Emission Trading

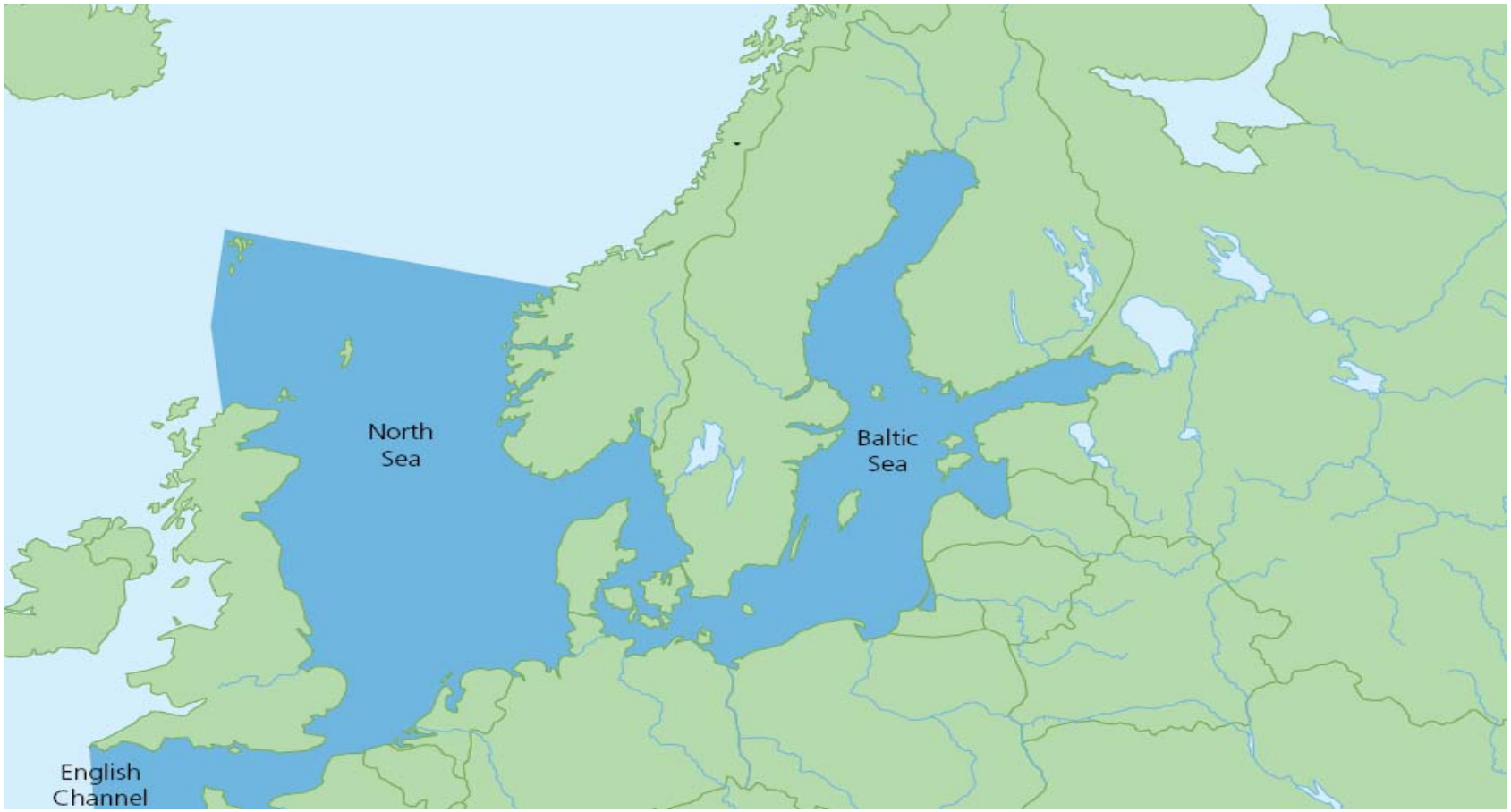
An instrument to
effectively reduce NOx and SO2 emissions
from ships in the Baltic Sea

Baltic Sea and shipping

- Baltic Sea is a sensitive area (PSSA)
- Surplus of NOx and SO_2 emissions in the ecosystem
- Shipping is an important contributor (15-50 %)
- MARPOL Annex VI amendments; A brave step but not panacea.

  (Although better than nothing !)

Marpol Annex VI amendments in SECA/ECA



Marpol Annex VI 0,1 % SOx ”SECA”

- Takes long time; 1015 ”BS is dying now”
- Not a cost- effective solution

  (BS =1,2 b € annually)
- Creates serious environment problems
  - Model ”back-shift” from SSS to road
- Marpol Annex VI only mandatory for those who have ratified the annex.
- Distort fair competition for industries in EU

Marpol Annex VI; 80 % r.NOx ”ECA”

- Takes long time; 2016
- Not a cost-effective solution (X b € annually)
- Vill not solve the problem
  - Does not hit ships built before 2016
- Marpol Annex IV only mandatory for those who have ratified the annex.
- Distort fair competition between industries in the EU ? (Depends on ECA definition)

The way forward (1)

- Emission Trading for SO2, NOx and PM (?).

  Superior to “Command and control”

  - Fast reduction (PM next challenge)
  - Always much more cost-effective
  - Technology-driving
  - Maintain shipping as an inexpensive mode of transport in Europe.
  - A market-based mechanism in tune with EU strategic thinking for SO2 and NOx

Massiv support from studies

- Two NERA Studies (EC)
- PriceWaterhouseCoopers (SSA)
- Demo Project (www.demoproject.org)
- Swedish Maritime Administration
- Succesful experience for existing Programmes in USA
- (Ongoing studies in EC, result 2010.)

EU Commission in progress (Quotes from DG Env statement 18 Aug 2008)

'' The issue of emissions trading for SO2 and Nox is very relevant to future developments in EU legislation."

"It is much more promising and efficient to consider an open system of trading, where ships trade with land-based
sources''

"Including of shipping in research and prepatory work of the commission for policy development for open trading scheme with landbased sourcesis extremely useful"

''The project to assess legal and practical aspects of a trading system for land-based installations already foreseen has now extended to include trading from international shipping''

EU Commission in progress (Quotes from DG Env 18 Aug 2008)

” We are convinced that the Baltic Sea in particular will be one of the main arias most benefitting from any future Community legislative action aimed at further cutting SO2 and NOx emissions in the future”

’’ The Commission intends to present legislative action on emission trading of SO2 and NOx in mid 2010 ”

The way forward (2)

1. 2013: EU-funded NOx/SO2 Pilot project for shipping in Baltic Sea (Parallel with CO2/ETS)
2. 2015: Market financed EU- Emission Trading Scheme for land-based and shipping sources
   - Level playing field for industry in EU
   - Lowest possible cost to reduce SO2 and NOx
   - Flexible; ”visiting vessel” can by allowances
   - Same or lower emission level= IMO- acceptabel option.

Example; Norwegian LNG- Ferry (Norway has a “ET-system” on NOx)

Conclusion

- An open EU Emission Trading scheme with NOx and SO2 can replace MARPOL Annex VI amendments in SECA/ECA before 2015;
  - Lower cost per reduced ton SO2,NOx
  - ET instead of ”control and command” of every ship means better control and less administration.
  - None or less model back-shift to road
  - None distorsion in market.