DEPARTMENT OF ENERGY, UTILITIES AND SUSTAINABILITY
NEW SOUTH WALES GOVERNMENT

Experiences in developing the NSW Benchmarks Scheme

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Leadership in energy and urban water strategy and policy to benefit the people of New South Wales

Outline

- Rationale for GGAS design
- How the scheme works
- Opportunities for abatement
- Experience in developing
- Experience in implementing
- Issues to be addressed

Rationale for GGAS Design (1)

- Scheme was established in one jurisdiction which operates in an interconnected electricity market
- Liability under the Scheme is on electricity retailers not generators who emit greenhouse gases
- Scheme is based on a baseline-credit not a cap-and-trade design

Rationale for GGAS Design (2)

- Level of greenhouse targets – achievable but challenging [also start at a modest level and tighten over time]
- Per capita not absolute targets – takes into account population growth
- Life of the scheme – provide investor certainty and sufficient rate of return
- Penalty set at a level above the (modelled) marginal cost of abatement to minimise economic burden on NSW [mixed quality of data for modelling]

Rationale for GGAS Design (3)

- "Additionality" issue – some credit for early action for abatement projects implemented before 2002, setting baselines based on historical data, abatement from RECs
- Arrangements for large electricity users – elective participants, LUACs provide greater flexibility of abatement projects [but not exempt]

Rationale for GGAS Design (4)

- Ideally want to promote projects in NSW to provide economic benefits where costs are incurred - but face constraints
- Ideally want broadest coverage of scheme to allow access to least cost abatement
- Want to encourage new projects but want existing plant to be able to contribute to the abatement task [“baselines”]
- Threshold date for “new” projects [2002]

Basic Scheme design

- Focuses on the NSW electricity supply [largest share of NSW GHG emissions]
- Sets a cap on emissions by liable parties for each year 2003 – 2012 [“benchmarks”]
- Sets a penalty for non-compliance above marginal cost of abatement [$10.50/te CO_2, or $15/te after tax, CPI indexed]
- Requires compliance by surrender of tradable abatement certificates [trading should minimise costs]

Liable parties

Principle – every MWh of electricity used in NSW bears a greenhouse obligation

- Electricity retailers
- Generators supplying directly to customers
- Market Customers
- Elective participants:
  - Large electricity users who elect to manage their own benchmarks

Certificate-trading based design

Principle – minimise compliance costs

- Surrender of certificates is means of compliance with benchmarks
- Certificates may be banked [no expiry date]
- Once registered they remain valid until surrendered [maximise confidence in market]
- Invalidly created certificates remain valid with severe penalties to certificate providers if audit reveals discrepancies
- Recent change allows voluntary surrender

Scheme architecture

Principle – balance regulatory certainty and flexibility

- **Legislation**: amendments to the *Electricity Supply Act 1995*
  - High level, sets out obligations, powers
- **Regulations**: amendment to *Electricity Supply (General) Regulation*
  - more detail on elections, accreditation conditions and eligibility criteria
- **Rules**: approved by Minister, not disallowable
  - 5 Rules: *Compliance, Generation, Demand Side Abatement, Large User Abatement, Sequestration*

Scheme Administration and Regulation

Principle – need for certainty of regulatory outcomes and to meet tight timeframes

- IPART is the Regulator and Scheme Administrator
- As Scheme Administrator IPART maintains a register of abatement certificates, and accredits certificate providers
- As Regulator, IPART monitors compliance and levies any penalties payable
- Administration role could devolve to non-Government body

Eligible Abatement

Scheme works by providing direct incentives for abatement [by sale of NGACs]

- Low emission or more efficient generation of electricity
- Reduced consumption of grid electricity [DSA]
- Forest carbon sequestration
- Reduced [non-electricity related] process greenhouse emissions by large users

Generation Opportunities

Principle – allow NEM-wide abatement

- NGACs from Generation can be created by producing electricity [on NEM] at greenhouse intensity less than the NSW pool coefficient, above baseline output including:
  - from waste mine gas
  - using gas-fired generation or cogeneration
  - renewables* [if not create RECs]
  - landfill, sewage gas
  - more efficient generation from existing

Eligible DSA Activities

Principle – ensure integrity of abatement while minimising transaction costs

- Any qualifying project implemented after 1 January 2002 [in NSW] that results in ongoing energy savings after 1 Jan 2003
- Modifying or replacing installations with others that consume less electricity
- Substituting sources of energy for electricity resulting in less greenhouse gas emissions
- On-site generation or cogeneration

Large Electricity Users Electing to Manage Own Benchmarks

Principle – manageable number of participants, trade exposed sectors, but maintain integrity of the Scheme

- Must use >100 GWh per annum with at least 50 GWh at one site [in NSW]
- Must report to IPART for compliance by 1 March for the preceding calendar year
- The large user's greenhouse obligation is removed from their retailer
- Scheme provides opportunities for large users to reduce GHG [not exemptions]

Opportunities as a Large User

Principle – provide incentive for direct participation by large users able to abate

- Can purchase only electricity from retailer
- May be able to source [or create] NGACs more cheaply than retailer
- Able to create Large User Abatement Certificates [LUACs] towards own compliance
- LUACs relate to eligible non-electricity greenhouse emission abatement activities

Eligible LUAC Activities

Principle – offsets from outside electricity sector with potentially lower costs

- Abatement not related to electricity use
- Fuel switching for steam etc [coal to gas]
- Reduced fuel consumption [e.g. more efficient gas boiler]
- Reduced fugitive greenhouse gas emissions [e.g. flaring of methane]
- Reduced other industrial greenhouse gas emissions [e.g. perflurocarbons, SF_6]

Opportunities for sequestration

Principle – consistent with international standards

- Planted Kyoto-compliant forests in NSW, or other jurisdictions adopting similar greenhouse scheme
- “100 year” requirement for “permanence”
- Arrangements to comply through conditions of accreditation [insurance instruments, etc]

Experience in Scheme development

- Takes strong political commitment
- Takes longer than you think to implement!
- No matter how much stakeholder consultation – only taken seriously when legislation is in place [so need to have flexibility to change details]
- Pressure not to keep tinkering with details – impact on market
- Need to provide certainty to investors

Operation of the Scheme to date

- 31 liable parties in 2004 [23 compulsory, 8 elective]
- No penalties paid in first 2 years of scheme [some parties have used the allowed 10% shortfall carry-over]
- More than 15 million certificates created to date
- Around 50 companies accredited as abatement certificate providers for 175 projects

Issues for the future

- Short timeframe to 2012 for new abatement projects – should be addressed by Premier Carr's announced extension to 2020.
- Design changes for extended scheme

  - targets, penalty, Category A?
- Transition to a national cap and trade scheme?

Summary

- NSW Greenhouse Gas Abatement Scheme reduces greenhouse gas emissions from the NSW electricity sector
- The Scheme provides a value for CO_2 abatement, and establishes greenhouse emissions trading and thereby provides a market incentive for abatement providers to reduce greenhouse emissions
- Participants are “learning by doing”

Summary [cont'd]

- Expected to lead to modest electricity cost increases but provides consumers with opportunities to reduce the impact
- Provides incentives for energy users and others to implement energy efficiency and private companies to develop new generation projects
- Through "LUACs" already draws in non-electricity related abatement activities and encourages cost-effective abatement

More Information

- IPART as the Scheme Regulator and Scheme Administrator has established a website which gives full details:

  www.greenhousegas.nsw.gov.au

- NSW Department of Energy, Utilities and Sustainability has ongoing policy development role:

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