



# **NSW Carbon Recycling and Abatement Fund Project**

## **Pathways To Maximise Stored Coal Combustion Products**

Partnership between NSW Government (EPA) and  
Ash Development Association of Australia

**W South / C. Heidrich**

**Valkokivi Pty Ltd / ADAA**

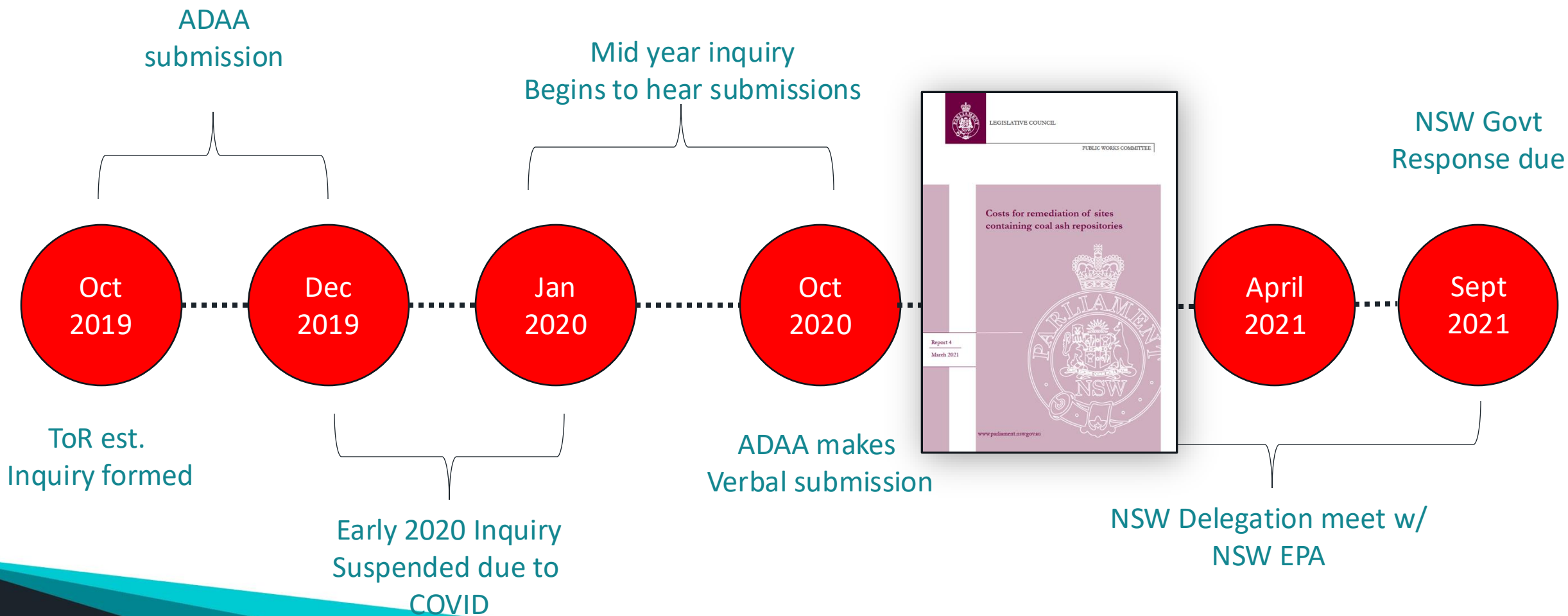


# CRAF – Project Objective

- To support innovative circular economy approaches that manage waste and materials more efficiently and effectively and assist in reducing carbon emissions.
- To gain a better understanding of coal combustion product repository supply, applications, and technologies to explore the potential for future use as coal-fired power stations are decommissioned.
- To leverage industry experience and knowledge to ensure project outputs are fit-for-purpose and will unlock genuine supply chain barriers, considering health and environmental risks.

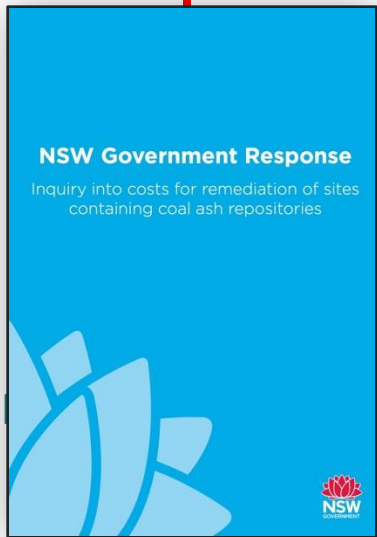


# Inquiry into ash repositories - timeline





# Post - Inquiry into ash repositories



Oct 2021

April 2022

May 2022

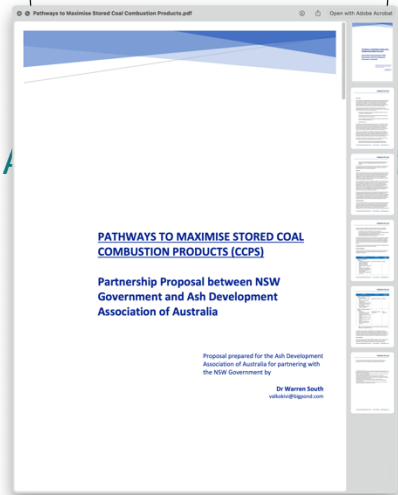
March 2023

W/shop 2023

Govt change 2023

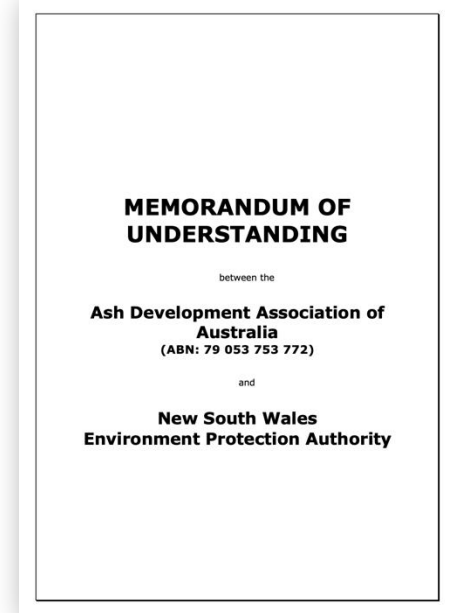
W/shop 2023

EPA MoU



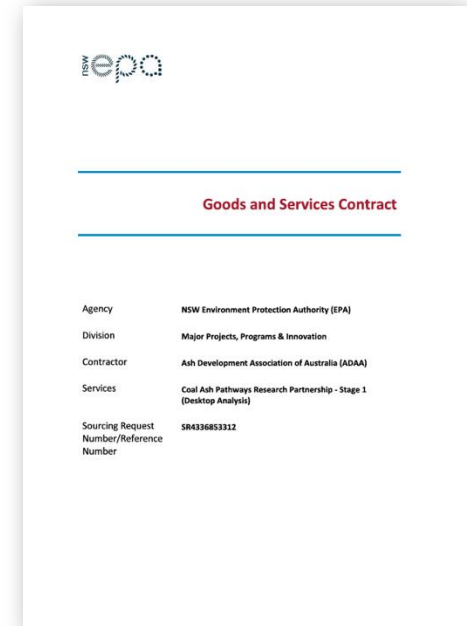
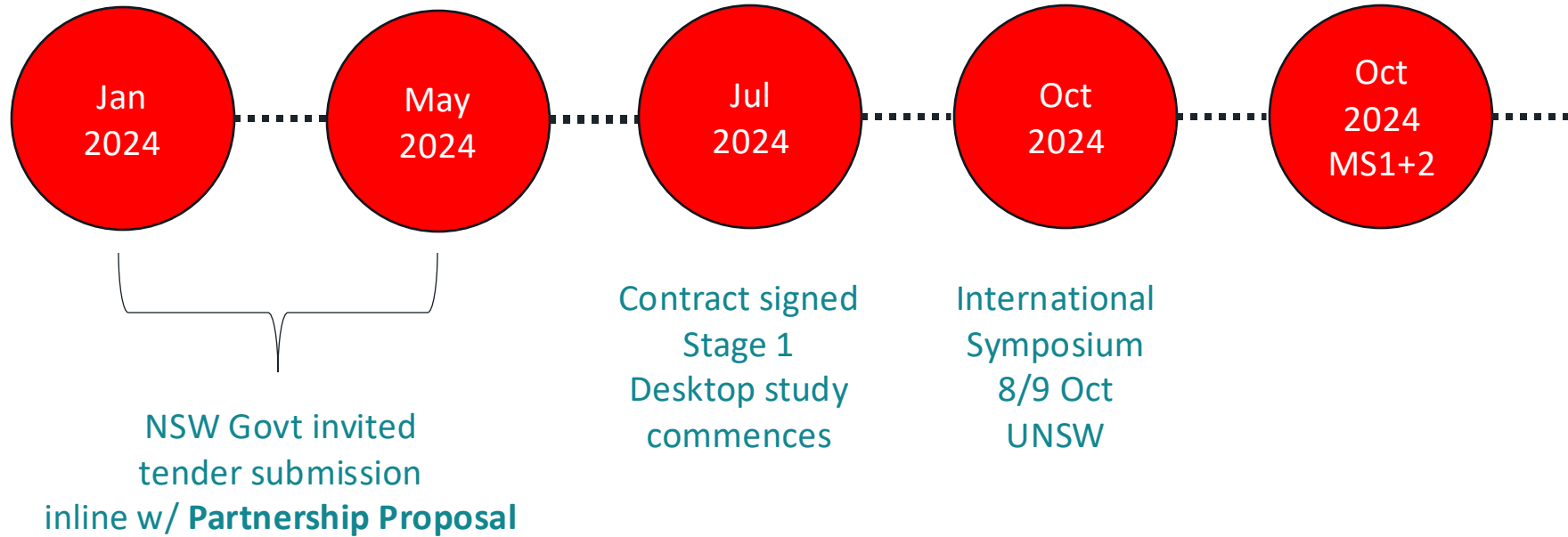
Working Group established to progress proposal

NSW Government commits \$3.25m under CRAF to support innovative circular economy





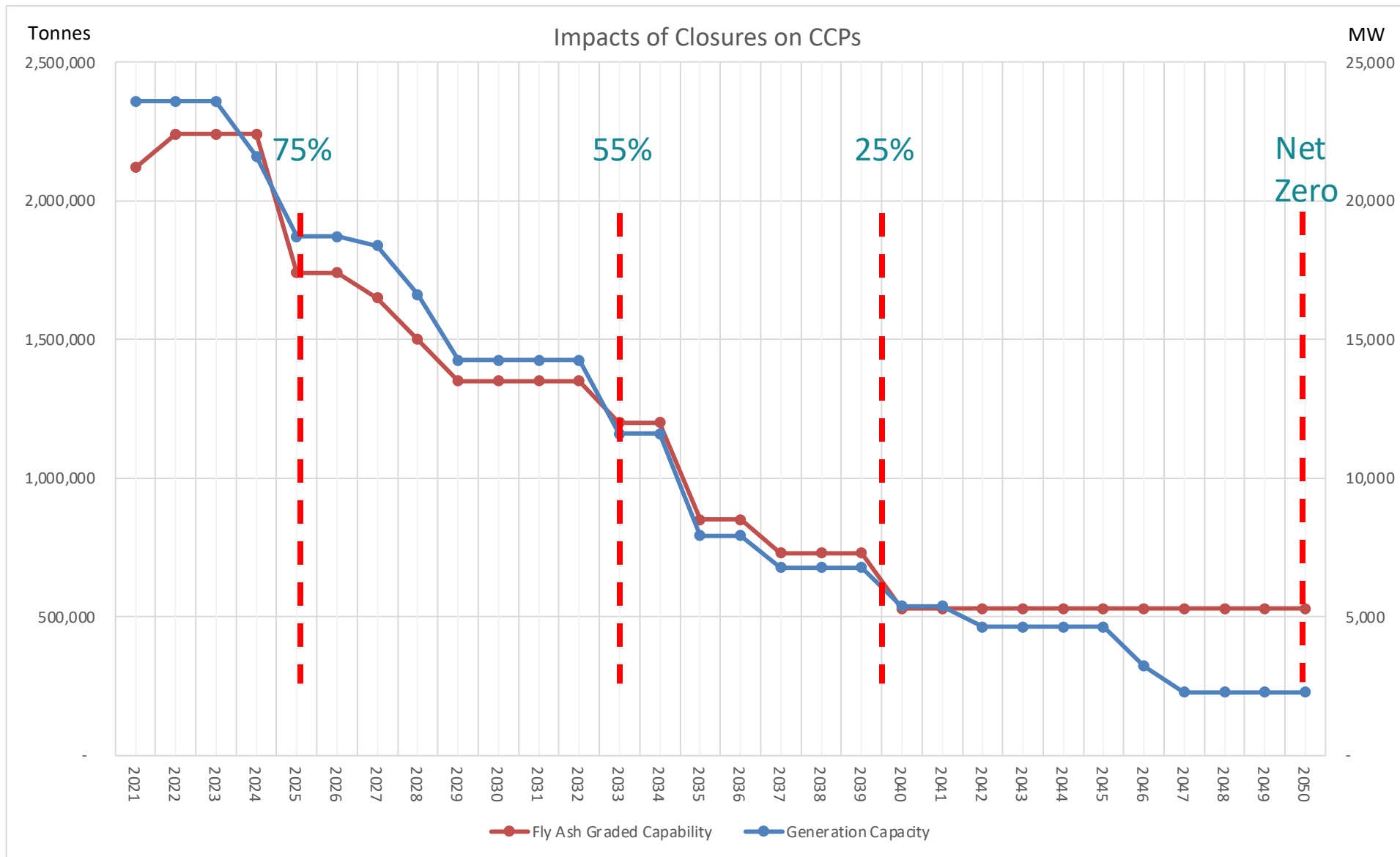
# Post - Inquiry into ash repositories





# Problem statement

Can harvesting of CCPS (fly ash) from coal ash repositories be a major innovation area for the reduction in carbon emissions in NSW cement and concrete sector as CFPS retire from service?



Source: AEMO 2021, Draft 2022 Integrated System Plan + ADAA Member Survey data



# CRAF Project Update

Pathways To Maximise Stored Coal  
Combustion Products





# Partnership

- NSW Government has allocated \$3.25 million Carbon Recycling and Abatement Fund to support innovative circular economy approaches that manage CCPs more efficiently and reduce emissions
- Phase 1 – Stage 1 Investigate, characterize (CCP) resources in storage
  - Current and predicted resources, Desktop characterize stored resources (Workshop, Int’ls + tech road map) \$260k
  - International Symposium \$20k (Sponsorship)
- Phase 1 – Stage 2
  - Potential future opportunities (Site investigations x 3 @ ~\$300k harvesting protocols), and
  - Pathways to enable utilization **\$2m** Phase 2 – Exploit existing pathways + Phase 3 – Est. Pilot Projects to assess and demonstrate viability of new industries (jobs)
- **\$300k** Updating material specifications + Reporting (data)





# Expected Outcomes

- an informed position on the exploitation of coal ash repositories in New South Wales
- a library of physical and chemical data of the resource, sufficient to allow interested stakeholders to determine the viability of developing the resource, as well as inform future processing options
- it will support any regulatory changes required to facilitate optimum usage of the identified resource.





<b>MS1 - Project Management/Design</b>		<b>START</b>	<b>END</b>
Following contract commencement, the successful applicant will be required to			
1.1	Establish project team	1/6/2021	12/7/2024
1.2	Develop a project plan with agreed upon timeframes for key deliverables/milestones.	1/6/2021	12/7/2024
1.3	Attend regular meetings with the EPA to provide project updates within an agreed upon frequency to monitor progress towards deliverables.	1/6/2021	30/3/2025
1.4	Prepare and deliver reports, updates and objectives upon an agreed schedule of services.	1/6/2021	30/3/2025
<b>MS2 - CCP Scoping Study</b>			
Critical decision-making element study to include current end-of-life market opportunities for CCP's, current CCP stock, and projections for future demand, whjcih may include			
2.1	Current state of coal ash resources in Australia and any impacts of increasing supply to the market	1/7/2024	22/7/2024
2.2	Current and future supply and demand for CCP's in NSW	15/7/2024	5/8/2024
2.3	Current CCP utilisation and alternative product comparison	5/8/2024	19/8/2024
2.4	Summarised site information	22/7/2024	5/10/2024
2.5	Knowledge gaps and market barriers	5/9/2024	10/10/2024
2.6	Interjurisdictional (State) review of Regs/ Acts/ Approvals etc.	19/8/2024	9/10/2024
2.7	End markets for CCP's and their alignment with the existing coal ash RRO/RRE	9/9/2024	10/10/2024
<b>MS3 - Stakeholder Mapping</b>			
The development of a stakeholder map to identify all stakeholders is required, accompanied by a stakeholder engagement and communications plan to outline how relationships with all parties will be maintained during the project delivery. Identify and engage industry entities and regulatory enablers, which may include:			
3.1	Power station owners	1/7/2024	22/7/2024
3.2	Suppliers/processors	8/7/2024	29/7/2024
3.3	Users/customers	29/7/2024	19/8/2024
3.4	Specifiers	12/8/2024	2/9/2024
3.5	State Government	2/9/2024	23/9/2024
3.6	Local Government	9/9/2024	9/10/2024
3.7	Stakeholder engagement and communications plan	1/7/2024	18/10/2024



**Thank you**