



# Managing financial exposure of the carbon price

**Australian Local Government Association**

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Climate Change & Sustainability leader, Sydney

April 2012

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# How much???

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1 tonne of  
CO<sub>2</sub>?



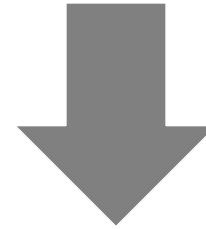
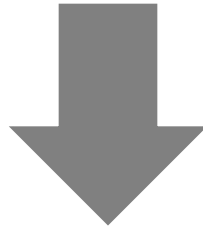
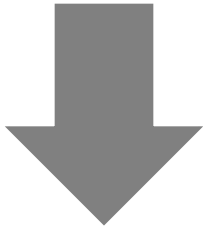
# Carbon Pricing Mechanism Program Approach

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**Compliance**

**Commercial risk  
management**

**Optimisation**

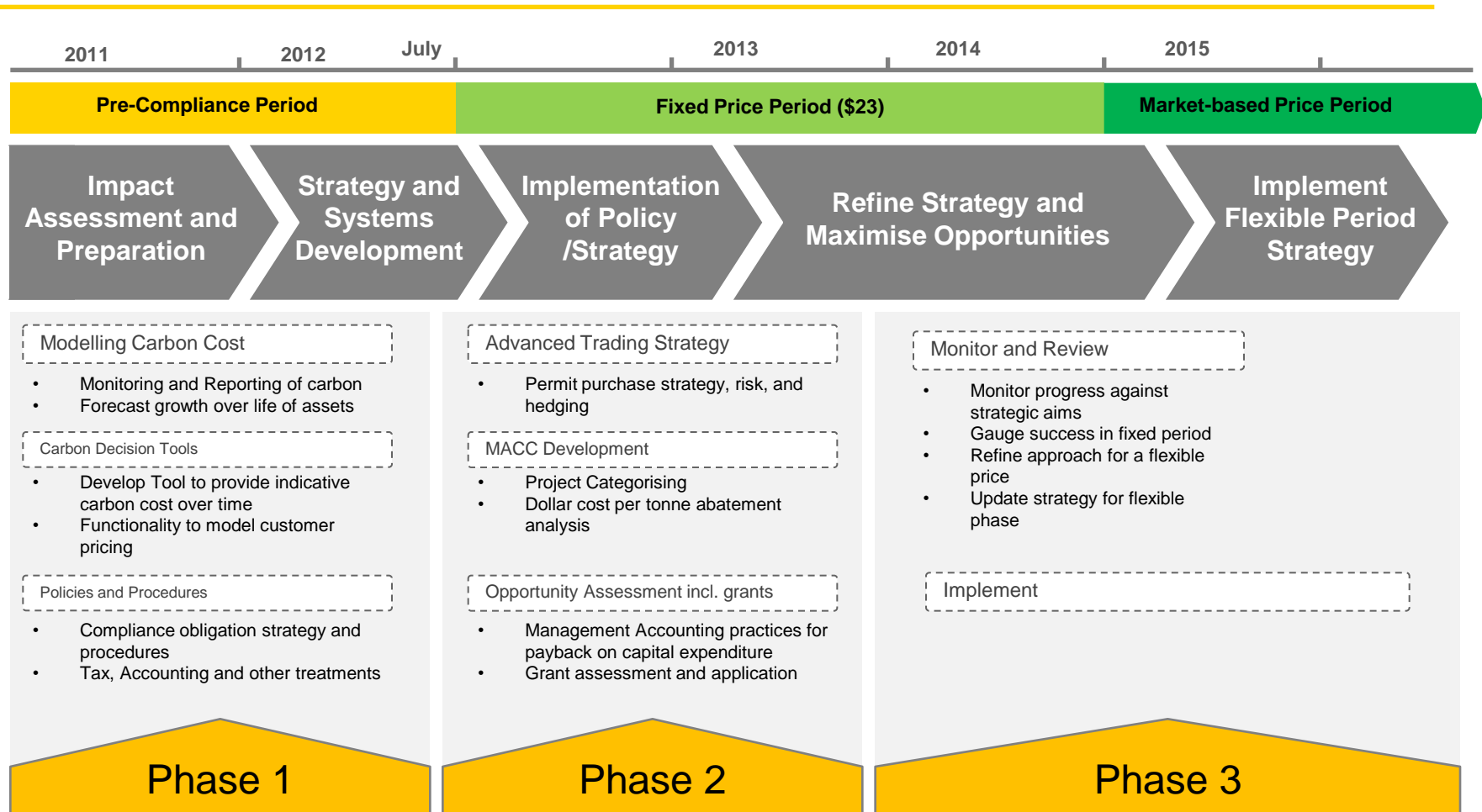


**Governance and  
Project Management**

**Landfill-specific  
response**

**International and  
other market  
learnings**

# Timeline for compliance



# Business function implications



Finance Accounting / Treasury / Tax			HR	IT	Procurement	Legal	Regulatory
Trading of units / permits			Capability and capacity	Monitoring and reporting systems	Contract management and strategy		Compliance reporting
Abatement project modelling					Credit assessment/ supplier viability	Ownership of liability (JVs)	Reporting of liabilities
Accounting policies	Management of cash	Tax implications					
DOA/ governance	Funding Liquidity						
Reporting							

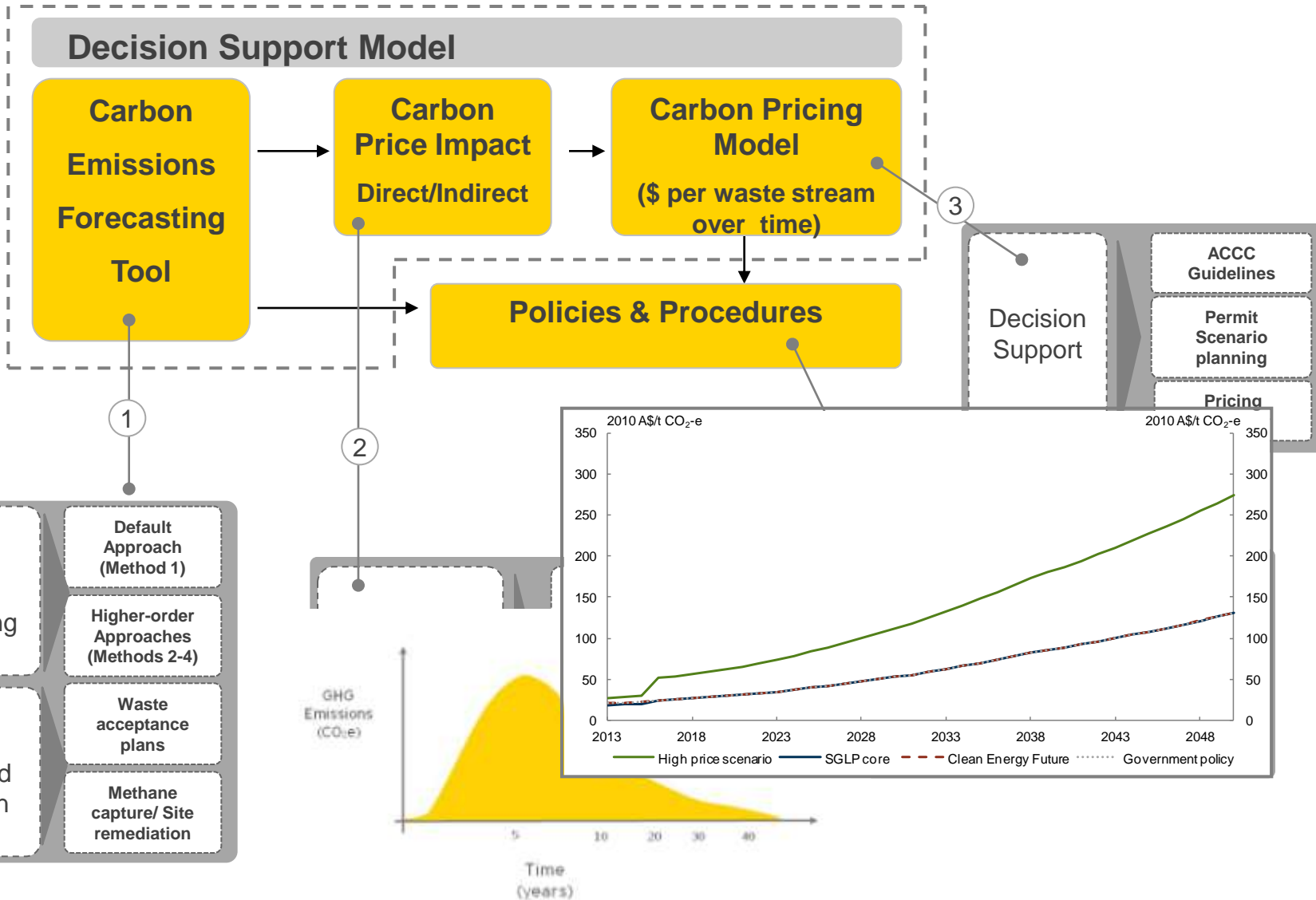
# Financial and NGERs reporting timelines



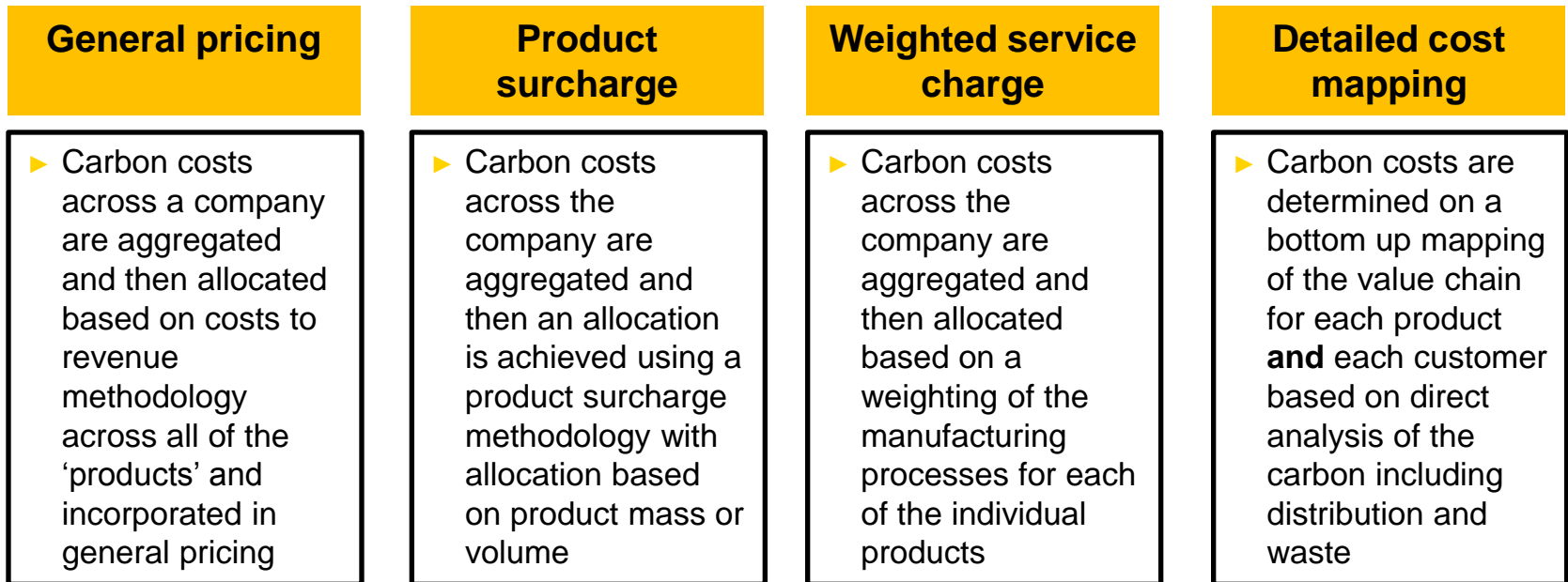
## NGER Lessons learned:

- ▶ Not the sole responsibility of Environment Manager!
- ▶ Materiality and Accuracy is key
- ▶ No time to come 'up to speed' – regular monitoring and reporting needed
- ▶ Keep records, prepare a basis of preparation to record assumptions

# Impact Assessment & Strategy Setting

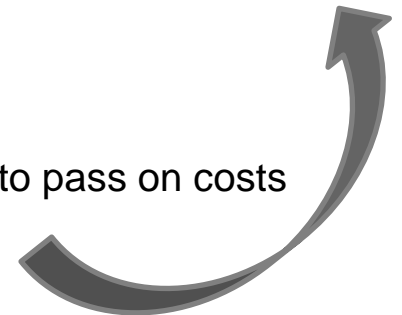


# Potential options for allocating carbon costs



## Landfill Issues

- ▶ Each Council/Operator will need to determine ability and mechanism to pass on costs
- ▶ Detailed modelling will be required regardless of final outcome....





# Impact on finance function



## Management accounting

- ▶ Link to NGERs reporting
- ▶ Systems and processes for data collection and accurate recording
- ▶ Implementation of internal controls
- ▶ Budgeting processes
- ▶ Use of information to drive business decisions
- ▶ Accounting for carbon assets and liabilities...

# International Accounting Progress

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- ▶ IFRIC 3 '*Emissions Rights*' issued 2004, withdrawn 2005
- ▶ IASB '*Emissions Trading Scheme*' project started 2007
  - ▶ Put on hold in 2010 - delay project again
  - ▶ Aiming for a 2012 timeline
- ▶ Still no agreement on treatment of carbon units in financial accounts
  - ▶ Liable entities in Australia will need to decide how to treat assets and liabilities
  - ▶ ACCA study shows huge variation in treatment across EU

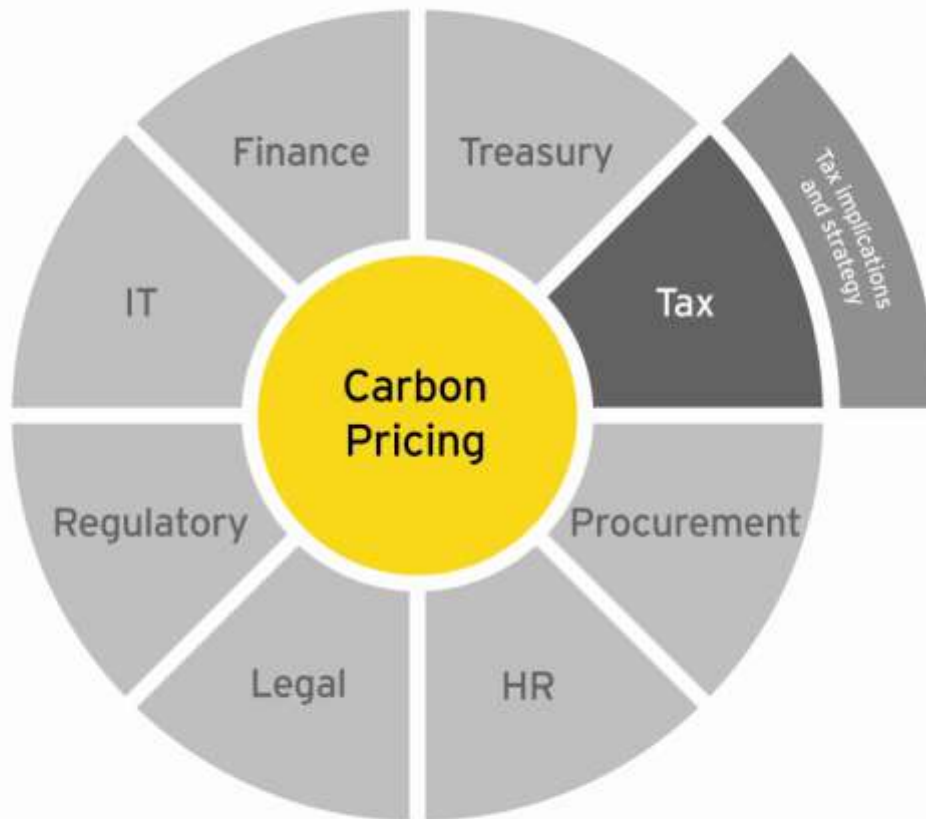
# Accounting approaches - impact on net assets and net profit before income tax each accounting period<sup>1</sup>

	IFRIC 3 approach <sup>2</sup>	Net liability approach		Government grant approach	
		Reimbursement rights method	Carrying value method	Reimbursement rights method	Carrying value method
<b>Balance Sheet</b>					
<b>Asset</b>					
- Purchased units	Cost	MV	Cost	MV	Cost
- Free units	Deemed cost	Nominal amount	Nominal amount	MV	Deemed cost
<b>Liability</b>					
- Emission obligation	MV of units (all)	MV of units (purchased) <sup>3</sup>	Cost of units (purchased) <sup>3</sup>	MV of units (all)	Cost of units (all)
- Deferred income (government grant)	Deemed cost – amortised <sup>4</sup>	Nominal amount	Nominal amount	Deemed cost – amortised <sup>4</sup>	Deemed cost – amortised <sup>4</sup>
<b>Impact on net assets</b>	Yes	No	No	No	No
<b>Income Statement</b>					
<b>Revenue</b>					
- Deferred income (government grant)	Deemed cost	Nominal amount	Nominal amount	Deemed cost	Deemed cost
- Revaluation	No	Yes	No	Yes	No
<b>Expense</b>	MV of units (all)	MV of units (purchased) <sup>3</sup>	Cost of units (purchased) <sup>3</sup>	MV of units (all)	Cost of units (all)
<b>Impact on net profit before income tax</b>	Cost of purchased units + effect of fluctuation in market price on liability	Cost of purchased units	Cost of purchased units	Cost of purchased units	Cost of purchased units

- Cost = market price of units at date of purchase
- Deemed cost = market price of units at date of receipt
- MV = market value of units at reporting date
- Nominal amount = (in Australia) zero

1. Assuming financial year = compliance year (ie 30 June year end) and no settlement of obligation until following compliance year
2. Assuming entity does not apply revaluation model under AASB 138.
3. Only recognize liability when obligation exceeds units allocated for free, ie when required to purchase units to settle obligation.
4. Deferred income is recognised in income over the period of emissions consistent with the basis on which the expense is recognised, regardless of whether units are held or sold.

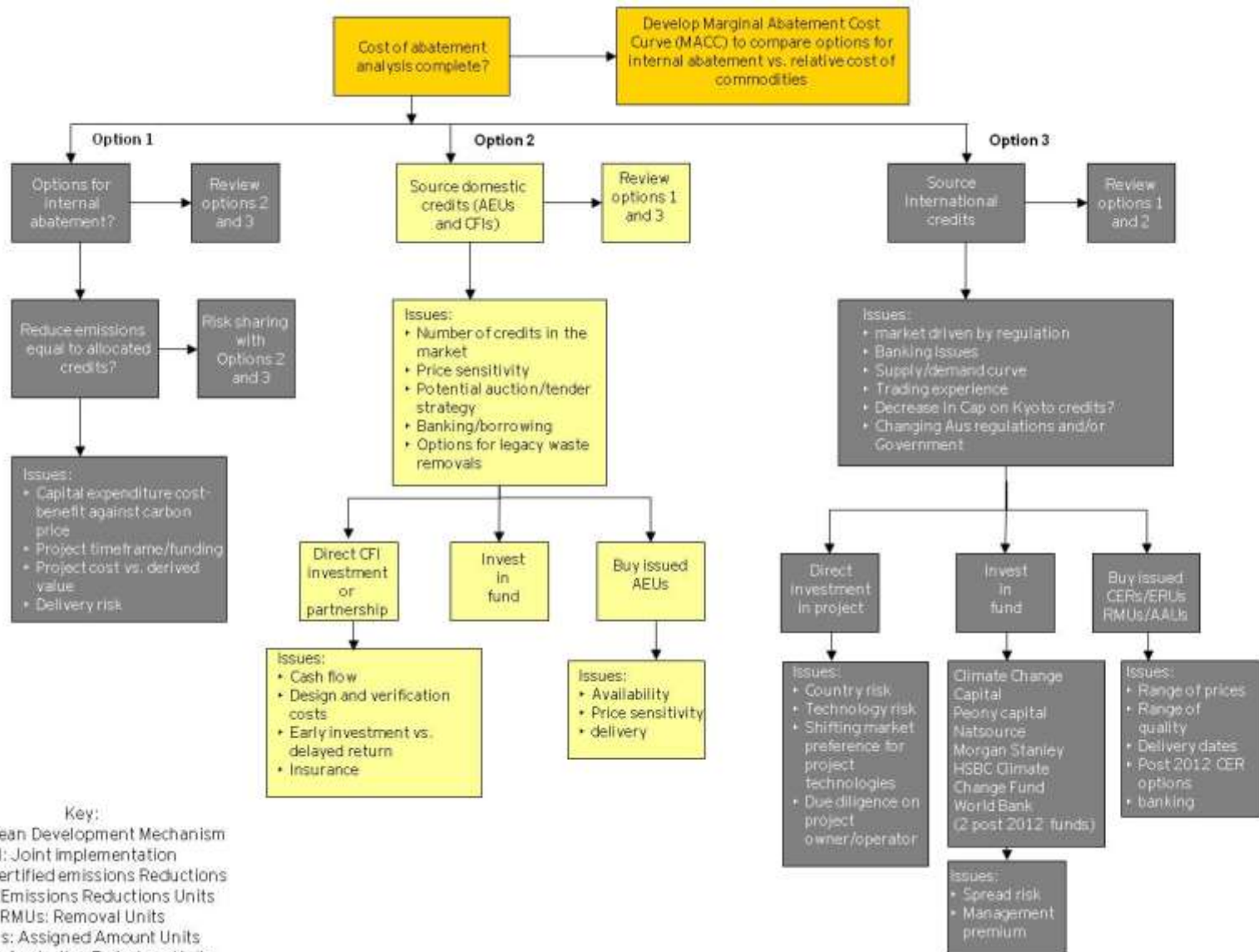
# Impact on tax function



## Tax implications and strategy

- ▶ Deductibility – buying units
- ▶ Timing of deduction
- ▶ Tax cost of free carbon units
- ▶ Import of international units
  - ▶ Import, establishing treasuries, investing in Kyoto projects

# Complexity of managing a carbon liability



# Prioritising the implementation of opportunities

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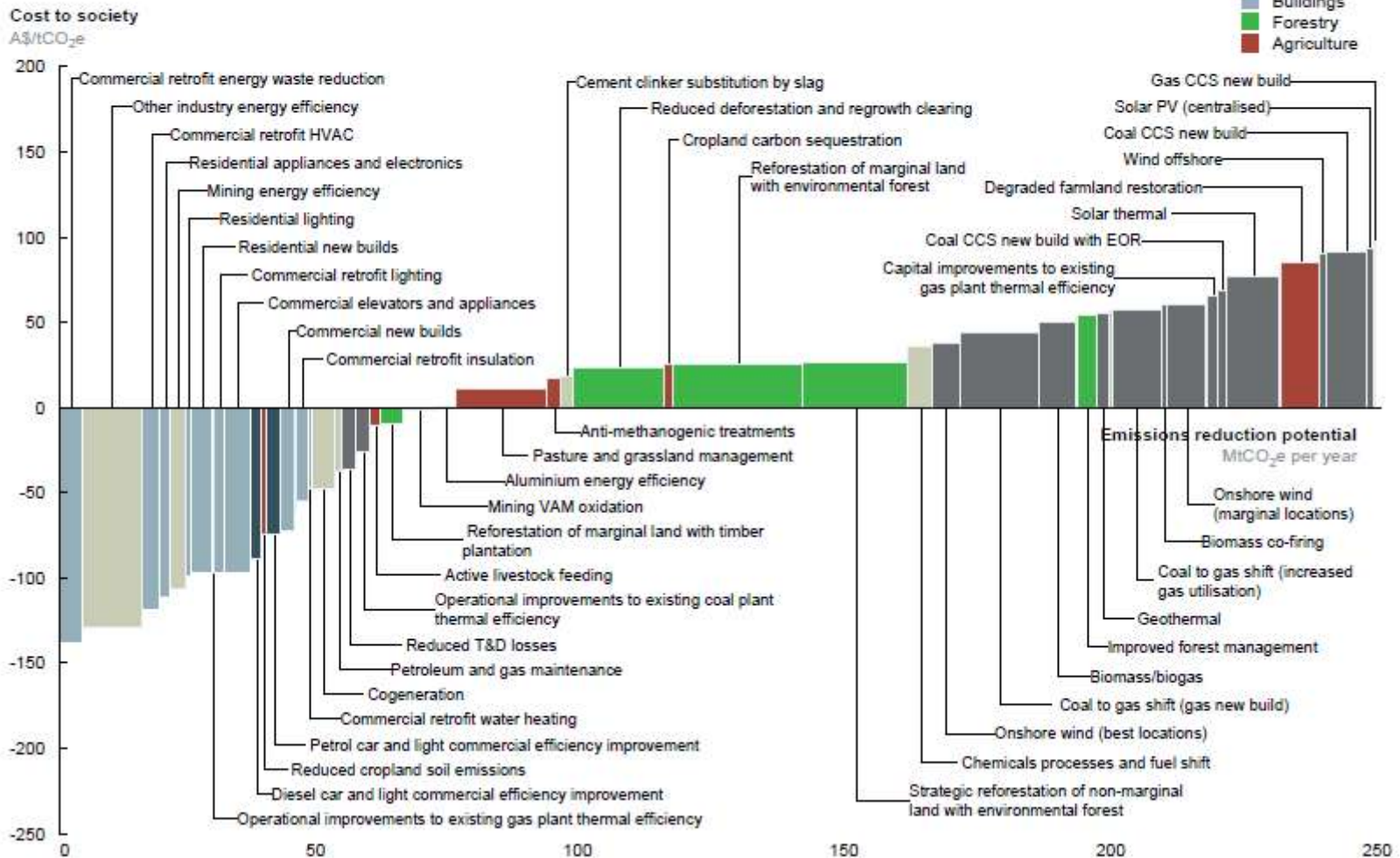
All opportunities need to be **scanned** and **prioritised** to ensure your company's limited resources are directed to those projects most likely to deliver the desired benefits.

## Marginal abatement cost curve (MACC):

- ▶ Marginal abatement cost curves are a decision making tool used to analyse investments in presence of a carbon price
- ▶ MACCs can be used at an enterprise level, or can be used by governments to assess impacts at a state, regional, and national level
- ▶ When a MACC is determined for an entity, the curve represents the marginal cost of the last unit of emission abated by that entity

# 2020 GHG emissions reduction societal cost curve

Lowest cost opportunities to reduce emissions by 249 Mt CO<sub>2</sub>e<sup>1</sup>



Source: <http://www.climateworksaustralia.org/Low Carbon Growth Plan.pdf>



# Creating your MACC

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1. Short-list a selection of carbon abatement options
2. Collect the relevant inputs for each abatement option; including: operational inputs, technical and regulatory information, financial and economic inputs
3. Build a customised analytical model

## Key outputs include:

- ▶ Identification of the cost effectiveness of various abatement options
- ▶ Visual representation of the scale and effectiveness of these options
- ▶ Identification of opportunities to profitably engage in carbon trading
- ▶ Identification of the measures required to meet a set carbon cap
- ▶ Assessment of the point where it is most efficient to simply purchase more carbon credits on the market, identification of efficiency improvements available at the current \$/t price



# Consider the full benefits and costs/risks

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Emissions abatement actions often have benefits other than the obvious reductions in direct costs

- ▶ Social – e.g. reductions in odours; improved working conditions
- ▶ Environmental – e.g. Water/air/soil regeneration

Likewise, though, costs go beyond the initial purchase price when you make a capital investment.

When comparing more than one opportunity, merely looking at the purchase and installation price can ignore operational costs such as maintenance costs and can result in the company paying more over future years.

- ▶ Consider both capex and opex budgets in the financial analysis

# Consider the impact on reductions in waste received

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Any action to divert waste or change from planned 'time-to-fill' landfill sites will have an impact on:

- ▶ Life of landfill
- ▶ Emissions profile

## **Unexpected implications may therefore be:**

- ▶ longer 'tail' for emissions profile, meaning sites won't fall below 25kt threshold when initially planned
- ▶ Impacts on cost in year waste placed on site
- ▶ May lead to shortfalls in received monies for carbon units
- ▶ Landfill emissions may fall below the 25kt threshold, but later exceed them... capturing emissions from waste in the interim – caution on cost management

# Managing a carbon portfolio

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What will a future carbon price look like?

- ▶ Potential for a 'split' market price on OTC units:
  - ▶ ACCU price
  - ▶ International (+surrender) price
  - ▶ CFI

Sectors that have access to freely-allocated or generated permits may seek to:

- ▶ Given landfill the one 'covered' emissions class that can utilise greater than 5% CFIs during fixed period, optimised strategy would utilise these early.
- ▶ Sell down up to 'half' your emissions units (arbitrage) in flexible period?

# Further resources available



July 2011

## The business of climate change

### Navigating the complexities of carbon pricing policy

Key issues from the Australian Government's Climate Change Plan: Securing a Clean Energy Future

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The Australian Government's climate change plan, Securing a Clean Energy Future (the Plan) gives certainty to business on the future of Australia's climate change policy. The Plan clarifies many important details of the carbon pricing policy, providing a platform for making strategic decisions about operating in a carbon-constrained future.

The timetable for implementation is extremely challenging, with a confirmed starting date of 1 July 2012 and draft legislation planned to be released later in July 2011. There is less than a year to develop and implement a comprehensive strategy that identifies opportunities and reduces risks in the new business environment. Given the expected impact of the cost of carbon across the economy and being, your business may have considerable value at stake.

As a result of the failed attempt to pass the Carbon Pollution Reduction Scheme (CPRS) in the Senate and with no design details released, the broad policy intention announced back in February 2007, businesses have hesitated in making relevant investments, citing uncertainty as the main hurdle.

but we now have a comprehensive and complex plan that provides not only details of key scheme design elements (including a starting carbon price and date for the fixed price period and confirmation of what is in and what is out) but also a raft of stimulus packages that will present opportunities for business. These will need to be identified and analysed now in order to avoid "missing the boat".

Responding immediately will give you maximum time to move through the complexity of your options and ensure opportunities are maximised. If you would like help considering these options and deciding on the best course to take, our multidisciplinary climate change team is ready to work with you. Their insights, experience and pragmatic advice will accelerate and strengthen your response to future climate change legislation, supporting you through this challenging process.

**Matthew Neilson**  
Climate Leader - Climate Change and Sustainability Service

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### The business of climate change

On Sunday 15 July 2011, the Australian Government released its Climate Change Plan, Securing a Clean Energy Future. This Plan outlines details of its two stage carbon pricing mechanism comprising a fixed price carbon period commencing 1 July 2012 transitioning to an emissions trading scheme commencing 1 July 2015. The Plan clarifies important details of the proposed carbon pricing policy and provides a platform for business to make strategic decisions about operating in a carbon constrained future.

The timetable for implementation is extremely challenging, with a confirmed starting date of 1 July 2012 and draft legislation to be released late July 2011. There is less than a year to develop and implement a comprehensive strategy that identifies opportunities and reduces risks in the new business environment. Given the expected impact of the cost of carbon across the economy and being, businesses may have considerable value at stake.

It is important for businesses to start work on this now, to consider the complex options and ensure that opportunities are maximised. Ernst & Young's The Business of Climate Change – Navigating the complexities of carbon pricing policy provides an overview of the key elements of the Plan, as well as useful tools such as a 'Carbon 10' step implementation checklist to help plan the way forward. Our multidisciplinary Climate Change and Sustainability Services team is ready to work with you through this challenging process.

Visit: [www.ey.com/au](http://www.ey.com/au)



**Thank you**

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# Resources

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## ▶ Ernst & Young publications

- ▶ *Accounting for a clean energy future*
- ▶ *Navigating the complexities of carbon pricing policy Key issues from the Australian Government's Clean Energy Legislation Package*
- ▶ *Accounting for emissions reductions and other incentive schemes*
- ▶ *Mastering the Challenge – Practical IFRS guidance for power and utilities*
- ▶ Ernst & Young's *International GAAP 2011*

<http://www.ey.com/AU/en/Services/Specialty-Services/Climate-Change-and-Sustainability-Services/The-business-of-climate-change---Carbon-pricing>

## ▶ Institute of Chartered Accountants Australia publications

- ▶ *Australia needs a consistent basis for the financial reporting of emission rights*
- ▶ *Australia's Proposed Emissions Trading Scheme – The Tax Policy Dimension*