



Preparing for EU Emissions Trading

David Hone
Group Climate Change Adviser
Shell International Ltd.



“Practical solutions for business”

Preparing for the EU Emissions Trading System

- Understanding and influencing the rules
- Participating in the National Allocation Plan
- Developing trading capacity
- Educating the businesses
- Building business processes
- Developing a supporting IT system
- Measurement, verification and validation
- Understanding our allowance position
- Developing abatement curves
- Preparing energy audits
- Proposing projects vs. alternatives in capital constrained refineries
- Starting to trade



Shell Advocacy on Trading

Group position on the EU-ETS:

- Supported the proposal from the commission;
- Sought mandatory industry participation across the EU;
- Sought absolute caps;
- Proposed “up-front” allowance distribution out to 2012;
- Opposed auctioning of allowances;
- Believes the proposal will allow industry to reduce emissions at lowest cost.



The Group published its position as an “advertorial” in “The Parliament Magazine” throughout June 2002 (3 issues).

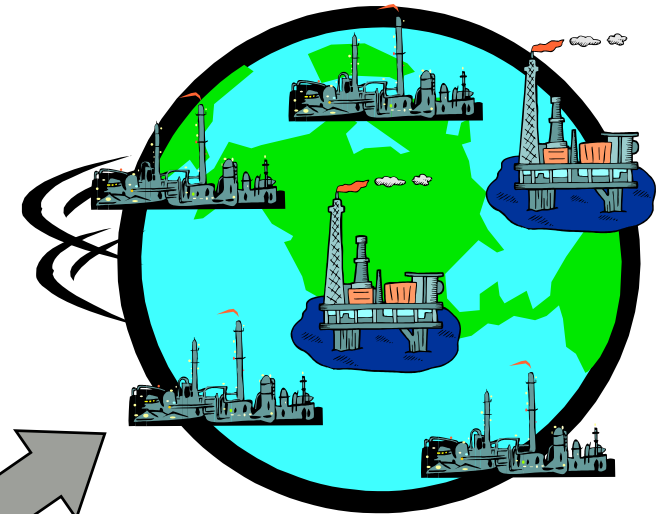
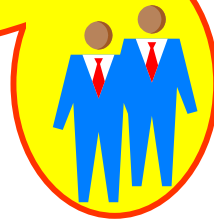


Establishing Trading Capacity



Shell Trading

Existing global trading structure



Global reach and responsibility for emissions trading

Environmental Products Team

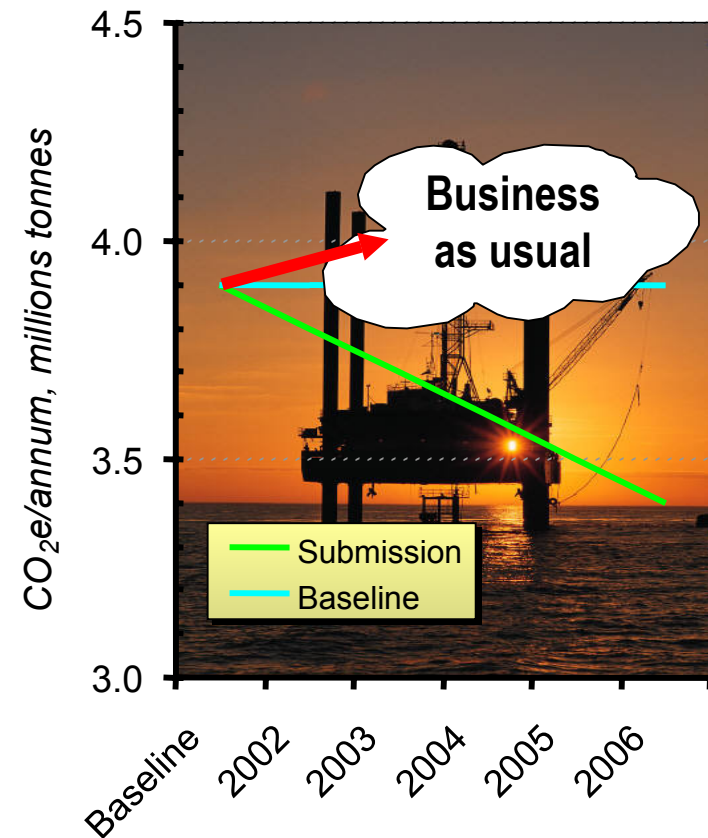
- Experienced emissions traders
- Environmental Scientists



Shell UK Entry into the UK ETS

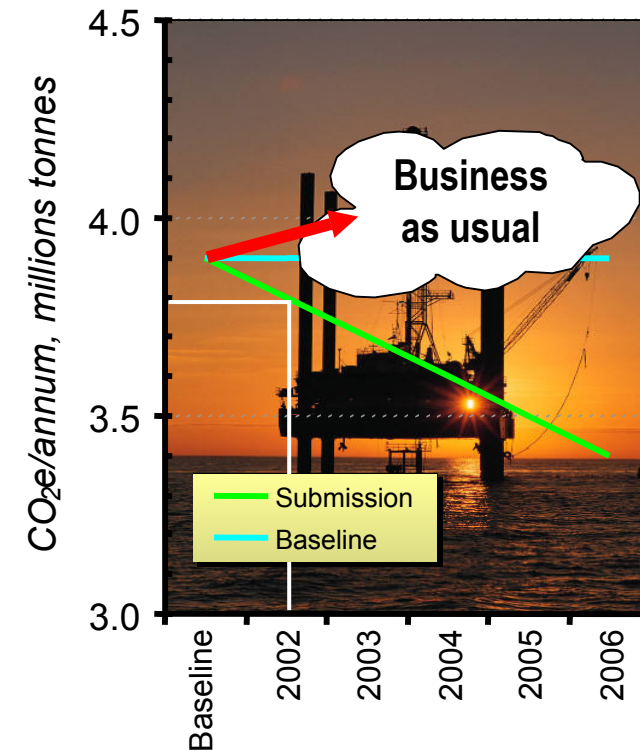
The UK Emissions Trading System began in April 2002. Shell was one of 34 Direct Participants.

- Shell UK E&P offered emission reductions of 438,750 tonnes over 5 years (cumulatively 1.3 million tonnes).
- Shell will receive £23.4 million over 5 years if it complies with its obligations.
- We have gained valuable experience in trading and managing GHG data in a trading system.



Shell UK Meeting 1st Year UK Compliance

- Shell allocated 3,790,156 tonnes CO₂ or about 100,000 tonnes below baseline.
- Most active two-way trader in the market.
- Met DEFRA target and received first year incentive funding of £4.7 million.
- Factor 4 (with RMI) workshop conducted on Brent Delta Platform plus 4 other energy efficiency workshops (not RMI).
- Structure implemented:
 - ✓ Every asset now has an environmental improvement plan that contains GHG improvements as an integral part of the business.
 - ✓ Every asset has got an annual target in tonnes of CO₂ and this is translated in a target for every installation in fuel gas, gas flared and diesel used.
 - ✓ Performance on the flare and fuel target is available on a daily basis.
- Numerous projects initiated or in the pipeline.

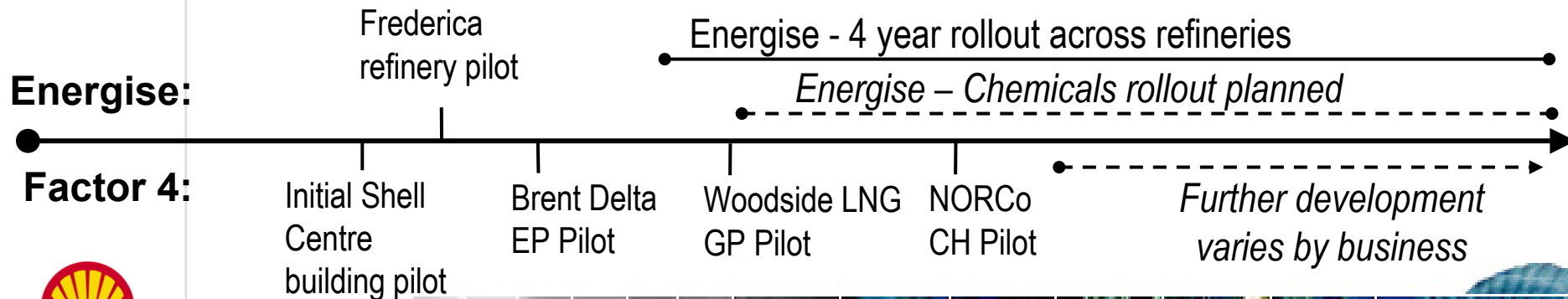


Factor 4 and Energise Rollout



Energise: A one year energy services programme that identifies and implements operational improvements in energy efficiency, realisable within 1 year and with minimal capital investment.

Factor 4: A workshop based process for identifying breakthrough reductions in energy, land use, water, and waste. These generally involve design changes and capital investment.



EU ETS – What is the bare minimum?

Facilities must obtain a “greenhouse gas emissions permit” before the NAPs are submitted on 31 March 2004

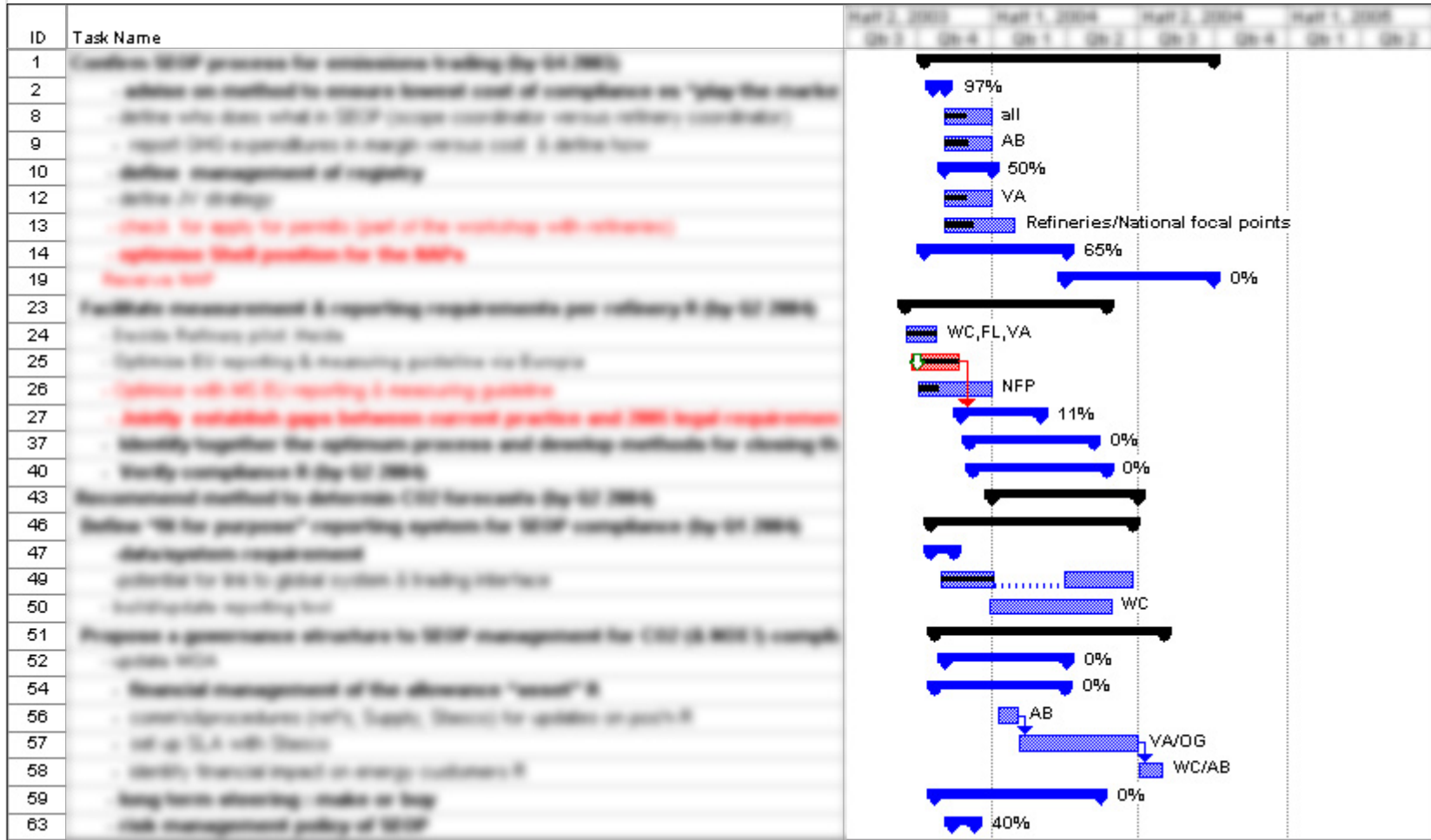
Facilities must open registry accounts in order to receive the annual allocation by 28 February 2005.

Facilities must submit annual verified emissions data from Q1 2006 in accordance with the EU ETS Monitoring and Reporting Guidelines.

Facilities must reconcile allowances against total CO₂ emissions (2005-7) by 30 April 2008



....but the actual process is much more complex



Example: Detailed business plan for implementation of EU-ETS in Shell refineries



Shell Trading Network (STn)

Global Environmental Products Trading Business (EPTB)

EPTB London Trading Team

EPTB Houston Trading Team

- EMISSIONS MARKETS**
- UK CO2
 - Danish CO2
 - EU CO2 Allowances
 - NL ERUPT/CERUPT
 - Kyoto CERs + AAUs
 - NL NOx

- RENEWABLES MARKETS**
- UK ROCs
 - NL green certificates
 - Swedish Elcerts
 - Australia RECS

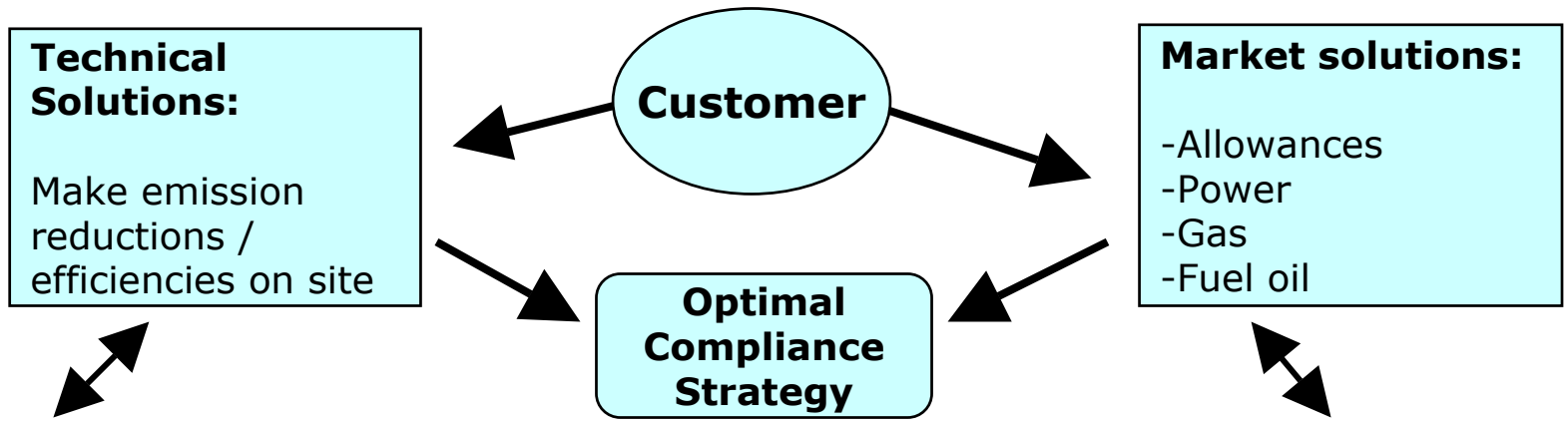
EPTB Japan liaison team
Part London
Part Tokyo

- EMISSIONS MARKETS**
- US SO2
 - California RECLAIM,
 - OTC& HGA NOx
 - Emission Reduction Credits for PM10, NOx and VOCs

- RENEWABLES MARKETS**
- Renewable Energy Certificates: CA, TX, PJM, Neepool.



Various Shell companies aim to offer customer solutions in the EU ETS space...



- Shell Global Solutions Energize
- Shell Global Solutions Industrial Markets Team
- Shell Energy Efficiency Services (Germany)

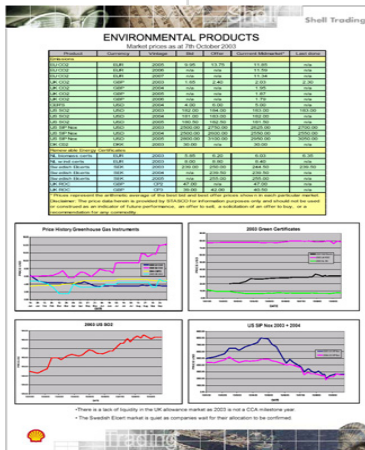
- EPTB (allowances)
- SEE (power & gas)
- STASCO (fuel oil)



Shell offers low-cost access to the market...

Shell uses established capacity and global reach to structure risk management agreements that allow customers to outsource their compliance execution. Shell offers:

- ▶ AAA counter-party credit worthiness
- ▶ A single Master Contract
- ▶ Trade execution through Shell's existing infrastructure to minimize transaction costs: establishing contract relationships, managing credit exposure, multiple registry accounts, VAT optimisation
- ▶ Fundamental and technical analysis on allowance, power and gas markets
- ▶ Real time price and liquidity information
- ▶ Annual procurement or monthly hedging strategies.
- ▶ Bundled allowance/gas/oil supply.
- ▶ Financing of emission reduction investments.



Shell's Business Value Driven Programme

