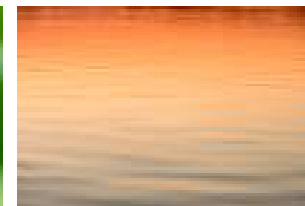
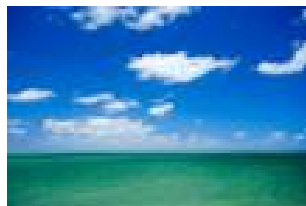




How I learned to stop worrying and love the ETS... (I mean the CPRS)

Chris Halliwell
Senior Carbon & Renewables Broker





➤ **Cap and Trade**

The mechanics of how emission trading works
Cap and Trade schemes around the world

➤ **The Carbon Pollution Reduction Scheme**

Targets and trajectories, coverage and timeframes

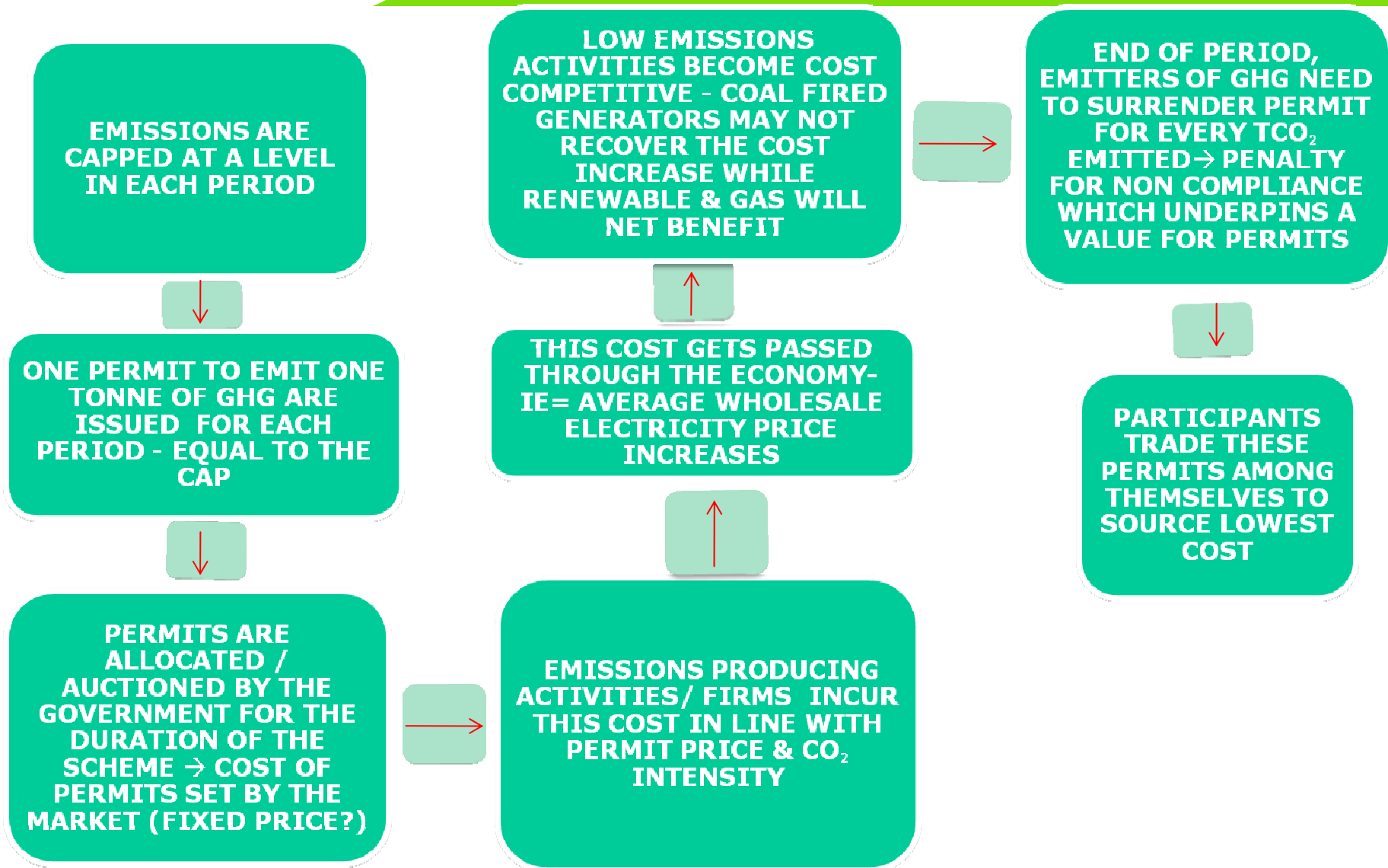
➤ **The Kyoto Protocol**

International relationship- how CPRS works as a domestic mechanism in relation to Australia's Kyoto target

➤ **What can business expect?**

Who's liable who's not?

➤ **What can a business do?**



How least cost abatement is sourced through emissions trading

Allocation of Permits

Need to reduce by
5000tCO₂



Sell 5,000 tCO₂



Trading between
Corporates



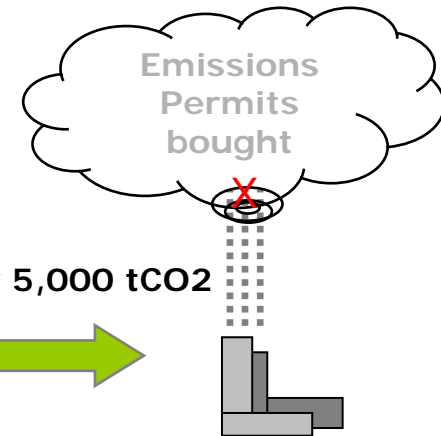
Emissions Permits
Spot Price at
\$10/tCO₂

Buy 5,000 tCO₂



Allocation of Permits

Need to reduce by
5000tCO₂



1. Cost to reduce internally - \$5/tCO₂
2. Spend \$50000 to create 10000 tCO₂e
3. Sell 5000 at \$10 each
4. Hold five thousand to meet obligation
5. **Actual Cost to comply- \$0**

MARKET
PRICE

1. Cost to reduce - \$15/tCO₂
2. 5000 @ \$15 = \$75000
3. Choose rather to buy 5000*\$10/tCO₂ = \$50k
4. **Actual Cost to comply- \$50k (save 25K)**

- The White Paper provides the policy blueprint for an effective, efficient Australian emissions cap and trading scheme to start in 2010:
 - ✓ Broad coverage - 70-80% of approx 599 Mt
 - ✓ International linking via CERs
 - ✓ Minimum firm cap of 5 years with gateways of 10 years
 - ✓ Price cap \$40 in the initial years increasing at 5% + CPI annually
 - ✓ Unlimited banking and limited borrowing (5%)
 - ✓ Frequent permit auctions (monthly)
 - ✓ Transitional assistance to trade-exposed industries and households
taxation changes and direct compensation
 - ✓ Existing coal-fired generation sector, identified as a “strongly affected industry” to receive a “limited amount of direct assistance”

➤ All 6 Kyoto gases

➤ Included sectors:

1. **Stationary energy** – CO₂ emission from fuel combustion for electricity generation & energy production in refining, manufacturing, construction and commercial industries and domestic heating
2. **Transport** – CO₂ emissions from direct combustion of fuels for roads and rail transport, domestic aviation and shipping
3. **Fugitive emissions** – CH₄, CO₂ and N₂O emitted during production, processing, transport, storage and distribution of coal, oil and gas
4. **Industrial processes** – emissions from coal reactions associated with manufacturing processes, mineral processing and chemicals and metal production
5. **Waste** – CH₄ from solid waste sent to landfill and from the treatment of domestic, commercial and industrial wastewater
6. **Forestry** (opt in)

← Compensation probable

← Special Treatment (petrol tariffs)

← Compensation for TEEIs

← Voluntary opt in!

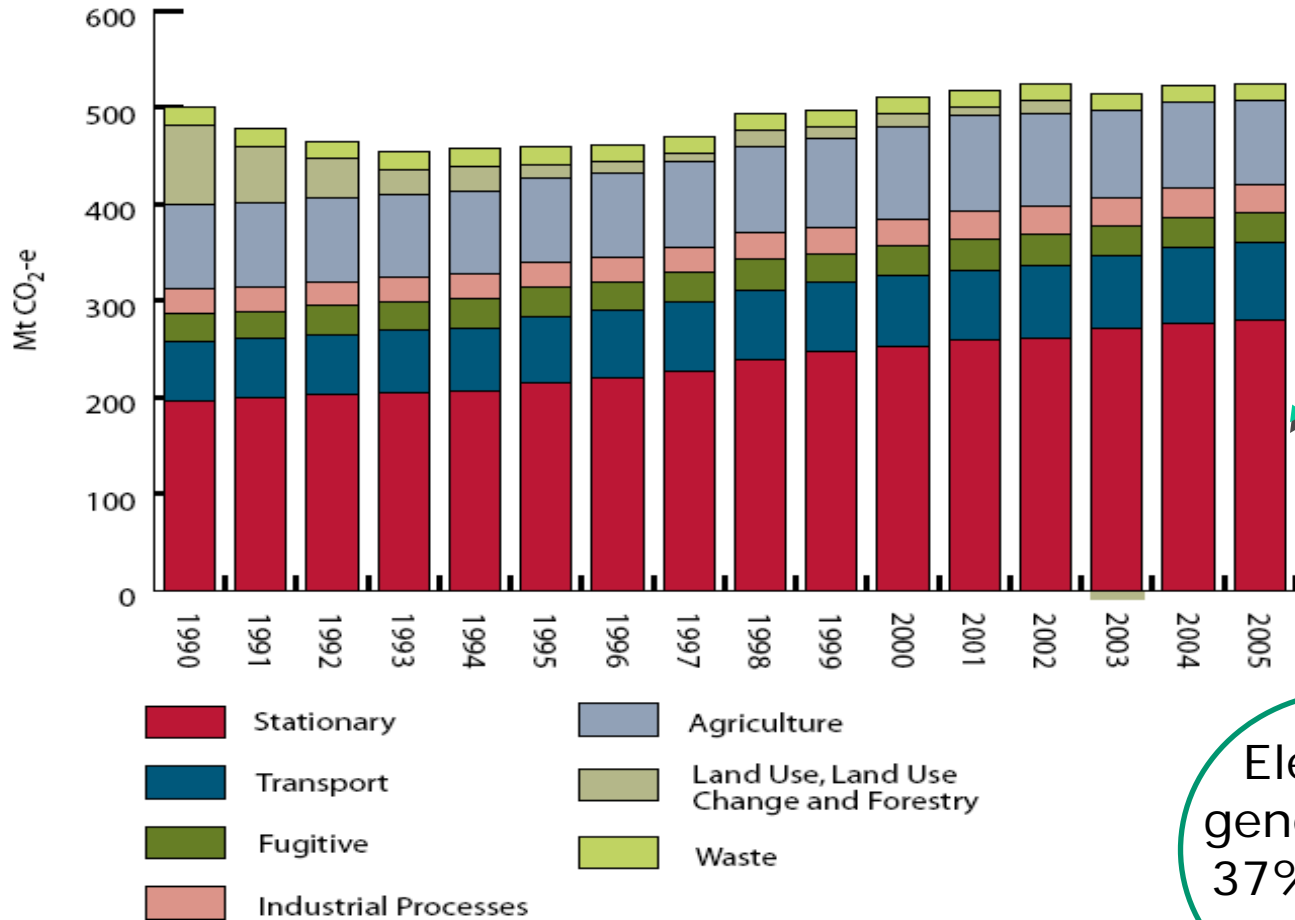
➤ Excluded sectors:

- Agriculture (may be included in 2015)

➤ Thresholds:

- 25,000 tCO₂ e per year
- 1000 liable companies
- In general, entities with operational control over covered facilities or activities would be liable for emissions obligations arising from those facilities
- Government proposes maximum possible coverage making the scheme as equitable and cost effective as possible (access lowest cost due to broad coverage)

Australian Emissions by Sector

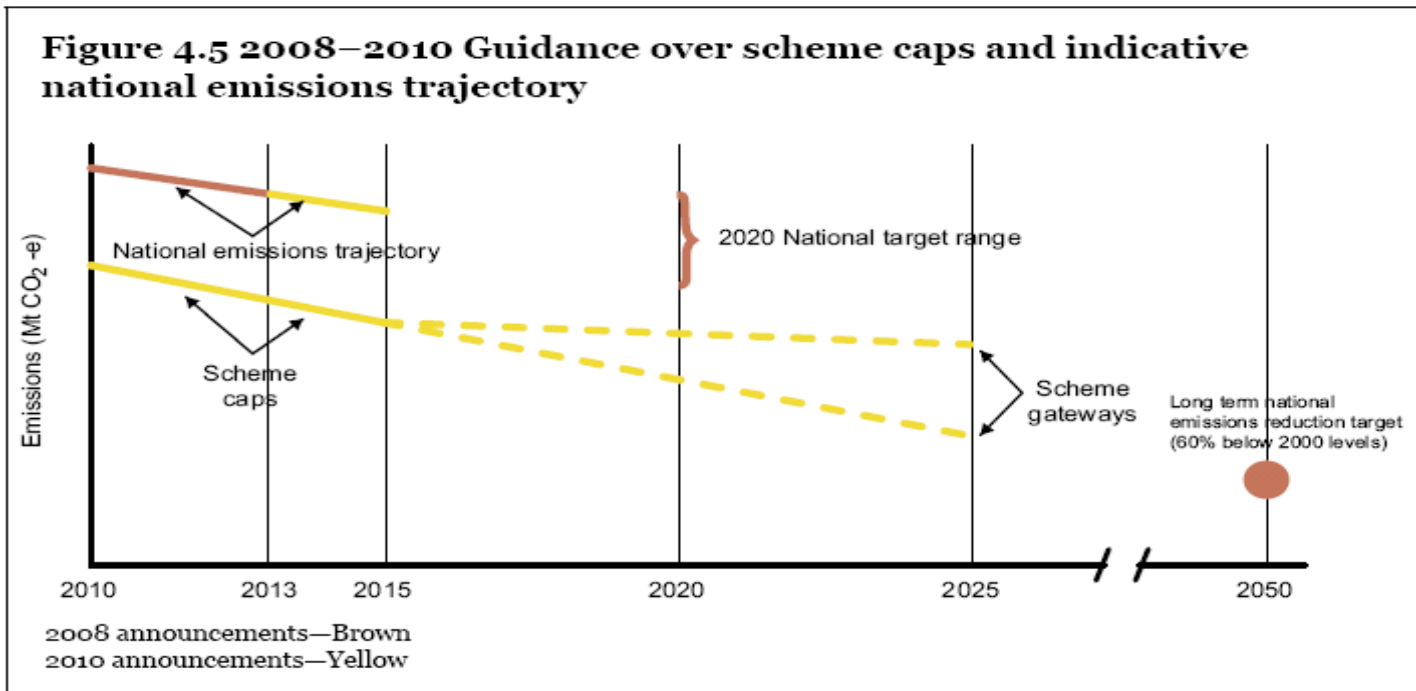


70% of the Stationary Energy Sector is made up of electricity generation emissions

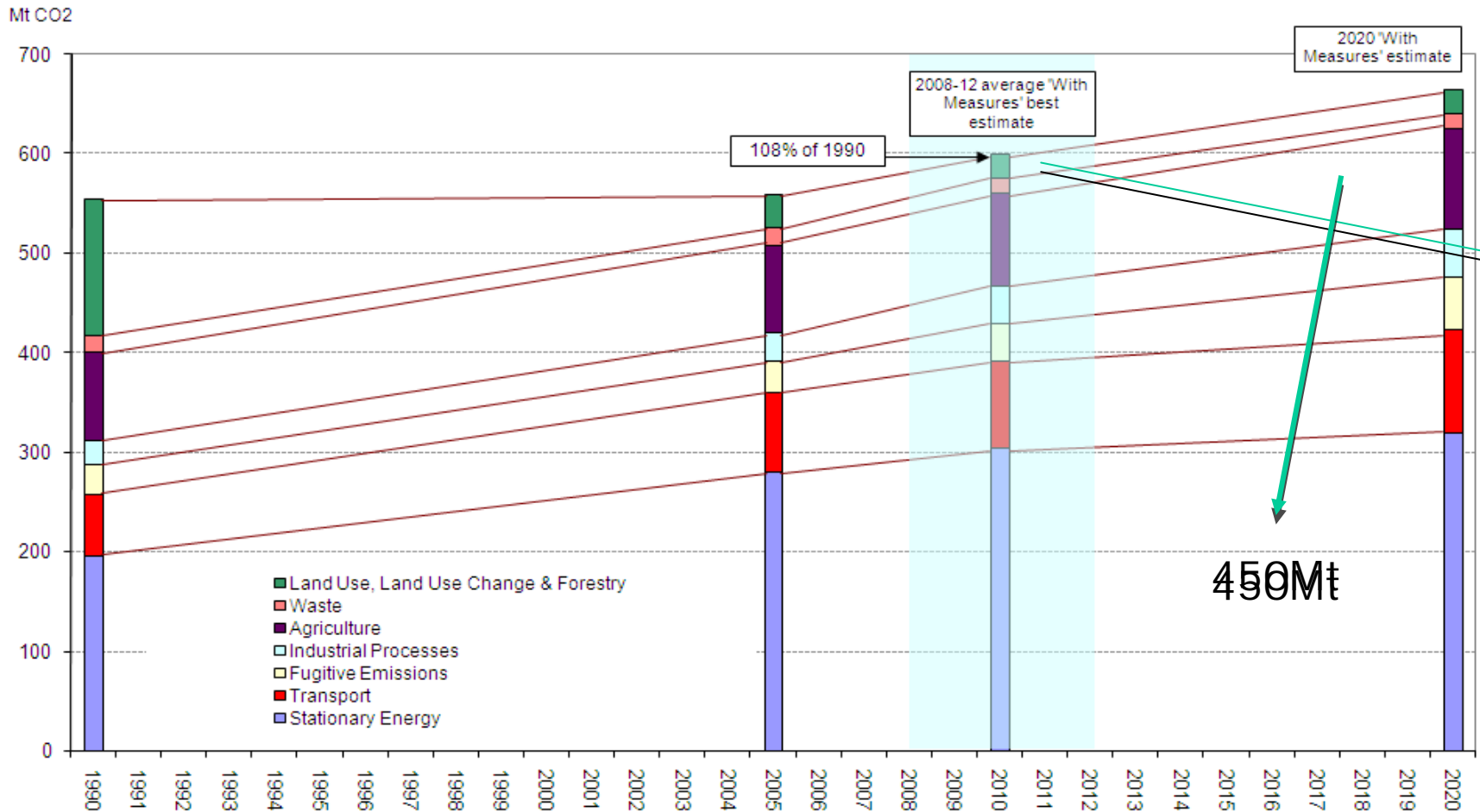
Electricity generation is 37% of Aust emissions!

Medium term cap and long term continuous gateway:

- 5% - 15% gateway by 2020, stabilise Kyoto target to
- Finalised scheme cap announcement in 2010 for the first 5 years and 10 years gateway
- Five year rolling cap
- Ten year continuous gateways taking into account international developments



Actual and Forecast Australian Greenhouse Emissions



Country	2020 Targets	2020 per capita reduction	2050 targets
Australia	5-15 % below 2000 levels (4-14% below 1990 levels)	27-34% below 2000 levels (34-41% below 1990 levels)	60% below 2000 levels (60% below 1990 levels)
European Union	20-30% below 1990 levels	24-34% below 1990 levels	60-80% below 1990 levels
United Kingdom	26-32% below 1990 levels	33-39% below 1990 levels	80% below 1990 levels
United States (proposal of President Obama)	Return to 1990 levels	25% below 1990 levels	80% below 1990 levels

- Be prepared for different price scenarios!
- Regulatory Uncertainty
- Greenhouse gas emissions sector coverage;
- The availability of bio sequestration offsets;
- Treatment of existing measures;
- Compensation for electricity generators through permit allocation;
- Compensation for trade exposed energy intensive industries through permit allocation;
- Recycling of surplus revenues from auctioning
- Allocation and potential carbon subsidy
- International carbon prices
- Pass through costs of wholesale electricity; and
- Financial market agenda

- Extends the UN Framework Convention on Climate Change [Rio Earth Summit '92]
- Targets a cut in aggregate developed country greenhouse gas emissions of at least 5% from 1990 levels by 2012 (for example Canada – 6% total reduction by 2012 compared to 1990 levels, Europe – 8% total reduction, Aust 8% increase)
- The Kyoto protocol has many signatories – but only the developed nations (Annex I) are committed to legally binding greenhouse gas reductions
- Allows credits from three key “flexible mechanisms” for reducing emissions
 - Clean Development Mechanism: allows for investment in developing countries by developed countries
 - Joint Implementation: allows for investment between two developed countries
 - International Emissions Trading: facilitates inter-governmental emissions trading
- Global Kyoto agreements for the period past 2012 to be agreed in Copenhagen 2009 (will Obama be there?)

There are five major carbon trading units in the Kyoto framework



- Liable entities in the CPRS will be able to meet their obligation by using CER Kyoto units for compliance
- Australian CPRS permits will not be allowed to be converted into Kyoto units for sale and transfer to international markets
- CPRS will create a primary market worth up to \$12bn. Potential to increase the global demand for CERS by over 200% by 2020 encouraging further project development.

What the average business can expect- who's liable who's not?

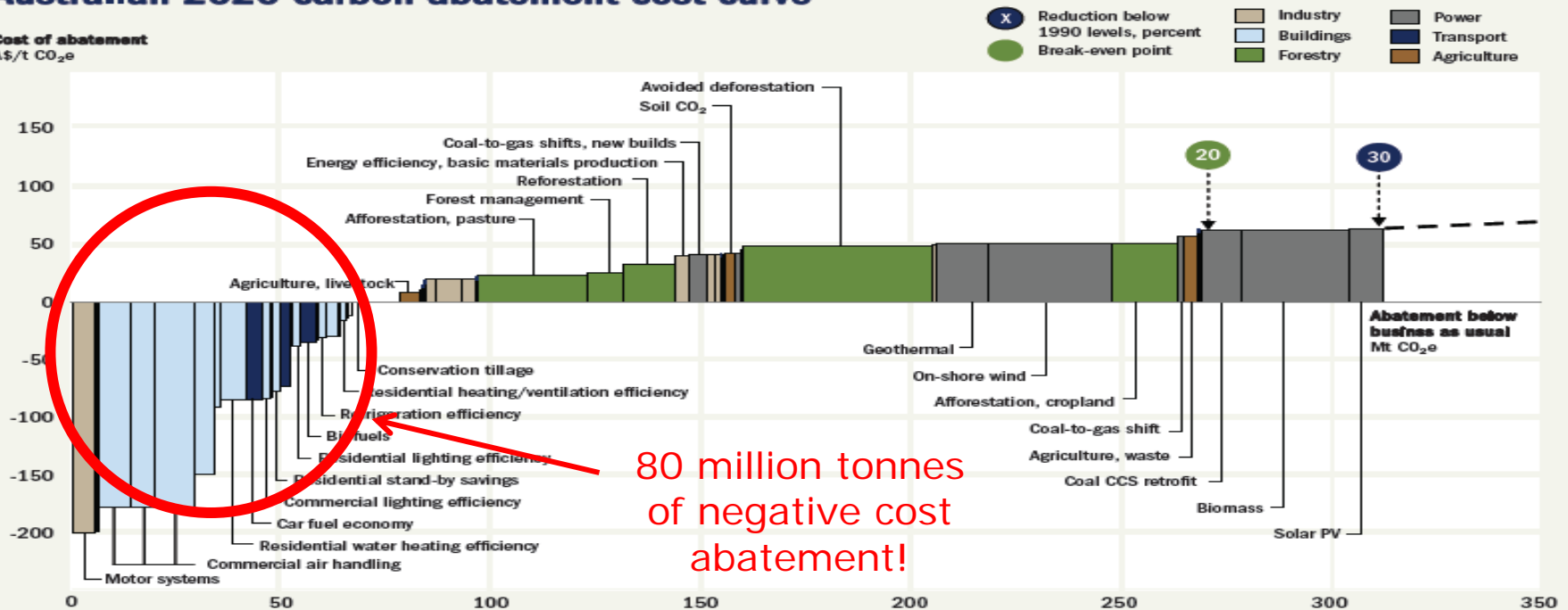
- Increase in cost associated with energy as the price is passed down from goods such as Metals, Plastics, Aluminum (considerable supply chain impacts)
- What are the commercial realities; can a firm absorb the price or pass it through. Fierce competition at wholesale level will quickly innovate as alternative practice become cost effective
- Increase cost of manufactured wholesale goods, inputs cost; cement, ceramics, bricks, glass, paper, pulp,
- Similar to a GST in terms of a 'new cost' but not an absolute; at a certain price the competitive world of business will find an alternative –

THERE WILL BE NEGATIVE COST ALTERNATIVES - RISK BECOMES OPPORTUNITY

Price indicators will drive action, understand the cost benefit analysis of transitioning into new processes for your business..

Australian 2020 carbon abatement cost curve

Cost of abatement
A\$/t CO₂e



80 million tonnes of negative cost abatement!

Note: Abatement opportunities are not additive to those of previous years
Source: McKinsey Australia Climate Change Initiative

The most important thing is to understand the pay off periods. Build your abatement cost curve & DRIVE BEHAVIOUR CHANGE BECAUSE THE COST OF INACTION IS MUCH GREATER!

- Opportunities exist for smart businesses
- Get into Carbon management & accounting – it's not that hard!
- Saving energy will make you even more money
- Action matters more than targets
 - INNOVATE – what business does best
 - ADVOCACY – share, inspirer, expect
 - PERFORMANCE STORY – know your costs and reduce
- Be transparent
- Develop a strategy before someone else does it for you. Do learn do!

- International team brokering environmental products in domestic and international markets.
= NGACS, RECS, VEET, NEET, CDM/JI, VERS, AEU
- Work with an alliance of service providers to provide businesses with guidance for understanding, reducing and trading your carbon liability
- Facilitate upcoming CPRS trades = access the widest market for best price discovery. Have existing international markets experience
- Project guidance in CDM / JI and managing CDM processes and go to market strategy

TFS has been awarded **numerous awards** by the industry:

- 2008 "Broker of the Year" award by Point Carbon
- 2007 "1st in Europe CERs Brokerage" by Energy Risk Magazine.
- 2005 and 2006 "Energy Broker of the Year" in the Commodities Now awards and Silver Award in Emissions Markets in 2005
- 2007 TFS has also received an unprecedented **14 Winner or Runners Up awards in the 2007 Environmental Finance Awards**



Thank You

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