solving?

• EU ETS objective: promote reductions of GHG in a cost effective and economically efficient manner
• Design flaw: lack of supply side flexibility in the EU ETS
• Symptom: prices that are unlikely to represent 2050 GHG limits and affecting LT effectiveness of the EU ETS
• Loss of effectiveness of the EU ETS is a concern as it provides the case for ET
• Price not reflecting LT scarcity due to
  – Market design
  – Nature of market – young
  – A ST view of a LT problem
MSR as solution

- MSR solves the AUCTIONING part of the problem
- Current EC proposal has an impact in the long-term, but no significant immediate impact
- Parameters that influence the MSR impact
  - Start date
  - Treatment of back loaded amount
  - Bandwidth (thresholds)
  - Removal (and injection) rates
- Separately Early Start and No Back loaded reinjection don’t have a quantum impact, more marginal
- Treatment of back loaded amount seems to have more impact
- The joint approach would represent a visible change
- A number of questions that may benefit from further reflection here or outside this workshop

Question for reflection from presentations

- What is the purpose of the MSR, what does it try to solve?
- Can the MSR solve the whole problem, what is missing?
- What is the rationale for waiting, if the MSR addresses a flaw?
- What adjustments are needed and how is that adjustment addressed?
- Impact of Council conclusions on the debate?
Andrei Marcu
andrei.marcu@ceps.eu