

**Submission  
No 8**

**INQUIRY INTO COSTS FOR REMEDIATION OF SITES  
CONTAINING COAL ASH REPOSITORIES**

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Dear Commissioners,

Fly ash deposits contain heavy metals and other toxins, but may form the raw materials in a circular economy for various products.

Because of our current rate of using materials globally with around 8bn on the planet, we urgently need to

- . stop the disposal of materials,
- . close the loop on the reusing waste by adding value to and creating raw materials for other industries.

However, we need to immediately

- 1) start measuring major water and air pollutants (including heavy metals dangerous to human health) and
- 2) stop transporting the fly ash with water, since that increases the potential
  - a) to contaminate groundwater, and
  - b) for ash dams to fail, due to the build up of water pressure.

#### Circular Economy

If we establish a circular economy approach to use up this fly ash waste and create new products:

- . the threats posed by the large number and volume of fly ash storage areas in Australian can be reduced (e.g. groundwater and lake contamination, local air pollution), improving human health
- . we can sell valuable products for other industries e.g. autoclaved briquettes, zeolites and very low carbon geo-polymer cement, depending on how toxic the fly ash is, and how much treatment it needs
- . the impact on other species is reduced e.g. birds, plants, beneficial bugs that create rich soil, fish and other water species

This can be done by

- . allocating council land for different types of industrial ecology (e.g. have fly ash and slag deposits processed with recycled water, renewable energy and either using or reclaiming waste heat (depending on the process stages that need or release heat energy)
- . setting up a testing program to classify the toxicity of the fly ash, and determining what products are best suited (from a health and commercial point of view)
- . undertaking trials for the feasibility of producing new products such as mentioned above (autoclaved briquettes, zeolites and very low carbon geo-polymer cement).
- . incentivising companies to create new products with levies from the state government or from those creating the fly ash stockpiles

Externalities such as the clean-up costs for fly-ash and for polluting our lakes and groundwater must be no longer ignored in the cost of producing electricity from coal.

I am most interested in presenting to the Commissioners if hearings were held in the future.

I have researched the adaptation and resilience of built environment to climate change and now a member of several environmental groups. Previously I worked for Pacific Power designing the power stations, as well as a large IT multi-national.

Your sincerely,

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