

Welcome

European Emissions Trading Scheme (ETS): Emissions certificate trading support & Risk management



Cologne, April 2010

Given the current market growth and the capped CO₂-allowances, airlines will be short of emissions certificates

Shortage of emissions certificates

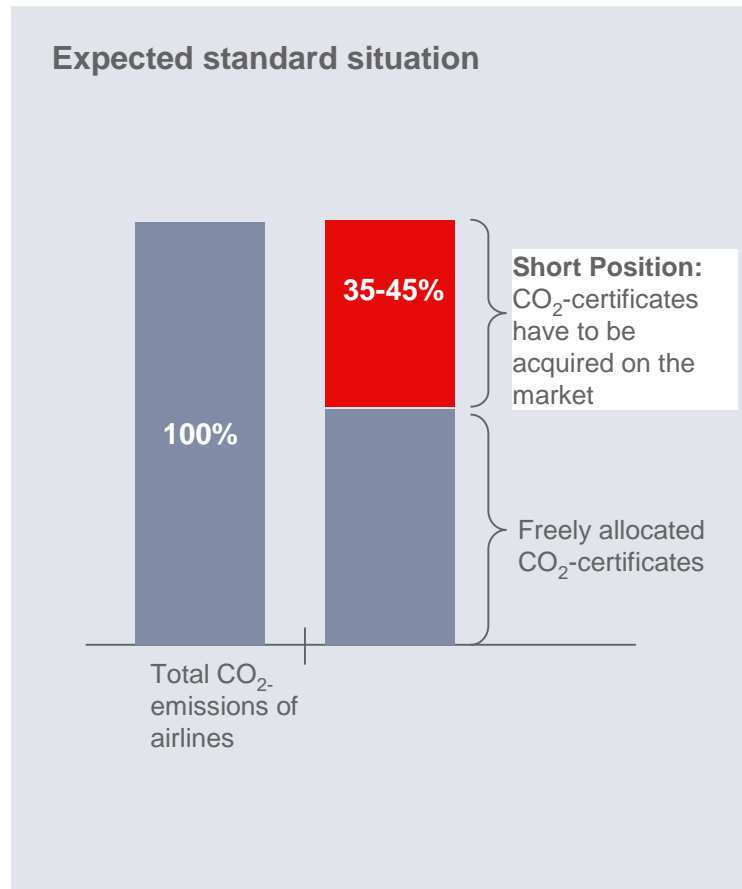
	2006 (base year)		2012 (forecast)
Total CO ₂ emissions (index)	100 pt.	↗	132 ¹ pt.
Capped CO ₂ allowances (index)	97 pt.	=	97 pt.
Free CO ₂ allowances allocated to existing carriers (index)	79.54 pt. (82%)	=	79.54 pt. (60%)
CO ₂ allowances to be purchased (index)	20.46 pt. (18%)	↗	52.46 pt. (40%)

- Provided no reduction in CO₂ will be achieved by all airlines, the purchase rate in the first year of CO₂ emission trading will be at 40%
- Immediate action is needed to reduce CO₂ emissions within Europe drastically to avoid high payments
- The development of an adequate purchasing strategy is necessary

Note 1: Based on IATA forecast 2008-2012 to/from and within EU; pax growth of ~4.72%

Widely expected short position bears significant risks for airlines

Action needs for airlines



Related risks

- Not obtaining the required certificates
- Paying too much for the required emissions certificates
- Buying too many or too little emissions certificates
- The coverage of CO₂-emissions is too expensive for the airline

Action needs

- Build up knowledge about different types of certificates, sources and available financial instruments
- Keep regular track of your CO₂-emissions forecast
- Reduce your CO₂-emissions significantly within Europe
- Integrate CO₂-emissions hedging into a company wide risk management strategy

Different types of certificates have one common feature: One certificate equals one tonne of CO₂

Types of certificates

Flexible Kyoto-Mechanisms

- International Emissions Trading (IET)
- Clean Development Mechanism (CDM)
- Joint Implementation Mechanism (JI)

Associated Certificates

- Assigned Amount Unit (AAU)
- Certified Emission Reduction unit (CER)
- Emission Reduction Unit (ERU)

} Use limited to
15% of required
emissions

EU Emissions Trading Scheme (ETS)

Certificates

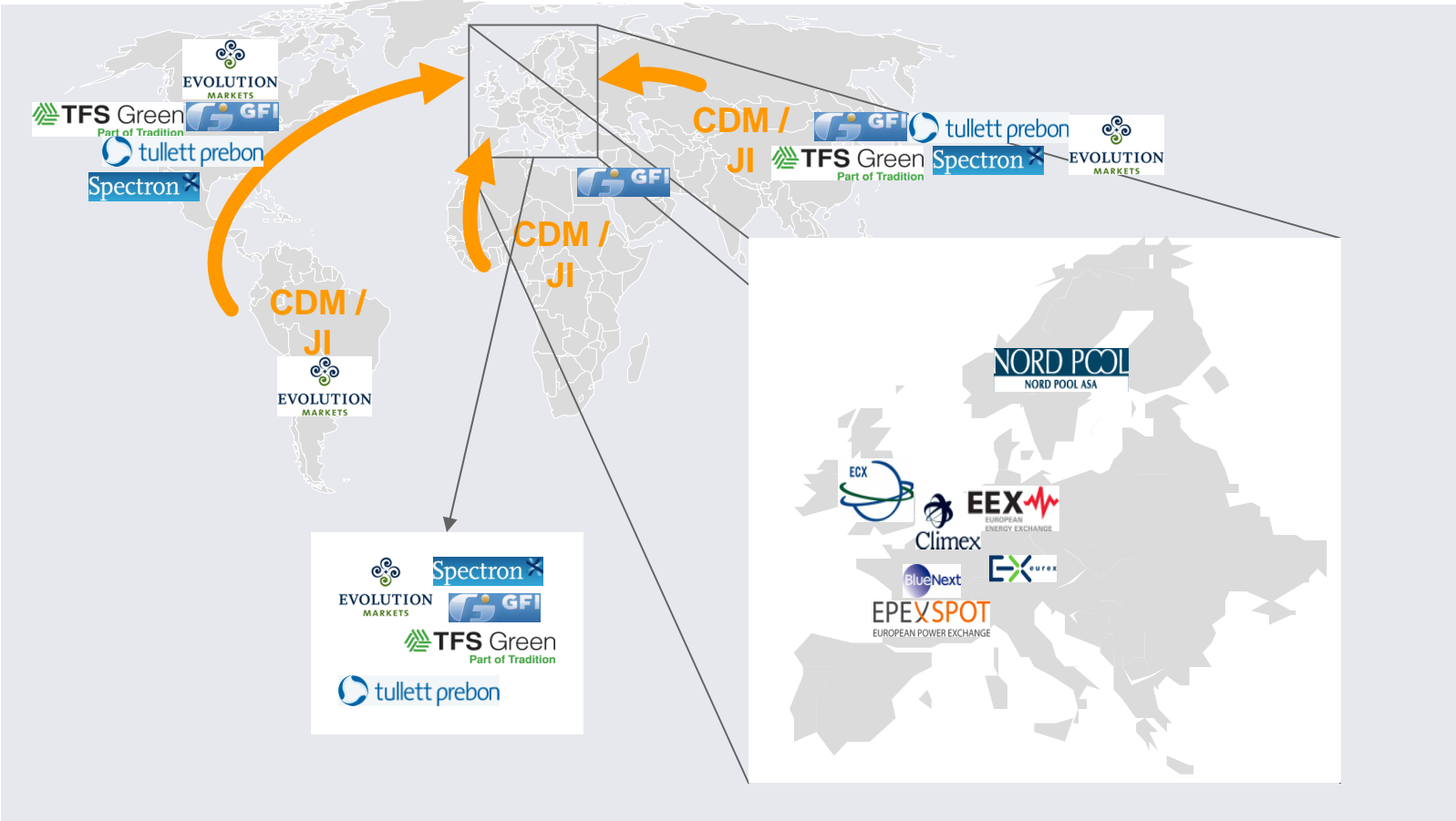
- EU Allowance (EUA)
- EU Aviation Allowance (EUAA)

Certificates not complying with EU ETS

- Verified Emissions Reduction (VER)
- Voluntary Emission Reductions

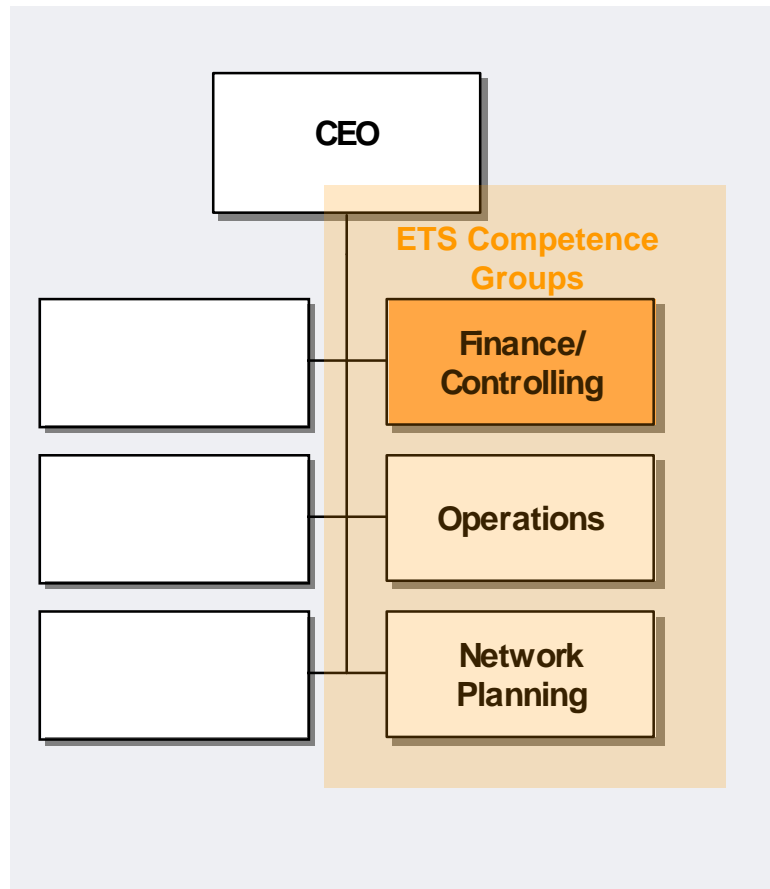
Besides the main exchanges in Europe, CO₂-certificates can be traded worldwide

Trading platforms



ETS should be considered as an inter-disciplinary issue within the organization led by the financial department

Organizational structure: Integrated CO₂-emissions management



Finance/Controlling

- Procurement of CO₂-emissions certificates
- Performance of business plan and CO₂-emissions forecast
- Regular update of CO₂-emissions forecast
- Consideration of ETS specific issues in operational and strategic decisions

Operations and Network Planning

- Submission of necessary information to forecast CO₂-emissions to the finance department
- Integration of ETS aspects into operational calculations in cooperation with the finance department

In cooperation with our partner First Climate, LCG offers support for emissions certificate trading and risk management

Lufthansa Consulting Services



Lufthansa Consulting Services

- Support in emissions certificates trading (selling and purchasing)
- Development of trading strategy for emissions allowances
- Access to the most important international markets through our partners
- Development of an tailored emissions certificate hedging strategy
- Assist in emissions allowances portfolio management
- Benefit from our waste network with EU ETS stakeholders



Contact

Thilo Schmid
Executive Vice President & Partner

Lufthansa Consulting GmbH
Von-Gablenz-Str. 2 – 6
50679 Cologne
Germany

Tel.: +49 (0) 221 826 8100
Fax: +49 (0) 221 826 8261
Mob: +49 (0) 151 589 40 504

e-mail: thilo.schmid@lhconsulting.com

www.lhconsulting.com

Marc Landgraf
Director Airline Restructuring

Lufthansa Consulting GmbH
Von-Gablenz-Str. 2-6
50679 Cologne
Germany

Tel.: +49 (0) 221 826 8130
Fax: +49 (0) 221 826 8261
Mob: +49 (0) 151 589 40 519

e-mail: marc.landgraf@lhconsulting.com

www.lhconsulting.com