

## The incidence of carbon cost pass through on various power markets across the EU ETS

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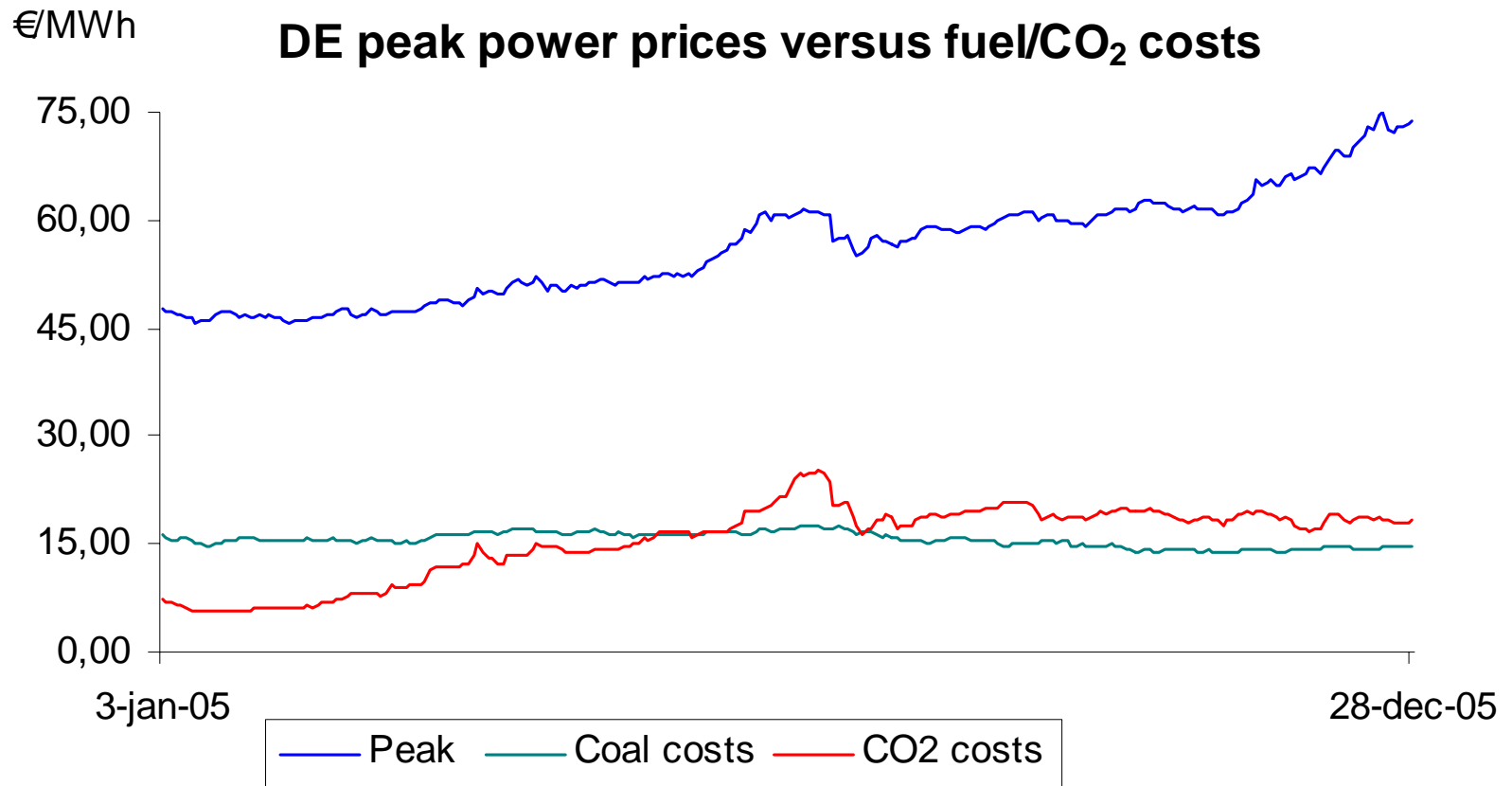
- Summary of past research
- Present work for EC/DG Environment
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  - Some concluding remarks

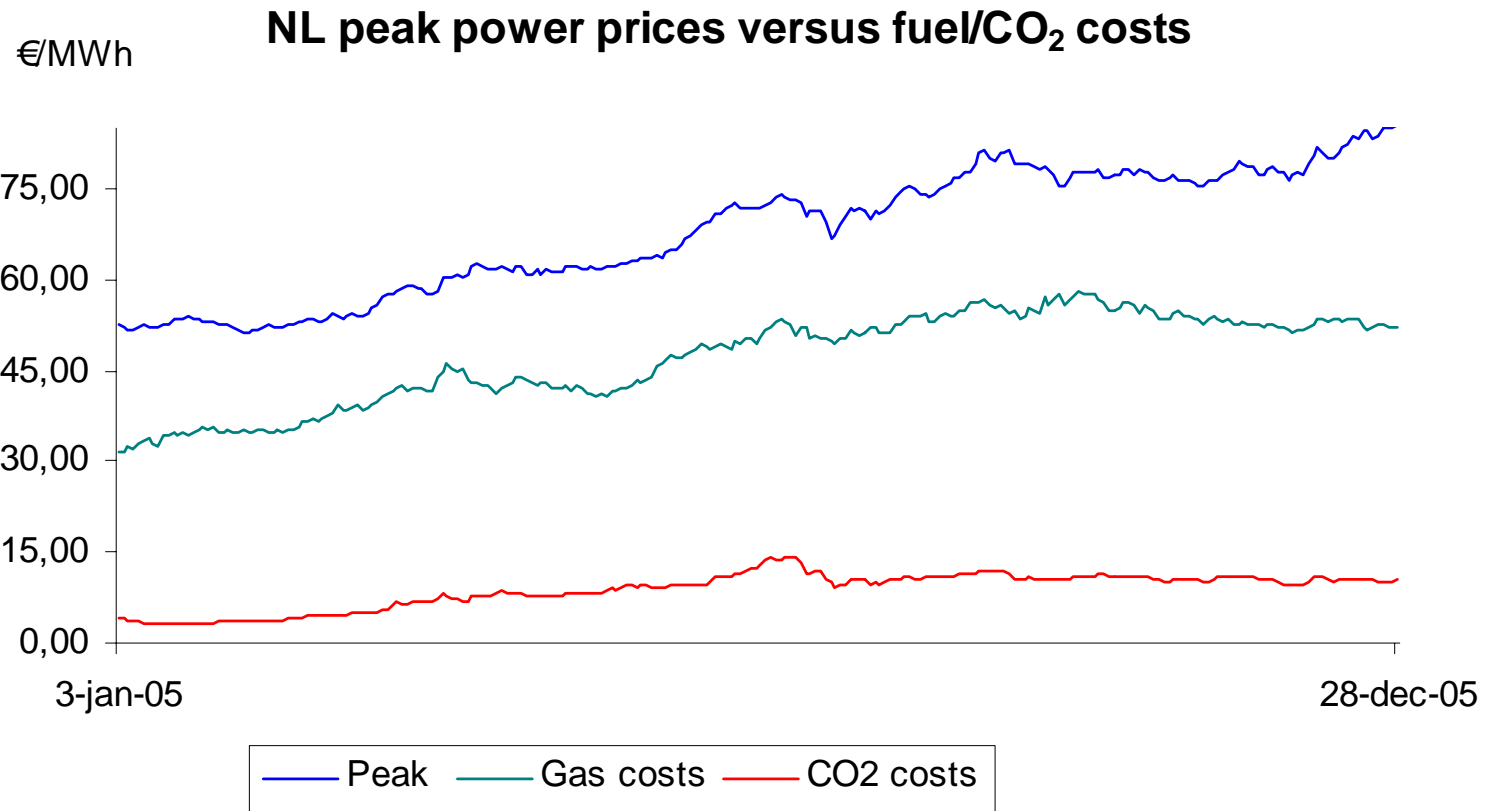
## Summary of past research (1)

- First report (September 2005)
  - Empirical research (January-July 2005):
    - 2 countries (GE, NL), 2 markets ( year ahead: peak & off peak), 3 methods:
    - 12 estimates: 40-70% pass through (3-10 €)
    - Good econometric tests
  - Model research (COMPETES):
    - 4 countries (BE, FR, GE, NL)
    - Pass through: 60-80% (1-19 €/MWh)

## Summary of past research (2)

- Second, update report (March 2006; Climate Policy June 2006):
  - Empirical analyses:
    - Same countries/markets; several methods
    - Pass through: 60-120%
    - Less good econometric tests





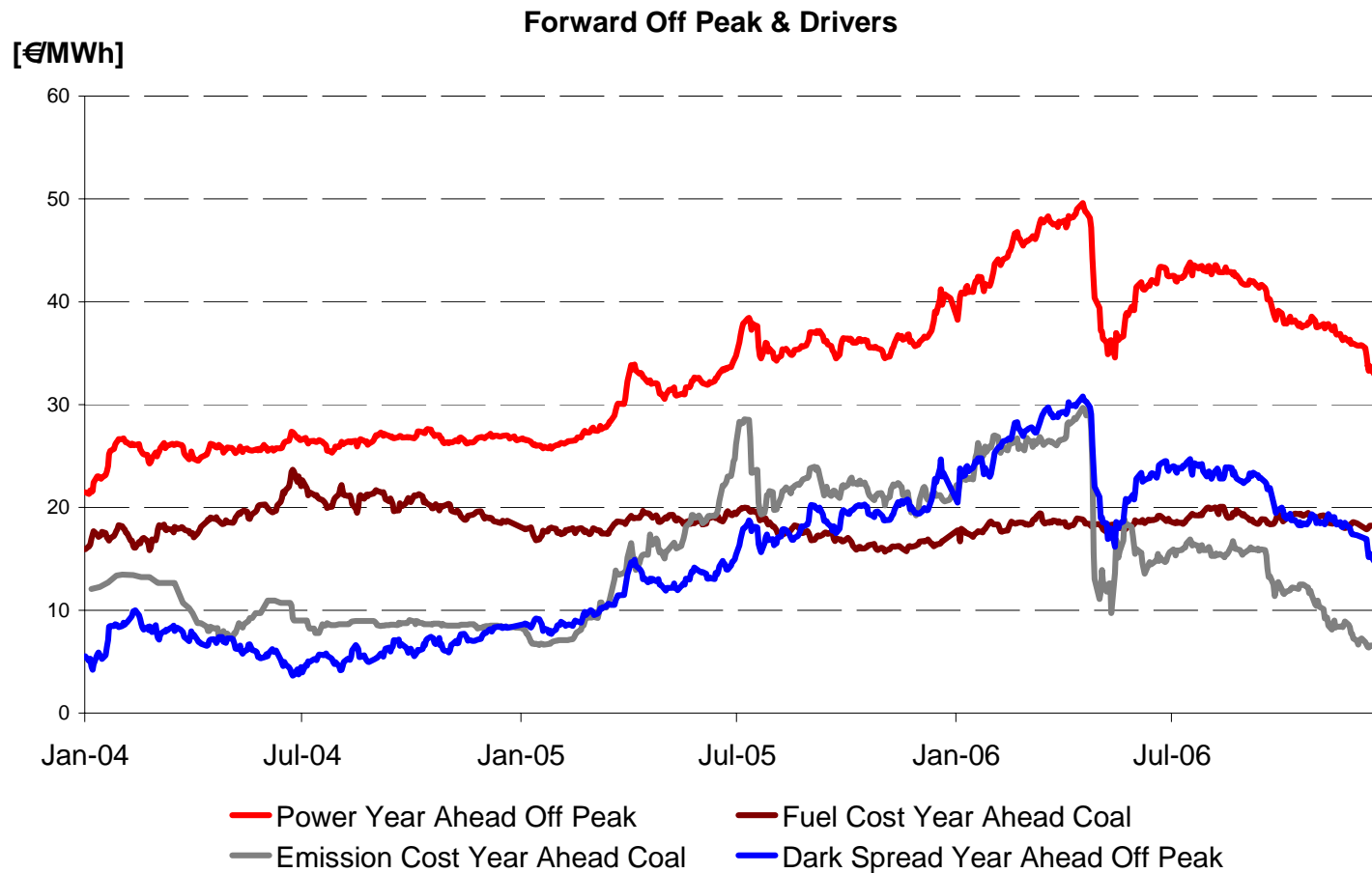
## Current work for EC/DG Environment

- Project: Impact of the EU ETS on electricity prices
- Aim: impact analyses & policy recommendations
- Scope:
  - Review of the literature
  - Empirical & statistical analyses
    - 9 countries: FR, GE, IT, PO, SP, SW, CZ, NL & UK
    - 4 power markets: spot/forward & peak/off-peak
    - Both wholesale & retail markets
    - 2 years: 2005 and 2006
  - Model analyses (COMPETES extended)
  - Policy evaluation analyses
- Duration: 2007

## A few preliminary results

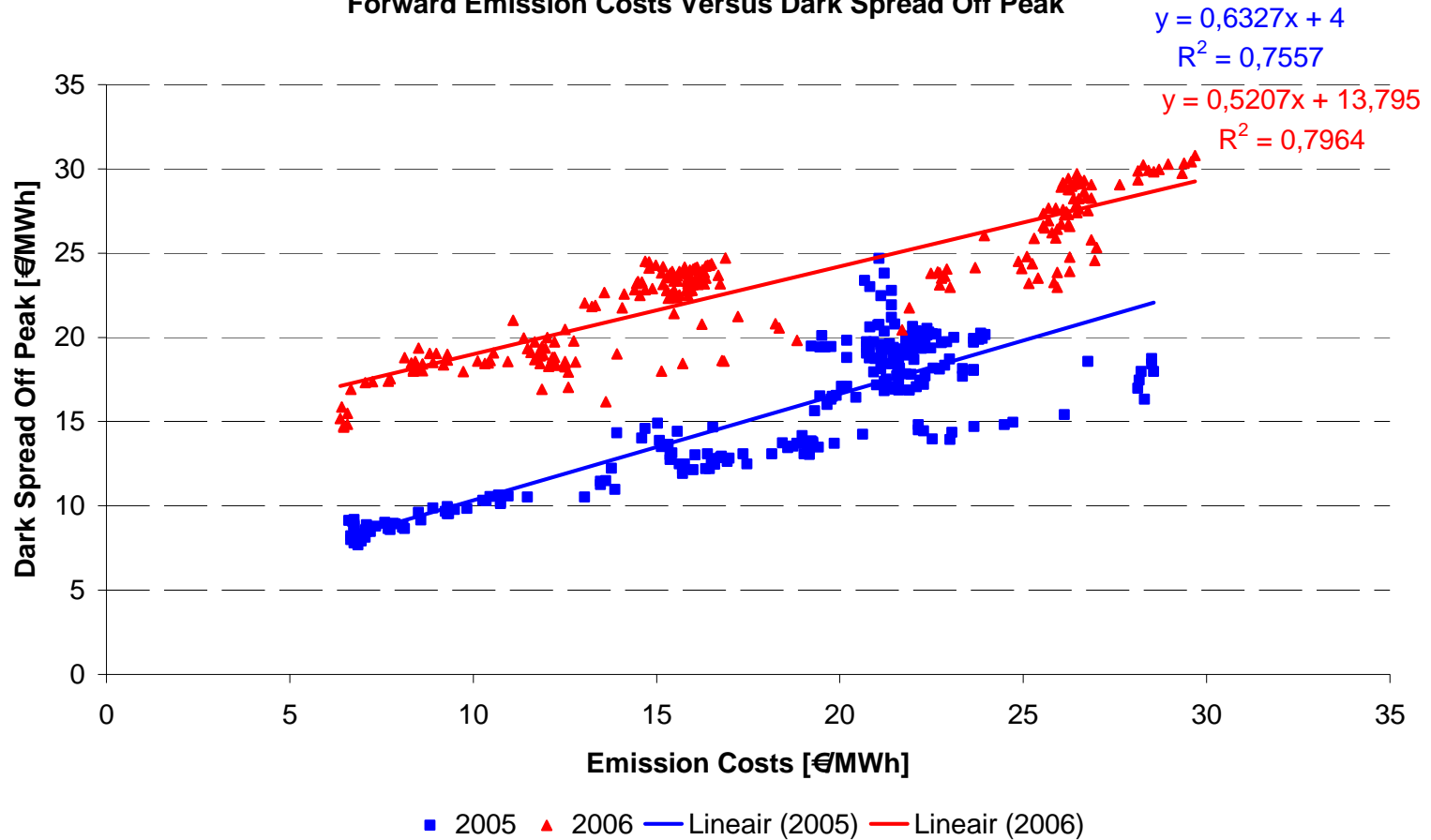
- Increase in forward power prices/spreads (2005-2006)
- Increasing trends in spot markets, but more volatility
- Main price drivers on 2005 forward markets:
  - gas-fired: fuel & carbon costs
  - Coal-fired: carbon costs
- Forward markets (2006), spot markets (2005-2006):
  - Links between carbon costs and power price/spread is less clear
- Best statistical results:
  - 2005; forward; off-peak; coal-fired; liberalised markets (GE, NL, UK); during specific periods of 200(-2006)
- Worst statistical results:
  - 2006; spot; peak, gas-fired

# The Netherlands: trends on forward off-peak markets

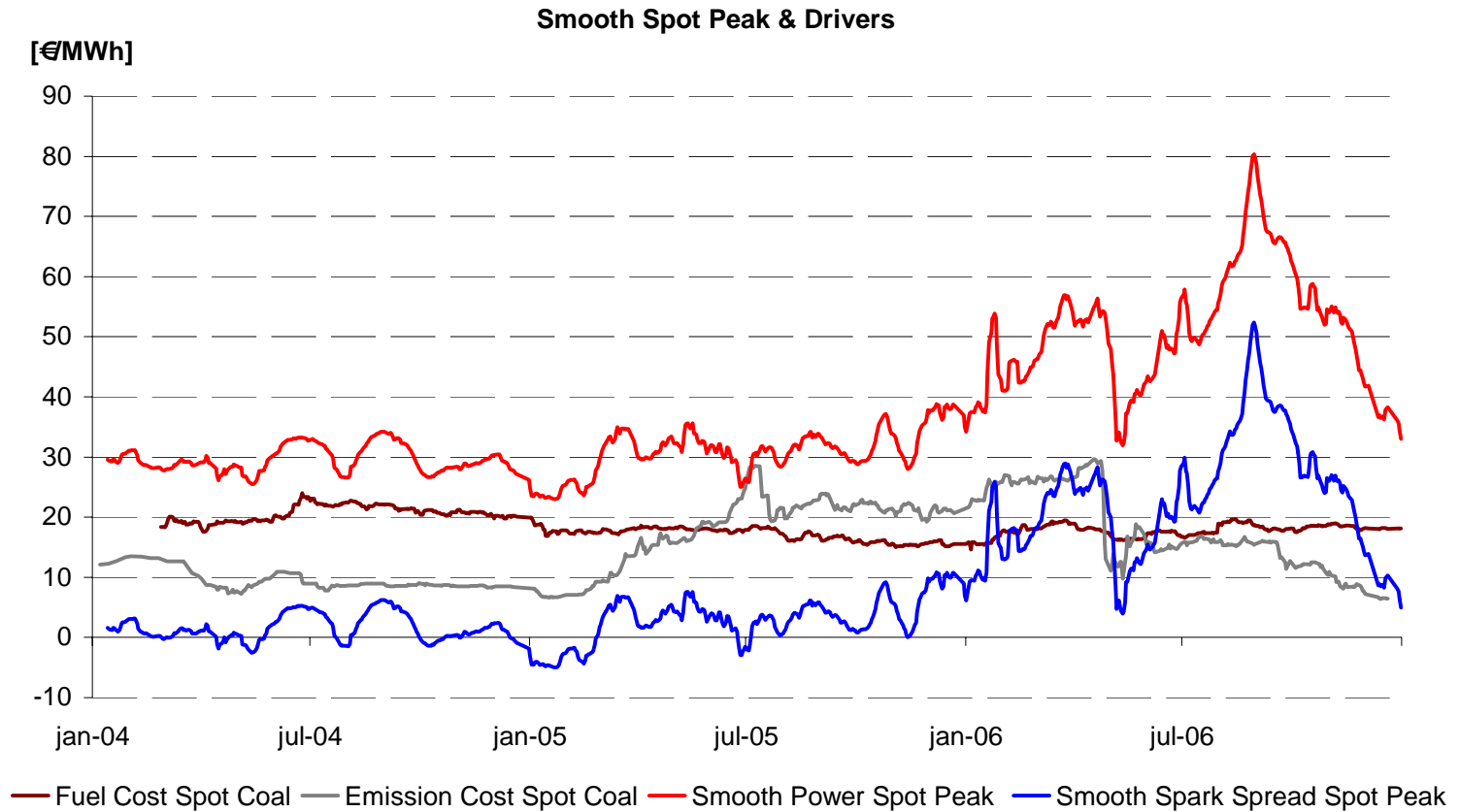


# The Netherlands: scatter plots of carbon costs versus spreads on forward off-peak markets

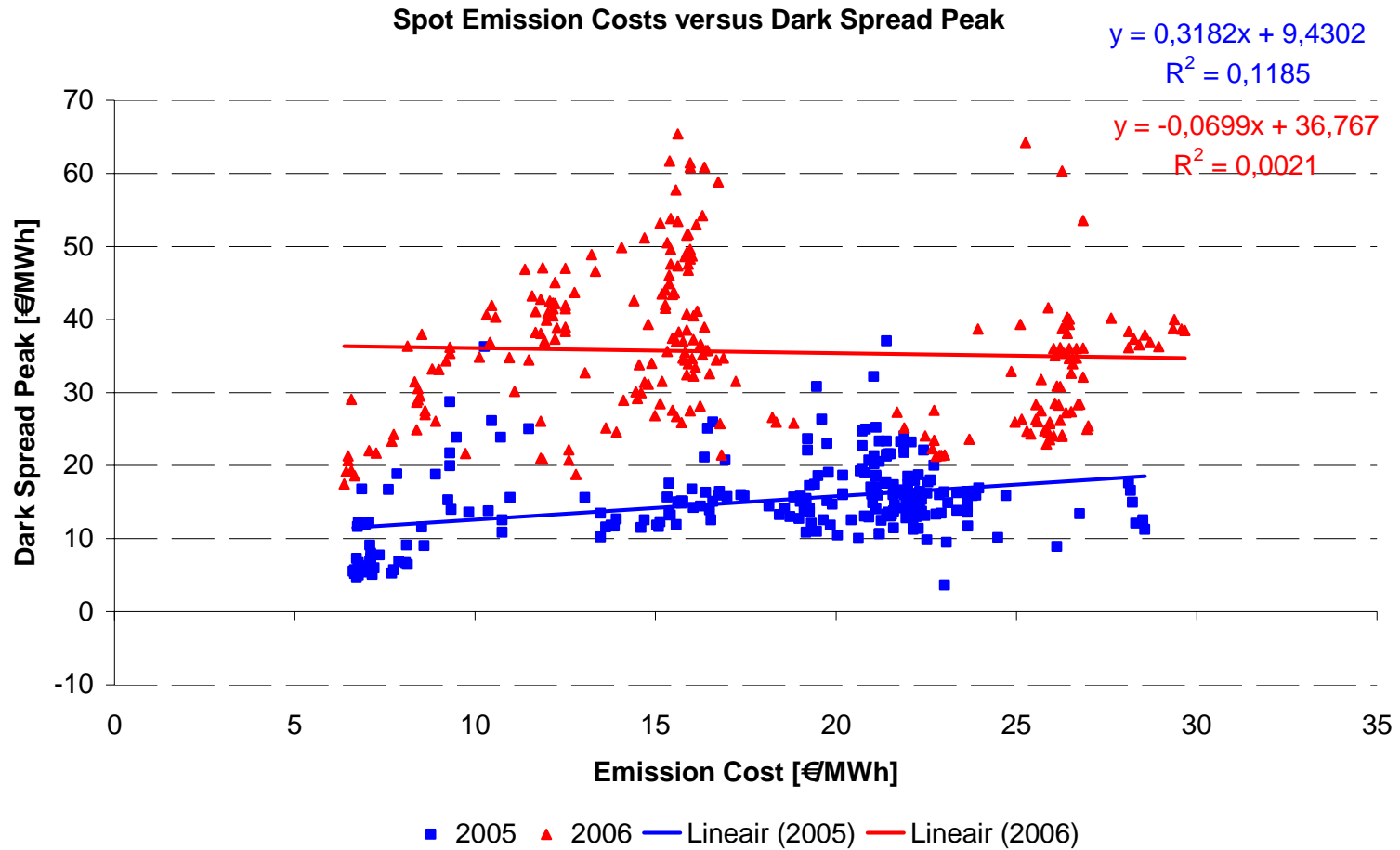
Forward Emission Costs Versus Dark Spread Off Peak



## Sweden: trends on spot peak markets



# Sweden: scatter plot of carbon costs versus power spreads on spot peak market



## Research agenda second phase

- Dig deeper into power markets
- Update/differentiate data/methodology/assumptions used
- Other parts of the research agenda

## Some concluding remarks

- Is carbon pass through a problem?
  - No, it is a rational (intended) effect
  - Yes, although overstated generally by energy-intensive industries, some sectors do suffer
- Are windfall profits a problem?
  - Several qualifications can be made
  - Two categories of windfall profits can be distinguished
  - Yes, to some extent windfall profits are a problem
- Are there feasible policies to address these issues?
  - No silver bullet, but sensible combination of measures can address most of the issues