This submission into Waste Generation and Resource Efficiency in Australia is based upon personal experiences in the waste management industry, both in Australia and Overseas. The submission will comment directly to the scope of the inquiry.

 The economic, environmental and social benefits and cost of optimal approaches for resource recovery and efficiency and waste management, taking into account the different waste streams and waste related activities.

There is very little data available to compare the economic, environmental and social benefits of resource recovery and efficiency with traditional methods of waste disposal. In Australia, the environmental impacts of landfills have not been fully realised when comparing the environmental monitoring and reporting requirements of Australia with Europe. The environmental monitoring and reporting requirements of landfills in Europe have a significant impact upon waste disposal costs and in return encourage resource recovery, whilst still meeting required levels of environmental performance.

There are some success stories with the recovery of Construction and Demolition (C&D) wastes in Australia (particularly concrete recycling), however no headway in the resource efficiency area has been made. Engineers and designers aren't taking any responsibility for their designs and how they can reduce resource use in the first instance. Some government organisations (through all levels) have purchasing policies encouraging the use of recycled materials, however, I believe in practise this doesn't go much past using recycled paper products.

A life cycle analysis needs to be undertaken assessing whether resource recovery is the best option or whether the use of virgin materials is the better option. The analysis will need to compare the disposal options with recovery option, but also look at whether products and services are being designed in a way that firstly avoids waste. Most state policies concerning waste make reference to the waste hierarchy, however, don't seem to be encouraging the avoid and reduce levels of the hierarchy.

2. Institutional, regulatory and other factors which impede optimal resource efficiency and recovery, and optimal approaches to waste management, including barriers to the development of markets for recovered resources.

The biggest single factor impeding optimal resource efficiency and recovery, and optimal approaches to waste management is the cost of disposal of waste to landfill. In states where a levy has been introduced, some resource recovery has been undertaken and in those states where no levy exists, only very few companies/local governments are recovering resources, and generally for the 'feel good' aspect of the exercise and not for any real economic, environmental or social goal.

I don't believe that there regulatory factors that are impeding optimal resource efficiency and recovery in Australia. I believe the lack of regulatory factors is impeding optimal resource efficiency and recovery. There is no clear direction from the Federal Government and each state government does 'what ever they want'. Compare this to the EU and the directives the European Commission have put into force for their member states. These directives provide a clear direction to each member state about how different aspects of the waste industry are required to achieve targets in set down time frames. This type of direction is what is limiting the resource efficiency and recovery in Australia.

3. The adequacy of current data on material flows, and relevant economic activity, and how data might be more efficiently collected and used to progress optimal approaches for waste management and resource efficiency and recovery.

The definitions of waste types needs to standardised across Australia. Currently each state defines what each waste type comprises of, however, they differ slightly and this doesn't allow comparisons. Ideally they should be standardised internationally so that Australia can be compared to other countries.

4. The impact of international trade and trade agreements on the level and disposal of waste in Australia.

As with the EU, Australia needs some direction in the management of packaging waste, end of life vehicles and electronic and electrical equipment. Most large companies in Australia are affected by the EC directives and the Australian government should not be 'bullied' into the do nothing option when it comes to the management of packaging waste, end of life vehicles and electronic and electrical equipment. These companies already have processes in place in the EU to deal with the waste product at the end of its life and those types of requirements should be adopted here in Australia.

- 5. Strategies that could be adopted by government and industry to encourage optimal resource efficiency and recovery.
 - Clear direction from the Federal Government which will help standardise the industry across the country.
 - Increase in the environmental monitoring and reporting requirements for landfills.
 - Aim for avoidance and reduction in waste generation.
 - Provide clear definitions for waste types which are standardised across Australia and reflect international definitions.
 - Undertake life cycle analyses of products and the recovery processes to determine best possible time for resource recovery.
 - Introduction of levies to encourage the resource efficiency and recovery.
 - Target certain wastes for reduction and recovery.
 - Better education of the public and raise the awareness of waste as an issue in government and private sectors.

This is a brief submission on the topics to be covered by the Productivity Commission, however, I would gladly discuss these issues further in any forum.