

FORESTS IN THE NEW ECONOMY: CAN MONEY REALLY GROW ON TREES

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State Forests of NSW

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Shane is the General Manager Strategy, State Forests of New South Wales.

In this capacity Shane is responsible for the positioning of State Forests of NSW to take advantage of the policy development and commercial opportunities in the rapidly emerging environmental services markets including climate change, renewable energy, salinity and biodiversity.

In this capacity he has been instrumental in developing the policy and legislative framework in NSW to take advantage of the carbon sequestration, renewable energy and land repair markets. He has contributed to the development of investment vehicles to successfully attract international investment in plantation forests in NSW that were compatible with the Kyoto Protocol.

In his previous careers prior to joining State Forests, Shane has been a Chief of Staff to Federal Cabinet Ministers and has had a fifteen-year career in the Australian Public Service where he operated in the Senior Executive Service across a range of portfolios.

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Structure of the Presentation

- * ABOUT STATE FORESTS OF NSW
- * SYSTEMIC FORCES OF CHANGE & THE POLITICAL SYSTEM
- * FORESTS AND THE NEW ECONOMY
- * NSW GOVERNMENT ACTION TO DATE
- * ENVIRONMENTAL SERVICES MARKETS

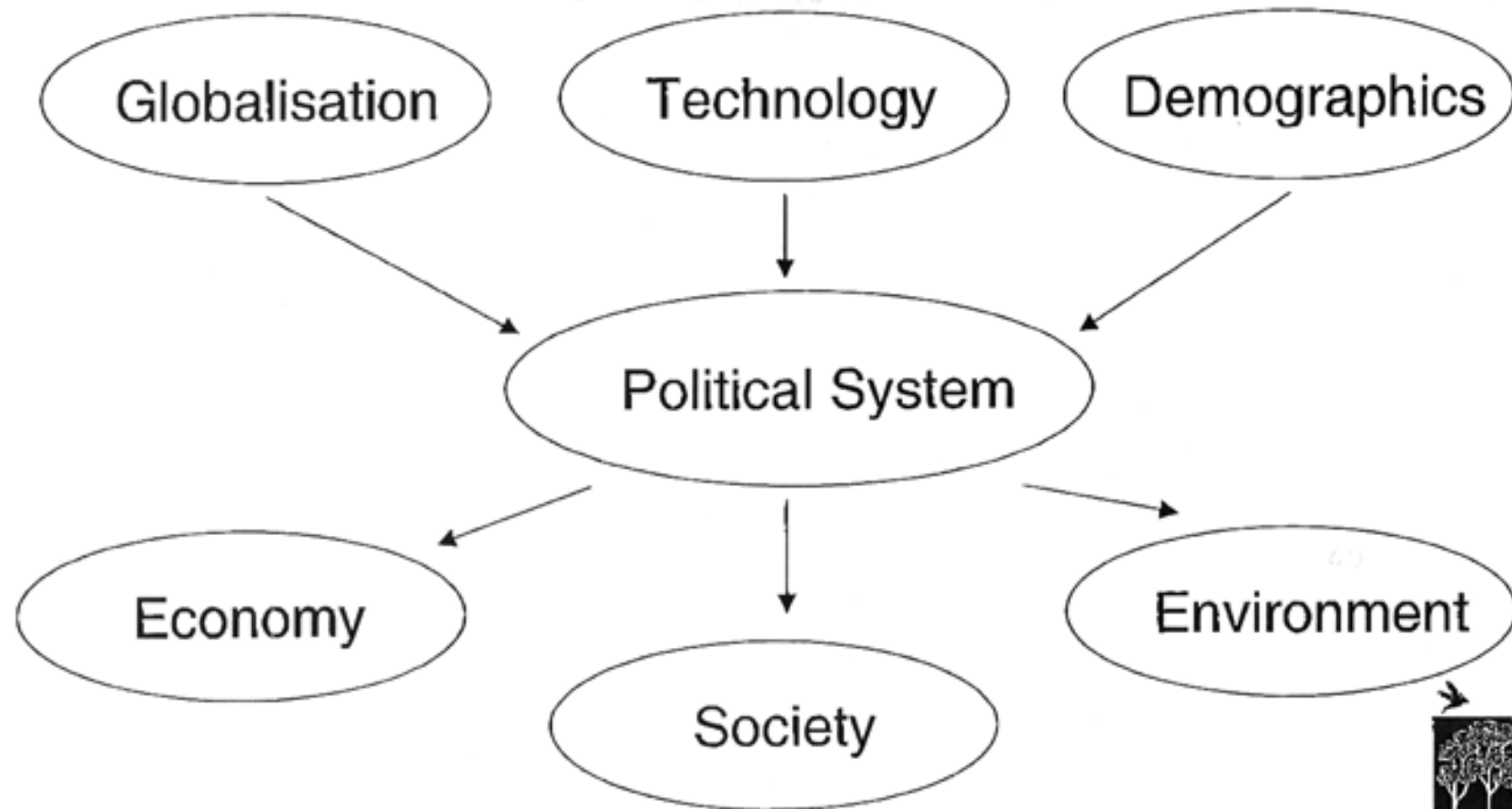


State Forests of NSW

- A government trading enterprise
- Largest dedicated forestry organisation in Australia
- 2,500,000 ha of native forest and 260,000 ha of planted forests
- Annual revenue of \$AUD200 million
- Planted forest assets of \$AUD1.5 billion



What's Shaping Australian Business & Society



What has been the Effect on the Australian Economy...

- ♣ Firms competing globally
- ♣ Acceptance that information is knowledge & knowledge is market power
- ♣ Need to continually innovate leading to shorter product lifecycles
- ♣ Acceptance of risk as a key part of business strategies
- ♣ Acceptance by business & the conservation movement of the need for sustainable development



What has been the Effect on the Environment....

- ♣ Global warming
- ♣ Salinity
- ♣ Biodiversity Loss
- ♣ Air Pollution
- ♣ Water Pollution



What has been the Effect on Australian Society...

Upside

- ♣ A rapidly growing acceptance that the rate at which we learn is going to be the only source of sustainable competitive advantage
- ♣ Very sophisticated society

Downside

- ♣ Hollowing out of the income distribution with the gap supported by cash transfers through the welfare system
- ♣ An increase in the divorce & crime rates



The Environmental Services Markets - What Are They?

They are commodities and systems that are introduced to address systemic environmental challenges that could significantly adversely affect state, national & international economies



Examples of Environmental Services Markets...

- ♣ **Carbon** - Soon to be a new internationally traded commodity to address climate change/global warming
- ♣ **Renewable Energy** - Soon to be a new nationally traded commodity to enhance the generation of renewable energy
- ♣ **Salinity** - Soon to be a new Murray Darling Basin commodity to accelerate the remediation of salinity
- ♣ **Biodiversity** - May soon be a new internationally traded commodity



Forests and the New Economy



\$



- * BIOENERGY MARKET
(RENEWABLE ENERGY)
- * BIODIVERSITY CREDITS
- * MINESITE
REHABILITATION
- * SALINITY CONTROL
- * CARBON
SEQUESTRATION
- * WOOD



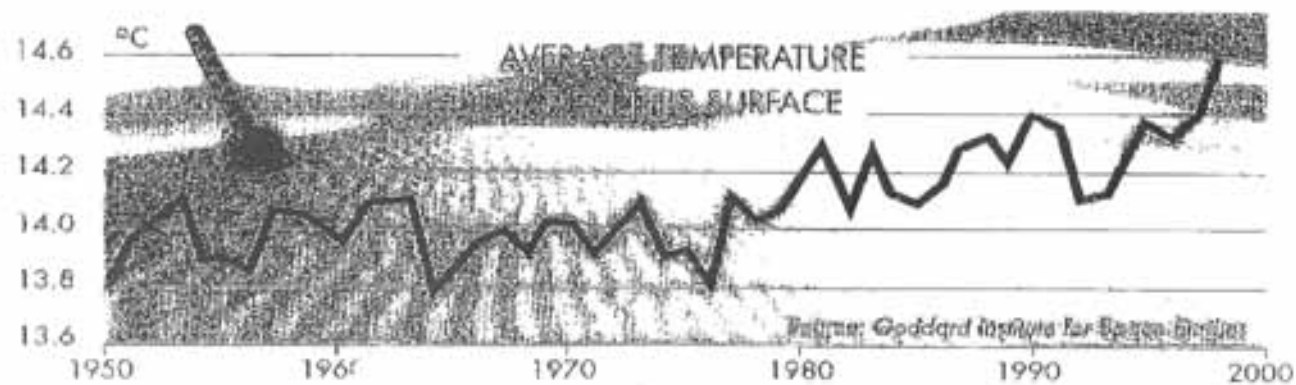
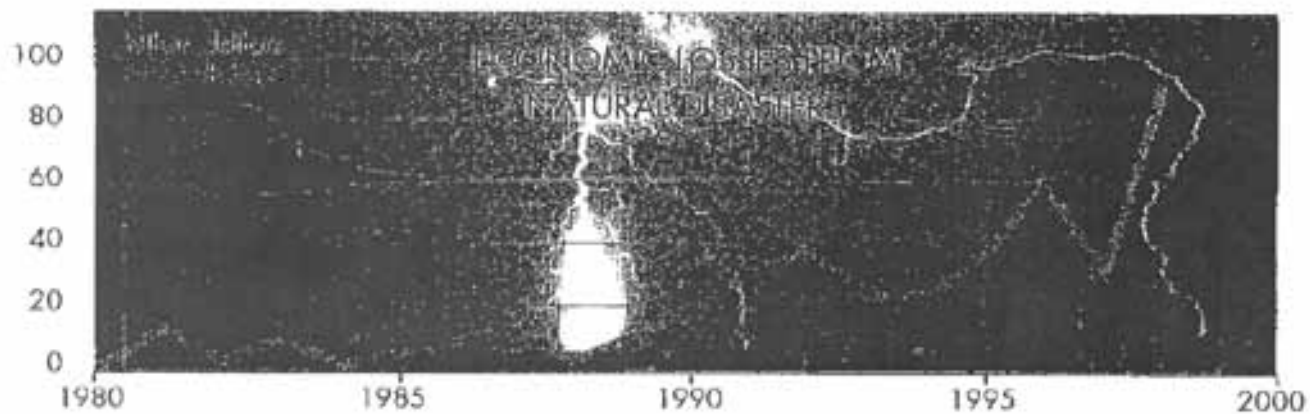
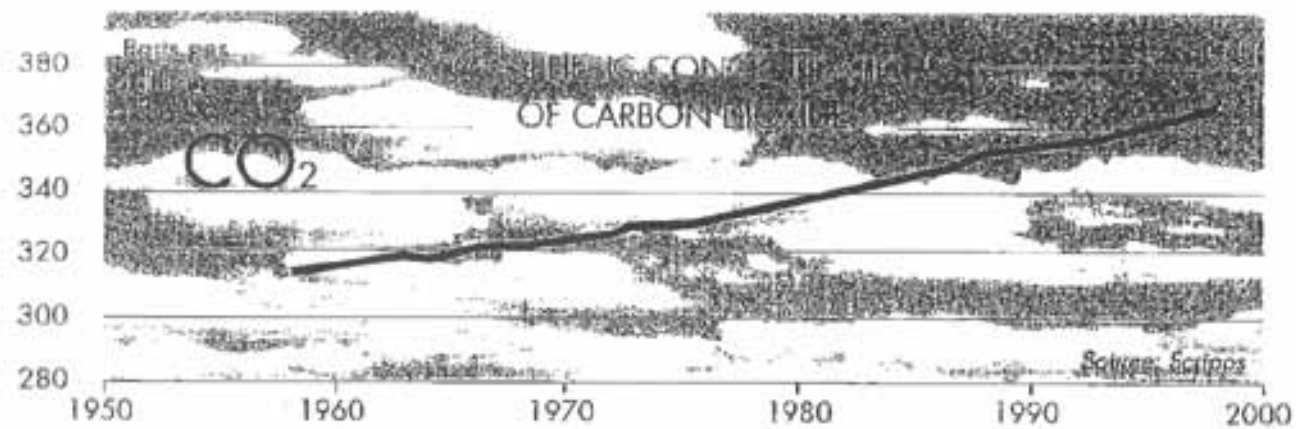
The Carbon Market



The Carbon Market...Where Did it Come From

- ♣ United Nations Framework Convention on Climate Change 1992
- ♣ Kyoto Protocol 1997 imposes emission reduction targets. Units of trade are carbon dioxide equivalents
- ♣ Kyoto Protocol allows for emission trading
- ♣ Article 3.3 of Kyoto Protocol allows the use of plantation forests as carbon sinks to meet Kyoto targets

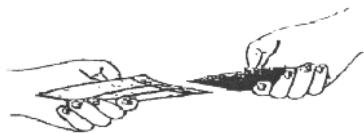




Business Development Activities

- Initial carbon trades with Pacific Power and Delta Electricity
- Carbon rights legislation 1998
- Information Memorandum for Investment in planted forests
- Investment by Tokyo Electric Power Company
- Natural Resources Legislation Amendment (Rural Environmental Services) Act 1999
- Plantations and ReAfforestation Act 1999

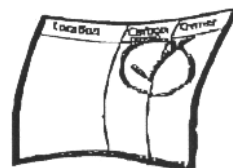




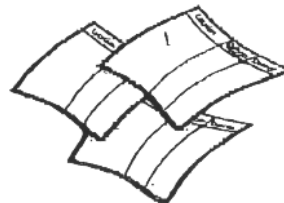
EMISSIONS TRADING OR USE AGAINST COMMITMENTS



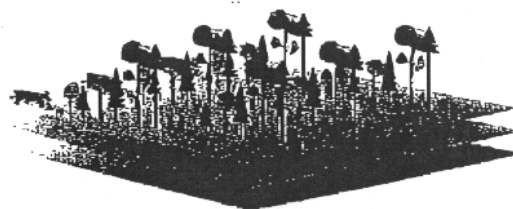
ISSUANCE OF CERTIFICATE



ACCOMPLITION AND REGISTRATION



VERIFICATION OF CARBON ACCOUNTS

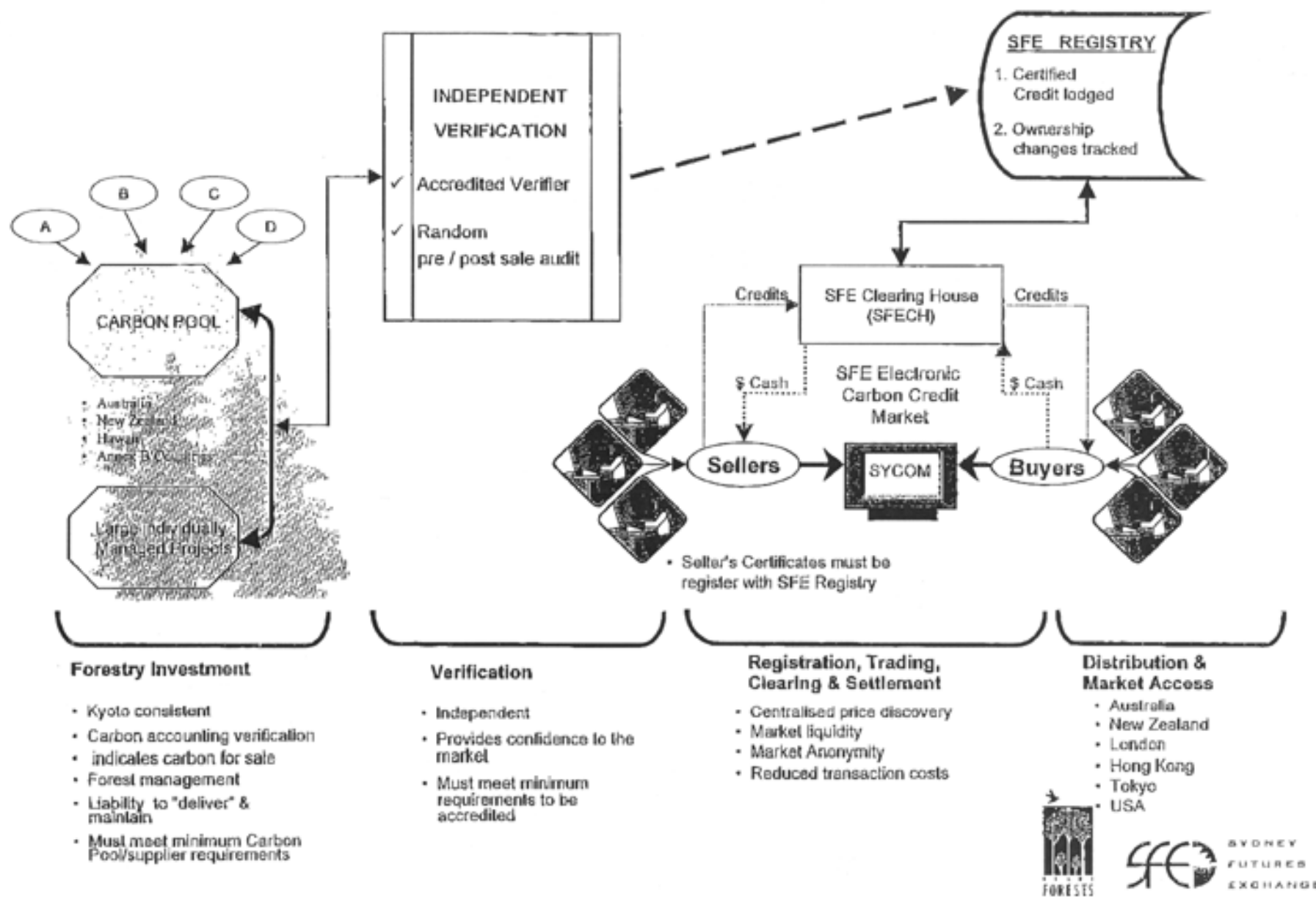


LAND TITLES

Carbon sequestration rights _____
 Forestry rights _____
 Land ownership _____



CARBON TRADING MARKET



The Renewable Energy Market



The Renewable Energy Market

Nationally

- ♣ Australia already generates about 10% of its electricity from renewable sources
- ♣ Federal Government has legislation in the Parliament that
 - ▲ mandates an additional 2% renewable energy
 - ▲ establishes a certificate based renewable energy market
 - ▲ imposes a \$40 MWh penalty for non-compliance



The Renewable Energy Market

NSW Government

- ♣ Already established the policy framework for renewable energy
- ♣ Electricity Supply Act amended in 1999 to allow biomass and carbon sequestration as eligible activities to reduce greenhouse gas emissions
- ♣ Native forest residues & plantation residues now have a new market



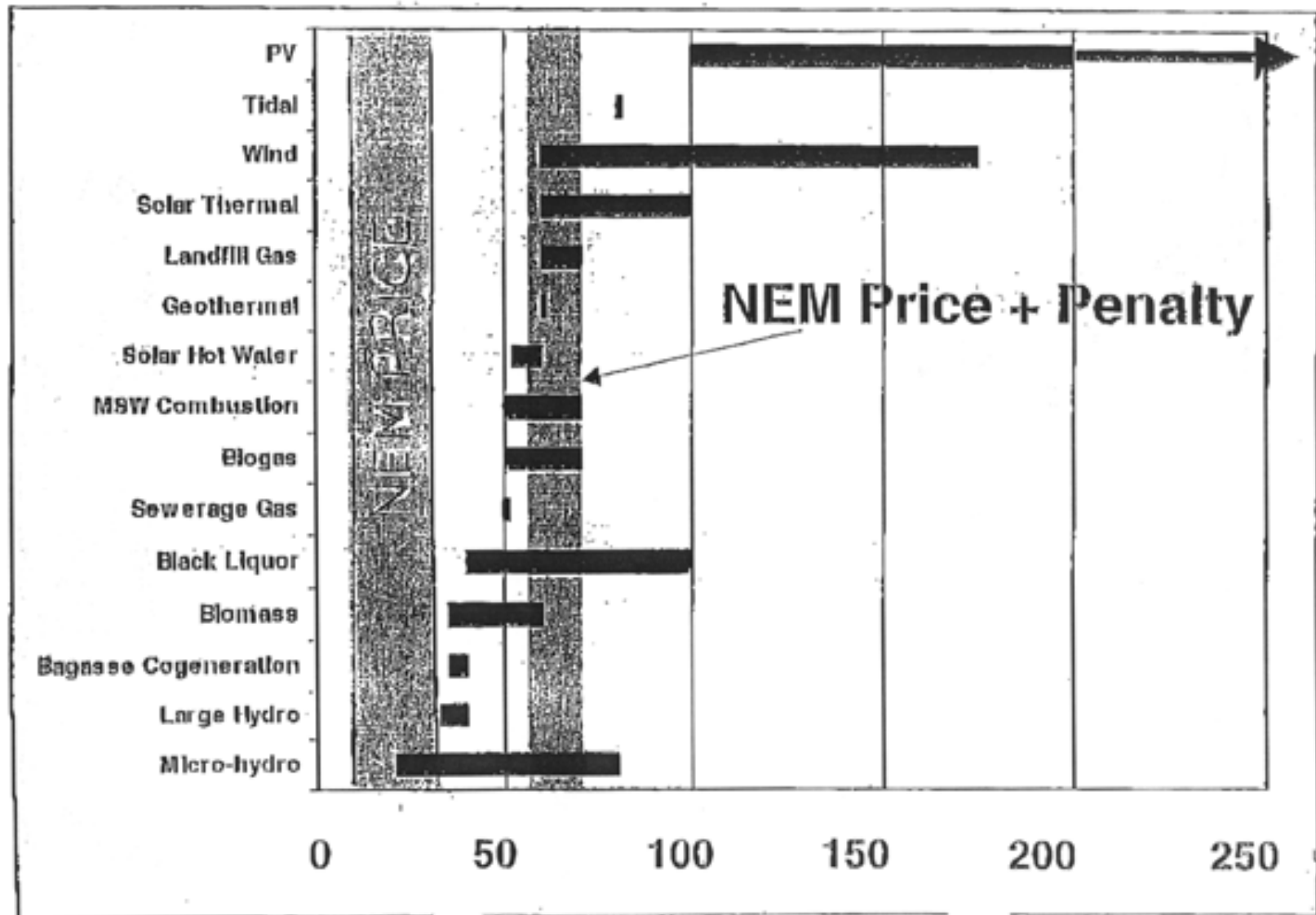
The Renewable Energy Market

Wood biomass industry already developing in country NSW

- ♣ electricity generators in the Hunter now using sawmill waste to substitute coal
- ♣ sugar refineries in northern NSW soon to use wood waste & bagasse for cogeneration of electricity & steam
- ♣ forest products industry finalising feasibility studies for three 30MW wood fired plants
- ♣ Visy (Tumut) pulpmill constructing 20MW wood fired generation plant



Renewable Technologies



NEM = National Electricity Market \$/MWhr

The Salinity Market



The Salinity Market

Salinity is now recognised as an issue of national significance

March 2000 - NSW Salinity Summit at Dubbo

June 2000 - NSW Salinity Strategy Released

August 2000 - Federal Opposition announces
framework for national salinity policy

October 2000 - Prime Minister announces National Action Plan
on Salinity & Water & \$700 million funding

October 2000 - COAG agrees to national action & funding
increased to \$1.5 billion



THE WATER CYCLE AND DRYLAND SALINITY

